Hesource

FEBRUARY 2025 VOLUME 19

The journalism platform for all at Wageningen University & Research

Record number of cum laudes Comment: keep free degree choice Stop anonymous course evaluations

Crucial signature for duckweed

Eat insects for more iron

WUR CUPID IS BACK P.24

Fighting cybercrime 'Digital attacks every week' | p.12

Contents

NO 6 VOLUME 19



16

Nitrogen position paper welcome in The Hague



Cuts Effect is now noticeable



30

Higher education in times of crisis

FOREWORD

Love and fruit

The receptionists in WUR's buildings have now got an extra task. As everyone knows, there are crates of fruit next to the reception desks - a present from the boss aimed at keeping us all healthy. Now a sign has been added: 'Because of the cuts at WUR, less fruit is available for staff. Max 1 item per week.' So one banana or apple per week. It might sound like something from Seriously?, the Resource satirical back page, but it's for real. Read more on page 20 about the cuts and measures we found out about after asking around campus. Obviously that didn't include the extra task receptionists have now got in explaining to surprised employees why there is less fruit. Hopefully that will no longer be needed after everyone has read this article.

In these trying times, you could easily forget there is still such a thing as love. A love of research, teaching or learning. And a love of laughter. We recommend the article on page 28 about the student app groups for cow enthusiasts, cloud spotters and fungi freaks. Also, an old friend recently got resurrected on Instagram, namely SpottedWageningenUR, where students can track down their secret crush. Handy given that tomorrow is Valentine's Day; so do take a look...

Willem Andrée

Editor-in-Chief

- 7 A test for any DNA sequence
- 8 Live & Learn: 'I felt so guilty'
- 9 First EngD is for fish sensor
- 11 Joshu Wambugu's column: An equitable reward
- 28 Fungi fans, cloud lovers and cow enthusiasts

Read the latest news and background stories at resource-online.nl





















NEW YEAR, NEW FRONT DOOR

This year, Chinese New Year runs from 29 January to 12 February. It is making its mark in student complex Nieuwe Kanaal too. Fei Si Cheng, a Plant Sciences Master's student from China: 'Decorating your front door is one of the main traditions during Chinese New Year. Each family has its own banners with wishes, for example for a long life, more luck or more riches. Now that there are more Chinese students in Wageningen, we are seeing more decorated front doors here too. That gives a familiar vibe. **Chinese New Year is a festival** for getting together, and lots of Chinese students go back home then. The decorations are often left up until the Lantern Festival (on 12 February) and sometimes until the end of the year.' LM

Photos Zhu Yijun

COMMENT Freedom of degree choice

The idea of restricting freedom of choice in what you study is resurrected from time to time. Some believe it is an unavoidable measure if the Netherlands is to have enough workers in sectors that are crucial to society, such as healthcare, engineering and construction.

The latest organization to air the idea is the independent think tank DenkWerk in its recent report 'Choosing and Distributing'. The think tank includes some impressive names: the former minister of Economic Affairs Hans Wijers, the economist Barbara Baarsma and the senior researcher at the Scientific Council for Government Policy Haroon Sheikh are all members.

> You can imagine access to Wageningen domains being restricted under the current regime

The report's authors note that school leavers mainly choose what subject to specialize in based on their interests rather than the labour market prospects. 'That is not helping in tackling shortages of workers in construction and healthcare', says the report. It also argues that freedom of choice leads to a waste of talent. As evidence, it points

to the degrees with the highest proportions of students who regret making that choice. These are in fields where there are relatively few jobs, mainly the humanities and social sciences such as language and culture or journalism and communications. Over the next few years, 140,000 more students will graduate in these degree subjects than the forecast 'job openings', to use the DenkWerk terminology. 'And yet we place no restrictions on the intake for these degrees,' says the report. The think tank immediately comes up with a remedy: use enrolment limits to reduce the number of people studying subjects with poor labour market prospects. Apparently, Germany already does this. Of course it's awful if you regret your choice of degree, or if you can't get a job in your field after graduation. But is that really the same as 'wasting talent'? And what is worse: regretting a choice you made that doesn't turn out well or having the government decide for you what you'll study? A government that wants to introduce enrolment limits on

a large scale to restrict access to degrees that may not train you for the professions that are in highest demand but that you are passionate about? WUR has enough degree switchers who can testify to how miserable you can feel sitting through lectures for a degree that turns out not to be your thing at all. That would be even worse if it was the government that put you there. And which government, anyway? That is also something to take into account when politics has become so unpredictable. You can imagine access to Wageningen domains being restricted under the current regime.

Anyway, it is not even necessary. There are better ways to get people interested in the professions that are in high demand. Make the work more appealing. Increase the pay. Give a tax rebate if you have to. The excuse that the Netherlands 'simply can't let everyone switch to a job with the highest added value' and we therefore have to restrict people's freedom to choose what degree they do is just not good enough.

This Comment presents the views and analyses of the editorial board, formulated following discussions among the editors.



According to think tank DenkWerk, restricting the free choice of degree subject would help tackle labour shortages in construction and healthcare, for instance • Photo Shutterstock



The new EngD (Engineering Doctorate) degree programme gets its first graduate today (Thursday 13 February). Bram Kok did research on new sensors for fish (see page 9). There are currently 15 EngD candidates studying at WUR. The other technical universities and Groningen University offer similar two-year research degree programmes. WUR can take on 10 to 20 new EngD candidates each year. RK

WANTED! STUDENT VIDEOGRAPHER



*** Record number of *cum laude* PhDs

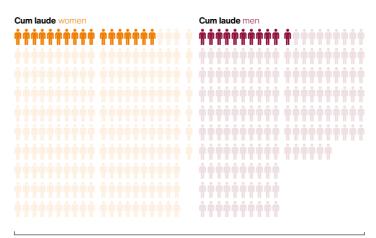
The number of PhD candidates who graduate with distinction has reached record levels. There were 28 *cum laude* PhDs last year, 7.3 per cent of all new doctorates.

That means WUR is comfortably above the national 'target' of 5 per cent. That threshold was actually passed in 2023 as well, after WUR had spent most of the new millennium with *cum laude* percentages of 1 to 2 per cent. To increase that proportion, the procedure for qualifying 'with distinction' was changed recently. The numbers show this has had the desired effect. The total number of PhDs also reached a new record. After 2023 ended with 359 PhDs, more than ever before, the number rose again in 2024 to 383 PhD theses. That is about 100 more than in the pre-Covid years. The growth is expected to continue as about 450 new PhD candidates start each year, compared with 400 before the pandemic.

More women

Of the 28 PhD candidates who got *cum laude*, 17 were women and 11 men. Expressed as proportions, 8.1 per cent of women PhD candidates got *cum laude* and 6.3 per cent of the men. In the previous two years as well, women were more likely to get a distinction for their thesis than men. The reverse was true in the preceding decade. Internationals were less likely to get a *cum laude* than Dutch PhD candidates: they accounted for most of the PhDs but 'only' 11 of the 28 with distinction.

Women make up a slight majority of all PhD candidates (54 per cent). Most PhD candidates (two thirds) are from outside the Netherlands. Their share increased slightly to 68 per cent. When broken down by science group, AFSG produced the most PhDs (112), followed by PSG (101), ESG (82), SSG (48) and ASG (40). RK



383 PhD's

Crucial signature for duckweed

It's a milestone for researcher Ingrid van der Meer and her team: a crucial signature showing the European Commission has approved incorporation of duckweed (also known as water lentils) in EU legislation as of the end of January. That means it can be produced in the European Union as a fresh vegetable for human consumption.

After years of preparatory research, Van der Meer submitted a novel food request back in 2020 to the European Food Safety Authority (EFSA) on behalf of Wageningen Plant Research. Van der Meer told Resource a couple of months ago: 'The EFSA confirmed last July that water lentils are seen as safe provided they comply with all the levels and specifications we showed'.

She received the official documents in her mailbox at the end of January. 'Unfortunately without a nice fancy signature, but the document had been signed in the name of Ursula von der Leyen. Now we can continue with the product development.' DV

Wageningen may get student union again

Wageningen has had to do without an active student union for the last few years. That might change, as the Wageningen Federation of Student Societies (WKvV) is considering joining the national Student Union (LSVb).

This news comes from WKvV chair Christel Konings. 'We have been taking on more and more student union tasks in recent years. Examples are the local campaign we set up against the slow student fine, our involvement in Wageningen Student Life (efforts to create new, alternative venues in the town centre and meeting places on campus for small societies now the flat pubs are closing, ed.) and our participation in the regional public transport advisory body (ROCOV), where we lobby at the provincial level for better access to Wageningen and the campus.'

According to Konings, WKvV could become a candidate member of LSVb from early March. But she doesn't want to promise anything. 'To do this properly, we need to recruit an entirely new board. We are working hard on that at the moment.' To be continued. LZ

Advertisement

Vacancy

The Board of Education is the legal board of all accredited study programmes at Wageningen University & Research (WUR) and consists of 4 professors and 4 students. The activities of the BoE take up about one day a week. This includes a meeting every two weeks on Wednesdays between 9:00 and 12:30.

