UMagazine

February 2020

on education and research at Maastricht University

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Intellectual property law: **protecting all that is intangible**

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Anselm Kamperman Sanders and **Anke Moerland** received funding from the EU's Horizon 2020 Marie Skłodowska-Curie programme for their European project EIPIN Innovation Society, which assesses the role of IP in innovation cycles.

Alum **Virginijus Sinkevičius**

At just 29, he is by far the youngest member of the newly installed European Commission, with a seriously important portfolio: Environment, Oceans and Fisheries. **Virginijus Sinkevičius**, a graduate of European Studies, is not afraid of diving in the deep end.

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Further

Cover

For the cover image, photographer **Rafaël Philippen** - 06-28021049 - was inspired by the interview with Sally Wyatt on the new bachelor's programme Digital Society. He appropriates Edward Kienholz's The Beanery, a replica of a bar in Los Angeles where time stands still. With thanks to café Knijnspiep in Maastricht.

Foreword

Maastricht University Executive Board
Martin Paul, Rianne Letschert and Nick Bos

Team spirit

Since 1986, our Research Centre for Education and the Labour Market (ROA) has been reporting on various aspects of – you guessed it – education and the labour market. Their forecasts and reports have been lauded for their high quality.

Last year the ROA article 'Do new ways of working increase work engagement?' won the Outstanding Paper Award from Emerald Publishing. Another article, on the future of craftsmanship, recently won the Dutch Policy Award, a prize for applied policy research. And the biennial report 'The labour market by education and profession', which provides a five-year forecast of job prospects per study programme, always receives a great deal of media attention. In this issue, two ROA standard bearers discuss the secret to their success.

Also in this issue is an article about a major international study on how households can reduce their energy consumption – and how small adjustments at home can have a big impact. The Maastricht Sustainability Institute (MSI) was responsible for the Dutch part of the study, which has important implications for society.

The cover story highlights our new bachelor's in Digital Society, illustrating the university's response to changes in the market. The demand is only increasing for highly skilled knowledge workers who can bridge the gap between the technology behind data science and the challenges facing society today. People who are not necessarily programmers themselves, but who do speak the language of the people doing the coding.

In this vein, the portrait of Professor Rainer Goebel is a must-read: for him, programming is a type of meditation. What started with a Commodore 64 computer led to a standout career filled with research grants and accomplishments, a deep love of teaching, and a wonderful team working with top facilities here in Maastricht.

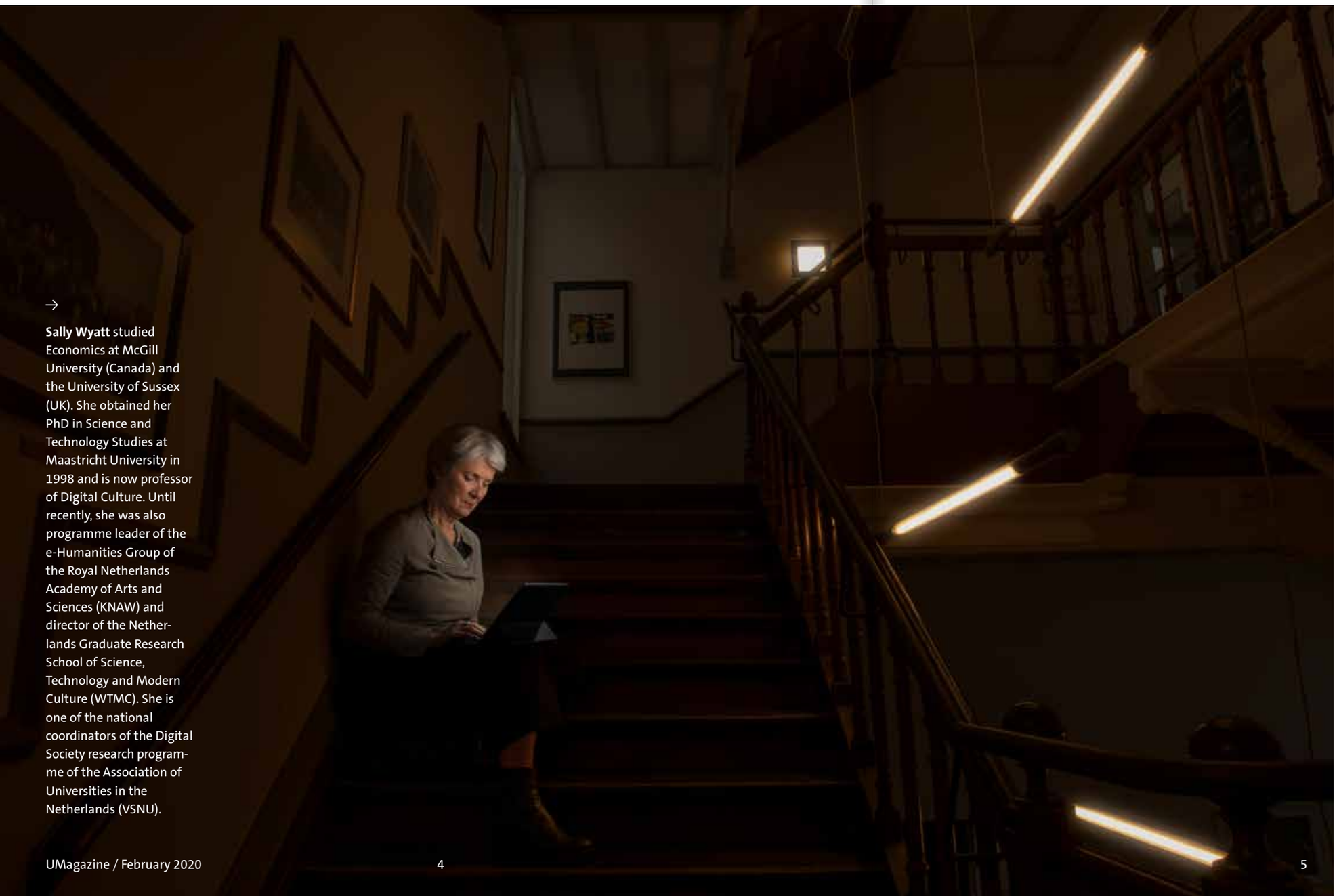
Still today, academics are all too often assessed purely on their research achievements. How many publications, in which journals? How many research grants? The reality of academic work is, of course, much more multidimensional than this. This year, all fourteen Dutch universities are rolling up their sleeves to change the way academics are assessed. We want to take a different approach to recognising and rewarding talent. At the same time, we want to do justice to the multifaceted reality of team science: the fact that academic success is always built on the backs of many.

So where this magazine shines a spotlight on individual scholars, rest assured that there is always a team behind the scenes. Just as, when our computer systems were hacked shortly before Christmas, our support staff also showed a huge amount of team spirit. It is thanks to their commitment that we were able to tackle the problem, and for this we are extremely grateful. <

Happy reading!

Photo **Sacha Ruland**

Digital Society: the bridge builders of the future



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Sally Wyatt studied Economics at McGill University (Canada) and the University of Sussex (UK). She obtained her PhD in Science and Technology Studies at Maastricht University in 1998 and is now professor of Digital Culture. Until recently, she was also programme leader of the e-Humanities Group of the Royal Netherlands Academy of Arts and Sciences (KNAW) and director of the Netherlands Graduate Research School of Science, Technology and Modern Culture (WTMC). She is one of the national coordinators of the Digital Society research programme of the Association of Universities in the Netherlands (VSNU).

Text
Jolien Linssen

Photography
Arjen Schmitz

There can be no doubting the relevance of the new Bachelor in Digital Society. As Professor Sally Wyatt puts it, “Just open the newspaper.” Reports about robots, big data and artificial intelligence are the rule rather than the exception.
Our everyday lives, too, have become near impossible to imagine without digital processes. “If you want to understand how digitisation is changing the world, you also have to understand the technology behind it. That’s what makes this programme special.”

→

It wasn't supposed to be a bachelor's degree. Together with like-minded colleagues, Wyatt, professor of Digital Culture at the Faculty of Arts and Social Sciences, intended to organise a conference on digitisation and big data. Then the Faculty Board put out a call for ideas for a new bachelor's degree. There were three conditions: it had to fall within the faculty's research areas, it ought to be interdisciplinary, and it should differ substantially from the existing programmes in Arts & Culture and European Studies.

Of the seven proposals submitted, three were selected for further development. Ultimately, Digital Society was deemed the most suitable: a programme that explores the relationship between digitisation and social, cultural and political developments from different disciplinary angles. "That's when the real work began", Wyatt laughs. "The accreditation of a new bachelor's degree is a massive bureaucratic process, much more work than anyone expected. Initially a new programme only exists on paper. So it's great fun and really exciting when it turns out there are young people who actually want to do it."

Humanities with a dash of science

The first cohort – 75 students from 20 different countries – started in September. "This diversity is fantastic, especially given the subject matter. People often talk about digitisation as though it's universal. But digitisation in the Netherlands is different from digitisation in China or India, or even in Germany. In one tutorial, we had a discussion about payment methods. Cash is still widely used in Germany. But it's less common here, and hardly used at all in Scandinavia. This raises interesting questions about the confidence that citizens have in technology and companies. There's added value in having students talk about this based on their own experience."

The curriculum was designed by academics from different fields: history, philosophy, sociology, political science, anthropology, science and technology studies, art and culture studies and media studies. It also has a scientific component. "You can't talk about ethical issues surrounding digitisation if you have no idea how an algorithm works, or even what it is", Wyatt explains. The students are not trained in programming per se, but develop an understanding of what programmers do and learn to speak more or less the same language.

Leonie Trutschler (19)
"I've never really known what I want to do. What I do know is that it has to be something meaningful to society. My future job might not even exist yet. Still, I'm convinced this programme will prepare me well, seeing as it combines the humanities with a more technical approach. It's also a great experience to come into contact with so many international students. It's fascinating to hear one another's stories and discover cultural differences."

Julius Vornhecke (19)
"I'm interested in how digital technologies and developments influence society, and that's exactly what this programme is about. It feels very current and relevant; we talked about the influence of Cambridge Analytica on the American elections, for example. We also received a theoretical introduction to the world of programming and learned how to create a blog. Things like that are becoming more and more important, and it's great to be able to apply the things you're learning about. I'm definitely happy I chose this programme."

Bridge builders

"We see our future alumni as bridge builders", Wyatt says. "People who can act as intermediaries between programmers and policymakers, for example. Because that can be a real problem. Programmers are used to building things that work according to their own ideas about efficiency and aesthetics. But that's not necessarily what society finds useful or fair. At the same time, you have policymakers who don't even know what questions to ask programmers. Digital Society aims to fill that gap. We know from employers around the region that this is exactly what they're looking for."

