



Utrecht University

Utrecht  
University Fund

# Illuster

Nov 2018

SUSTAINABILITY

## The Green Model

**Illuster  
has a new  
format!**





FOREWORD

# Imagination

**S**ustainability is perhaps the greatest social challenge of this century. While most people in wealthier countries are aware of the *need* for sustainability, this ‘need’ is less effective as a motivator than ‘potential’ or ‘drive’. ‘Potential’ is about identifying pathways that can lead us to a more sustainable world. UU alumnus and Utrecht climate scientist Detlef van Vuuren recently published a model study presenting alternative scenarios that would limit global warming to 2 degrees or less. Read more about his research further on in this edition.

‘Drive’, on the other hand, assumes we have the ability to imagine a more attractive, sustainable future. Our imaginations are most active when collaborating across institutional and disciplinary boundaries. This is precisely our approach in *Pathways to Sustainability*, the strategic university study on sustainability. For long-term solutions which have the greatest chance of a successful implementation, we must involve the three sectors of society (public, private and civil society) in research from the very start. Utrecht University is therefore financing so-called ‘hubs’, four of which are working on pathways to sustainability in delta regions, cities, industry and the food sector.



We want Utrecht to be the place where new ideas are born, where creativity is rewarded and where change is never far away. This also starts with imagination: imagining the university of the future.

**Prof. dr. Maarten Hajer**  
Academic Director of *Pathways to Sustainability*



## 18 Batteries on wheels

Research on energy storage supported by the Utrecht University Fund.

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*Illustrer* is printed on 100% recycled paper.

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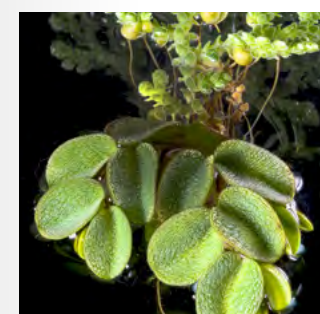


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**Jesse Hoffman**  
Researcher at Urban Future Studios (UFS), Utrecht University.



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THE OZONE LAYER

# Bad news

Last summer’s bombshell: atmospheric concentrations of CFC-11 are not dropping fast enough. This may be due to Chinese companies that still use this prohibited chlorofluorocarbon in large quantities for the production of construction insulation. ‘It’s bad news,’ says Guus Velders, professor of Air Quality and Climate Interactions at Utrecht University. ‘The ozone layer started thinning out in the 1970s, mainly due to these CFCs. The layer has been more or less stable for the last ten years, and there are signs that it is starting to recover, but full recovery is not expected until halfway through this century. Furthermore, this will only happen if we can find an alternative to CFCs.’

image **NASA**



# Short



## SUSTAINABILITY

### New Green Office branch in the city centre

Utrecht University's Green Office, located at Utrecht Science Park, De Uithof, has been the primary sustainability platform for UU students and staff since 2013. Here, people shape ideas on sustainability, make plans and launch projects, all with a view to making the university more sustainable. The Green Office is now expanding its activities, and has opened a new branch in the Utrecht city centre. The new branch hopes to reach a new audience for sustainability initiatives, bolstering and supporting the sustainable communities in the Faculty of Law, Economics and Governance and the Faculty of Humanities. Like its counterpart at De Uithof, the new branch will also host lectures, workshops and interactive events.

The new office can be found in Room 0.05, Drift 13, Utrecht. For more information, go to [uu.nl/organisatie/green-office-utrecht](http://uu.nl/organisatie/green-office-utrecht).



## DOCTORAL THESIS DEFENCE

### Becoming a doctor — at 86!

On 20 September, Jan Huynen completed his PhD on the options for using hydropower to store energy underground. What makes this even more amazing is the fact that that Huynen is already 86 years old. He theorises that there is currently no available technology for storing sufficient electricity to be used in the absence of wind and sun. He has proposed creating an energy buffer deep below the Earth's surface in Limburg. According to Huynen, a buffer of this type would enable the rapid expansion of wind and solar energy.



## INTRODUCTION

### A sustainable start

In August, 4,200 first-year students were introduced to Utrecht during the annual Utrecht Introduction Time (Utrechtse Introductie Tijd, or UIT). Over the course of five days, students were introduced to the city of Utrecht and its student life. This year included a special focus on sustainability activities. The 'Plogging Run' was one such example, in which UIT participants collected litter while jogging.

The Utrecht University Fund supports activities run by study societies and student associations, including the Utrecht Introduction Time. Eager to contribute? Visit [uu.nl/en/organisation/alumni/contribute](http://uu.nl/en/organisation/alumni/contribute).

## QUOTED

*'It's a huge task, but it can and must be achieved within 15 years.'*

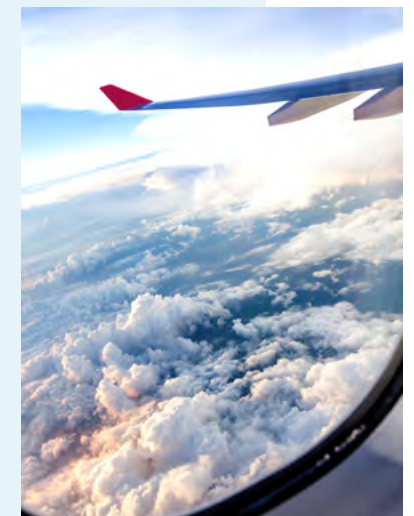


Marjan Minnesma

Director of the Dutch Urgenda Foundation and Alumnus of the Year 2015, on making the Netherlands climate-neutral. Source: [duurzaambedrijfsleven.nl](http://duurzaambedrijfsleven.nl)

## CARTOON

### Argibald



## DOCTORAL THESIS DEFENCE

### Fryer-fat flights

Would it be possible to fly on renewable fuels made from, for example, used fryer fat? On 15 June, at the defence of his doctoral thesis titled 'Green Horizons' at Utrecht University, Sierk de Jong argued that this is possible for a few euros per passenger. Since 2014, de Jong has been conducting research at the UU Copernicus Institute for Sustainable Energy Development. He claims that it will cost €10 billion to have all flights departing the EU fly on 8% renewable fuels by the year 2030. This equates to a few euros per passenger, and will neutralise over 70% of expected emissions growth between now and 2030. However, it will be important to develop new technologies in order to scale up the production of renewable aircraft fuels, and to make them more cost-effective.

De Jong's dissertation is available online at the Utrecht University Repository: [uu.nl/universiteitsbibliotheek/diensten/utrecht-university-repository](http://uu.nl/universiteitsbibliotheek/diensten/utrecht-university-repository).





EXPERIMENT

# UU BioClIVE in the Botanic Gardens

Can biodiversity protect against the potentially harmful effects of climate change? And does this protection decrease as biodiversity does? To answer these burning questions, the Ecology and Biodiversity research centre has set up a major experiment in the Botanic Gardens named UU BioClIVE, or the Utrecht University Biodiversity and Climate Variability Experiment. In this long-term trial, grassland ecosystems with various biodiversity scenarios have been precisely recreated in 352 tubs, each filled with one tonne of soil. Future climactic conditions (such as changing rainfall patterns) can also be tested in the artificial ecosystems.

The Utrecht University Fund supports this project and many more! For more information, see [uu.nl/en/organisation/alumni/contribute](http://uu.nl/en/organisation/alumni/contribute).