Do you have a passion for education? From April 2025, a student seat on the Board of Education will be vacant

Your responsibilities / opportunities

- To represent students from WUR in the board that decides upon the content and quality of accredited study programmes and advises the Executive Board on various educational issues.
- To deal with a variety of topics, such as new study programmes, quality of courses and teachers, new education policies and education innovation.
- To take an in-depth look at the management of your university.
- To enrich your curriculum vitae with education management experience.

Your qualities

You have a passion for education and ideas to develop and innovate WUR education. You are proactive and you have a critical attitude. Preferably, you have prior experience on a (programme) committee, a board or similar.

You study in the domain of **Environment** & Landscape (BBN, BES, BIL, BLP, BSW, MCL, MEE, MES, MFN, MGI, MIL, MLP, MTO, MUE). Students from other programmes are ineligible.

You receive three months of FOS per year and \notin 40 per meeting. The appointment is for one year, with up to two reappointments.

Interested?

Send your CV and motivation letter, in English, *before 24 February 2025* to **boardofeducation.secretary@wur.nl** The interviews with candidates will take place in the first week of March. **wur.eu/boardofeducation**





A test for everything

Sometimes scientists come up with something that sounds almost too good to be true. Like CRISPR-Cas, for example. The biochemist Daan Swarts now has something similar. His test can detect any DNA sequence you can imagine. Now he has received a Proof of Concept grant from the European Research Council to develop the test further. Text Roelof Kleis • Illustration Shutterstock

The test is based on a bacterial immune system that was first discovered three years ago. That system, which is called SPARTA, is very good at recognizing specific foreign DNA sequences that penetrate the bacterial cell, says Swarts, 'for example, the DNA of a virus or a plasmid, a circular piece of DNA. The SPARTA system recognizes the infection and takes action accordingly.' 'Like CRISPR-Cas, SPARTA uses a piece of RNA as a guide to track down the foreign DNA,' continues Swarts. 'In this case, it's a strand of 21 nucleotides, a sequence of genetic letters. That lets the system recognize the associated foreign DNA.' Instead of cutting the DNA at that point (as

a lot of CRISPR-Cas systems do), SPARTA then breaks down NAD+, a molecule that is important in producing the cell's energy. The cell then dies.

Choose your own DNA

'That might seem a pretty worthless immune system for the infected bacterium,' says Swarts, 'but it does prevent the virus from spreading. And that protects the bacterial population.' The way the system works got Swarts and his colleagues thinking. 'You can



easily reprogram the system to detect a DNA sequence of your own choosing, for example one from a pathogenic bacterium or virus or mutated DNA. The guide strand is only 21 letters long, making it easy to synthesize.'

In bacteria, the cell's death is evidence of the virus being detected. Swarts: 'But for diagnostic purposes, you want to detect the DNA in a test tube containing a blood sample or saliva. Instead of breaking down NAD+ we use a chemical analogue that fluoresces when broken down. You can easily measure that signal using a device you attach to your mobile phone.' Swarts knows it works in the lab. Now that he has this grant, he can set a postdoc to work for a year to develop the concept into an application that uses real samples. 'The grant helps you progress onto a partnership with companies or more applied funding. In fact, the postdoc will be spending one day a week on business development, for example in the form of a collaboration or our own start-up. All options are open at this point.'

Patent

In view of this, a patent application was been submitted for the new method before the details were published. Swarts: 'Without that protection, you run the risk no one will want to invest money in further development. I am also talking to businesses. It's a new experience for me and I'm learning a lot. This should offer new opportunities for collaboration and funding, and will also help turn this fundamental research into a genuine application.'

Live&Learn

A botched experiment, a rejected paper: such things are soon labelled as failures in academia. As for talking about it - not done! But that is just what WUR scientists do in this column. Because failure has its uses. This time, it's assistant professor of Nematology Ruud Wilbers.

Text Nicole van 't Wout Hofland • Illustratie Stijn Schreven

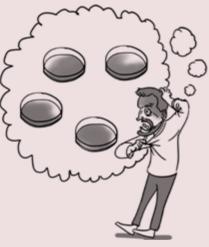
'As a PhD candidate, I supervised six groups of students in a practical course. They were allowed to come up with their own project, set up the experiments and carry them out. One group wanted to use tobacco plants to make an anti-inflammatory medicine that they would test on human cells. If the medicine worked, the cells would produce a protein that you can detect using an existing method. You "stick" antibodies onto a plate and let them catch the protein. Then you add a second antibody that contains a pigment. The more the plate stains blue, the more of the protein there is.

'During the practical, one of the students asked for the first antibody. I quickly walked to the fridge and grabbed the test tube. At the end of the experiment, I looked over the student's shoulder to see how it was going. The colouring is supposed to be a gradual process, but within seconds everything - including the controls - turned bright blue. Shit, I thought: I'd given them the wrong test tube at the start, the one with the antibody with the stain for the final step. I wished the ground would swallow me up. The students had worked hard and meticulously for three days, and all for nothing due to my carelessness. It was the

last day of practicals so repeating the experiment wasn't an option. I felt so guilty that I redid the experiment in my own lab. I worked through the weekend to give the students their results on the Monday morning: the antiinflammatory agent worked.

'The students had worked hard and meticulously, and all for nothing due to my carelessness'

'These days we have more supervisors for this practical course, so we aren't so rushed and have more of an overview. I wouldn't be in such a hurry that I'd pick the wrong tube. But someone could still easily make a similar error, we supervisors are only human after all. Incidentally, nowadays I wouldn't repeat an experiment myself for the students. Students are allowed to make mistakes but so am l'



Insects can tackle iron deficiency in humans and animals

Insects contain iron and if you rear them on a substrate rich in iron, that can increase the concentration by a factor of three. Useful when a quarter of the world population has an iron deficiency.

The findings come from research by PhD candidate Tomer First (Food Quality and Design). 'We wanted to know whether we could increase the amount of iron in insects without using genetic modification,' says First. He studied the effect of varying amounts of extra iron in the feed on the growth and survival chances of two species of insect: the yellow mealworm beetle (Tenebrio molitor) and the black soldier fly (Hermetia illucens).

Iron was added by First in varying quantities to trays for rearing the insects. The yellow mealworms turned out to be susceptible to iron toxicity and some of them died. However, the black soldier flies were incredibly strong. 'Even when we increased the iron in their food by a factor of 20, it had no effect on their survival rate.'

Iron and protein

'The mealworms contained slightly more iron when fed an iron-rich diet. But because the larvae were so susceptible to toxicity, we don't see them as a promising option,' explains First. 'Especially in comparison with the soldier flies, which are good at surviving and where the iron concentration increased by around 300 per cent. In my opinion, this insect is crucial to the protein transition.' That the insects absorb the iron well is a good initial step, says First. 'Follow-up research is needed to show whether that iron in the insect products is absorbed by the gastrointestinal systems of humans and farm animals. If it isn't, this knowledge becomes much less relevant. Although it would be really cool to eat bugs with your breakfast instead of an iron tablet.' DV

First EngD is for fish sensor

You can measure all kinds of things to monitor the health of fish. Lots of those measurements are performed outside the fish's body. But wouldn't it be great to see inside a fish in real-time? Bram Kok, the first person at WUR to get an EngD, has developed a sensor that can do just that. Text Roelof Kleis • Photo Shutterstock

Kok studied Technical Physics at Twente. When he was finishing his Master's thesis, his supervisors pointed him towards the EngD programme (Engineering Doctorate, ed.) in Wageningen. 'They were looking for people who wanted to develop sensor technology. That sounded like fun. The EngD programme consists of one taught year and one year working on a design, which appealed to me.'

'They were looking for people to develop sensor technology. That sounded like fun'

The project involved developing new sensors for research on aquatic organisms. 'It is part of the NLAS innovation programme,' explains supervisor Arjan Palstra. 'That stands for Next-Level Animal Sciences. The programme started four years ago. One of the elements is sensor technology. Palstra and his colleagues want continuous measurements of the energy levels in aquatic organisms. 'What do they spend their energy on and can we incorporate that information in a digital twin for energy monitoring? In Twente, researchers were working on a sensor that measures interleukin-6, an immune marker for disease. That fitted well with our model, which aims to combine energy consumption, stress and health.' Kok developed a prototype showing how an internal biosensor could work. The essence is that the interleukin-6 (IL-6) protein in the bloodstream attaches to a thin layer of antibodies on the sensor.

This distorts a fine laser beam incident on the sensor and that signal is received by a detector. The amount of interleukin that is measured is an indicator of the health of the fish.

But there is still some way to go. 'At present, the laser, chip and detector are still separate elements,' says Kok. 'The aim is to combine them in a sensor measuring approximately 1 x 1 centimetre.' 'Now we have the design,' adds Palstra, 'we can implant it in fish to measure what is going on in the bloodstream.' The sensor will need to be sufficiently sensitive. 'According to the literature, biologically relevant concentrations are up to 0.2 nanograms per millilitre,' says Kok. 'That can increase to 0.8 nanograms when fish get sick. That's about what we can detect now. So we're pretty close.' Incidentally, Kok used human interleukin rather than interleukin from fish. 'That only makes the findings even more interesting,' thinks Palstra. 'Perhaps we will get an implant you can use for measurements in humans too.'