Although the curriculum is still under construction – year two is currently being developed, year three will be completed next year – Wyatt is satisfied so far. "Besides being the programme director, I'm also the coordinator of the first block. It was very interesting to see how our ideas worked out in practice. The first evaluation was very positive, so I'm definitely proud. The whole process has cost a lot of time, energy and money, so it's great to see that it actually works. I kind of see this as one of my major projects towards the end of my career." <

44th Dies Natalis

Organisational psychologist Professor Carsten de Dreu (Leiden University) gave the Dies lecture on this year's topic 'Academic leadership – nurturing talent, developing skills'. Two honorary doctorates were also awarded. **Kathryn Shaw**, professor of Economics at Stanford University, received an honorary doctorate from the School of Business and Economics and **José M. Peiró**, professor of Organisational and Social Psychology at the University of Valencia, received an honorary doctorate from the Faculty of Psychology and Neuroscience.

↑ Carsten de Dreu

↑ Kathryn Shaw ↓ José M. Peiró

In keeping with tradition, the university rector presented the Wynand Wijnen Education Prize, the Dissertation Prize and the Student Prizes.

Wynand Wijnen Education Prize 2019

The Wynand Wijnen Education Prize is awarded annually in commemoration of professor of Education Science Wynand Wijnen, who passed away in 2012. In addition to being the founder of Problem-Based Learning at UM, Wijnen is remembered for his contribution to national education reform.

This year's Wynand Wijnen Education Prize, awarded to staff members who have made an exceptional contribution to education at Maastricht University, went to **Leo Köhler**. She coordinates the Bachelor's degree in Biomedical Sciences and is an enormous source of assistance and moral support for all students.

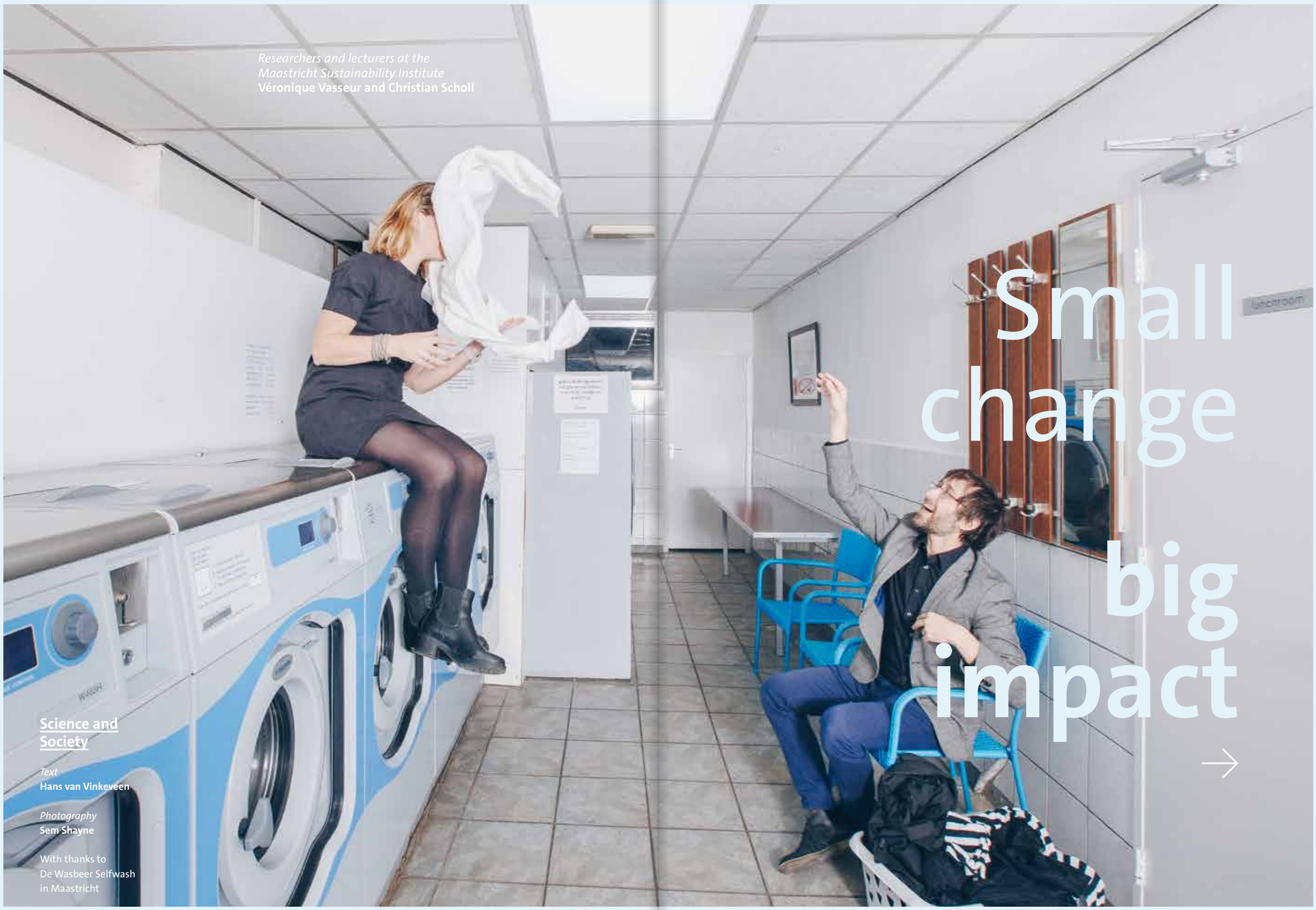
News

Dissertation Prize 2019

Each year, UM awards a prize for the best PhD dissertation defended at the two Randwyck faculties (the Faculty of Health, Medicine and Life Sciences and the Faculty of Psychology and Neuroscience). The prize is donated by the Professors Fund and comprises a sculpture and €3,500. The Dissertation Prize 2019 was awarded to **Raymond van de Berg** of the Faculty of Health, Medicine and Life Sciences for his dissertation 'The vestibular implant – Feasibility in humans'.

Master's Student Prizes 2019

The Master's Student Prizes are awarded to students who produce outstanding master's theses. The 2019 prizes went to nine students from six faculties: **Sem Duijndam**, **Nicolle Becke Franco**, **Johanna Bödder**, **Floor Pinckaers**, **Sara-Jane McIntyre**, **Florian Wimmenauer**, **Monika Riecken de Chavarria**, **Ferdinand Manuel Pieroth** and **Jeremy Saal** (Pieroth and Saal not pictured). <



Researchers and lecturers at the Maastricht Sustainability Institute
Véronique Vasseur and Christian Scholl

Small change big impact

Science and Society

Text
Hans van Vinkeveen

Photography
Sem Shayne

With thanks to
De Wasbeer Selfwash
in Maastricht

Can you reduce the room temperature of your home and still feel comfortable? Can you keep up the habit of doing fewer loads of laundry? Yes and yes, according to the findings of the ENERGISE project, which challenged 300 households in eight countries to reduce their energy consumption. The Maastricht Sustainability Institute (MSI), a research institute for sustainable development, coordinated the Dutch part of the project. “Energy reduction is only permanent when it becomes a new habit”, say researchers Véronique Vasseur and Christian Scholl.

↑

Véronique Vasseur is a researcher and lecturer at the Maastricht Sustainability Institute. After studying Science and Innovation Management in Utrecht, she obtained her PhD in Maastricht on the role of government and users in the spread of solar energy in the Netherlands. Over the last five years her research has focused on energy consumption, behavioural change, living labs and innovative theoretical frameworks.

How many times do you wear a jumper before washing it? What temperature do you like your home to be? These are seemingly innocent questions, but behind them lurk social norms, more or less rigid ideas about matters such as personal hygiene and hospitality. In the ENERGISE project (the European Network for Research, Good Practice and Innovation for Sustainable Energy), energy consumption, but also the will and ability to achieve sustainable energy savings, are viewed as social practices. So the goal was not only to reduce energy consumption, explains Scholl. “We wanted to teach people to feel comfortable with a new situation.”

ENERGISE was funded by Horizon 2020, the European grants programme for research and innovation. The project used a research method known as “living labs”, in which research subjects actively participate and come up with their own solutions. Sixteen labs were established in eight countries, covering a total of 300 households. In the Netherlands, 20 individual households (“home labs”) were recruited in Maastricht and 14 in Roermond, with on average slightly older people living in apartment buildings.

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Christian Scholl is a researcher and lecturer at the Maastricht Sustainability Institute, specialising in urban sustainability and cooperative forms of governance. His latest research focuses on urban labs, experimental forms of governance and collective learning. He coordinates the experimental city lab project TEK4Labs, funded by the NWO’s SURF programme.

Laundry loads

The participants charted their laundry habits and temperature control using measuring devices, diaries and questionnaires. “That was quite unique”, says Vasseur. “You’re asking people to be guinea pigs in their own homes.” Next, the participants were challenged to lower the temperature of their living rooms and bedrooms for four weeks and to do fewer loads of laundry.

The results have since been published. In all 16 labs, the majority of households reduced the indoor temperature by at least one degree Celsius, amounting to an annual energy saving of 6 percent. They also did one load of laundry fewer per week. Scaled up to all Dutch households, this represents an annual saving of 20.6 million cubic metres of water (almost 8000 Olympic swimming pools) and 15 million litres of laundry products, plus energy savings equivalent to the annual consumption of 140,000 households. In short: small behavioural changes can lead to significant energy savings.

Homely feeling

The cultural differences between the participating countries were striking. Take the average home temperature. Scholl: “In the Netherlands it’s around 20 degrees, but in Hungary it’s 24 degrees. There, feeling at home means having few clothes on.” Gender differences also played a role, Vasseur says. “In the Netherlands and England, it’s often the woman who determines what a pleasant temperature is; in the other countries, it’s usually the man. In Hungary more than 90 percent of the women are responsible for the laundry, whereas this share is declining in the Netherlands.” There are also indications that a sense of group belonging encourages more energy-efficient behaviour.

Participants were primed to be more energy-conscious, Vasseur adds. “They stopped throwing a jumper in the wash automatically, and started asking the question: does it smell or not?” They also gained a better understanding of how heating systems work. “They began to see the body as a source of heat. That was also one of our slogans: keep your body warm, not the space.”