CLIMATE

# Panel against plastic

According to UU oceanographer and climate researcher Erik van Sebille, the fight against the Pacific trash vortex needs its own panel comparable to the IPCC (the Intergovernmental Panel on Climate Change). An organisation like this is necessary, he says, in order to correctly diagnose, evaluate and address the problem based on scientific evidence, and to produce greater effectiveness when dealing with the massive quantities of plastic dumped into the ocean each year.

Read the article (in Dutch) by Van Sebille, his UU colleagues and other scientists at [nrc.nl/klimaat](http://nrc.nl/klimaat).

ALUMNA

# Food rescue!

Since its inception in 2014, the Instock foundation has been dedicated to using food that would otherwise be thrown away. The foundation was co-founded by UU alumna Selma Seddik, and now runs restaurants in Amsterdam, The Hague and Utrecht. The foundation has already launched beer made from stale bread and potatoes, as well as Instock granola and a cookery book. The formula is so successful that Instock now ‘rescues’ more food than it can process. Since January, the products have therefore also been delivered to other hospitality establishments. September saw a new milestone, when Instock celebrated having saved no less than half a million kilos of food from the rubbish bin.

Want to help rescue food? Read more at [Instock.nl](http://Instock.nl).



**Reimer Veldhuis**  
Master’s degrees in History (2002) and Dutch Law (2003) Reimer became the new State Advocate on 1 September, and will aid the State of the Netherlands in legal proceedings.



**Janny Bakker-Klein**  
Master’s degrees in Dutch Law (1994) and Law, Governance and Management (1996) Janny has been appointed to the Executive Board of Movisie, the national knowledge institute for addressing issues in the social domain.



**Sierk Nawijn**  
Master’s degree in Social Geography (1991) Sierk has been appointed the Director of the Netherlands Government Information Service (NGIS). In this role, he will act as spokesperson, advise the Prime Minister and the cabinet and handle government communications.



**David de Jager**  
Master’s degree in Physics (1988) David has been appointed Director of GROW Offshore. GROW is a consortium of Dutch companies and knowledge/ other institutions whose aim is to overcome the challenges in the field of offshore wind energy through technological innovation.



**Feike Sijbesma**  
Master’s degree in Biology (1985) Feike has been included in Fortune magazine’s annual list of the fifty greatest leaders. He is one of twelve CEOs on the list. Sijbesma is Director of Dutch chemical company DSM, and was voted Alumnus of the Year 2016 for using the knowledge gained from his UU degree to create a better future.



**Sybilla Dekker**  
Master’s degree in Public Administration (1976) Sybilla has been appointed Minister of State. She was formerly the Minister of Housing, Spatial Planning and the Environment (during the second Balkenende government). Minister of State is an honorary title that is awarded in exceptional cases.



**Femke Halsema**  
Master’s degree in General Social Sciences (1993) Femke is now Mayor of Amsterdam.



**Wilbert Tomesen**  
Master’s degree in Dutch Law (1983) Wilbert has been appointed president of the Whistleblowers Authority. He was previously the vice president of the Dutch Data Protection Authority.

## Want to be ‘famous’?

E-mail us your new position at [alumni@uu.nl](mailto:alumni@uu.nl). Who knows? You could see yourself in the next edition of *Illuster*, or be named Alumnus of the Month (posted monthly on Facebook). Follow us on [facebook.com/AlumniUniversiteitUtrecht](https://www.facebook.com/AlumniUniversiteitUtrecht).

# The Sustainable Young 100

The Sustainable Young 100 is a list of young entrepreneurs, professionals and students who help demonstrate that a sustainable future is possible. The 2018 list includes 15 UU alumni.

**Sanne Preso** Bachelor of Environmental and Natural Sciences (2012) and Master of Sustainable Development (2014), **Francis Zoet** Master of Sustainable Development (2016), **Marianne Davidson** Bachelor of Social Geography and Planning (2011), **Paul Mignot** Bachelor of Science and Innovation Management (2008) and Master of Energy (2011), **Jelle Scharff** Bachelor of Science and Innovation Management (2015), **Wouter Buijze** Master of Sustainable Development (2016), **Maarten de Vlugt** Bachelor of Science and Innovation Management (2010) and Master of Energy Science (2016), **Roelf Menger** Master of Energy Science (2016), **Roos Spekman** Bachelor of Public Administration and Organisational Science (2011) and Master of Public Administration and Organisational Science (2008), **Alexander van der Vooren** Bachelor of Economics and Business Economics (2007) and Master of Public Administration and Organisational Science (2008), **Kauthar Bouchallikht** Bachelor of Public Administration and Organisational Science (2008) and Master of Public Management (2016), **Anna van Nunen** Bachelor of Psychology (2009) and Master of Social and Health Psychology (2012), **Pascale Veerling** Master of Multiculturalism in a Comparative Perspective (2012), **Tara Scally** Bachelor of Cultural Anthropology and Development Sociology (2012) and **Maayke Damen** Master of Sustainable Development (2012).

Read an interview with Maayke Damen on page 14 of this edition of *Illuster*. Read more (in Dutch) about the Sustainable Young 100 at [dj100.nl](http://dj100.nl).



## BIOMIMICRY

# The genius of nature

Biomimicry specialists learn about what plants and animals do. What substances do they produce? How do they adapt? How can these insights be applied to sustainable innovation in a business context? Find out in this interview with **Codrin Kruijne** and **Jaco Appelman**.

text Hanneke Olivier  
image Ed van Rijswijk

## Colleagues



**Codrin Kruijne**

Completed a Bachelor's in Information Studies (2003) and a Master's in Content and Knowledge Engineering (2005) at Utrecht University. He now works as a biomimicry specialist at BiomimicryNL, a foundation that encourages and promotes the broad application of biomimicry.



**Jaco Appelman**

Studied Anthropology (first-year programme, 1986) and Social and Policy Studies (open Master's programme (*vrij doctoraal*), 1992) at the University of Nijmegen. He now works as coordinator of the Bio-Inspired Innovation programme and as assistant professor at University College Utrecht.

**T**ake a look at this plant, for example.' In the greenhouse at the Utrecht Botanic Gardens, biomimicry specialist Codrin Kruijne glides his fingers over the leaves of a tiny plant. 'The shape, the structure... they undoubtedly serve a purpose. But what? And what can we learn from it?' Jaco Appelman, coordinator of the Utrecht Master's programme in Bio-inspired Innovation, chimes in: 'How does nature, with so few resources, manage to conjure up such wonderful creations from the soil? And how can we use it as inspiration to innovate and solve problems?'

Codrin studied information science, but developed and taught entrepreneurship programmes at Utrecht University for many years. Creating courses on sustainable entrepreneurship sparked his interest in researching sustainability problems, and he encountered biomimicry for the first time. The term comes from the Greek words *bios* (life) and *mimesis* (imitation), and is about emulating the genius of nature when developing products, processes and systems.

**Codrin** 'The more I learned about it, the more I felt that this made perfect sense! I went to America to train as a biomimicry specialist, and then I joined BiomimicryNL. We advise businesses on the application of biomimicry in architecture, the circular economy, financial systems, product design and social innovation.'

Sharkskin-inspired Olympic swimwear, high-speed trains inspired by kingfisher beaks, apartment-complex ventilation systems that copy termite mounds and water-resistant, self-cleaning materials inspired by lotus leaves — there are countless examples of innovations inspired by nature, and as far as Jaco and Codrin are concerned, this is only the beginning.