Bram Kok is the first researcher to successfully complete the EngD programme at WUR. The ceremony will be on Thursday 13 February, in Omnia. It will be largely similar to that of a normal PhD defence. 'I'll have three opponents: one from within WUR, one external person and someone from my supervision team. Instead of a dissertation and propositions, I have my design and an extensive report.'

PhD theses in a nutshell

Wake-up call

How does the dormant axillary bud of a tomato plant know it's time to make a side branch? A lot is involved, discovered Gül Hatinoğlu (from Turkey). A mysterious network of signals is behind this, with a central role for the transcription factor BRC1, which acts as a brake. Once the brake is removed, the bud can wake up. But how and where the brake inhibits the DNA is much more complicated than that, as Hatinoğlu's research shows. The wake-up call for a budding tomato is far from simple. RK *Awakening buds*. **Gül Hatinoğlu**

Measuring cows

Farmers who want to monitor the growth of individual cows could just put them regularly on a set of scales. But there are faster methods. A good alternative is a drone with LIDAR (radar but with laser light), concludes Yaowu Wang. LIDAR lets you construct 3D images of cows that are so good you can use them to accurately determine the cow's dimensions and weight. What is more, you can recognize the individual cow based on the pattern of its coat. The model developed by Wang has uses beyond monitoring cows too. In principle, it is applicable to wild animals as well such as zebras or yaks. RK

Integrating UAV-based LIDAR and 3D computer vision to enhance cattle growth monitoring in precision livestock farming. Yaowu Wang **< Supervisors** Lammert Kooistra and Wensheng Wang (China)

Nasty taste

Food products that have started to rot will usually have a nasty taste. That is caused partly by oxidation of fats. Epoxides (a type of cyclic ether) are an important product of oxidation. Vincent Boerkamp developed a method based on NMR (nuclear magnetic resonance) to identify these and other oxidation products in oils and emulsions. He figured out the network of reactions. A model based on this predicts what reactions you can expect in any given oil. That is handy if you want to avoid those nasty tastes by adding the right antioxidants. RK NMR-based mapping of lipid oxidation routes in foods. Vincent Boerkamp ◀ Supervisors Jean-Paul Vincken and John van Duynhoven

THE PROPOSITION

PhD candidates explain their most thought-provoking proposition. This time it's the turn of Felipe Cozim Melges, who received his PhD in December 2024. His thesis was about how biodiversity can be enhanced in circular food systems. Text Ning Fan



'In academia, like football, individual talent might win matches, but good teamwork wins championships'

'Growing up in Brazil, where football is a constant part of daily life, this parallel resonates deeply with me. During my PhD project, I saw how the dynamics of teamwork in research mirror those on the football field. Both require strategy, trust and cooperation for the success of the project.

If my research team were a football team, I'd say PhD candidates are the strikers, focused on getting papers published and getting their doctorate. But just as a striker relies on his teammates for assists, I've had to rely on my colleagues and supervisors to work within big projects. Beyond the players on the pitch, a footballer's performance also depends on coaches, analysts and nutritionists. Academia has its own unsung heroes: the administrators, cleaning personnel, IT staff and the technicians for example. Their work is the invisible glue that holds it all together.

Neymar, once supposedly one of football's brightest stars, is also a metaphorical cautionary tale. He could change a game with his dazzling skills, but he couldn't win a championship on his own. The overreliance and over-importance given to him severely harmed the Brazilian national team. Whether on the pitch or in the lab, it's the collective effort that creates true champions.'

COLUMN

Equitable remuneration

Have you ever wondered what WUR's position would be in a ranking on equality and equity in the treatment of PhD candidates? Particularly in relation to PhD students without an employment contract, the majority of whom are international students. If we were to do a survey on this, the outcomes would send shockwaves through campus, revealing extreme disparities, inequalities and inequitable treatment of international PhD

'This begs the question: who really cares?'

candidates. The 2023 WUR PhD survey paid no attention to the remuneration of

the PhDs without a contract (half of all PhD candidates); it focused mainly on supervision, training, educational possibilities and wellbeing.

Despite the silent resistance to this critical topic, the remuneration of international PhD students without a contract is a key element in the quest for equality and equity. But the WUR administration and its policymakers are not addressing this issue.

WUR regards its researchers as its capital and the over 2,400 PhD students as the backbone of research work. WUR attaches a high priority to the quality of the research, scientific integrity and the code of conduct. However, apparently that doesn't mean better and equal pay for PhD students. The topic is covered up with unending narratives and fictitious contracts. This begs the question, who really cares?



Joshua Wambugu

Equality and equity for international PhD students is not just the responsibility of WUR's administration in the Atlas building. The research groups in Lumen, Gaia, Radix, Zodiac, Helix and Lebo also have a significant role, as do WUR's satellite research institutions. They too need to re-examine their financial sustainability strategies in their international PhD programmes.

A call to action is needed within WUR's PhD community, regardless of their different categories, to reinstate the full-time PhD council members on the WUR Council. The issues affecting the PhD community shouldn't be discussed in dialogue sessions that never lead to any results. After all, you'll never bake a cake in an unplugged oven.

WUR's success is founded on every member of the WUR community and everyone should feel motivated and part of a meaningful journey. That is why the unequal treatment of international PhD candidates is important to everyone. We need to decolonize the WUR research ecosystem. Everyone is entitled to equality and equity, not just a few.

Joshua Wambugu (41), from Kenya, is a PhD candidate in the Marine Animal Ecology and Environmental Policy groups. He is a Social Safety Guide and loves cooking, hiking and birdwatching.

FIGHTING CYBERCRIME

A vulnerability in WUR's HR system, a hack the Eindhoven University of Technology was able to stop, and several DDOS attacks on SURF, a cooperative venture for IT in the educational sector. How does WUR keep the hackers out? Text Dominique Vrouwenvelder • Illustration Valerie Geelen

UR's IT systems have to cope with more than 13 million attempted break-ins (large and small) a week. That's more than 20 attempts a second, seven days a week and 24 hours a day. 'In many cases, they're just testing the front door to see whether it's open a crack. If so, the cybercriminals come back with a larger, more targeted attack,' explains Sander van de Geijn, who is responsible for the digital security of WUR's central IT environment. Hackers are interested in universities because of what they have on offer. 'It's also more difficult to protect universities effectively,' says Van de Geijn. 'They're large organizations where people are keen to collaborate, and that requires openness and freedom. What's more, WUR is part of a much larger IT ecosystem. We could make the university as secure as a bank. But that would mean an end to using your own devices, and only allowing Word, Excel and a few essential applications, though. That's very secure but leaves no room for innovation. We want to support and permit as many

things as possible without putting the system at risk of unwanted access. It isn't always easy to find the right balance.'

Fortress

Van de Geijn uses the analogy of a fortress surrounded by land to describe WUR's digital security mechanisms. 'You want maximum protection for what's inside the fortress, and in the surrounding land where we collaborate. So you build a defensive wall around the fortress, with a deep moat and drawbridge, and you have extensive woods and gardens with watchtowers and outer forts.' Staying with the analogy, while criminals try to get as close to the main fortress as possible, the IT departments try and build as many different defences around it as possible. That way, they try to minimize the impact of an attack. 'The closer the criminals get to the fortress, the more impact it has on the organization. Whether or not the criminals are working for someone else, they can spy on the organization from the inside,

Digital security tips

- 1 Use programs from the Approved Apps list (https.approvedapps.wur.nl)
- 2 Install updates when requested
- **3** Use multi-factor authentication
- 4 Look out for phishing emails
- 5 Be aware of the value and sensitivity of research data and any other data you use
- **6** Get help with risk analyses from the Information Security Officers and IT experts

encrypt files, manipulate information or leak data.'

At present, WUR's outermost security layer can repel over 99 per cent of all attacks. Attacks that get through that layer encounter further cleverlydesigned layers of protection. Van de Geijn: 'Criminals regularly try to reach our organization's core systems, but they've never managed to get hold of the keys to the castle, as it were.' Victor Viveen is WUR's IT director: 'Together with SURF, WUR monitors the network traffic in our systems. We have multiple security rules and we are continually checking to see whether our data shows any deviation from the rules.' If that is the case, it raises a red flag. This happens about



'Universities are more difficult to protect because of their open character'

3000 times a week. Van de Geijn: 'That doesn't necessarily mean something bad has happened, and in many cases the system automatically takes extra security measures. An example would be an additional multi-factor authentication step if the system suspects someone else is using your data to log in. Or if an antivirus program detects dangerous software, it can automatically disable an employee's device (if administered by WUR). The IT Service Desk will then help the user in question to get back online securely. Some reports get incorrectly designated as security issues - for example, an

employee who didn't yet have the right access and tried to open something — but there can always be something genuinely wrong.'

Phishing

When asked about the hack that recently brought down Eindhoven University's systems, both Viveen and Van de Geijn say they didn't lose any sleep over it, given what they know about the security of WUR's systems. In mid-January, staff at Eindhoven University discovered hackers had been trying to break into their systems. In response, the university took its entire digital infrastructure offline. The university only came back online fully one week later. It turned out afterwards that the criminals had got hold of the login details of at least one member of staff and one student, wrote Dutch newspaper *De Volkskrant*. They might have used phishing for that. WUR employees too get an average of 20,000 phishing emails a week, in which hackers try to access the WUR systems. Van de Geijn: 'Most are clearly fake but sometimes they look incredibly realistic. That's why we train WUR staff to recognize such emails and we try to minimize the damage if someone does click one by mistake.'