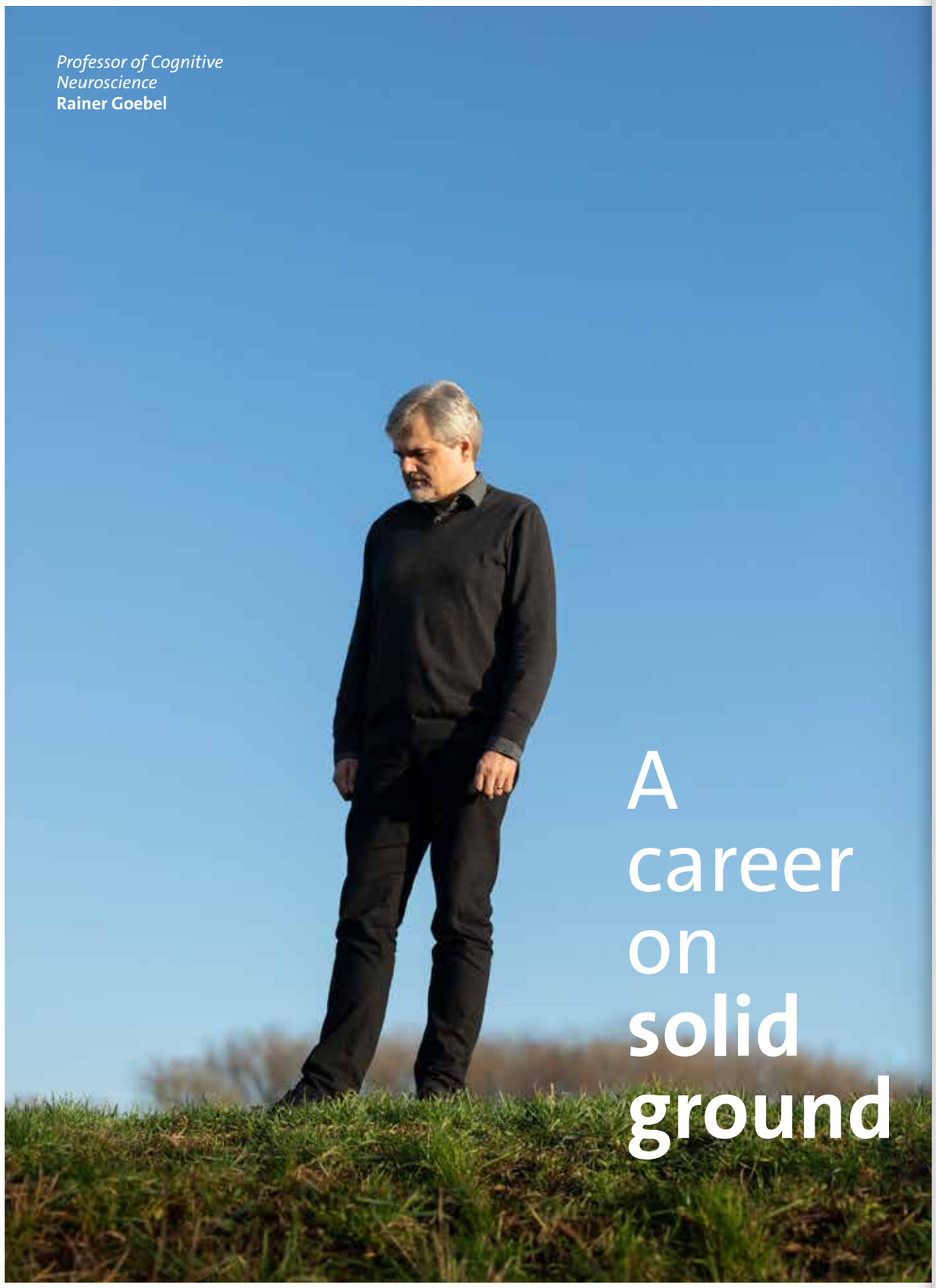
New habit

The most important finding was that households did not experience more inconvenience or less comfort while reducing their energy consumption. “So you can teach people new norms in their everyday lives. Then they’re more likely to look for other solutions before they turn up the heating. Shouldn’t the couch be closer to the radiator than to the window? Within four weeks the energy reduction had become a habit”, Scholl says. Vasseur emphasises the permanence of the behavioural change. “After three months, we monitored the households again and saw that they had assimilated the new norms and values.” Cultural change, in other words, is the key to a successful energy transition.

ENERGISE further demonstrates that the living lab is a suitable research method for fostering energy reduction. “There were clear objectives and the participants were given complete freedom in how to reach them. In living labs, it’s the participants themselves who design their own solutions”, Scholl says. Although it does require a special attitude of the researcher, says Vasseur. “You build a closer relationship, adopt the role of listener.” Scholl: “It’s an important lesson: behavioural change arises from everyday life, and is only permanent if you give people the time and space to experiment.”

Rediscovering home

Have the researchers changed their own habits? Vasseur: “I was shocked that one drying cycle uses the same amount of energy as four washes. These days I rarely use the dryer; I hang up the laundry instead.” Scholl: “What’s great about a project like this is that you start questioning your own household. Should we change the light? What is it that really makes you feel at home? When it comes to energy issues, you’re constantly rediscovering your house.” <



Professor of Cognitive Neuroscience
Rainer Goebel

A career on **solid ground**

His nickname at high school was Zweistein, which made Rainer Goebel feel honoured. “Nobody matches Einstein; Zweistein was getting close.” His fellow students were not the only ones to recognise Goebel’s brainpower: Stanford University, once his dream institute, has tried to lure him to the States on more than one occasion. “But I’m happy with my choice for Maastricht back in 2000”, he says. An academic overachiever, the Netherlands’ first Tesla driver and hacker of the first iPhone, Goebel is also a farmer’s son and a family man.

Portrait

Text
Femke Kools

Photography
Philip Driessen

And he is the reason that Maastricht is home to Brains Unlimited: an imaging facility with one of the only two working 9.4 Tesla fMRI scanners in the world. Not because he asked for it: his parents raised him to be modest. But when he told the Executive Board’s Jo Ritzen in 2009 that he would have to transfer to Amsterdam, where the university was ready to build a 7 Tesla facility for him which UM could never afford, Ritzen replied: “You’ll stay here and we’ll create something even better.”

It started with a Commodore 64

Goebel gave UM the benefit of the doubt, perhaps also because he recognised Ritzen’s bluff. In a similar way Goebel had, in his last year at high school, convinced his father to buy him a Commodore64 computer. “Until then I’d been programming small games on my calculator. My father was active in politics and he wanted to have bar charts like the ones you see on television after elections.” Goebel didn’t know how to make them, but his parents, like so many of his later career mentors, facilitated his talents. He soon succeeded, making his father proud. Programming and computers have been a passion ever since. “Sometimes people are surprised that I still do programming work. But that’s what charges my batteries. When I’m in a bad mood because I’ve not made enough progress with my research, I spend a few hours in the evening programming.”

The most complex universe

Besides computers, the young Goebel was also interested in the brain and the universe. At the age of 5 he watched the moon landing, which made a big impression. “I was always talking about neurons and astrophysics – that’s what led to the nickname Zweistein.” He had already applied to study astronomy when he discovered the emerging fields of cognitive psychology, neuroscience and artificial intelligence. “I became fascinated by the mind, the most complex universe there is.” The name of his most successful software tool, BrainVoyager, harks back to his fascination with astronomy.

His aim with the software was to improve analyses of fMRI scanner data, including for non-computer scientists. “The first time I presented the software at a conference, it attracted crowds of people. The software helped me to build a career.” Siemens offered him a million German marks for it, enough to buy a Ferrari, >

his dream car. But the Max Planck Institute, where he worked at the time, encouraged Goebel to set up his own company instead. “My wife convinced me it was a good opportunity. She’s our chief financial officer, making sure our ten employees get paid every month, among other things.”

Choosing Maastricht for love

Without his wife, he would not have wound up in Maastricht. In 1999, three different universities were competing to poach him from the Max Planck Institute: Maastricht University, MIT and Stanford University. The latter had always been his dream. “But Claudia didn’t want to go to the US. And I would never risk my marriage for that. So I agonised about it for a weekend and then emailed both universities on the same day, saying I couldn’t accept their offer. That was tough, but I did it for love.” Stanford has tried to steal him away three times since, but Goebel is still happy with his choice. “They don’t have the facilities we have here. Plus, it’s not just about the machines; the people are the most important.”

His department has close to a hundred researchers, whom he sees as an extended family. “The values that count most for me are inspired by family life at my parent’s farm. That’s really part of me, and I wouldn’t want to lose it.” Another important value: not wasting your life. He used to make do with five hours’ sleep a night, seeing sleep as a waste of time. “Even after my father retired, he refused to just go for a walk. ‘Then people would see me not working’, he’d say.”

Like father, like son

Last summer, his father passed away, a few years after being diagnosed with cancer. The loss affected Goebel deeply. “Fortunately, I was able to spend quite some time with him before he died. We even wrote a poem together, something we’d never done before. He wanted something that reflected his life and it was a very meaningful experience. Gratitude was an important theme.” Goebel, too, describes himself as a “grateful guy”. He is thankful for the support he has received from UM. Thankful for German reunification, which enabled his East German wife to study in Braunschweig, where they met. And thankful for the contact he has with students at all levels, as well as their positive feedback. Teaching is one of his many passions, making his work feel like a hobby.

Neurofeedback for people with depression

In recent years, two projects in particular have given him a great deal of joy. One is the development of neurofeedback therapy for people with depression. The largest ever study of neurofeedback in depressive patients will soon kick off in Maastricht. “The previous two studies we ran in the UK, and a similar study in the US, showed very good results. Two thirds of participants who underwent regular neurofeedback therapy showed a significant reduction in depressive symptoms.” The new study might be enough to convince health-insurance companies in the Netherlands to cover the costs of the therapy, leading to clinical application in patients.

The second source of joy is his participation in the Human Brain Project (HBP). Goebel has reeled in grants from this flagship European Commission-funded project, which will run until 2023. In the last phase, starting in April, he will lead a project involving more than 10 institutes and a €14 million budget, seeking to draw links between neuroscience, artificial intelligence and robotics.

Making a dent in the universe

Goebel’s focus, especially since his father passed away, is on contributing to society. “What will my legacy be?” he wonders aloud. We’re here to put a dent in the universe, his great inspiration Steve Jobs once said. Goebel, excited: “I want to do that as well! Changing the world for the better. That’s also why I like to be at the forefront of new developments, like electric cars.” In 2010, he owned the first Tesla in the Netherlands. “I like being a pioneer in this way, helping to demonstrate that this is the future.” He also spent an unusual amount of time and money in the States trying to acquire the first iPhone. “Back in Europe, I couldn’t even use it as a phone until six months later. But together with some hackers I figured out how to program the device, and I used it to show people touch-controlled brain animations!” The memory clearly activates his limbic system, and he laughs heartily.

Back to the farm

Another Steve Jobs quote is perhaps even more fitting: The only way to do great work is to love what you do. And Goebel does. His career has been as joyful as it is impressive. “But my parents’ farm, which my older brother still runs on a smaller scale, alongside his main job, has always kept me grounded.” His parents continued to live at the farm after they retired. And it was the first stop Goebel and his wife made last year after he was appointed as a member of Leopoldina, the German National Academy of Sciences. “It was very emotional. My dad cried when he saw the certificate and the pin on my jacket. That’s why I still wear the pin to this day.” He made his dad proud one last time. <

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Rainer Goebel studied Psychology and Computer Science and has been professor of Cognitive Neuroscience at UM since 2000. He was one of the pioneers of fMRI and is internationally recognised for inventing BrainVoyager, a software tool for advanced analysis in neuroimaging. He has received numerous large grants and leads a major study in the Human Brain Project, a flagship project funded by the European Commission.