**Codrin** 'Nature uses around fifteen elements to build pretty much everything. The same materials are used to create a variety of structures, giving them certain properties. In the meantime, humans use and combine thousands of different types of plastic, making recycling difficult. Further research on material structures in nature could be of inestimable value. What makes materials, breathe, hydrophobic, self-cleaning or colourful? What determines their capacity to cope with and recover from adversity? And how can we use this information in areas such as 3D printing or additive manufacturing? How amazing would it be to have a database of material structures that you could upload to a 3D printer and then say: I want my design to be breathable here, and hydrophobic there?' »



» In 2016, Utrecht University launched the Bio-Inspired Innovation Master’s programme, which also deals with biomimicry. The instigator and coordinator of the programme is biology lecturer Jaco Appelman, who first tried in vain to interest other universities in the programme. ‘TU Delft wasn’t interested; neither was Rotterdam or Leiden. Utrecht was keen however, so I transferred from Delft and set up the Master’s programme here. Codrin helped out with course development, and we occasionally still work together on projects, case studies or to organise conferences.

Our graduates may go on to become biologists in design or innovation teams. Therefore, the programme also includes a business component, so that students understand how business models work and how they can contribute to make a model more nature-sensitive, or even nature-based. For the time being, the Master’s is only available to biology students, but we are constantly widening our lens, and are trying to set up bridging courses to allow students from other disciplines to join in. Although we still have a way to go to reach truly multi-disciplinary teaching, we are already



*‘Nature-inspired solutions are ultimately more fruitful.’*

working with TU Delft and Eindhoven on Industrial Product Design, for example.’

**Codrin** ‘This Master’s programme and the students who will later bring the knowledge it offers to the labour market represent a great leap forward. People are becoming increasingly aware of and interested in biomimicry. Specialists are receiving more and more invitations to ‘impactful spaces’ to give advice, lectures, workshops and classes. This is a good sign. Not only can this help solve technical problems, but it could also benefit our continued relationship with nature. Biomimicry offers a positive and integrated approach, because it requires people to make the mental switch to a more equitable relationship with nature. Once people realise how much we can learn from it, they no longer treat nature simply as a material resource.’

**Jaco** ‘Of course, there are still people who take inspiration from nature and then continue to create unsustainable, harmful solutions using fossil fuels. Take fighter jets modelled after birds of prey, for example, that are built to blow each other out of the skies. What good does that do any of us? There is no point using nature’s inspiration purely to serve human utility.

We also need to make sure we do not damage our environment — or better still, that we protect it.’

**Codrin** ‘We have noticed that the step from inspiration to application and impact is still a challenge for many companies. Biomimicry innovation requires an investment mindset and multidisciplinary knowledge that is currently not present in all businesses.’

**Jaco** ‘Nature-based solutions might seem drastic, but they are ultimately more fruitful. Often, the current business models only get in the way. Research has shown, for example, that tilapia skin is much more effective at treating burns than the manufactured tissues and ointments currently in use. I mean, isn’t that just amazing? Even more so if you consider that we farm tilapia like there’s no tomorrow, only to throw the skin away. This is an amazing opportunity to both improve health care and save on cotton and other medical supplies that only put more pressure on the earth’s resources. However, innovations like these are hard to get off the ground, because gauze and ointment is more profitable than tilapia skin.

If there’s one thing we can learn from nature, it’s that any form of output must constitute input for something else — cyclical growth, where all used products are prepared for re-use, just like fungi, beetles and worms do in nature. What have humans accomplished? Just look at the Pacific trash vortex. We’re fouling our own nest.’

**Codrin** ‘There are plenty of other concepts we can learn from in nature, not just cyclical material flows. It would really be something if the concept of sustainability evolved from “doing no harm” to actually “making a positive contribution”, or a regenerative approach. We still have a long way to go to make it impactful and reproducible, but the potential is there.’ «

*‘This just makes perfect sense!’*



DESIGN CHALLENGE

## Utrecht students in the finals

Six first-year students from the Master’s in Bio-Inspired Innovation have made it to the finals of the international Biomimicry Global Design Challenge. The challenge was to design a nature-inspired innovation aimed at solving a problem caused by climate change. The Utrecht University team designed a system that automatically covers tea plants to protect them from ground frost. The design is based on biological mechanisms in two other plants that grow in the mountains of Kenya, and offers a solution to the damage that Kenyan tea farmers are suffering due to longer and more frequent periods of ground frost. The winner will be announced in January 2019.





# Same degree ...

## Maayke-Aimée Damen (31)

**Degree:** Sustainable Development  
**Work:** entrepreneur and co-founder of Excess Materials Exchange

**E**xcess Materials Exchange (EME), the company I co-founded with Christian van Maaren after my degree programme, is a digital marketplace where companies can exchange their surplus products and materials. Our ultimate goal is for the word 'waste' to disappear from the dictionary altogether, simply because it will no longer exist. We are now running an initial pilot with several major Dutch companies. EME seeks to create an entirely new market, which takes time. Although I'm not earning much (I find myself eating a lot of peanut-butter sandwiches these days, haha), money has never been a huge motivator for me. I want to make a difference in the world, and what I'm doing now has the potential to touch the lives of billions. I always knew I would run my own business, so that aspect is not particularly thrilling. Working for yourself means you can respond quickly to developments in the world, and it liberates you from all manner of bureaucracy. I see opportunities everywhere, so I don't think this will be my last business venture either ...

## Corina van der Hulst (33)

**Degree:** Sustainable Development  
**Work:** three and a half days as a Gas Asset Management Specialist at network administrator Stedin, one day as a chemistry teacher

**I**'m responsible for the maintenance of the gas distribution network in Utrecht. When I started working for Stedin five years ago, energy transition wasn't such a huge issue yet. Because our aim is to eliminate gas as a fuel source, more and more people ask me if the gas network can be dismantled entirely. I talk to a lot of municipal authorities who want to go energy-neutral, and we look at which parts of which neighbourhoods can be made more sustainable first. What investments should we still be making or refrain from making in our gas network, without placing too big of a burden on society? I love having the opportunity to think about these issues. I find working for big companies fascinating, since it often involves big responsibilities. Getting things done sometimes requires patience, but it's also a useful learning experience. School is a very different environment; teaching a class is much more dynamic, but also more personal. I did some teaching during my studies, which I picked up again two years ago. Because I enjoy helping young people understand industry and sustainability, for me, this is the perfect combination.

## ... different career





## Sameer Safaya

**2004**

Completed the Bachelor's programme in Geosciences at Penn State University.

**2009**

Completed the Master's programme in Hydrology at Utrecht University.

**2010**

Launched OnePlanet Catalogue with friends.



**2011**

Founding of One Planet Kitchen.



**2013**

After obtaining a permanent visa, commenced work at the Water Footprint Network at the University of Twente.

**2015**

First job offer via Climate-KIC, at Biopolis in Budapest.

**2017**

Worked on a major project on the circular economy for the Utrecht provincial authorities.



**2018**

Seven-year anniversary of One Planet Kitchen.

With help from five friends, Safaya prepared the anniversary edition.

# Determined to succeed

Looking at the CV of sustainability all-rounder Sameer Safaya, one cannot help but feel a little jealous. Still, he has had to work hard to get where he is now.

**S**ameer Safaya (35) has rightly earned the title of 'globetrotter'. Raised in Hong Kong and Beijing, he studied geoscience at Penn State University in the United States, and then chose to complete a Master's in hydrology in the Netherlands. After graduating from Utrecht University, he started working for various startups, launched the sustainable One Planet Kitchen food project, worked for the University of Twente and provided consultancy services to the World Wildlife Fund, the United Nations and the Province of Utrecht. Two years ago, he also made it onto the Sustainable Young 100 list. Not too shabby!