Not every click on a fake link will bring the entire university grinding to a halt, says Van de Geijn reassuringly. 'There are a lot of steps before you get that far.

Imagine that an email with a phishing link gets through the spam filters, someone clicks the link and downloads a virus, then that person will often not have installation rights. If they do, the antivirus program will flag up a suspicious activity and we will get a message. What's more, this often takes place on the outside of our network. The risk of someone with malicious intentions getting deep into the core systems is very small, but not zero.' To check how watertight the IT security is, WUR hires an external firm every two years that has the task of trying to hack into the core systems. Van de Geijn: 'Even they can barely get through our outermost protective layer. To test the innermost layers properly, we give them a helping hand by lowering some drawbridges, as it were, and letting them start inside the outer defences. In the IT team, we also sometimes try to break into internal components. If we manage, we then alert the people responsible to the vulnerabilities. That keeps the organization on its toes.'

Headaches

Most of the technical problems are due to human actions, what staff and students do. Van de Geijn: 'Key factors are high workloads and insufficient awareness of the choices that can be dangerous. Minor decisions — such as a shorter password to make life easier — can cause real headaches. Incidentally, not all the potential measures are technical in nature. Policies and agreements among users also play an important role. For example, we can restrict digital access to systems, applications or folders, but the physical access policy is important too. You need a card to get inside many WUR buildings, but that isn't the case for the education buildings. We also let people access the WUR systems with their own devices - which might not be totally secure in terms of their virus protection in addition to the workstations managed by WUR.' Viveen: 'Those are choices we make for the purpose of openness, but they are still security steps we don't take. That could be leaving us more vulnerable. Misuse doesn't immediately bring everything crashing down, but such choices can have consequences because they make it easier to break in.' In addition to awareness about cyber security, users should also consider what their data is worth to them and to others. Viveen: 'Which data is confidential and what happens if it is made public? Will that harm our reputation, cause financial damage or even worse? If we realize we have information that others would like to get their hands on, or that is valuable in the context of crises or geopolitics, for instance, we can decide to deal with it differently.'

That is where the Information Security Officers (ISOs) come in. They give advice, both on request and on their own initiative, about data security in the department where they work. Tony van Kampen is an ISO for the Agrotechnology & Food Sciences Group. 'I ask questions such as where is your data stored? Who is the data available to and when? The answers to those questions are crucial for me. WUR is working on a number of topics, such as the nitrogen problem, where the research results could have a huge effect on society. It is not unthinkable that people with malicious intentions are currently snuffling around WUR systems in the hope of passing on any information they find to other organizations.'

Utopian dream

The hack in Eindhoven has made WUR take a close look at the statutory tasks the university performs for the government, for example its activities for the Netherlands Food and Consumer Product Safety Authority. Researchers at WUR recently performed analyses when there were suspicions of footand-mouth, and of hepatitis A in blueberries. WUR also has a lot of data that came from external sources and information for example from farmers. 'When compared to other universities, our world is that little bit different and broader,' says Viveen. 'That requires a different approach to security.' The most important lesson of the attack on Eindhoven University is that it could happen to WUR too. After all, attempts were made to log into the WUR system from the same IP address. Van de Geijn: 'They were banging on our door as well.' 'In the past few years, we have identified what we call the crown jewels,' says Van Kampen, continuing with the castle metaphor. 'These are datasets that are so important that we pay extra attention to their security. We have a prioritization. The most important things get the highest level of security, because keeping everything 100 per cent watertight is a utopian dream.'

'Criminals try to get past our digital front door 13 million times a week'

Viewpoint

'Stop anonymous course evaluations'

After the exam period, students are always given a chance to evaluate the courses they took — anonymously. Some students abuse that anonymity by slamming the teachers. After the teachers got their course evaluations back for period 2, the discussions about this kind of feedback flared up again on the intranet. Peer van Duppen and Lieke Huls, who both teach organic chemistry, think a change is needed • Text Luuk Zegers

You both recently experienced students misusing the course evaluations. What was that like?

Huls: 'I'd had a long day and I thought I would just briefly check the course evaluations. They'd always been positive up till then, so I was expecting to be able to end my working day feeling good. But this time there were several negative comments that were really personal. When you read comments like "this person should never be allowed to teach again" or "the university should take action against the people responsible for this disastrous course", you don't exactly go home on a high.'

Van Duppen: 'I've worked in secondary schools. Young people there often give their opinions bluntly without any nuances. That could be tough, but fortunately we had a lot of peer reflection groups where we could discuss it. Now I try not to let it get to me. Apparently someone needed to vent their anger. But it's still completely unacceptable. Even if you think we aren't up to the task, there are still rules of decency.'

Are course evaluations the right way to get feedback on the teaching?

Huls: 'Neither of us have been teaching for that long, and constructive feedback is important for us. First-year students often find it hard to give proper feedback; that's something they have to learn. I think such evaluations are more useful in the Master's courses, when students are better able to formulate their feedback.' Van Duppen: 'Of the 120 students who took the course, 23 filled in the evaluation form. That mainly seems to have been the students who hated the course; they are often the ones most likely to complete the evaluation forms. That's why in the last period I handed out my own questionnaire about my didactic skills during tutorials. Then everyone fills it in and you get a more nuanced picture of what the average student thinks of you.'

How important is the anonymity of the course evaluations?

Van Duppen: 'University should be a place where people feel free to say what they think of something. Our task is to teach young people to do that in the right way. Course evaluations are a good opportunity for practising that. If you make them anonymous, you are telling students they don't need to take responsibility for what they say. Where a student genuinely feels that they can't safely voice their criticisms under their own name, of course there should be some way of doing so anonymously. But I think WUR is sending the wrong message by making all evaluations anonymous.'

Use the QR code to read more and share your views.







'Nitrogen ruling is slap in the face'

Position paper by Nitrogen Four welcome in The Hague

The Dutch state must comply with the nitrogen objective laid down in law for 2030, ruled the court at the end of January in a high-profile lawsuit brought by Greenpeace (see inset). That ruling is a shot in the arm for a new position paper on target management published the same week by the 'Nitrogen Four': Gerard Ros, Wim de Vries, Roel Jongeneel and Martin van Ittersum.



e Vries says a lot of people 'including some in The Hague' were very interested to see what the report would say. In it, the four scientists explain how farm-specific target management can help the Netherlands to achieve its statutory objectives in terms of nature, the climate and water quality in agriculture. It follows on from their previous publication, in which they advocated getting farmers to reduce their nitrogen and methane emissions by setting specific targets per farm (KPIs, key performance indicators) based on the national goal for agriculture.

The four scientists elaborate on how they think farmspecific target management should work, taking into account the need to achieve the statutory objectives and to have a method that is achievable and feasible for farmers in practice.

Carrot or stick?

According to the report, four important questions play a role in the switch to farm-specific target management. First, what forms of target management are most effective? Because you can use a carrot or a stick for target management. They advocate the 'carrot'

'You can use 'a carrot or a stick' for target management'

approach for goals relating to biodiversity, soil quality, the landscape and the quality of the surface water. Farmers should be rewarded for specific achievements, which would need proof in the form of measurements in some cases. However, the challenging and urgent goals relating to nature and ammonia, the climate and groundwater quality require a stricter approach. For those goals, they recommend gradually shifting to an approach with standards and limits that are enforced, with financial consequences for any farms that fail to comply. They don't rule out the use of standards in combination with pricing, for example in the form of tradable emission rights - because that too creates a financial incentive to become more sustainable. The second key question is how to translate the national goals into farm-specific KPIs and what factors should then be taken into account — for example, soil type or whether the form of agriculture is land-based. The authors perform calculations for various possible solutions. 'The choice of variant, which could be a mix of solutions, is ultimately a political choice,' they note. The third important question is how to measure or calculate the extent to which farms achieve their KPI targets in a way that is both reliable and feasible. Measuring everything is not realistic, but mathematical models have their shortcomings too - and are not always legally acceptable. The four scientists argue for

a combination of a simple calculation tool, to be linked to existing instruments such as the *KringloopWijzer* for the mineral cycle, and certain straightforward measurements, such as the concentration of urea in milk. 'That, in combination with sensor measurements at a few representative farms, gives information about the ammonia emissions from barns,' they write.