It’s not just about the machines; the people are the most important.

Put down the *frikandel*

Professors of Youth, Food and Health
Remco Havermans and Edgar van Mil

UM's Campus Venlo focuses on health, nutrition and business, from food innovation and the psychology of eating to logistics optimisation. The campus is home to University College Venlo and the master's programmes Health Food Innovation Management and Global Supply Chain Management & Change. Interdisciplinary research in collaboration with industry and government is conducted at the Brightlands Institute for Supply Chain Innovation, the Centre for Healthy Eating & Food Innovation and the Food Claims Centre Venlo.

On the Brightlands Campus Greenport Venlo, paediatrician Edgar van Mil and psychologist Remco Havermans hold the Youth, Food and Health chair at Maastricht University's (UM) Faculty of Science and Engineering. They hope to develop early and late childhood interventions to combat overweight and obesity.

Region

Text
Florian Raith

Photography
Paul van der Veer

Overweight growing to unhealthy proportions

"Fourteen per cent of children and half of all adults in the Netherlands are overweight", says Van Mil. "So it's less of a problem than in the UK, for example, but it's a rapidly growing problem and a potential public-health crisis." Since obesity and overweight are difficult to treat in adulthood, it makes sense to focus on the formative stage, he adds. Preventive intervention means treating every child as a potentially obese adult.

"There's pretty much an absolute consensus on the benefits of eating more vegetables and fruit", Van Mil explains. "We want to improve children's health and dietary habits." The new professorial chair was endowed by a consortium of regional companies involved in vegetable production. Their expertise may come in handy when it comes to promoting vegetable consumption, but they also look forward to collaborating within the wider UM–Brightlands ecosystem for health research.

Share the chair

Initially, Havermans and Van Mil each applied for the professorship independently. But during the selection process, the consortium introduced them to each other and suggested they be appointed joint holders. "We were enthusiastic from the get-go; we were exchanging ideas and couldn't wait to start working together", Havermans recalls. A chair straddling the fields of biology and psychology will help in tackling this complex issue.

"Nutritional health is not only about what you eat and how much," Van Mil cautions, "but also about physical activity, the microbiome, even the parents' microbiome, genetics and epigenetics, and many other variables." The professors have opted for a systems approach. "So you study not only children and parents, but also relatives, the school environment and peer groups." >

Studying this system – a complex and dynamic whole in which variables interact and affect one another – is no simple matter.

The first and last 1,000 days

"In the first 1,000 days, however, that system is relatively simple", says Havermans. "It's more or less just the child and the parents." They decided to bookend childhood by looking at the first and the last 1,000 days: from conception to about two years, and late adolescence, when peer pressure and advertising join factors such as the parents' education level and financial situation.

"We're really bringing our disciplines together to study the interaction between mind and body", says Van Mil, whose clinical practice focuses on relatively rare conditions. "As a doctor you try to see what's wrong and how you can fix it. Here we use diseases as models. For example, how can diabetes be managed, and how can we use that knowledge to help people stay healthy in the first place?"

What works?

Havermans focuses on the behavioural side of eating: why do we eat what we eat? Adolescents, for example, consume far too little fruit. "They're not interested in their health, so explaining what's healthy and what's not won't have much impact. Adolescence is about freedom, becoming independent by making your own choices", Havermans says. "I'd assume the answer lies in making healthy food more appealing, but we'd have to test that: will having more healthy choices change their behaviour?"

Thanks to the collaboration with Van Mil, Havermans can now test the clinical outcomes of the interventions he has devised. Even if adolescents can be persuaded to eat more fruit, will their health outcomes actually improve? "As a psychologist, you always look at behavioural outcomes, but now that I can draw on Edgar's expertise, I can actually look at what it does to peoples' bodies."

Both being fathers, the professors describe themselves as "just as frustrated and anxious as any parents". They are motivated by the thought of helping parents make better decisions when it comes to food, and creating an environment conducive to those decisions. For all the harmony, however, they disagree on one key point: the culinary merit of frikandel. Havermans aye, Van Mil nay. <

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Edgar van Mil is a paediatric endocrinologist and specialist in diabetes and endocrine disease at Jeroen Bosch Hospital, where he founded the Obesity Lifestyle Intervention Centre (now the Centre for Healthy Lifestyle). He chairs several working groups on obesity and co-authored a book that inspired the national network approach for overweight children.

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Remco Havermans is the research leader of the Laboratory of Behavioural Gastronomy at the Centre for Healthy Eating and Food Innovation at UM's Campus Venlo. He previously worked as an associate professor at Campus Venlo, specialising in the psychology of eating. His PhD dissertation is entitled 'Excessive appetite: The Pavlovian nature of human appetitive behaviour'.

Van Mil and Havermans have been appointed co-holders of the Youth, Food and Health chair for an initial period of five years. The chair is funded by Scelta Mushrooms, ZON fruit & vegetables, BASF, Seacon Logistics and regional Rabobank offices.

News

ITEM receives €3 m grant from Province

The Province of Limburg will give the expertise centre ITEM a grant worth €3 million over the next five years. According to the Province, ITEM contributes to Limburg's economy and improves the business climate in the Euregion. The expertise centre was established in 2015 to contribute on an academic level to the smooth functioning of our transnational society. "ITEM has gained, more than we ever expected, a well-earned place in the field of cross-border mobility. Our work is appreciated at the local level, but also in The Hague and Brussels", says director Professor Hildegard Schneider.

An example: assisted by ITEM, one Belgian resident began legal proceedings after being deemed ineligible for a DigiD. She had worked in the Netherlands for years and needed a DigiD to deal with the Dutch tax authorities and her pension fund. The judge ruled that the conditions for granting a DigiD were discriminatory for cross-border workers who are entitled, on the basis of EU law, to the same social benefits as Dutch people. <

UM: sharpest rise in number of female professors

The highest increase in the number of female professors is at Maastricht University, according to the Women Professors Monitor 2019. With a growth rate of 5.2%, UM is far above the Dutch average of 2.2%. The percentage of female professors in Maastricht now stands at 29.7%, earning UM a shared second place in the rankings together with Leiden University. With these figures, UM has exceeded its 2020 target.

Rector Magnificus Rianne Letschert is delighted. "I'm proud of these results; we're the fastest growing university in terms of the number of female professors. The discussions we had with our faculties took place in a constructive atmosphere and led to this result. Continuous dialogue helps! One professor recently told me that 'because you keep talking about the issue, we're even discussing it at the coffee machine'. That's great! Let's continue on this path, bearing in mind that we're focused not only on the number of female professors but on a more diverse and inclusive university in general." <

€950,000 grant for **MUNDO** project in Mozambique

Maastricht University has been awarded a €950,000 grant from Nuffic for an Orange Knowledge Programme project in Mozambique. The Maastricht University Centre for International Cooperation in Academic Development (MUNDO) developed the project proposal for international cooperation together with the Eduardo Mondlane University in Mozambique and the Wageningen Centre for Development Innovation.

The Dutch partners will support the university in Mozambique with the development of a multidisciplinary master's programme in nutrition using Problem- Based Learning. Students will acquire the competences needed to combat malnutrition in Mozambique, where 43% of children are chronically malnourished and suffer from stunted growth. In many cases, the cause is not an inadequate supply of food but rather consumer behaviour. <

Intellectual property law: protecting all that is **intangible**

Think of international property law (IP) and you are likely to think of copyrights that bar you from downloading pictures or streaming films and music without a license. But there is much more to it than that. In 2017, Professor Anselm Kamperman Sanders and Dr Anke Moerland, both at the Faculty of Law, received a grant from the EU's Horizon 2020 Marie Skłodowska-Curie programme for their project EIPIN Innovation Society, which assesses the role of IP in innovation cycles.

International

Text
Margot Krijnen

Illustrations
Ted Struwer

Kamperman Sanders: "IP protects everything that is intangible, from breeding tomatoes to reselling e-books. One of our PhD candidates is looking at the rights of plant breeders in the context of biotechnology patents. There are concerns that the patent monopoly may have a negative impact on how traditional plant breeders select plants, such as tomatoes or broccoli, and crossbreed them to make new plant varieties. The question is how the regulatory framework can protect innovators while also allowing for continued progress and competition in plant genetics – and in such a way that society understands the regulatory framework. Often that's not the case, which leads to negative sentiment." Another example is the case on reselling e-books pending at the European Court of Justice. "The Court probably won't allow it", says Moerland. "An e-book is a digital copy and will always result in further digital copies. So it may seem inexplicable to people: if you've paid for something, why can't you sell it on to someone else? It's still unclear, and we're just about to find out."

Territorial

IP systems differ from one country to another. Kamperman Sanders: "It's baffling, even to us, that if you're in a hotel and download a movie, in some jurisdictions – for example in Germany – you get a letter from a law firm saying you need to pay. In other jurisdictions, there's no follow-up at all, even for illegal copies. And until recently, with your own Netflix account you couldn't view the same content when you were in another European country. Multi-territorial licensing is very new, and the rules need to become more transparent if people are to accept these legal regimes. When there's clarity and uniformity, people are prepared to pay to download or stream music."

IP in the world

What does IP mean for our increasingly interconnected environment? "We all buy from Chinese web shops, but the product quality and safety is not in compliance with European rules", says Kamperman Sanders. "Products can also be pirated and counterfeit. In the past, goods arrived in huge shipments and customs could check these shipments. Now with all of us purchasing online, goods come through the mail. That makes it difficult for customs to detect pirated or counterfeit goods. It's a constant battle. Some products are plainly dangerous, for others the legal status is unclear. Customers want a bargain, but also expect the state to protect them from harmful products. They may not even know that what they're buying is fake, or find it annoying that big businesses that earn too much money anyway want to prevent them from having knock-offs. You need to come up with an approach for customs officials that's not too intrusive."

Bridging the Valley of Death

The EIPIN Innovation Society project addresses the role of intellectual property in innovation. One PhD candidate is investigating the Valley of Death, an economic concept whereby huge investments are

made in research and development before an innovator has a product to sell. Often it simply takes too long to develop a product that allows backers to recoup their investments. Moerland: "Many of those inventions never make it onto the market: they get lost along the way, before society can benefit from them. It's a major problem in Europe." Kamperman Sanders: "The US is more successful at bridging this valley. The regulatory environment is less strict and they have more financial instruments and angel investors. That said, it's possible, even in highly regulated environments like China. There you have complete alignment between research and development in the Chinese research environment and state-owned enterprises. There's a strong policy push towards developing certain national champions – think of biotech, public transport, etc. All resources are put into this, so naturally they get results. This creates an artificial environment that stifles competition. Europe is somewhere in between those two extremes."