Despite what the above may suggest, however, Safaya's working life had a rough start. 'After graduating in 2009, I legally had one year to find work in the Netherlands. I knew I wanted a job in the water sector, but while all my friends from university kept getting job interviews, I was never given a chance. I had a CV full of international experience, but eventually people would always ask: "So, how's your Dutch?" A "cultural fit" seemed to be the main criterion.'

Too often, Safaya felt like the exception to the rule, and after countless rejections, he saw entrepreneurship as the only option. 'In 2010, a few friends and I launched the OnePlanet Catalogue, a little company that provided data on the impact of consumer purchasing via a ratings system. After a takeover by another company, People 4 Earth, I remained working there for two years.'

However, because there are no long-term contracts in the startup world, which Safaya needed for a permanent visa as a non-EU citizen, he decided to change tack. 'I started working as a freelancer, but that didn't make things any easier.' Safaya says he had to figure a lot of things out himself. 'The Immigration and Naturalisation Service asked me to write a business plan and submit loads of other documents, but I couldn't get any information from other internationals who had graduated in the Netherlands, since nobody else had done what I was doing. The Immigration and Naturalisation Service probably didn't really know what to do with me. They even suggested applying for a different visa, just to make things easier. After one-and-a-half years (and an initial rejection), I finally had my visa.'

With his permanent visa in hand, things slowly started falling into place for Safaya in 2013. 'It looked like I still wouldn't be able to find a job in the water sector, and I even thought about going back to Hong

Kong, when I got an offer from the Water Footprint Network at the University of Twente. The experience I gained there gave me a solid foundation. I gradually expanded my network, and eventually got connected with Climate KIC. From there, I got consultancy jobs on a wide variety of climate and sustainability projects, with organisations including the World Wildlife Fund.'

## 'My advice: never lose faith!'

Sameer is currently waiting for his Dutch passport, and is searching for a permanent position at a young and ambitious company. He sometimes thinks back to his unsuccessful applications and visa troubles. 'I think I've shown that you can take an unorthodox route and still land on your feet, and that you must never lose faith, however difficult things might seem. That would be my advice to any international students planning to launch an enterprise in the Netherlands.' «



### Sameer Safaya

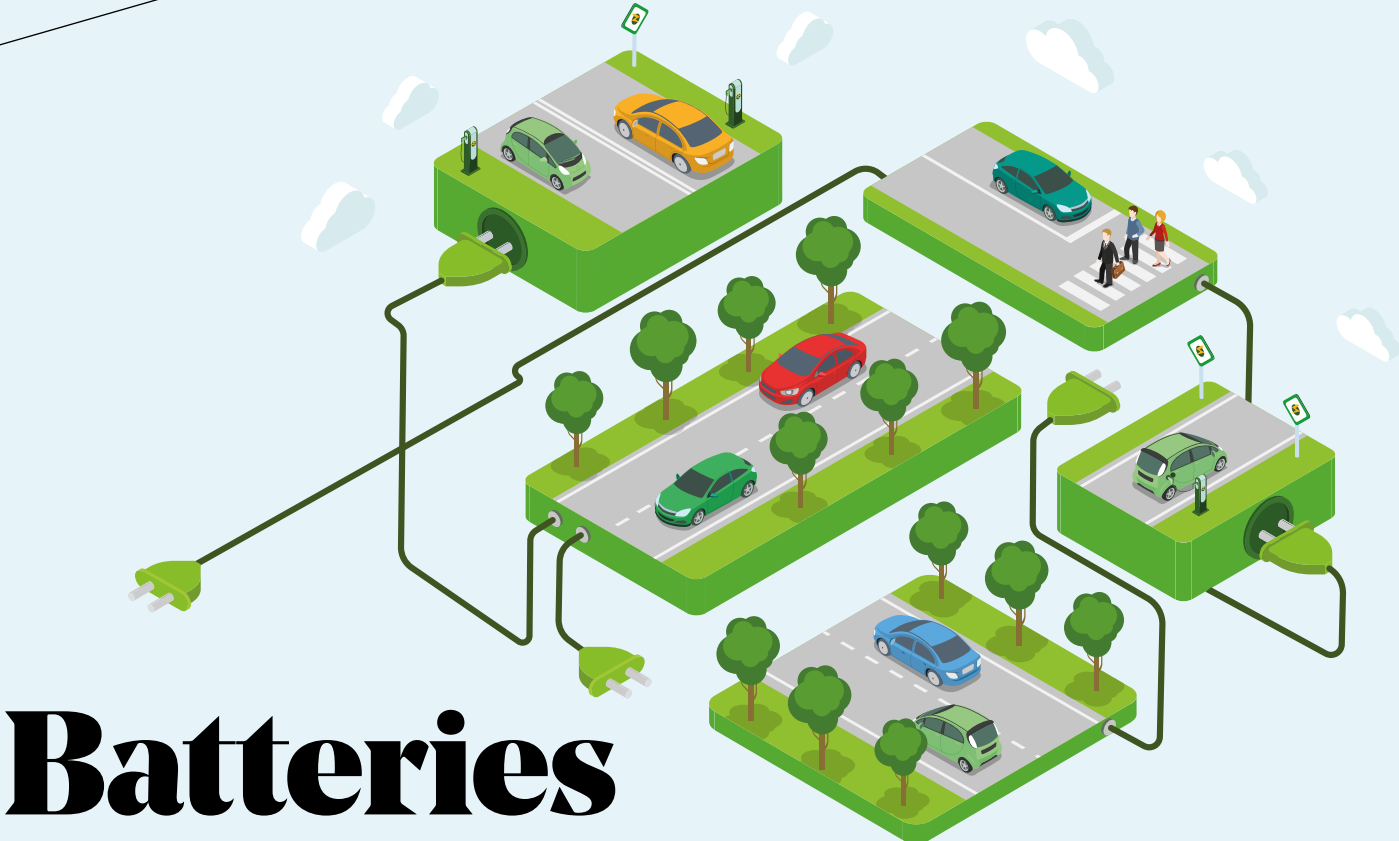
After his Master's in Hydrology at the University of Utrecht, Sameer Safaya launched the One Planet Kitchen food project (among others) and worked as a consultant. He is currently looking for a job at a young and ambitious company.

Sameer is an active volunteer at international career evenings at the university, where he supports current international students and young alumni in their search for a career in the Netherlands.

If you are also interested in using your experience to help a new generation, please e-mail [alumni@uu.nl](mailto:alumni@uu.nl).

text  
Lennaert Rooijackers  
image  
Robin Alysha Clemens





# Batteries on wheels

text **Lennaert Rooijackers**  
image **Sentavio**



**Marte Gerritsma**  
Completed a Bachelor's programme in Bio-Engineering Sciences at the University of Antwerp, and a Master's programme in Energy Science at Utrecht University. In February 2017, she commenced her PhD track at the Copernicus Institute of Sustainable Development, where she is conducting research on Smart Solar Charging.

**C**ould electric cars return some of the energy from their batteries to the power network? Though it may sound futuristic, this could soon be a reality on the streets of Utrecht. PhD candidate Marte Gerritsma is researching the possibilities, supported by the Utrecht University Fund.

Trials are currently underway in France using a car installed with Vehicle2Grid technology. If things go well, the first car with this capability will arrive in the Netherlands in a few months, which would be a milestone in Gerritsma's research. She is involved in the Utrecht Smart Solar Charging project, which analyses the integration of electric cars with energy distribution networks.