Ball in authorities' court

The fourth and final question is how to embed the measures and make them legally watertight. Farmers will need to show they have complied with the stipulated standards by changing their farm setup (fewer animals or more land) or by correctly applying emission-reducing measures — to be demonstrated by bank records, photos or measurements, for example. For the legal side, they note that the Environment and Planning Act gives the authorities various powers and instruments to enforce compliance with the statutory goals for nature and the environment. Even so, strategic choices need to be made on such matters as permits and the use of checks and enforcement resources. But they emphasize that the ball is now in the local and national authorities' court. ■

Ruling in Greenpeace court case

The court's ruling that the state must comply with the nitrogen objective laid down in law for 2030 is a serious slap in the face for the state, explains Edwin Alblas, assistant professor in Environmental Law. 'The court intervened because the government is not doing enough to reduce nitrogen, which means it is violating European and national nature protection regulations. The state must comply with the law, which states that by 2030 less than 50 per cent of the nature area that is vulnerable to nitrogen should be above the critical deposition threshold.' The court imposed a penalty of 10 million euros, payable if the 2030 target is not achieved. 'That's pretty unusual,' explains Alblas. 'The government is expected to practise "constitutional courtesy", meaning it respects

the authority of the court and will comply with the court's rulings. This penalty implies the court is not convinced the government is genuinely willing to tackle this problem properly. The ruling shows the government needs to get down to work on reducing nitrogen emissions - and quickly too, because the court specified explicitly that the state would have to implement the ruling immediately, rather than waiting for the result of an appeal. Prime Minister Dick Schoof said the government would come up with a nitrogen plan within two months. A special ministerial commission, with the telling title of Economy and Nature Restoration, is tasked with this. 'The economy needs to continue to function,' said Schoof. 'It's not just about nature goals. The Netherlands can't shut down.'



The court ruled that nitrogen deposition needs to be reduced as a matter of priority in vulnerable nature areas such as the Veluwe, shown here • Photo Shutterstock





11

HIGH POINT

Ten months after construction started, Plus Ultra III has reached its highest point. The five-storey building completes the row of commercial properties lining the bus lane on campus. The building will be delivered in July. Commercial manager Jens van den Bongard, who works for the owner Kadans Science Partner, says one company has confirmed it will be moving in. 'Discussions are still ongoing with various other companies.' Plus Ultra III is expected to accommodate 15 to 20 businesses. The building has a negative carbon footprint and is largely made of wood and concrete. After three Plus Ultra buildings, Kadans is still keen to build more. Van den Bongard says Kadans is talking to WUR about constructing premises on the Born-Oost site on the other side of Mansholtlaan, which is due to be developed soon. RK

Cuts

TIGHTENING BELTS (A BIT)

Buildings closing earlier, paying more for sports and less free fruit. The effects of the cutbacks are slowly beginning to be felt on campus. But the really big choices in education and research still have to be made.

he generic savings requirement - cuts of five per cent in every WUR business unit — is undoubtedly achievable this year using a top-slicing approach. The task of cutting expenditure by 80 million euros by 2028 is a different matter. 'The good news is that we've got time to find a good way of doing this,' says Ernst van den Ende, the Animal Science Group director. 'We're trying to head slowly in that direction. WUR has reserves and a healthy financial position. That is why the Executive Board has decided not to take any panic measures. You see big differences between universities in that regard. Some are having to take tough measures in short order, with redundancies and the abolition of degree programmes. WUR is taking its time, and that is welcome.'

Although that calm is relative. Both behind the scenes and in public, people are working hard preparing for the far-reaching choices that will need to be made. Since the start of January, six working groups have been looking at proposals for cutbacks in various areas. They are using FAT (Finding Answers Together) sessions to gather ideas from staff. That should lead to results in the next month. Van den Ende: 'Hopefully that will let us set out some broad lines at the Wageningen Management Board level that will tackle a significant proportion of the 80 million.' This refers to the savings of 35 million euros, the part Van den Ende says where 'we are in control, by organizing our processes better', for example by making the organization more efficient, reducing support staff numbers, altering the terms of employment or cutting back on what Facilities & Services does. The remaining 45 million euros will come from the basic funding for research and education. 'These are cuts imposed on us externally,' says Van den Ende. 'I call that market forces. You can imagine that some of the Ministry of Agriculture research programmes won't go ahead after all. Of course Wageningen Research will feel the effects of that.' It's hard to say which science group will be hit hardest. Van den Ende: 'We just don't know. The political landscape



is unclear, to put it mildly. Plus it is changing from day to day. One moment the politicians don't want to do anything about the nitrogen problem, the next moment they want to do loads. The latest idea of target management, for example, raises questions and therefore requires research. In Wageningen, we have the advantage of working in a very specific domain where there is a lot of interest internationally. There are major issues relating to the environment and food that need addressing. So in that sense we're in a good position.' ■

'You can imagine that some of the Ministry of Agriculture research programmes won't go ahead after all'



Paying more for sports

WUR students can do sports at De Bongerd Sports Centre all year for just 119.75 euros. That is cheaper than anywhere else in the Netherlands. But the price is going to go up a lot (possibly by about 20 euros), says the head of the centre Henri ten Klooster. Staff, who now pay 25 euros a month, will see a similar increase. That is necessary to make the required savings. 'We're also taking a critical look at what we offer. But it's hard to scrap anything without making people redundant. That is because the legislation introduced in recent years has forced us to hire former freelancers and we aren't allowed to give them more than two temporary contracts. So nearly all the staff are now employed by WUR.'

Scrapping certain sports will also affect the quality of what's on offer, says Ten Klooster. 'We currently offer 65 different sports. That used to be 70. There are 55 activities in the regular programme, including the lessons for the 32 student sports clubs with their 3000 or so members, and popular activities such as indoor biking, yoga and zumba. The other 15 activities rotate. We are now critically reviewing all the classes to see what the attendance is.'

Artificial grass

According to Ten Klooster, a sports pass costs 198 euros a year on average at Dutch universities. 'Even with an increase of 20 euros, we would still be among the cheapest. If you divide that by 12, you'll still be paying only 11 euros a month. Incidentally, we will need the consent of the Student Council for an increase above the rate of inflation.' In addition to increasing the price and

'You see big differences between universities'

reviewing the activities on offer, Ten Klooster says they will also be scrutinizing cost areas such as the replacement of materials. Although the options are limited. 'We have to continue with the regular replacements or we will lose our certification from the Dutch football association for matches. The upper layer of the football pitch will have to be replaced this year, or the top teams in the student football club GVC won't be able to play in competitions.' The cuts do mean that the planned 'collector field' will not go ahead. This is an innovative artificial grass playing field with a network of tubes that collects heat from the sun and transmits it to the campus thermal energy storage system. 'This system would have let us cut our dependency on gas by 90 per cent. We would have been the first university sports centre in the world to have this. It's such a shame it's now being ditched.'



>

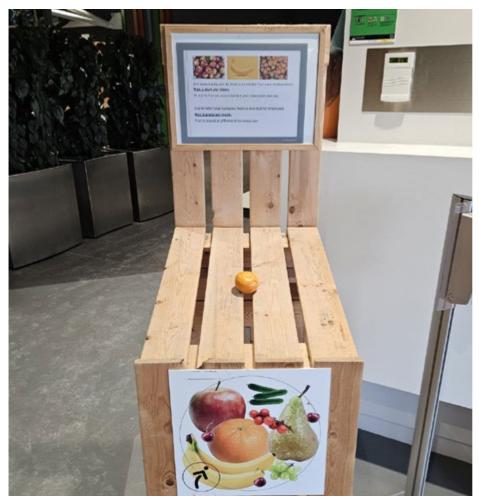
Photo María Joaquina Acosta



Less fruit, shorter opening hours

Staff in Atlas will now only get one apple, banana or mandarin orange a week 'on the house' at work. Due to the cutbacks, says the notice next to the fruit basket. It is the most tangible effect so far of the requirement to make savings of five per cent this year. The fruit is being rationed in other buildings too. The decision has got people talking.

Which is a good thing, says Facilities & Services (F&S) director Harold Swartjes. Not that he is in charge of the fruit, as it happens. 'I think it's good these visible measures have sparked a discussion. You can't save an amount like 80 million euros without every student and member of staff noticing eventually. It's also about the mindset, the realization that handing out fruit costs money.' As the saying goes: look after the pennies, and the pounds will look after themselves. That applies to the approach F&S is using this year to save almost 8 million euros: 5.4 million on services and 2.5 million on WUR's accommodation costs. The savings are coming from lots of different measures. A noticeable one is the buildings' opening hours. Lots of buildings will soon be closing earlier in the evening, at 20:00 instead of 22:00, and they will only be open half a day in the weekend. Forum, though, will stay open. Swartjes: 'This measure saves on energy and management. Cutting the



'The aim is not to make anyone redundant'

opening hours by two hours saves a lot of money. Of course, it will still be possible to access the buildings for essential research.'

Maintenance

Cuts will also be made in the maintenance of buildings and grounds. 'We will spread the maintenance tasks out more. For example, maintenance of the labs in the teaching buildings will be carried out once every two years instead of annually. That might mean the maintenance quality is a little less across the board. To be clear, the buildings and grounds will still be in good shape, but there is scope to take it down a notch. We are also making some changes behind the scenes to the IT and we are talking to our suppliers about savings in the contracts.'