Holistic

The EIPIN project will look at ways of improving Europe's capacity for competition and innovation while still addressing societal concerns. Moerland: "We focus on the different actors, because they all have different interests, play different roles on the market and need different things. Since IP is not a set-in-stone rules-based system, whether you regard it as just or unjust depends on who you are. Most projects on intellectual property focus on the interests of the rights holders. Understandably, because this is where the financial interest lies and where economic damage can arise. But in a society where people need to innovate, they also need continued access to knowledge. They need clarity on their freedom to operate, the boundaries and the economic risks associated with trying to advance intellectually and industrially. Until now, not much attention has been paid to this."

Best practice

The four-year project involves a consortium of five European universities. Fifteen PhD candidates will write dissertations on a wide array of themes. "The project is unique not just for its holistic approach to IP, but also because it allows PhD candidates to earn a joint doctoral degree from two universities", says Moerland. "There's no harmonisation between PhD programmes in Europe. We felt like pioneers, setting up an entirely new system to assess dissertations at two universities and creating best practices for European universities." <

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Anselm Kamperman Sanders is professor of Intellectual Property Law, director of the advanced master's in Intellectual Property Law and Knowledge Management, academic director of the Institute for Globalisation and International Regulation, academic co-director of the Annual Intellectual Property Law School and IP Seminar of the Institute for European Studies of Macau, and adjunct professor at Jinan University Law School, Guangzhou, China.

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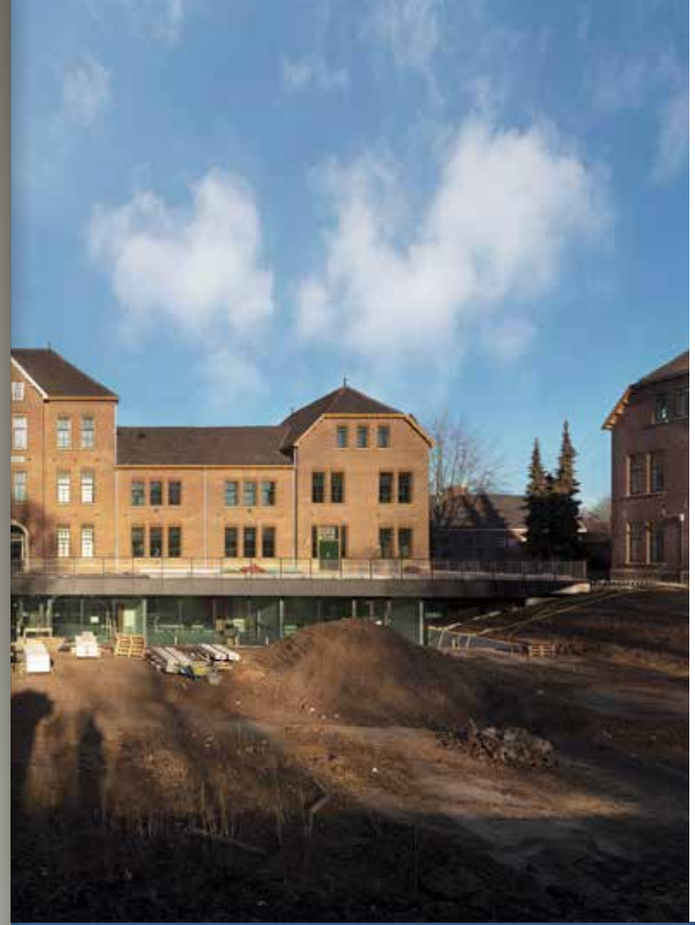
Anke Moerland is assistant professor of Intellectual Property Law at the Department of European and International Law and visiting professor at Queen Mary University of London on Intellectual Property Law, Governance and Art. She coordinates the EIPIN Innovation Society project.

Spread

Text
Annelotte Huiskes

Photography
Arjen Schmitz



Redevelopment of Tapijn barracks nears completion

The redevelopment of the former Tapijn barracks kicked off on 1 April 2019, with the starting shot given by UM vice president Nick Bos, city alderman Gert-Jan Krabbendam and member of the Limburg Provincial Executive Joost van den Akker. The first buildings will come into use in March 2020. The design, by LIAG architects in The Hague, includes the use of solar energy supplied by Belvédère solar park. It was awarded the BREEAM-NL New Construction and Renovation sustainability certificate and the WELL Building Silver certificate, the latter being first such distinction for any educational institution outside the US. Construction is being carried out by Mertens Bouwbedrijf. The official opening is scheduled for 19 and 20 June 2020. <

Academic research with social impact

Professor of Education and the Labour Market
Andries de Grip

Professor of Education and Occupational Careers
Rolf van der Velden

When the Research Centre for Education and the Labour Market (ROA) began making job-market forecasts, its work was viewed with scepticism. In those days – the first report was commissioned by the government in 1986 – applied research was not always seen as 'proper' academic work. Now these biennial forecasts set the standard for job-market predictions, the institute enjoys a top reputation and its research has received numerous awards. What is the secret to ROA's success? Andries de Grip and Rolf van der Velden, co-directors of ROA and two of its first ever researchers, take us behind the scenes.

Text
Annelotte Huiskes

Photography
Hugo Thomassen

In the 1980s, labour-market predictions were mainly concerned with human-resource planning. How many engineers do we need, and how many should we train? "In a society based on free choice, we decided this no longer fit the bill", says De Grip. "We wanted to help people choose their course of study by providing them with valuable information about the labour market. If you're making that decision now, you want to know what the labour market will look like in five years' time, when you start looking for a job. We've managed to make fairly accurate predictions, which I think has contributed to our success."

"There's a lot of flexibility on the labour market", adds Van der Velden. "The same person can go into different professions, and people from different study programmes can end up in the same profession. That's another factor that means traditional human-resource planning no longer applies." Van der Velden was recruited to design a study on how school and higher education graduates were faring on the labour market. The first HBO Monitor, a survey of graduates of Dutch universities of applied sciences, was conducted in 1991. Later a university (WO) version was developed, and one for graduates of intermediate vocational education (MBO). "A good example of multidisciplinarity", says De Grip. "Hans Heijke [the first ROA director] and I were economists, Rolf was a sociologist. I'd never administered a survey, whereas Rolf was an expert."

Predicting the future

A key factor in ROA's success is that the researchers look to the future. What themes will be important five years from now? De Grip: "Technological developments such as artificial intelligence have a major impact on job content. Roles have become more complex and require more highly educated people, often at the expense of mid-level positions. Our European Horizon 2020 Technequality project, led by Mark Levels, looks at the disappearance or emergence of certain professions and the implications for education. Another effect of technology is that the labour market has become more flexible. What does the increase in temporary contracts mean for our social-security system and the prevention of inequality?" >

"Health is an important theme too", Van der Velden says. "We always try to respond quickly to social developments. Twenty years ago, Andries's research on lifelong learning was already concerned with health. Then the focus turned to vitality and skills that influence a person's employability. Now it's becoming clear that health has a major impact on personal development. And in turn, people's competences shape not only their economic prospects but also their health. We're trying to find out what people need in order to function well. This no longer refers only to doing well in your studies and on the labour market, or being a good citizen; it means leading a healthy lifestyle too. The disciplinary boundaries between health, economic and sociological research are blurring."

Multidisciplinary: not because we have to, but because it works

Both men repeatedly stress the importance of ROA's philosophy and mission. "We want to link contract research with high-quality academic research, collaborate across faculties and build relationships with the study programmes. That way we make use of the full playing field offered by the university", De Grip says. "Our strength lies in taking a multidisciplinary approach. Not because we have to, but because it helps us answer the questions we're confronting."

Examples of this cross-disciplinary cooperation abound. Take De Grip's research on lifelong learning in collaboration with the departments of Epidemiology and Work & Social Psychology. "One finding is that a lack of certain competences increases a person's recovery needs, so they may not be able to carry on working until they retire, or they might end up with burnout. Recovery needs is a common term in the medical literature. As an economist, it would never have occurred to me. By the same token, the medical researchers had never come across the concept of 'skill gap'. Combining our knowledge leads to new insights."

The fruitful combination of contract and academic research

A good example is the research ROA will do at Siemens in Germany with IBM Watson, the market leader in artificial-intelligence technology. De Grip: "IBM and its customers want to know how Watson applications can improve the performance of employees and organisations. We'll be studying a 'chatbot' that answers employees' questions about HR matters – which at Siemens Germany involves hundreds of thousands of questions. We know from previous research that jobs disappear, but then other jobs appear. Also, people enjoy their work more: because standardised tasks can be automated, it's the interesting things that are left over. This study is a good example of contract research that coincides with high-quality academic research. IBM wants to know what works best, and we'll do a randomised trial to find out."

"The great thing," Van der Velden adds, "is that we got this assignment through the grant we received for Technequality. We appointed a postdoc, Marie-Christine Fregin, who in turn had contacts at IBM. Ultimately, this is what makes ROA a success: highly motivated people who can spot these kinds of opportunities. We couldn't have done it without Marie-Christine. And we have lots of Marie-Christines. As well as a bit of luck every now and then", he concludes with a smile. <

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Rolf van der Velden is professor of Education and Occupational Careers and director of ROA. He also coordinates the National Cohort Study of Education for the Netherlands Organisation for Scientific Research (NWO). His current research focuses on the development of performance and choices in education, the transition from school to work, and 21st century skills.

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Andries de Grip is professor of Education and the Labour Market and director of ROA. He leads various research projects commissioned by the government and the European Commission. He has published in the areas of training, employability, skill mismatches, human resource management, the effects of increasing the retirement age and more.

Improving healthcare with big data

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Professor of Clinical Data Sciences
André Dekker

Very few Maastricht professors opt against having their own office, but André Dekker swears by flex-desks. This interview with the professor of Clinical Data Sciences takes place in a random meeting room at the MAASTRO clinic. Dekker will soon have a desk of his own, however, following the relocation of his department to the new UM building on the Paul-Henri Spaaklaan.

Sciences

Text
Mark van der Linde

Photography
Harry Heuts

The nomadic style of working suits Dekker. His wife and his four children often used to join him on work trips, he says. "We've always travelled a lot, ever since my wife and I met in 1996 in Australia, where I was doing research at a cancer institute. Fortunately, we both do work that allows us to make long journeys now and then with the entire family."