Gerritsma began her research in 2017, and over the past year has analysed data collected from charging stations in the Utrecht neighbourhood of Lombok. The 22 stations there have supplied a wealth of data. 'For one year, we collected anonymous data on which cars were charged in Lombok, what times they plugged in and unplugged, and how much power was supplied by each station. This has given us a good idea of the flexibility of charging behaviour in the region,' she explains.

**Charging times**  
It turns out that many people arrive home and charge their cars between 6 and 7 at night, which is exactly when peak usage also occurs in households. 'Add everything together, and you quickly reach the limits of a local electricity network. Our aim is to reach the point when we can shift the

charging times. If we don't, the network will inevitably black out at some stage. My research looks at the best way to bring about that shift.'

The data showed that cars stay parked for longer than the time needed to charge the battery. 'Many cars stay parked for a long time after charging, sometimes more than 12 hours. This presents possibilities not only for night-time charging, but also for charging just after dawn the following day.' Gerritsma also believes it is possible to store the electricity generated by solar panels during the day in car batteries, and to feed it back to the network at night. 'That would enable the generation and use of more solar energy locally, without the need for separate, stationary storage batteries.'

**Hofvijverkring Fellowship**  
Much more research and data from other Utrecht suburbs is required before this can become a reality, however. That just became a lot easier now that Gerritsma has received a grant from the Hofvijverkring fund, a group of UU alumni from The Hague who have been financially supporting talented researchers since 2014. The fund, which has links with the Utrecht University Fund, was keen to support a project dealing with sustainability research. Gerritsma's supervisor was the one who put them in touch. 'Things went pretty quickly after that,' says Gerritsma, who received the grant at the end of the summer.

This injection of funds will enable Gerritsma to travel to North America for a knowledge and information exchange, which would have been difficult otherwise. 'There are people on either side of the ocean researching the same thing; this grant will help enable the direct exchange of knowledge and experience in the field of smart charging. This aspect is important in the academic world; it promotes quality in research and could create possibilities for new collaborative projects.' «

## Your donation counts

Marte can carry out her research thanks to the Hofvijverkring fellowship. If you would also like to contribute to education and research, more information is available at [uu.nl/hofvijverkring](http://uu.nl/hofvijverkring) (in Dutch).



GOOD CAUSE

## Help students get to UCU!

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Open Days for interested prospective students will be held on 16 and 17 November. See [uu.nl/ucu](http://uu.nl/ucu) for more information.



# Rik van Huik



**Rik van Huik**  
Completed a Master's programme in Sustainable Business and Innovation (2016) at Utrecht University, and now works as an advisor at a mobility consulting firm.

text **Hanneke Olivier**  
image **Robin Alysha Clemens**

The wind howls through the receiver. 'Hang on, let me just park my bike and I'll go lie down in the meadow,' says alumnus Rik van Huik (27) when called by *Illuster*. Rik completed his Master's programme in Sustainable Business & Innovation at Utrecht University in 2016, with a thesis on commercial mobility. The topic was right up his street, so he went in search of a job in that same field.

**Have you had any luck finding a job?**  
'Absolutely. I now work as an advisor at 3mp, an organisation that helps foster new mobility policy and behavioural change through programmes such as e-bikes and public transport pilots.'

**Is this how you imagined the start of your career during your studies?** 'I didn't really have anything specific in mind, especially not during my Bachelor's in Environmental and Social Sciences. It wasn't until my Master's that I really became interested in sustainability, and had a better idea of what I wanted.'

**Looking back, how do you feel about your time at UU?** 'I learned so much. In hindsight, I regret coming out of my shell so late. I could have seized on more opportunities during my degree programme, by doing an international exchange, for example. I made up for it after my graduation, though, when I did volunteer work in India and Finland.'

**What do you enjoy most about your work?**  
'The tangible results, including the short-term ones. That's why I have no interest in a career in research, which is too abstract for me.'

**Is there a huge difference between working and studying?** 'Not really. Now, like when I was studying, I have plenty of freedom to organise my time as I like. I'm still trying to find the right balance between work, giving back to society through volunteer work and free time.'

**What do you enjoy doing when you are not at work?** 'Cycling, skating and tinkering with my bikes (I've got four). Alongside my work at 3mp, I also help out with the "Young Climate Movement", which brings together youth organisations to influence climate and sustainability policy.'

## What now...?

'I'm not that career-focused and over-ambitious, with big dreams for my future. Even so, I hope to contribute to society with my work, and create (hopefully drastic) changes to our living environment. I also hope that, when I look back on what I've done, I can say it wasn't too late.' ◀

Want to feature in this section, or would you like to nominate a fresh UU alumnus for this page? Get in touch, and send an e-mail to [alumni@uu.nl](mailto:alumni@uu.nl).

*'During my Master's, I became really interested in sustainability.'*





**Sustainability**

# The Green Model

While his other employee just happens to be running the calculations on The Paris Climate Agreement, **Detlef van Vuuren** gives us a behind-the-scenes look at research on global climate scenarios. How is scientific research contributing to such drastic and complex policy?

*text* Stephanie Helfferich *image* Ed van Rijswijk

**'A return trip to New York costs a ton of CO<sub>2</sub>.'**





***‘We need to completely reorganise the entire energy system.’***

**W**hat do you think of the *Climate Act*? I think it could be really important. The task currently facing us is an onerous one: we need to completely reorganise the entire energy system. That means a major commitment across a long period. There is little point in moving in one direction for four years, only for the next government to do something else for four years. I also believe strongly in sending a message, which is what happened with the Paris Agreement. Although the agreements are worldwide, and are actually quite abstract and not binding in a legal sense, they do send a message to society, that we are taking this seriously and that our long-term plan is to start moving in a particular direction. The effect is palpable. Financial institutions, for example, have started to question whether it is still sensible to invest in oil or coal companies.

**How did the research at the PBL Netherlands Environmental Assessment Agency and Utrecht University influence the Paris Agreement?** Our work consists of using models to explore which types of measures are consistent with certain climate-change objectives. In effect, we produce maps, of a sort. Suppose you want to get somewhere — we try to show you

what the landscape would look like, which routes are available and roughly what you will encounter along the way.

If you were to do relatively little about climate change, how would things develop? How would population, emissions, land use, their interrelationships, global geopolitical relations, develop? Subject to certain assumptions of course — what path would that world take? We also do it the other way around: if you have certain objectives to attain, what would the most attractive strategies be?

We know that genuine prediction as such is not possible, and especially not for periods of thirty or seventy years, which are the timespans we are always dealing with. Even looking only five years ahead, we sometimes encounter huge surprises. However, that doesn't mean that all approaches are valid. There are certain things we do know, and we try to use that knowledge to make sensible decisions.

Ten years ago, most projections were aimed at limiting global warming to 2.5 degrees, but then the policymakers began putting increased emphasis on the 2-degree model. The team that I lead at the PBL was the first to look at which detailed scenarios could conceivably reach this goal. After that, the IPCC



**Prof. Detlef van Vuuren** studied Chemistry and Environmental Science at Utrecht University, and Public Administration at Leiden University. He completed his doctoral thesis on long-term scenarios for use in climate policy.

He now works for the PBL Netherlands Environmental Assessment Agency and at Utrecht University on the IMAGE model, which he uses to generate climate-change scenarios and projections for use by policymakers.

Van Vuuren is married to Utrecht University Professor of Chemistry Petra de Jongh and has two daughters.



[Intergovernmental Panel on Climate Change, ed.] said: this is the standard scenario for the 2-degree objective.