All in all, says Swartjes, these are relatively minor changes but we will notice them nevertheless. The bigger decisions needed to save 80 million euros within a couple of years still have to be taken. 'As far as I'm concerned, that will largely mean an awareness that the many minor changes add up to big savings for WUR. That's partly because we are such a large organization.' The more major decisions won't necessarily lead to any redundancies for Facilities & Services. Swartjes: 'The F&S

Photo Resource

workforce (600 people) will be smaller. That is inevitable if you have to make cuts of 10 to 15 per cent. To achieve the savings for this year, we didn't fill half of the vacancies that arose in the past six months. The aim is not to make anyone redundant, but that requires an effort. I expect my people to think about this constructively and develop their skills accordingly.'■



Fewer subscriptions and databases

He hasn't lost any sleep over it, and most library users won't notice any difference. Even so, the library will be making cuts of 650,000 euros this year. 'This is on top of cuts of a quarter of a million to compensate for the pay rise last year,' says director Hubert Krekels. 'Staff costs are the biggest expenditure item. If you don't want to make people redundant, you have to rely on people leaving voluntarily. But that isn't happening much at the moment. One employee retired recently, and I won't be replacing them for the time being. That does mean the Development & Innovation team will have to do the work with one less person.' Savings can also be made in accommodation costs: 'Postponing the replacement of chairs by a year, using fewer staff, that kind of thing.' But the biggest step is making cuts in the collection costs. Although that is not straightforward either. 'Annual expenditure on the collection is 4.4 million euros, but nearly all of that is in fixed contracts,' explains Krekels. 'A new nationwide deal was made with



Photo António Valente

Elsevier just this year, so I'm stuck with that for now. Those deals are for three years. However, we were able to save 300,000 euros by scrapping individual subscriptions and access to a few databases.'

Frugal in the past

The choices are tricky, says Krekels. 'WUR has lots of specialisms. A journal that isn't relevant for most people can still be important for a small minority. That is a sensitive issue. We are also the leading library in the Netherlands for food and agriculture. We have obligations with respect to other universities as they have fields of expertise that we benefit from. Anyway, you run the risk of cutting back on things that you'll have to purchase all over again in two years' time. And you can be sure the price will have increased by more than inflation.'

The required savings could be 'found quite quickly' this year with minor changes to accommodation, staffing and the collection. 'But I'm not looking forward to the next step,' admits Krekels. 'We've always been very frugal in the past, which means we will inevitably have to cut back on our service. The staff are at the limit of what they can handle in terms of the workload. I can't in all honesty tell them we'll have to do the same work with fewer people.' ■

O @SpottedWageningenUR

WUR Cupid is back -

Students looking for love had to do without the online Cupid for almost two years, but now it's back — under the name @SpottedWageningenUR. Nicely in time to surprise your secret crush for Valentine's Day.

hose who have been here for a few years might know @GespotWageningenUR (Instagram) or may even still remember Gespot UB:WUR (Facebook). The admins of these accounts helped students anonymously contact that one attractive student (M/F/X) they spotted but didn't dare speak to directly.

'This account was created at the end of last year for selfish reasons,' admits the administrator, who wants to remain anonymous. 'I met someone who I would've liked to see more of, but I hadn't asked for their contact details. I didn't like not knowing anything about this person, so I looked up the Gespot account in the hope that I could get in contact that way. However, that account turned out to no longer be active, so I started a new one myself.'

Unfortunately, the potential date who was the incentive for creating the new Spotted account has not yet been found, but judging by the number of new followers, the concept seems to be a hit – just like a few years ago. 'The account had about 1500 followers

'One match has already resulted from calls on this account'



Text Dominique Vrouwenvelder

within no time. But I still don't get a lot of messages, around 20 since November. Maybe people are too shy to submit something or respond in public. I also think most people follow the account because they like reading the posts. Sometimes people send me private messages to say they think they recognize the person from the description. I then pass that on to the person who started the search.'

Date updates

'I ask everyone who found their match how things are going after a few weeks. Sometimes they don't get a response, but sometimes I hear they've already been on a date. One match has already resulted from the calls on this account.'

A lot of care has gone into the layout of the messages. 'I do my best to make sure the messages look good. But managing the account doesn't take a whole lot of time. I create images and sometimes I have to translate messages into Dutch or English, because you can submit texts in either language. I just enjoy doing it, and I hope many more matches will follow.' ■



Culling elephants in southern Africa

'The criticism is pure colonialism'

Last autumn, the governments of Namibia and Zimbabwe decided to cull nearly 300 elephants. They pointed to the growing number of clashes between humans and animals due to the persistent droughts. Those conflicts are a genuine problem in southern Africa, confirms the researcher Stasja Koot. But there is more to the story. • Text Marieke Enter

n August, Namibia announced it would be shooting over 700 wild animals, including 83 elephants. Zimbabwe followed a month later with a plan to kill 200 elephants. According to the governments they had no choice because clashes between humans and wild animals had increased significantly, partly due to the persistent drought. The meat from the culled animals could also be used to combat food scarcity in certain communities. The news prompted fierce criticism of both countries from the West. The Namibian and Zimbabwean governments were downright irritated by the criticism.

Stasja Koot, an associate professor in the Sociology of Development and Change chair group, can understand that irritation. He lived and worked in Namibia for years and still regularly visits southern Africa for research. 'The criticism in the West reveals a colonial view of nature management,' he argues. 'We love nature management, as long as it happens in Africa or South America — but not here in Europe. Here, we find even living alongside a few wolves really difficult. In my opinion, that double standard reflects the colonial balance of power. So I can understand them getting irritated by the criticism from Europe.'

Elephants roaming around

He was also annoyed when he saw someone from the World Wildlife Fund (WWF) on Dutch TV saying they were against the planned cull and wanted to 'stand up for the animals'. Koot: 'Whereas the WWF is a huge promotor in Namibia of trophy hunting (hunting for pleasure or as a form of tourism, ed.). That's their conservation model: income from trophy hunting is crucial for nature management in Namibia. So the WWF is applying a double standard: it's fine to shoot animals for trophy hunting but not if it's to protect local communities' fields and wells from elephants that are roaming around. That's not only wrong, it's pure colonialism.'

Conflicts between humans and animals are a real problem in southern Africa, says Koot. 'And it's a big problem in the much-used model of communal conservation, where humans and wild animals live side by side in the same area,' he points out. There is a system for compensating people financially for damage caused by wildlife. 'If your garden is trampled by an elephant or your cow killed by a lion, you can report it to the ministry and you get cash compensation. That's the theory, at any rate. But in practice, a lot of people don't

Bear and elephant radar

At present, the Human-Bear Conflict Radar is being tested in Bulgaria as a way of reducing conflicts between humans and animals. Anna Davison (Earth Systems & Global Change group) is doing her PhD partly on this. It uses the same digital twin technology as Koen de Koning's crane radar, with real-time reports of observations and a predicted range of activity. The radar also indicates the risk of confrontations, based on historical data about human-bear conflicts and characteristics of the local environment, so that nature conservationists can take measures. There are plans to develop a version of this radar to track elephants, for use in southern Africa. PhD candidate Franziska Steinbruch was recently hired for that purpose. She will be interviewing local farmers to find out how this kind of radar app could best help them.

have the resources to make that report — especially the most marginalized, who often live in very remote areas.'

Tricky distribution of meat

Koot is critical anyway of the concept of communal conservation, which rests on two cornerstones aimed at stimulating economic development: tourism and trophy hunting, with the latter often being the more lucrative. Koot: 'The problem is that only a small proportion of the inhabitants see any of that money. The same applies to the meat. In theory, the meat from the trophy hunting is supposed to go to the local communities, but that distribution usually doesn't go smoothly at all.' He therefore wonders what will happen to the meat from the animals that are

'We love nature management, as long as it is in Africa or South America — but not here in Europe'

being culled on the two governments' instructions. 'I asked my contacts in Namibia whether they knew about this. Would they be among those benefiting, and who would the meat go to? No one knows. My contacts among the San (an ethnic group that used to be called the Bushmen, ed.) didn't either, yet they are one of the most marginalized groups. That they haven't heard anything says a lot. Which ethnic groups are going to get this meat, based on what criteria?'

Trophy hunting lobby

There is more going on too, says Koot. 'The Namibian government has said it will be doing the cull "properly" with professional hunters. That means people from the trophy hunting industry, because they are seen as professional hunters. Local people who hunt are seen as poachers — trophy hunting is legal, poaching is illegal. I wonder whether the trophy hunting lobby had a hand in the decision to shoot the elephants. It is a hugely wealthy and influential industry in southern Africa. Perhaps they lobbied as a way of earning more money and also burnishing their reputation?' Finally, Koot does not rule out opportunism by politicians as a factor in the decision to cull elephants. 'We're living in times of gesture politics. The numbers in the culling plans are a drop in the ocean compared with the total number of wild animals in these countries. The same applies when you make the comparison with trophy hunting, where loads of animals are shot. Culling at this level is not really an issue at all. That it made the news to such an extent could be due to political considerations. It lets politicians make a statement: look at us taking care of people who are going through hard times. It's really just like the Dutch politicians who declare a refugee crisis: it's mainly for show.'