India

On the day of the interview, Dekker has just returned from India. During the state visit to India by King Willem-Alexander and Queen Máxima last autumn, his research group signed a cooperation agreement with the Indian branch of the computer giant Microsoft and the Apollo hospital group. With the help of artificial intelligence (AI), these two parties have developed a model that predicts people's risk of cardiovascular disease. The algorithm is based on a treasure trove of data from six hospitals in the Apollo group. The model will now be validated in Maastricht. Going forward, the parties will also develop an algorithm that predicts the outcomes of cancer treatments. These are key steps on the road to personalised medicine – and, Dekker says, they are sorely needed. "When it comes to AI in healthcare, people tend to think of robots. Much more important for society is the use of AI to develop personalised medical and preventive models. Without AI, we in the Western world simply won't be able to afford healthcare in the future. But it's also indispensable in countries like India. All specialised hospitals there are concentrated in the big cities, and it's AI that keeps healthcare accessible for people in the immense Indian countryside."

Algorithm

The Dutch government, too, acknowledges the increasing importance of AI. In October the cabinet presented the Strategic Action Plan for Artificial Intelligence, including as an example of best practice a brainchild of Dekker's: the Personal Health Train (PHT). Traditionally, medical data are collected and copied from one place to another. By contrast, the PHT comes to the required data. It functions as a kind of 'train' (actually a search query or algorithm) that drives past various data stations to analyse the information stored there – and not only data from healthcare providers or insurers. Consider a 40-year-old man who has a heart attack during the Rotterdam marathon. The treating doctor or a medical researcher may wish to compare the data from the man's medical file with the data from his exercise app, Strava. The PHT makes this possible with the push of a button. Because the data remain at the source, the owner retains control of his own data, making the PHT a privacy-friendly way of handling medical data.

How exactly did this open-data system come about? "At the MAASTRO clinic, I helped to transform the IT service into a proper research department. We asked questions like 'how can we make available all data from our research field?' and 'how can we learn from these data?' Based on those questions, we started a project called EUROCAT with the tech company Siemens. It was actually a pilot to see if we could transfer large amounts of data securely between five universities in the Euregion: Maastricht University plus the universities and hospitals of Aachen, Liège, Hasselt and Eindhoven. This collaboration ultimately resulted in the PHT." Academic hospitals from all over the world are now working on this model, together with organisations such as Philips and the TNO research institute.

Ultimately, what really matters is whether the patient is married or not.

Predictions

Dekker's research focuses on further improving healthcare with the use of AI. Naturally, this immediately throws up a multitude of questions: ethical questions, questions about historical data, questions about predictive value. On the latter point, Dekker sees only positives. "Doctors always look primarily at their own field when making prognoses. In the case of a cancer patient, surgeons focus on how much of the tumour they've been able to remove, oncologists are mainly concerned with the growth rate of the tumour, radiologists are preoccupied with monitoring possible metastases. And everyone forgets that it matters a lot whether the patient is married or not." In a new, major research project, Dekker is working closely with Statistics Netherlands (CBS) to add demographic, social and economic data to his predictive models.

"As for the future," he adds, "it's not so much about who will manage the data, but who will manage the questions. 'Can I answer this question?' is increasingly becoming 'should I answer this question?' That's a boundary we'll have to guard for ourselves: there are things that AI simply can't solve for us." <

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Andre Dekker is a clinical physicist and professor of Clinical Data Science at Maastricht University, Maastricht UMC+ and the MAASTRO Clinic. Since 2010 he has led a research group working on three questions:
1) How can we share health data?
2) How can we convert health data into artificial intelligence?
3) How can we apply artificial intelligence in healthcare?
He has over 150 publications to his name and has supervised more than 25 PhD candidates.

PhD candidate
Jan Bollen

Professor of Professional Development
Walther van Mook

Due to an acute shortage of organ donors, hundreds of people die each year in the Netherlands and Belgium alone. One large group of potential donors may not even be aware that they can donate their organs: people who opt for euthanasia. For his PhD research, Jan Bollen studied the issue of organ donation following euthanasia. To the delight of his supervisor Walther van Mook, he graduated cum laude last year at the Maastricht UMC+.

Organ donation **after euthanasia** still rare

Professor - Student

Text
Jos Cortenraad

Photography
Hugo Thomassen

They are almost a generation apart in age; one a professor, the other a PhD candidate; one a manager in the intensive care unit, the other an anaesthetist in training. Yet they share a close bond, as becomes clear during a joint interview in the professor's cramped office. They finish each other's sentences without interrupting, tease one another gently and share anecdotes from the last four years. "We're very similar", says Van Mook, internist/intensivist at the Maastricht UMC+ and coordinator of the southern Netherlands branch of the Dutch Transplant Foundation. "Like me, Jan has a quick mind, broad interests and likes to look beyond traditional disciplinary borders. We got to know each other well during the PhD project. Every student, every PhD candidate is dear to me. But Jan's cum laude was a real gift."

Parallels

As striking as the differences between them are the parallels. Van Mook studied Medicine in Maastricht, as did Bollen, albeit after a bachelor's in European Law. Both were drawn to the PBL system. And both found the time, during their studies, for all kinds of extracurricular activities and side jobs, including working as ambulance paramedics. Their lives intersected in 2015, when Van Mook emailed an article about euthanasia and organ donation to the medical ethics committee of the Maastricht UMC+. Bollen, then a fourth-year medical student, fielded the email. Shortly thereafter, they joined forces to draw up a protocol for people who wish to donate their organs after being euthanised at the Maastricht UMC+.

Taboo

"It's a complex question with thorny legal issues", says Bollen. "But it was something I was very interested in, where law and medicine come together. I was intrigued by the fact that few people who undergo euthanasia become organ donors. Why not? We should at least have a good protocol for that group here at the Maastricht UMC+. That way more people would donate their organs and more lives could be saved."

This protocol, which now forms the basis for the national standard in Dutch hospitals, provides a streamlined legal and medical procedure whereby suitable organs are removed and transplanted ›

immediately after euthanasia. More than 60 cases have since been registered. But Bollen and Van Mook were not yet ready to let things lie. “We kept investigating the topic”, the professor says. “As an intensivist and regional coordinator for the Dutch Transplant Foundation, I’m confronted with the shortage of donor organs every day. At the same time, more and more people are opting for euthanasia and often want to help other people after they die, for example by donating their organs. I have great respect for that – and yet it’s still rare. Jan started doing research, we published in leading journals, the American Journal for Transplantation and JAMA, we attended conferences in Europe, America and Asia. It wasn’t easy. Euthanasia is gradually becoming more accepted in the Benelux, but in most countries it’s still taboo – organ donation after euthanasia even more so. We’re sometimes verbally attacked for our views. But I think the tide is turning. Self-determination is a very topical issue, and not only in the Netherlands and Belgium.”

We’re sometimes verbally attacked for our views.

Two faculties

Eventually they hit upon the idea of turning the research into a PhD project. The process still wasn’t straightforward, Van Mook continues. “The research was relevant to both the law and the medical faculties. In the end, we were able to put together a combined assessment committee and celebrate a rare inter-faculty PhD. Not for the last time, as far as I’m concerned. In healthcare, law, economics and medical science overlap. It’s nice to be able to make those combinations and connections.”

Bollen successfully defended his dissertation on 1 November last year, amid a great deal of media attention. “A large group of potential donors still flies under the radar”, he explains, summarising a key finding. “In 2018, more than 8,100 people were euthanised in the Netherlands and Belgium. This figure increases every year. Ten per cent of these people would be suitable as donors, but most of them don’t realise it. GPs aren’t allowed to draw their attention to it for fear of pressuring them. And yet, we know that many patients want to make some sort of difference when they’re gone. We also know, from another study of ours, that the quality of kidneys donated after euthanasia is better than in regular donations.”

With Bollen’s dissertation and their joint publications, professor and PhD candidate hope to feed into the ethical debate on organ donation after euthanasia. “And to raise awareness”, concludes Van Mook. “There’s still a lot of room for improvement. For example, the law doesn’t permit the heart to be donated after euthanasia. As a doctor, I’d like that to change.” <

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Walther van Mook studied Medicine in Maastricht and obtained his PhD in professional behavioural development among doctors. In addition to his work as an internist/intensivist, he is professor of Professional Development, director of the Academy for Postgraduate Medical Training and a member of the regional disciplinary tribunal.

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Jan Bollen studied European Law and Medicine in Maastricht and Health Law in Antwerp. During his studies he served as director of the Belgian Professional Association of Ambulance Services. He is currently training as an anaesthetist.

Soul kitchen

A peek inside the kitchens of UM employees

Text
Annelotte Huiskes

Photography
Paul van der Veer

Baking with her *grand mother’s* recipes

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Professor of Foreign Policy Analysis and Transatlantic Relations
Roberta Haar

The delicious aroma of spices permeates the kitchen. Roberta Haar has just removed a pumpkin pie, the traditional Thanksgiving dish, from the oven. On the table is an apple banana cake that the professor of Foreign Policy Analysis and Transatlantic Relations made using a recipe of her grandmother's. Haar was born and raised in the United States, but when it comes to baking, her German-American grandmother is her inspiration.

Enthusiastically, she describes how she prepared the pumpkin puree last night. "In the States they often use canned pumpkin, but nothing beats fresh, organic products. The herbs are fresh, too. Nutmeg, ginger, cinnamon and cloves; I ground them all myself in a mortar." The best time to make fruitcakes is when the fruit is just slightly overripe, she says. "You can make this cake with all sorts of fruit. I use oil instead of butter and the sugar is organic too, so it can't be unhealthy", she laughs. Her cooking bible is an old cookbook of her mother's dating from the 1950s. A few years ago she managed to buy a copy for her daughter from an antique dealer. "It's got everything in it, from preparing turkey to cleaning fish. I use it all the time."

Tribal stories

Haar was born and raised in South Dakota, a sparsely populated, predominantly agricultural prairie-state in the Midwestern United States. The summers are hot; the winters ice cold. Her older brother, who has a PhD in plant physiology, hung up his lab coat to be the Chief at the Badlands National Park in the far west of the state. "It's a kind of moon landscape: very dry but very beautiful. My great grandparents on my father's side left the German-speaking part of Russia and came to America in 1875. They homesteaded, meaning they were given a piece of land, in the south-eastern part of the Dakota Territory. Homesteading is how the different European enclaves emerged: Russian-German, Bohemian, Dutch, Norwegian and so on. And the Sioux people live there. My family has a vacation home next to the Missouri River, on the Yankton Sioux Native American reservation. I spend four weeks there every summer. You can hear the drums and the ritual singing coming from across the water when they conduct a Sun Dance. It's so much fun, visiting family and old friends, going water skiing and fishing. There's a lot of sitting around the campfire and barbecuing too."