In this way, via the IPCC, we helped to bring about the Paris Climate Change Agreement. To scientists, the IPCC represents the most important means of supporting climate negotiations. It is an excellent medium, a joint attempt by scientists and policymakers to establish what we know, and where there are still gaps in our knowledge.

**What are the various roles of the PBL and Utrecht University?** The PBL owns the model, and has obligations regarding its application. Some of the model development occurs at Utrecht University. The collaboration is very attractive to our staff, as we now have around five young people working at the PBL who completed their PhDs at UU. PhD candidates and researchers all generally work on part of the model at some stage. One PhD candidate, Oreane Edelenbosch, recently spent most of her time working on the transport model, for example.

**She worked on alternatives to air travel, correct?** She mainly looked at vehicle transport, but you're right, air travel is one of the biggest challenges right now. We currently do not know how CO<sub>2</sub>-neutral air travel could work, despite the fact that the airline sector is one of the fastest-growing sectors in terms of CO<sub>2</sub>-emissions. Possible solutions involve either biofuels — and the challenge of trying to make them sustainable from another perspective as well, or via new technologies, such as electric planes — or flying more efficiently, or less.

**The latter seems almost taboo. KLM itself has said: if we stop growing, the growth will just shift somewhere else.** Indeed. Therefore, that approach would demand a much wider framework. Air traffic is at the very least regional, but legislation has made it global. A return trip to New York

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***‘PhD candidates and researchers all generally work on part of the model.’***

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costs a ton of CO<sub>2</sub>, which is roughly equivalent to the maximum annual emissions allowance per person that is in line with the Paris objective by 2050. This means that one trip to New York will use up your entire yearly emissions budget, even though you still have other emissions to consider, such as driving a car or eating meat. We also use the model to try to compare options that we currently consider feasible, and it lets us look at behavioural change. ►



*‘I downplay my opinion on the necessity of climate policy as much as possible.’*



» **Do you also involve the humanities?** Yes, we have just started doing that. PhD candidate Nicole van den Berg [see box, ed.] is going to start looking at lifestyle. We have also engaged other researchers from her project who view things through a more social lens. To date, the most important thing we have shown is that lifestyle actually does make a difference. What we want now is to work with those in the humanities to examine how such change could be implemented, at what rate and how to differentiate between richer and poorer countries. Over the next few years, I hope to work with Nicole to interpret the results in order to give users various approaches: how big is the emissions margin, how does flying fit in, how much will reducing domestic electricity consumption help?

**What are your future plans for the IMAGE model?** We will examine the relationship between climate policy and other sustainability objectives, such as the Sustainable Development Goals, in far

greater detail. Under these goals, countries have promised each other that, by 2030, modern energy will be available to all, world hunger will be eliminated, the environment will be protected and we will be tackling climate change. But how? How can we put the limited amount of land and CO2 wiggle-room to good use? Our aim is to examine how models can be used to support these types of discussions.

**What do you think is the role of universities and researchers in this process? Do they merely supply data, or is it more than that?** They can do more. The most important thing is to remain transparent. Researchers are a part of society, but in order to retain credibility in discussions, they must also be viewed as neutral partners. In my lectures, I try to talk to students about the different hats we put on, both as data suppliers and as active members of society. When discussing topics that are clearly unstable and full of value judgements, it is important to either admit at the outset that you come to the



PHD CANDIDATE

## Social behaviour in computer models

Nicole van den Berg, PhD candidate at the Copernicus Institute, says: ‘My research focuses on improving the representation of social behaviours in global computer models, like IMAGE. I hope to demonstrate that lifestyle change is an important measure, possibly even a crucial one. I can even imagine that its effect is far greater than is currently believed.’

As things stand, these aspects are represented very simplistically in IMAGE, and we want to include more complex narratives in areas such as prosperity and population growth. Adopting a more socio-economic perspective will allow us to study the demand side of the energy transition more effectively.

I have been fascinated by multidisciplinary approaches since the beginning of my studies. The complexity of this research and the need to work across disciplines makes it an excellent challenge for me. Furthermore, given the urgency of the Paris agreements, my research can actually make a real difference to the implementation of behavioural change policy in practice.’

table with a certain value system in place from which you operate, or to try to abandon any and all values before you start. Of course, the latter is quite tricky.

**Often, the problem is that the complexity of science makes it hard to explain, and makes it very easy for sceptics to say: ‘My opinion is different and is just as valid as that of Mr van Vuuren.’** Correct. That means I downplay my opinion on the necessity of climate policy (which I am, of course, in favour of) as much as possible. Otherwise, I lose credibility in the discussion with others who take a more sceptical view. That means that I must constantly ask myself: where do I bring my value system into play and how can I stop that from happening? I always try to follow the IPCC mantra: be relevant to policy, but not prescriptive. All researchers must be careful when merging their roles as proponents of certain ideas on the one hand, and as knowledge brokers on the other. This applies even more so to me, because I work at the Assessment Authority.’ ◀

WINNER 2018

## Huibregtsen Award

On 8 October 2018, Detlef van Vuuren won the Huibregtsen Award for his contribution to worldwide climate research through his work on the IMAGE model. The award, which comes with a €25,000 cash grant, is issued each year to a recent, innovative scientific research project of considerable social relevance. The panel was generous with its praise: ‘This is outstanding scientific work with an innovative character — a valuable concept that is reliable, predictive and effective, and which has real-world applications. It involves advanced model research of global significance, offering stability and insight in what is a complex and urgent matter.’







# The social risks of sustainability

Positive, green and small-scale — these three words are often associated with sustainable energy. According to Jesse Hoffman, postdoc and researcher at Utrecht University Urban Future Studios (UFS), the reality is far more fickle. ‘The transition to sustainability is fraught with risks. The world could suffer from many negative consequences, both large and small.’

text **Lennaert Rooijackers**  
image **Freedomz (shutterstock)**

**C**ycle through any Dutch neighbourhood and you’re bound to spot a few roofs with solar panels on them, but have you ever thought about how these polished panels are widening the gap between rich and poor? ‘To give an example, poor families in rented homes cannot afford solar panels, which means the benefits go to the wealthy, increasing inequality in society,’ says Hoffman, a political scientist who completed his PhD at the University of Amsterdam on the role of power relationships in the energy transition.

## ‘Nobody is interested in abstract reports of gas-free neighbourhoods.’

His own research and that of his colleagues in South Africa and India have revealed countless examples all over the world. ‘In the Global South, sustainable energy gives rich enclaves a nice opportunity to stabilise their energy supply. This only serves to bolster their position and autonomy, and ultimately means they can seclude themselves from the rest of society. An example is in India, where a solar energy sector has emerged with all manner of high-tech startups. The result is a kind of local economy that is only accessible to a small group of people. In third-world countries, solar parks are being built alongside small villages that do not benefit from them at all. The profits often go straight to huge international companies.’

According to Hoffman, the energy transition revolves around a question of power: who benefits and who does not? ‘The energy transition is often an issue of technology, which remains very abstract for many people. As a result, people often resort to the catchphrase “We need to reduce carbon emissions!” What is often left out is the social dimension. What is in it for the population, and why is it so important? My future research will go a step further, and look at the relationship between the energy transition and democracy.’

Although the number of local sustainable initiatives in the Netherlands is noticeably increasing, the opportunities are still largely going unnoticed. ‘The government and industry argue mostly in terms of economic efficiency and technology, but a convincing alternative perspective is often lacking that includes a proper consideration of social and political infrastructure.’