In Namibia, droughts are leading to more and more human-animal conflicts • Photo Shutterstock

Fungi fans, cloud lovers and cow enthusiasts

Students are often members of lots of group chats, from study associations and student societies to flatmates, year clubs and sports teams. Some are also in groups that focus on typical Wageningen hobbies and obsessions. Six students talk about their favourite group chats • Text Luuk Zegers

Fanatical birdwatchers

Nisse Donders (20, Forest & Nature Conservation Bachelor's student) is in various bird-themed group chats. 'There is a close-knit group of young birdwatchers in the Netherlands and a lot of them come from Wageningen. There are various birdwatching app groups. Personally, I'm in Young Birders and Bosbouw Birders, for example. The latter group consists mostly of Forest & Nature Conservation students but it also has birdwatchers doing other degrees. Some go birdwatching together, others go on their own. We always alert each other in the chat if we spot an unusual bird. 'Last spring, when WUR students spotted a sociable lapwing in the Binnenveld the news travelled like wildfire via the app groups. When our lecture finished, everyone ran outside in the direction of the spot. There was also a marsh sandpiper nearby, and a bit later a pallid harrier flew overhead! That brought the whole of birding Wageningen and the Netherlands to the area. 'A spectacled eider — an unusual duck — was spotted recently on Texel. The app chat goes mad then: "Anyone heading there got room in their car?" There are definitely some pretty fanatic birders in the chat!'

Linguistic treasures

Ilja Bouwknegt (26, Forest & Nature Conservation Master's student) loves language. 'Which is why one of my friends added me to the **Wonderlijke Woorden** chat group. People share their favourite crazy, beautiful and unusual words. My favourites? *Toondoof, wak, kapseizen, hemellichaam, flets* (tone deaf, hole, capsize, heavenly body, dull). Sometimes words are shared that sound fine but you never normally stop and think about them. *Echtpaar* for example (sounds like it means a 'real pair'). Occasionally we discuss the etymology (where words come from). But usually it's just a nice word.'

Mad about fungi

Levi Goudsblom (25, Forest & Nature Conservation Bachelor's student) posts in **Wageningen shroom seekers**. 'I found this group after a fungi identification workshop. Members share tips and photos of fungi. For example, I recently found a large oyster mushroom in the verge of a busy road. Oyster mushrooms apparently absorb a lot of pollutants from the environment, so I didn't take it. Recently, when the weather was freezing, a photo was shared of "hair ice"; that's not a fungus but it is caused by a fungus in the wood. If the temperature suddenly falls below zero, the fungal activity in the wood continues briefly. That pushes water vapour out through the pores of the wood, and the water vapour then freezes to form thin, glistening threads of ice known as hair ice.'

A love of cattle

Mario Martens (23, Forest & Nature Conservation Master's student) is in the KFVDD WhatsApp group. 'It stands for **Koeien Foto Van De Dag** (cow photo of the day). Our joint assignment is to share one cow photo every day. No more, no less. They are very strict. If at the end of the afternoon you come across the most beautiful cow you have ever seen and a cow has already been posted, you have to wait until the next day. And you can only use emojis to comment on photos: text is forbidden. That rule too is taken very seriously. When someone shared a moving cow image with the message "Happy New Year", they were thrown out of the group immediately. I'm fine with that. There are so many group chats already, and the restriction to one cow photo a day keeps it manageable.'



Reijn Scharringa (Soil, Water, Atmosphere Bachelor's student) is a member of the Wolky Talky app group. Sophie van Veen (Soil, Water, Atmosphere Bachelor's student) shows a photo from the Peaky Finders app group • Photo Resource

Crazy about clouds

Sophie van Veen (20, Soil, Water, Atmosphere Bachelor's student) has been in **Wolky Talky**, a group whose members share photos of clouds, for five years now. 'My sister and her friend used to send each other cloud photos. That sounded like fun to me — and others — and before we knew it we had a group of 10, then 20 and now nearly 1000 cloud lovers. When the group started growing so fast, we came up with rules. For example, the photo with the most likes becomes the new profile photo. People take cloud etiquette very seriously! If for example someone shares a photo of mountain scenery that happens to have a cloud in it, you know they want to show off their mountain. "Free the Cloud," we say then.

'During my first week in Wageningen, I discovered a lot of my fellow Soil, Water, Atmosphere students had been in this group for years. That's quite funny because my sister is at uni in Amsterdam so the news must have spread somehow. My fellow students can often explain how certain types of clouds develop, which makes it educational too. 'One of the high points of Wolky Talky was when it led to a cloud couple. Someone posted a photo of a cloud. Another member commented, "I can see the same cloud. Where are you exactly?" They found one another and went on a date. Recently they sent a photo saying they were both in a park watching clouds and adding the text "it's official". We are all invited to the cloud wedding!'

'It led to a cloud couple'

Mountain tops

Reijn Scharringa (21, Soil, Water, Atmosphere Bachelor's student) is in Wolky Talky, like Sophie. The two students are also in another chat group together. 'As Sophie said, sometimes there would be an outcry on Wolky Talky if people shared amazing photos of mountains with just one small cloud. So the cloud fans who also like mountains started a new group called Peaky Finders. It is a group where people share their loveliest mountain photos. This group chat is more seasonal than Wolky Talky. A lot of students go hiking in the mountains in the summer and skiing in the winter, so that's when the most photos of mountains are shared. Clouds are a yearround thing.'

Higher education in times of crisis

'You learn from contradictions'

'Professor Arjen Wals argues that the state of the world today demands nothing less than a radical reorientation of our education.' That was the announcement for a Studium Generale session on higher education in times of crisis. *Resource* discussed the topic with Wals.

Does WUR also need a radical reorientation?

'That depends on how you look at it,' says Arjen Wals, professor of Transformative Learning for Socio-ecological Sustainability in the Education and Learning Sciences chair group. 'WUR is the world's most sustainable university according to the GreenMetric ranking. And according to the Dutch University Guide, we have had the best education for 20 years now. So should we change? But if you ignore the rankings, you can answer the question by considering what you see when you cycle around the campus.'

So what *do* we see, from your perspective?

'There are all kinds of contradictions that function as a sort of hidden curriculum for unsustainability. The free car parking. Catering with meat. The huge predominance of Western sources in our research and education. The relatively limited room for other forms of knowledge. Artificial grass on the playing fields, full of rubber pellets that end up in the water system through leaching or via the players' washing machines. We should be talking more about things like this that make us feel uncomfortable. You learn from the contradictions.'

Long live self-reflection?

'It does indeed require us to take a critical look at ourselves. Perhaps the normative direction of our research and education is determined more by economic considerations than environmental ones. Perhaps we're focusing too much on ridiculous things such as "'smartphones for dogs and pre-peeled bananas", as George Monbiot put it in 2015.We should be prepared to specify what exactly we're encouraging in the world with our research and education and what we're weakening or disregarding — even if unconsciously.'

To eventually achieve a 'wholeuniversity approach'?

'If you want our university to be genuinely sustainable and take an independent, critical stance on society, that affects everything we do. Take the rankings. Utrecht no longer takes part because it says the rankings distract from what really matters. You could also decide for example to stop working on the basis of subject fields or disciplines in your research and education and instead focus on issues that arise in the world around you as the starting point, using living labs. That is also a form of learning and investigating. Then you look at all aspects of the university, one by one. What has an unintended negative effect on sustainability and what can we change to bolster sustainability? If we tackle all those factors in a joined-up way, we'll have a whole-university approach.'

Text Marieke Enter

Would such an approach make the teaching more relevant?

'Talking generally for a moment: why do so many people — pupils, students, teachers — dislike school? Western education could do much more to address the crucial issues of health, biodiversity and climate change. The fear is that then young people will no longer learn writing and arithmetic properly, but it's not a question of either/or. You can learn arithmetic fine by doing sums about inequality, or hone your writing skills by explaining how plastic soup affects aquatic life. In Wageningen, we already arrange our education around such issues to a large extent, but it could be improved even further.'

Should the education side start focusing on new, different competencies?

"That's already starting to some extent, with sustainability competencies such as systems thinking, future thinking and reflection on how to make alternative futures attainable. A fairly new aspect is the interest in what we call inner sustainability: the individual's physical and mental wellbeing. Because if you deplete your own resources, you won't be able to do much for the world. We are paying increasing attention to that in our teaching, as well as to the "pedagogy of resistance". That means learning to take a critical look at things, to question the underlying values and principles and to be willing to mention inconvenient truths. That's what will get us further.'

You also advocate ratcheting up citizen science and contacts with society at large.

'That's right, especially concern-driven citizen science where the public has a genuine say in the questions that are asked. We should shape science in a way that lets the general public feel genuinely involved. That will also increase their confidence in science. If society at large doesn't think science and higher education are important, it becomes easier for politicians to cut the funding.'

Will WUR be doing things better or doing better things?