Pickled watermelon

She grew up in a town of around 1,500 inhabitants. "Fairly large for that area, with all kinds of facilities: a hospital, shops, a school. My mother was the mayor for 12 years and she sat on the council for another 20 years, alongside helping to run the family business, a dealership selling John Deere agricultural equipment, which my grandfather established. So, my love for cooking doesn't come so much from my mother – she was too busy for that. In that respect, I was raised by my grandmother on my father's side. She was a strong second-generation German-American woman, and taught me how to bake Kuchen. My absolute favourite was strawberry shortcake, with cream from a local farmer and strawberries from her garden. She had a huge garden, like everyone else there, where she grew her own vegetables. I still remember her acorn squash and lima beans. And she canned a lot of food. Canning meant that fruit and vegetables were preserved, so you could eat them in the winter too. Growing up I helped prepare everything, from slaughtering chickens and cleaning fish to pickling literally everything. They even pickle watermelon. Home-grown vegetables just taste better. Over the years I taught my friends there to make ratatouille. That was something new for them; I bought the herbes de Provence. Here in the Netherlands, I try to use only good, fresh, organic products. And I never throw anything away."

Glass ceiling

Her mother was the first female mayor and the first woman to hold a position in the Lutheran church. "She's a well-known figure who broke through a lot of glass ceilings. For her work with the tribe, the local Native American people gave her a handmade star quilt as a token of appreciation. My mother doesn't like blue, so she gave it to me." She holds it up proudly. There are other indigenous objects in her house, too, from clay pottery to screen prints. Haar grew up on a Native American reservation and is still friends with many. "Just like me, some natives were very sporty. We played basketball and did athletics together. But in general, the situation for Native Americans has deteriorated over the last 30 years. There is a lot of obesity, and addiction to crystal meth is a real problem. It's so sad to see this downhill slide in such a noble people."

Community spirit

Haar was raised as part of the Missouri Synod, a traditional Lutheran denomination. "People in my church help each other when it's needed. In my family, faith is also linked to community spirit. My grandfather was a mayor too. Many of my friends who still live there contribute to the community in their own way; they are in education or social work. My parents are now 76 and 83 but they're still helping farmers with their equipment, and my mother volunteers for two hours a day at the veterans' clinic. When I'm there in the summer, I help out, naturally. I clean their house. They don't always get around to that", she adds with a smile.

In the past, everyone was a Democrat and her mother was one of the few Republicans. Now the majority of people there is Republican. "And no, my mother didn't vote for Trump. As the owner of a farm machinery dealership, she's into small-town Republican values, and she doesn't believe Trump represents those. I try to avoid the topic of politics there, I'm so angry about how little backbone the Republicans show towards Trump. But my parents read my online columns [for Elsevier Weekblad] and they know I think Trump is a disaster, especially from the perspective of international relations and foreign policy. South Dakota is very dear to me, I couldn't not visit for a year. After I retire, I'll aim for a balance between spending time in the States and in the Netherlands", she says, taking a last bite of pumpkin pie. <

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Roberta Haar obtained her MA and PhD in International Relations at Penn State University. She worked at Maastricht University's Centre for European Studies from 2000 to 2003. She has taught at University College Maastricht since 2003, and became its research director in 2017. In January 2019, she was appointed professor of Foreign Policy Analysis and Transatlantic Relations. She writes a monthly column on US-related themes for Elsevier Weekblad.

At just 29, he is by far the youngest member of the newly installed European Commission, with a seriously important portfolio: Environment, Oceans and Fisheries. Virginijus Sinkevičius, a graduate of European Studies, is not afraid of diving in the deep end. “On the contrary. I believe in the power of European cooperation. I’m part of an ambitious team, and together we face enormous challenges. Age is irrelevant.”

Virginijus Sinkevičius believes in **Europe**

On 1 December, Ursula van der Leyen unveiled her brand new European Commission in Brussels. When the 27 members took their places for the first group photo, the fresh face from Lithuania stood out between the grey-haired men and women, bringing down the average age to 56. Commentators were quick to write him off as the token young person. Fixing the environment, cleaning up the world’s oceans – surely these tasks are beyond a young guy like him?

Experience

It won’t be easy, Sinkevičius says, but he has no intention of letting himself be intimidated. “I was the youngest minister ever in Lithuania, of economic affairs, no less. The parliament and the government nominated me for this fantastic job. Lithuania believes in me. Of course, I have a lot to learn from my colleagues. From Frans Timmermans, for example, who’ll lead the Green Deal, the road to a climate-neutral Europe in 2050. I look forward to working with him. But even he can’t do it alone. There are 27 Commissioners and we’ll all have to pull together for a better environment, a more sustainable society. We have five years to set out the parameters and to make concrete plans. And that’s what we’ll do. Looking at my portfolio, the first priority is biodiversity in nature and water.”

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Virginijus Sinkevičius studied in England and Maastricht, and joined the Lithuanian Parliament in 2016. He served as Minister for Economic Affairs and Innovation from November 2017 to November 2019. He now holds the Environment, Oceans and Fisheries portfolio in the European Commission. In 2018, he was named one of the 100 most influential young people in European politics.

Opportunity

Sinkevičius’s political career is progressing at a staggering pace. Yet it is not a path he had planned for himself; until 2016 he was barely politically active. After his studies, he worked as a project manager for the Lithuanian Post and an investment promotion agency in Lithuania. Then the prime minister asked him to run for parliament. He was quickly elected, and in 2017 became the Minister of Economic Affairs and Innovation. “It wasn’t planned at all. To be honest, I’ve barely had time to think about it. Same goes for the move to the European Commission. But do you stop to think long when you’re given an opportunity like this? When you can work on ideas and plans at this level? Not everyone is aware of what accession to the European community has meant for Lithuania. It’s opened up a window to the world. New opportunities. We can travel freely, work wherever we want to in Europe. There’s the single currency, the euro. It’s huge progress for Lithuania and the other Baltic states. If you’re then asked to work as a Commissioner for a stronger Europe, you don’t say no.”

Enriching

Sinkevičius was raised in the Lithuanian capital, Vilnius, by his single mother. After high school he decided to study abroad. He read economics and

Text
Jos Cortenraad

Photography
Virginijus Sinkevičius

sociology at Aberystwyth University in the UK, then moved to Maastricht in 2012 for a master’s in European Studies. “I chose it based on reviews, the education system and the university’s international character. And it was the right choice, because I learned a lot in Maastricht. It’s a young study programme with enthusiastic teachers and a strong focus on current affairs and professional practice, against the backdrop of historical developments. Working with students from different countries and with different backgrounds helped to shape me as a person. I’ve learned to look at issues from different angles and points of view. It was very enriching – I’d highly recommend it to future students.”

He looks back on a great year. “Maastricht is a small, compact city. As a student I felt at home. And, not unimportantly: I met my wife in Maastricht, a Ukrainian who was also doing European Studies. She will move with me to Brussels for the next five years, my term of office at the European Commission.”

Washington

After Maastricht, Sinkevičius spent 18 months working at the Center for European Political Analysis in Washington. “Did that increase my interest in politics? Maybe. In any case, I learned a lot about European relationships, which built directly on my master’s degree. But my first goal was to put the knowledge and experience I’d gained to good use in Lithuania. I was given the opportunity to study, and I wanted to give something back in return.”

Future

As a European Commissioner, Sinkevičius is now expected to take a broader view. “I’m really looking forward to that. I’ve personally experienced what European cooperation means for a country, and it’s made me a strong believer in the future of a united Europe. So much has already been achieved. The only way to create a borderless, sustainable society and a better environment is to work together. Countries can’t do it on their own. With a strong Europe, we can take a stand in the world and get things done. I see the big picture. I’ve always felt very European.” <

Alum Robert-Jan Sips wants to use artificial intelligence to create a better society. He works for myTomorrows, a company that connects doctors and patients with medical information and potential treatments. Many of the skills he relies on today stem from his time as a Knowledge Engineering student in Maastricht. “You see a problem and you think: what do I have in my toolbox to solve this?”

→

Robert-Jan Sips studied Knowledge Engineering at Maastricht University from 2000 to 2005. He joined IBM in 2008, where he worked on remote-sensing projects and researched a new crowd-sourcing method to train IBM Watson for the medical domain. He joined myTomorrows in 2017.

Alumni meeting minds

Text
Hans van Vinkeveen

Photography
Robert-Jan Sips

For the sake of job security, he was determined to study something involving computers. The trump card for Knowledge Engineering in Maastricht was an inspired lecture by an “older professor with white hair” – Jaap van den Herik – who declared that artificial intelligence (AI) would take over everything, and even replace judges. “Computer science here wasn’t going to be dry”, Sips says. “There was a vision behind it.”

The Knowledge Engineering programme proved to be ahead of its time. So futuristic was it, in fact, that students found it impractical and graduates struggled to find work outside academia. “In my final year, the programme was at risk of being scrapped. I was on the University Council at the time. In the end, it didn’t happen – fortunately, because employers are now scrambling for graduates like these.”

Fries with *zuurvlees*

The memories of his time in Maastricht come tumbling out. How, after his first bike ride through the city, he told his mother how international it was. “I heard a lot of French and German, or so I thought. It turned out to be the Maastricht dialect”, he laughs. How he and his crewmates would row in silence during the early-morning Saurus training sessions on the Zuid-Willemsvaart, so as not to wake the houseboat residents. And, oh yes, how he would meet a friend at De Bolle snack bar every week for fries with *zuurvlees*. “When I think of Maastricht, I think of fries with *zuurvlees* and mayonnaise.”

He also has fond memories of his thesis on medical informatics, for which he collaborated with his twin brother, who was training as a doctor in Groningen. The medical world continues to appeal to him. “I always wanted to work in the interests of society, to try to make the world a better place. That was also a strong part of the Knowledge Engineering programme.”

Medical Watson

Sips got a job at IBM, where he spent a number of years working on projects involving sensor technology, including smart dyke management. In 2012 he witnessed a major breakthrough in AI from up close: the advent of Watson, a supercomputer that can interpret questions posed in natural languages and find answers in datasets. In collaboration with academics, he began training a medical version of Watson that can recognise terms for diseases, diagnoses or drugs in medical data files.

In 2017, he came across myTomorrows. Sips was not just ready for a new adventure; he was also inspired by the myTomorrows mission. The company targets doctors and patients who have already received all the available standard treatments, providing them with information about and access to treatments that are still under development or have not (yet) been approved. His experiences with AI and ‘Medical Watson’ play a crucial role here. “The myTomorrows network is there for patients who no longer have anywhere to turn.”

Sips knows first-hand how important this can be. “I’d only worked there for a short time when my wife was diagnosed with a malignant tumour in her pancreas. Through our network I was able to speak to the main specialist in the Netherlands within 24 hours. My wife was on the operating table just a few weeks later. All is well now and we’ve just had a baby.”

Anatomy lesson

As Sips sees it, his studies made an important contribution to his career. “Problem-Based Education taught me to think in terms of projects and solutions. You see a problem and you think: what do I have in my toolbox to solve this? It’s a skill you can apply in different domains, which makes it easy to work on diverse projects. At IBM, I’d go from identifying anomalies in the production system of an animal feed manufacturer to a crowdsourcing system for the painting The Anatomy Lesson in the Mauritshuis.”