Through his work at the UFS, Hoffman is trying to change this. ‘We are working on an alternative rationale that looks at harnessing the democratic potential of the energy transition, including concrete policy options.’ This concept is explored in greater detail by the ‘Places of Hope’ exhibition in Leeuwarden, which appeals first

and foremost to the imagination. ‘Nobody is interested in abstract reports of gas-free neighbourhoods. That’s why we are collaborating with designers and artists who can show the public the possibilities offered by the energy transition, and who encourage people to think about the possibilities, rather than the doom and gloom.’

It is a refreshing approach, says Hoffman, who organised an energy-democracy event in July that was attended by cooperatives, investors, architects, citizens and public servants at national and provincial level. ‘Researchers are good at classifying and defining problems, but not so good at showing the possibilities. Artists are far better at demonstrating possibilities, which is important, because a strong response to the climate crisis requires us to reimagine what is possible and desirable for the future.’ ◀

### Giving to science

The Utrecht University Fund helps Utrecht University grow and flourish in all areas, including scientific research. The aid from volunteers and the financial support from over 13,000 friends and sponsors form an indispensable part of these efforts. There are many ways to contribute. By giving to the academic community, you can help build a better future.

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# Azolla: a sustainable protein source for the future

text Lennaert Rooijackers  
image Laura Dijkhuizen



Could a relatively unknown plant provide a solution to the ever-growing food problem? At the very least, Azolla seems to have the potential.



**Laura Dijkhuizen** (27) studied biology at Utrecht University, and conducted research in the Azolla lab for the first time during her Master's programme in Molecular Plant Physiology. She started her PhD research at the lab in February 2017, and aims to discover what gives Azolla its special properties.

**W**hen PhD candidate Laura Dijkhuizen (27) walked into the Utrecht University Azolla lab as an intern in 2014, she had only ever heard of the Azolla fern once before. It is not one of the well-known plants studied by all biology students. This has changed somewhat now that Dijkhuizen is a lecturer, as she enjoys incorporating her research into her teaching.

Azolla appeals to students — this is hardly surprising, as it is an utterly fascinating plant that can be found in virtually any ditch you come across. Ecologists have known about the floating fern for a long time, but the Azolla lab founded in 2013 under the direction of Dr Henriette Schluepmann is the first lab in Europe to focus on it exclusively. In its first few years, researchers at the lab discovered that Azolla is bursting with protein.

Dijkhuizen explains, 'My predecessor Paul Brouwer found out that Azolla contains very high-quality amino acids [the building blocks of protein, ed.]. My research is more fundamental in nature — the reason Azolla has so much protein is that it has unlimited access to nitrogen.'

Plants generally obtain nitrogen from the soil or from natural or artificial fertilizers, but Azolla extracts nitrogen from the air. 'This is made possible by a symbiotic cyanobacterium that resides in the plant and uses sunlight to absorb and share nitrogen from the air. One of our lines of research is looking into the mechanism by which it does so, whether all Azolla species are the same and whether the bacterium can survive separately from the Azolla plant.'

Because the fern is so rich in protein and requires no nitrogen from fertilisers, the lab sees many opportunities for its application in agriculture. 'The research by the Azolla lab started with the question: could this plant help solve the world climate and food problem?' says Dijkhuizen. Azolla can grow fast and absorbs large amounts of phosphate. This opens up opportunities in livestock farming, which is currently struggling to cope with a surplus of phosphate-rich manure. 'Farmers could therefore use their manure to cultivate Azolla, which could in turn be used as protein-rich livestock feed.' Paul Brouwer has now started his own business (called BAAI), where he helps develop these types of applications.

Could humans include Azolla in their diet as well? Chefs are experimenting with the fern on a small scale. The pop-up restaurant in the Botanic Gardens (the Maaltuin) did so last spring. Dijkhuizen concludes: 'The initial applications of Azolla will probably be as a sustainable protein and in livestock feed, but these initiatives show that it can also be included in our diets.' ◀



SUSTAINABLE UNIVERSITY BUILDINGS

# Let's walk our talk

**1964** Ruut van Rossen, head of Campus Management at Utrecht University, says: 'The student population at Utrecht University exploded during the 1960s, which is why we moved to the Uithof campus. The first building there was Transitorium I (now called the Marinus Ruppert building), which literally means 'thoroughfare'. The building was intended primarily as a teaching space, and has a broad central passage. Not illogical, since there was no other place where students could meet each other at that time. The entire space served as a single, massive air-conditioning system, with a focus on centrally-powered facilities. Stroke of technical genius? Absolutely. Sustainable? Alas, no. The notion of circularity was a key component, however. Architect Sjoerd Wouda created a flexible building, whose relatively light structure was easy to repurpose.'

**2018** Niekol Dols, Deputy Director of Strategy, Energy and Advice at Utrecht University: 'Our university now aims to be carbon neutral by 2030, and to be a leader in the field of sustainability. The structures we build nowadays therefore include a far greater focus on effective insulation, smart, self-regulating climate-control systems and heat storage for later use. The new offices and lab space at the Life Science Incubator (LSI) even received a prestigious sustainability certificate. The design was by Mecanoo architects, known for creating the train station in Delft. The building has good air circulation, a pleasant interior climate and lots of sunlight. We have indeed set our sustainability bar high, but we want to be innovators and need to make bold administrative decisions. Let's walk our talk!'

text Floor Oostveen  
image Universiteit Utrecht  
en Bert Spiertz





# Fair share of energy

text Willemijn Vermaas and Armand Heijnen

I have a Dutch first name, Johanna. My grandfather was Dutch, and studied medicine in the Netherlands just after the war. Lots of young doctors were graduating in the Netherlands at that time, which left limited employment opportunities, so he emigrated to New Hampshire, where he started his own practice in the countryside.



**Johanna Bozuwa**  
Completed a Master's programme in Sustainable Business and Innovation at the Faculty of Geosciences. She is now a researcher at The Democracy Collaborative in Washington D.C.



mine, as four of the five members in my group now have jobs in the field of energy transition.

I am still in touch with other students from my time in Utrecht, even though we are now scattered across the globe. The international aspect provides a lot of added value. In the US, the dialogue surrounding sustainability can be rather America-centric. I have developed a broader perspective thanks to my studies in Utrecht, and the knowledge I have gained is extremely useful in my current job.

The political system in the United States can be frustrating sometimes. I was in the Netherlands during the recent elections, and the multi-party system, with a specific party focusing on sustainability, for example — is a breath of fresh air compared to the polarising two-party system in the US. The Dutch system gives me hope that alternatives might be possible in the US, like Bernie Sanders' democratic socialism.' «

To study somewhere other than the US, I enrolled in a Master's programme in Sustainable Business in Innovation at Utrecht University. I now work in Washington D.C. as a researcher at The Democracy Collaborative, a non-profit organisation that promotes a new economic system of "shared property". My research focuses on energy democracy, a concept that aims to abolish fossil fuels and work towards an energy distribution where renewable energy is in the hands of everyone. The core question concerns how the benefits of renewable energy should be redistributed within a community.

My Utrecht Master's gives me a huge advantage in this. For example, I collaborated with four other students on a consultancy project at Spectral Energy, an organisation that promotes local energy recycling and peer-to-peer energy exchange. This project piqued my interest in the energy system at large, and not just

**'Renewable energy belongs to everyone.'**

## ANTARCTICA

# 'Melting at triple the rate'

The icecaps in Antarctica are melting faster and faster. The rate of loss has tripled over the past ten years — from 73 billion tonnes of ice per year to 219 billion tonnes. The oceans are also rising faster. This data comes from a study published in the June edition of Nature. One of the five head researchers in this study was Utrecht University Professor of Polar Meteorology Michiel van den Broeke. The melting icecaps in Antarctica have caused the oceans to rise at an average rate of 7.2 mm per year over the last 25 years, 40 percent of which occurred in the last five years. Van den Broeke explains: 'The melting rate fluctuates from year to year due to snowfall, but the general trend is clear, and can be seen within a single generation. That's a big deal.'





# Tips



U JAZZ CROSS-OVER JAM

## Open stage night

Every last Wednesday of the month in Parnassos you can join the U Jazz CROSS-OVER Jam: an open stage night for advanced amateurs and semi-professional musicians. The jam is opened by a guest solo performer who is active in the broad spectrum of jazz and cross-over.

The U Jazz CROSS-OVER Jams are organised by U Jazz in collaboration with Parnassos Cultural Centre. Afterwards you can join in and jam with the musicians, so make sure to bring your own instrument!

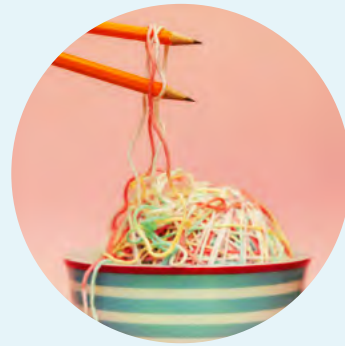
Every last Wednesday of the month, 9pm, Parnassos Utrecht.

MOVIES & SCIENCE

## The Search for General Tso

This fall, Studium Generale, the Centre for Humanities and Cinema 't Hoogt are hosting a Movies & Science series on authenticity. On Monday 10 December, this theme is approached from the angle of food. 'The Search for General Tso' traces the culinary origins of the most popular Chinese dish in America: General Tso's chicken. How are cultural products, such as food, valued in a globalised world? Does it matter where they come from? After the film, there is a Q&A with Prof Dr Jeroen de Kloet (Globalisation Studies, University of Amsterdam).

10 December 2018, 7pm, Cinema 't Hoogt Utrecht. Tickets are available one month in advance on the website of Cinema 't Hoogt.



STUDIUM GENERALE

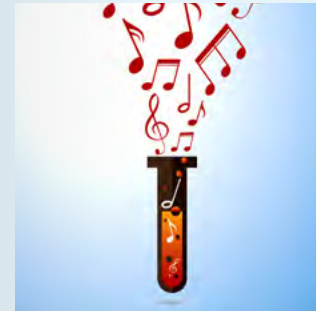
## What Trump wants

President Trump's first steps on the global stage have sent shivers through the world. He is openly flirting with autocrats, while fighting a trade war with China and



Europe and pulling out of international treaties. To many, his decisions are severely damaging the global standing of the US. But to what extent? And what happens if the US loses its dominant position in the world? Is Trump ending the American era? Journalist Eelco Bosch van Rosenthal will interview US foreign policy expert Prof Peter Trubowitz (London School of Economics) on the global effects of the Trump presidency.

26 November 2018, 8pm, Academiegebouw Utrecht. Free entrance.



BRUSSELS

## Royal Concertgebouw Orchestra

Join your fellow alumni in Brussels on Saturday 8 December for a concert of the famous Royal Concertgebouw Orchestra, a sneak peek of the orchestra during their rehearsal and a very special alumni reception with a lecture by Prof Dr Geert Buelens. Buelens will talk about his recently published book, an extensive cultural history of the sixties. The orchestra, led by Daniel Harding, will perform Dvořák's Piano Concerto (soloist: Pierre-Laurent Aimard) and Bartók's one-act opera Bluebeard's Castle.

8 December, 5pm, Bozar Brussels. Secure your tickets via [uu.nl/alumni/activities](http://uu.nl/alumni/activities)

LONDON

## Utrecht Psalter experience

A unique experience for UU alumni in London: a guided visit to the British Library with the opportunity to look at the Utrecht Psalter from up close. The Utrecht Psalter is the most valuable manuscript to be found in any Dutch collection. It is the pride of Utrecht University and the University Library. This fall, the Psalter is part of an exhibition at the British Library. The curator of the Utrecht University Library is travelling to London to share the story of the Psalter with UK based UU alumni.

20 November, 6pm, British Library. Register at [uu.nl/alumni/activities](http://uu.nl/alumni/activities)



# Tips

Save the date

### International alumni career mixer

15 November 2018, 6pm, Academiegebouw Utrecht  
Meet your fellow international UU alumni in the Netherlands over drinks. This evening is organized for former international students who stayed in the Netherlands after graduation. Register via [uu.nl/alumni/activities](http://uu.nl/alumni/activities).

### Pathways to Sustainability Conference

24 January 2019, Tivoli-Vredenburg Utrecht  
The annual conference of the strategic research theme Pathways to Sustainability takes places on Thursday 24 January. The keynote speech will be delivered by Harvard Professor Sheila Jasanoff.

### 383<sup>rd</sup> Dies Natalis

26 March 2019, Dom Church Utrecht  
Tuesday 26 March, Utrecht University will celebrate its 383rd Dies Natalis in the Dom Church in Utrecht.

### University Day

30 March 2019  
All alumni are invited back at Utrecht University on Saturday 30 March.

Please check all upcoming alumni events at [uu.nl/alumni/activities](http://uu.nl/alumni/activities)



# Après nous ...

Mathematics is the most 'sustainable' of all the sciences — after all, once a proof, always a proof. Occasionally, a more elegant or concise proof may be found, but the truth does not become any truer as a result. Compare this to physics, for example, where the sun revolved around the Earth for centuries, only to suddenly become the centre of a later model. Similar principles also apply to medicine, where hundred-year-old treatments and medicines are seldom still in use today. Novels, on the other hand, can easily withstand the centuries, though the language may be less enduring than we think (not to mention the spelling). Mediaeval works of theology still provide inspiration today. However, faith is waning.

Aside from mathematicians, all scholars therefore question the 'sustainability' of their disciplines, and yet its importance for the world refuses to take root. The majority view seems to be similar to the one attributed to Madame de Pompadour, who was famously quoted as saying *Après nous, le déluge*, or 'After us, the flood'. There will come a day however, when the quote will no longer be applicable, when a whole generation will need to start swimming and pray that evolution will soon supply them with gills.

Looking around, I can identify three camps in the sustainability debate: the indifferent, the fanatical and those

suffering from sustainability-burnout. This first group is the largest, the second the smallest and the third the most dangerous. They are the ones who use an article on global warming to light the fireplace, and then sit beside that very fire to read an interview with Dutch TV personality Patty Brard in a different magazine. Similarly, the world's water shortage is something we can take our time thinking about in the shower, right? After all, that's where we get our best ideas.

Only after much humming and hawing did I admit to belonging to this latter group. ('Really, a whole issue on sustainability?'). I should take the train more often, eat less meat, install solar panels — I know, I know, I get it already. Tomorrow, I promise. Laziness is a tough habit to break.

It's time to start a debate. A debate with the indifferent, but — perhaps most importantly — with ourselves, and of course with the fanatics as well. What we need is a new name for the problem, one that will snap us out of our reverie. As a term, 'sustainability' has passed its use-by date.

## Jan Beuving

Jan studied at Utrecht University for nine years, completing a Bachelor's programme in Mathematics (2008) and a Master's programme in the History and Philosophy of Science (2009). After that, he became a comedian and cabaret artist, and is currently touring through the country with his newest show, *Rotatie*.