Now that jobs for AI graduates abound, Sips advises against focusing only on large companies or high salaries. “Automating a system for making bread dough at the corner bakery can be a lot of fun, whereas you can languish at a big tech giant. That’s why I made the switch to myTomorrows. At IBM my path was already sketched out for the next thirty years. I wanted more vibe and adventure. And because the expectations of AI are through the roof, it’s very hard work. You’d do better to choose a job that suits your own standards and values.”

Social skills

Sips advises computer science students to take a broad view. “Studying is not the only thing that makes you a better AI researcher or scientist. A lot depends on your social skills. How do you talk to clients who want you to write an algorithm? Sit down with people from a different field of study or work in a multidisciplinary team. Different perspectives take you much further than tunnel vision does. You see that now with the new bachelor’s in Digital Society, but that didn’t exist in my day.” <

I try to make the world ***a better place***

Precious Plastic Maastricht came on in leaps and bounds in 2019. The student-led sustainability campaign was received with enthusiasm and brought Maastricht residents together in playful initiatives. The team has big plans for the future, with the ultimate goal of building four recycling machines for plastic waste. “What’s in Maastricht stays in Maastricht – that should become the new norm when it comes to plastic.”

*Don’t throw your **plastic waste** away!*

Even disposing of your plastic waste in a special bin is not environmentally friendly, project manager May Elise Sturman explains. “Much of the plastic waste collected in European countries is transported away from Europe, mainly to places in Asia, where it is destroyed in an environmentally unfriendly way or simply disappears. At Precious Plastic Maastricht, we want to raise awareness and show people how they can live more sustainably, for example by recycling plastic locally themselves.”

Shred and melt

In January 2019, Ezekiel Stevens put out a call in the Facebook group of his study programme, the Maastricht Science Programme (MSP). Was anyone keen to join a special local project? Stevens was inspired by Dave Hakkens, initiator of the global sustainability community Precious Plastic and designer of the associated machines that people can build themselves and use to recycle plastic. The process has just three steps: shred, melt and transform. Waste products such as packaging and squeeze bottles are given a second life as rubbish bins, beams, artworks and more. With Precious Plastic and its machines catching on all over the world, Stevens figured it was high time for Maastricht to join the movement. Many interested students responded to his call, and before long the Precious Plastic Maastricht team was established.

Prize-winning pen project

“The UM Student Idea Competition seemed like a good tool to put us on the map and create a network within the university”, says project manager Perine Fleury. “We submitted an entry focused on collecting and recycling used-up pens. Much to our surprise, we won!” Look around the university for collection bins for old writing implements, however, and you won’t find anything yet. “Right now we’re focused on building the recycling machines”, says Stevens, the project manager. “We’ve finished the first device, the shredder. With the money we raised during the For Each Other 2019 campaign, we’ll finish three other machines that melt and transform the shredded material. When we’ve created the machines, we’ll look further; for example at research on bioplastics and the pen project.”

Sustainability connects

The machines are expected to be ready in September 2021. Then, Maastricht residents will be welcome during open days to come and recycle their plastic waste in the Precious Plastic Maastricht workplace at the Tapijn barracks. This will in turn bring students and city residents into contact with one another, enhancing mutual cooperation and understanding. “It’s cliché but true: sustainability connects”, says communication manager Kodie Chontos. “We saw that during our Mass Maas Clean-Up Festival in June, when a hundred students and residents joined forces to clean up the city centre and learn more about local reuse. And at the Bruis Festival, where over 7,000 festival visitors donated to us the deposit they had paid for their plastic cups. There’s a lot of demand for sustainability initiatives and group activities in Maastricht.”

No finger-wagging

The students notice that many people would like to play their part in solving the plastic problem. And they can: more quickly and easily than they might expect, even on an individual basis and with the recycling machines not yet functional. Sturman: “Shop at the market or at zero-waste stores, take your own bags for groceries, tell supermarkets you no longer buy products in plastic packaging, or try to live one day a week with less or even no plastic. You can find all sorts of tips on the internet.” “That said,” Fleury adds, “we’re not here to wag our fingers at people. Our goal is to show how easy but also how pleasant it can be to live more sustainably.” <

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The Precious Plastic team (from left): Perine Fleury, Kodie Chontos, May Elise Sturman, Emma Prins and Ezekiel Stevens. Not pictured: Hannah Bosland, student at Zuyd University of Applied Sciences.

www.preciousplastic.com

The University Fund Limburg / SWOL provides support and inspiration to entrepreneurial UM students. The fund awards grants to student activities four times a year, contributes financially to the Student Idea Competition, and includes scholarships and student projects – such as the recycling machines – in its annual fundraising campaign ‘For Each Other’.

www.ufl-swol.nl

University Fund Limburg / SWOL

Text
Milou Schreuders

Photography
Harry Heuts

News

Worker shortages in **engineering, healthcare and teaching** set to persist

Despite the expected slowdown of economic growth, more than two million job openings are expected in the coming six years. This translates into good job prospects for graduates who will enter the labour market in this period. Between now and 2024, the best employment opportunities will go to bachelor's and master's graduates. The present shortage of qualified graduates in engineering, healthcare and teaching is expected to persist at all job levels. By contrast, the poor job prospects for graduates of intermediate vocational education (MBO) in the fields of economics and business administration are unlikely to improve. These are the findings of the report 'The labour market by education and profession until 2024' by Maastricht University's Research Centre for Education and the Labour Market (ROA). <

Hilde Verbeek to join The Young Academy

Hilde Verbeek, associate professor in the Department of Health Services Research at Maastricht University, will join The Young Academy, a group of innovative scientists and scholars, in 2020. Verbeek is the coordinator of the Academic Collaborative Centre on Care for Older People.

Hilde Verbeek conducts research into care environments for vulnerable elderly people, in particular nursing home care. She focuses on adapting methods and systems in innovative ways. Her work is frequently cited in and beyond her research field, including the Dutch Parliament.

The Young Academy is composed of talented researchers who share a broad interest in academic practice, policy and communication. It is an independent body within the Royal Netherlands Academy of Arts and Sciences. Membership lasts five years. Verbeek says she looks forward to promoting interdisciplinarity and a greater focus on research teams, instead of individual researchers. <

Keuzegids Bachelors 2020: **three UM colleges stable at the top**

The three Liberal Arts colleges of Maastricht University retain their top positions in the Keuzegids Bachelors 2020. University College Maastricht, University College Venlo and the Maastricht Science Programme (MSP) all retain their quality seals. The MSP once again tops the list.

As many as 12 of UM's 18 bachelor's programmes are among the top 3 in their respective categories in the annual Keuzegids rankings. International Business improved the most of all UM programmes. Medicine and Health Sciences continue to achieve high scores, with Arts & Culture also climbing the rankings.

The Keuzegids assesses several aspects of education. As the country's most international university, UM scores highest in the categories international exchange and international outlook. The quality of English as the language of instruction at UM is also ranked top of the table. Most UM programmes score particularly well for their practice-oriented approach, assessments and curricula. <

Hande Wevers wins Maastricht Human Rights Prize 2019

Hande Wevers won the Maastricht Human Rights Prize 2019 in the over-18s category. The master's student in Globalisation and Law: Human Rights track received the prize for her poem 'Nature v Nurture'. The award was presented by Onno Hoes, a former mayor of Maastricht, who launched the prize in 2015.

The Maastricht Human Rights Prize aims to inspire students to reflect during their studies in Maastricht on the Universal Declaration of Human Rights. The competition is open to students from secondary schools, secondary vocational and higher education institutions. The theme for this fifth prize was 'Freedom from Fear'. <

Profile

Education and research at Maastricht University is organised primarily on the basis of faculties, schools and institutes.

Faculty of Arts and Social Sciences
- Politics and Culture in Europe
- Science, Technology and Society
- Arts, Media and Culture
- Globalisation, Transnationalism and Development

Faculty of Health, Medicine and Life Sciences
- School of Nutrition and Translational Research in Metabolism (NUTRIM)
- School for Cardiovascular Diseases (CARIM)
- School for Public Health and Primary Care (CAPHRI)
- School for Mental Health and Neuroscience (MHeNS)
- School for Oncology and Developmental Biology (GROW)
- School of Health Professions Education (SHE)
- Institute for Education

Faculty of Science and Engineering
- University College Maastricht (UCM)
- University College Venlo (UCV)
- Maastricht Science Programme (MSP)
- Department of Data Science and Knowledge Engineering (DKE)
- Aachen-Maastricht Institute for Biobased Materials (AMIBM)

Faculty of Law
- Institute for Globalisation and International Regulation (IGIR)
- Institute for Transnational Legal Research (METRO)
- Institute for Corporate Law, Governance and Innovation Policies (ICGI)
- Maastricht Centre for European Law (MCEL)
- Maastricht Centre for Human Rights
- Maastricht Centre for Taxation (MCT)
- Maastricht European Private Law Institute (MEPLI)
- Maastricht Graduate School of Law
- Montesquieu Institute Maastricht

Faculty of Psychology and Neuroscience
- Graduate School of Cognitive and Clinical Neuroscience
- Clinical Psychological Science
- Cognitive Neuroscience (CN)
- Experimental Psychopathology (EPP)
- Neuropsychology & Psychopharmacology
- Work & Social Psychology
- Maastricht Brain Imaging Centre (M-BIC)

School of Business and Economics
- Graduate School of Business and Economics (GSBE)
- Research Centre for Education and the Labour Market (ROA)
- Network Social Innovation (NSI)
- Limburg Institute of Financial Economics (LIFE)
- The Maastricht Academic Centre for Research in Services (MAXX)
- Accounting, Auditing & Information Management Research Centre (MARC)
- European Centre for Corporate Engagement (ECCE)
- United Nations University – Maastricht Economic Research Institute on Innovation and Technology (UNU-MERIT)
- Social Innovation for Competitiveness, Organisational Performance and human Excellence (NSCOPE)
- Marketing-Finance Research Lab
- Service Science Factory (SSF)
- Maastricht Sustainability Institute (MSI)
- Maastricht Graduate School of Governance (MGSoG)
- UMIO - executive branch
- Education Institute

Interfaculty institutes
- The Maastricht Forensic Institute (tMFI)
- MERLN Institute for Technology-Inspired Regenerative Medicine
- The Maastricht Centre for Citizenship, Migration and Development (MACIMIDE)
- Maastricht MultiModal Molecular Imaging Institute (M4I)
- Maastricht Centre for Systems Biology (MaCSBio)
- Maastricht Centre for Arts and Culture, Conservation and Heritage (MACCH)
- Centre for European Research in Maastricht (CERIM)
- Institute for Transnational and Euregional cross border cooperation and Mobility (ITEM)
- Institute of Data Science (IDS)
- Brightlands Institute for Smart Society (BISS)

Colophon

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Blow up

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