'That's the crucial question. If you aim for a "whole university", that can lead to uncomfortable truths because you may discover that half the university is working on strengthening a system that the other half says needs to be dismantled because it is the source of many global problems. But it is precisely that conversation in the tricky middle ground that is interesting — that's how you make real progress.' ■

'That conversation in the tricky middle ground is interesting'

'There are contradictions everywhere in what we do on sustainability'



Arjen Wals, professor of Transformative Learning for Socio-ecological Sustainability, advocates more concern-driven citizen science in which the general public has a say in the questions being asked. The photo shows an expedition in 2024 to the Svalbard archipelago (previously known as Spitsbergen) with about 50 tourists and an equal number of scientists. • Photo Nathalie Steins

Limelight



They can't change shape, but they are pretty versatile: DJ collective Barbaboefjes spins drum & bass, techno, trance, house and garage. Each party has its own theme and associated decoration. On 15 February, Loburg will be converted into a romantic café for a Valentine's edition. Text Coretta Jongeling

Barbaboefjes

Pieter Vis, 'I graduate in a week' Biology Master's student: 'A few years ago, I started giving house parties. During the pandemic they became more and more frequent because no one had anything to do. That was when I met the others – Daantje van Esch, Communication & Life Sciences Bachelor's student, Ramon van Esch, Plant Sciences Master's student, and Axel Eijffius, Molecular Life Sciences Master's student.' Those first parties had Spotify as the DJ but the 'boefjes' quickly learned how to spin records themselves: invite the neighbours

round and go practise. They progressed from living rooms to the Woeste Hoeve and when that went well, the Bunker was next. Last year they performed on 5 May and during the AID, and they will be at Loburg regularly this year. You need a proper business setup for these larger gigs, so the Barbaboefjes became an official DJ collective. The name Barbaboefjes was inspired by Axel's outfits: 'I often wore pink trousers. The first time I met Daantje she said: those trousers make you look like Barbapapa, dude! Then I started looking for more Barbapapa things on Vinted and that's how we came to be the Barbaboefjes.' There are now Barbapapa neon lamps, T-shirts and hats.

Everyone is supposed to come to the Valentine's party dressed in red or pink. Daantje: 'We'll hand out wristbands in traffic-light colours, so you can tell at once what relationship status everyone has.' The public can expect the usual mix of genres, with a build-up from quieter music at the start to booming at the end of the evening. Daantje: 'We go all out in the final hour, it's for the people who are really having fun!' Tickets and more info via Instagram @barbaboefjes.



FRI 14 February Valentine's dating show (drag) at Shout, Wilde Wereld

SAT 15 February ISH Dance Collective (hip-hop circus) at Junushoff

THU 20 February Melting Pot festival at various venues in the centre



From left to right: Axel (Barbabass), Pieter (Papi P), Ramon (Rhizosphere) and Daantje (Acidiña) + Own Photo

SAT 15-02-25 Café Loburg, Wageningen *23:00 to 04:00* Admission: 7.00 euros



You can spot great-looking people and cool outfits on Wageningen campus. This column highlights some of them. This time, it's Margherita, an International Land & Water Management Master's student • Text and photo Ana Mattiuzzi Martins



'A lot of the clothes that I wear are family members' old ones that they just gave to me, so I really cherish those. I also make some of my clothes. I try not to buy stuff, I try to work with what I find. I do embroidery, sewing and crochet patches that I then sew onto my clothes. When I was younger, I would always make my costumes with my mum for events like Halloween, and I think this creativity has continued throughout my life. Key words for my style are: swamp fairy, wizard and gremlin. I like to layer, with lots of long skirts, and I like loads of accessories. I've always dressed in a silly way. As a child I would mix and match lots of bright colours and patterns, but now I mainly wear earth tones.

When I alter my clothes, it makes me think of all the work that was put into manufacturing the garment itself. That makes me appreciate each garment a lot more. And altering and decorating is super fun when you just let your imagination go wild.'

You encounter all the flavours of the world in Wageningen. Soil Physics PhD candidate Marta Loreggian shares a recipe for Italian *galani*.



Flavours of WUR

Galani

'In Italy, Carnevale is the day before Lent. Carnevale is a time

of excess, when the usual rules are turned upside down. It's a

big celebration and we eat a lot

home now, I would be making

galani with my grandma; this is

her recipe. Galani is what we call

it in my hometown of Padua but it

has different names all over Italy!'

1 Break the eggs into a large bowl, add the sugar and whisk. Fold in

the butter and mix well. Add the

white wine and give a final whisk

flour, baking powder, salt, sugar

dough, transfer to a well-floured

very sticky at first but the more

becomes. Add flour if needed but

surface, as then it is incorporated

uniformly into the dough as you

knead. Once the dough stops

sticking, let it rest for about

5 Set up a pasta machine and heat

the oil. The oil is ready when

surface bubbles around it.

6 Divide the dough into small

portions and use the pasta

you dip in a toothpick and the

30-60 minutes.

make sure to sprinkle it on the

surface and knead. It may be

you knead, the less sticky it

to aerate the mixture. 2 In a different bowl, sift in the

and mix together.

gradually, whisking

continuously.

3 Add this to the egg mixture

4 Once you have a consistent

of sweets like this one. If I was at

Ingredients (Makes about 30 galani):

- 3 eggs
- 50g melted butter
- 300g flour
- 3 tbsp sugar
- 3 tbsp white wine/ grappa/rum
- Generous pinch of salt
- 16g baking powder
- Frying oil
- Icing sugar for decoration

Preparation time: About two hours, including 30-60 minutes for the dough to rest

machine to roll out sheets as thinly as possible (No. 8 setting).

- 7 Cut out triangular pieces with a slit in the centre of each triangle (see photo). With a fork, gently poke holes on the surface.
- 8 Fry until both sides are a light, golden brown. The surface will bubble up and become crispy.
- **9** Drain the excess oil by letting the galani rest on kitchen paper.
- 10 Once cooled, sift icing sugaron top and enjoy!



Marta Loreggian (left) with her friend and sous-chef Silvia Martinez. Own photo.



WUR is incredibly diverse, with hundreds of internationals working and studying here. In the Meanwhile In column, we ask one of them to comment on events in their home country. This time we hear from Sarah Dent (19), an exchange student from America, about the devastating wildfires a few weeks ago in her home state of California. Text Machteld van Gelder

'The fires were among the top five most destructive fires ever in Californian history. Over 10,000 buildings were lost. Clearly we don't have the systems in place to deal effectively with these fires right now in terms of firefighters. Before the fires were even over, I read that 57 billion dollars of damage had been done. This scale of destruction is really not normal. It is disheartening to see those kind of things happen, and I think it will probably get worse in the future.

'When I first heard about the fire, I didn't pay much attention to it because forest fires in California are pretty normal. A day or two into the fire, my mum was like "Have you been reading the news? It's really devastating what's going on here." Then I started to pay attention. A day later, my cousin's house burned down. She and her family are now staying in an Airbnb. I think they can stay there for two months, but I don't know what will happen after that. They have insurance, but we already have a housing crisis in California, so I am not sure what is going to happen to all the people who don't have a place to live any more.

'I haven't been super in contact with my cousin's family. I find it hard to know what to say after something big like this happens. It's so sad. My uncle really loves to garden. Ever since they moved to this house nine years ago, he has been

planting trees and plants, and he was really working on the landscaping. He was constantly making the garden better and now all that work has just gone in a matter of hours.'



Advertisement





MCB-51403: Commodity Futures & **Options Markets**

Always wondered about what is happening at the trading floor of exchanges like the ones in Amsterdam, Paris, Frankfurt, London and Chicago? Wondered about how (agribusiness) companies manage their risks and improve their financial performance using commodity futures and options markets? Wondered about how it would be if you were trading commodity futures in Amsterdam, Chicago, London, Frankfurt and Paris?

The Marketing & Consumer Behavior Group organizes a unique course that will introduce students to commodity futures and options markets. Students will develop an understanding of the markets and how they work, gain knowledge about the theory behind futures and options markets, identify their economic functions, and develop an analytical capability to evaluate their economic usefulness. This course is taught by Philippe Debie and Prof. dr ir Joost M.E. Pennings (Marketing & Consumer Behavior Group, Wageningen University). There are only 40 seats available. If you are interested in taking this course (3 Credits) please register in Osiris or contact Ellen Vossen, e-mail: Ellen.Vossen@wur.nl, tel. 0317-483385. Lecturers are on Fridays in period 5 (one lecture is on Thursday), one day a week, please check schedule in TimeEdit for time and location. Prerequisites: None.

WEEKLY UPDATES ON STUDENT LIFE AND WORKING AT WUR?

Go to resource-online.nl (Subscription page) and subscribe to our digital newsletter.

SIGN UP

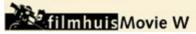
Resource WUR from within: straight, sharp, transparent

MOVIE NIGHT WITH ENGLISH SUBTITLES



Tension-filled coming-of-age crime drama about the relationship between a daughter and her father, the head of a criminal clan on Corsica.

NL subtitles: 14.02.2025



Colophon

Resource is the independent medium for students and staff at Wageningen University & Research. *Resource* reports and interprets the news and gives the context. New articles are posted daily on resource-online.nl. The magazine is published once a month on a Thursday.

Contact Questions and comments for the editors: resource@wur.nl | www.resource-online.nl

Editorial staff Willem Andrée (editor-in-chief), Helene Seevinck (managing editor), Roelof Kleis (editor), Luuk Zegers (editor), Marieke Enter (editor), Coretta Jongeling (online coordinator), Dominique Vrouwenvelder (editor). Translations Meira van der Spa, Clare Wilkinson Design Alfred Heikamp, Larissa Mulder Overall design Marinka Reuten Cover illustration Valerie Geelen Printing Tuijtel, Werkendam

Subscription A subscription to the magazine for one academic year costs 59 euros (135 euros if abroad). Cancellations before 1 August.

ISSN 1874-3625

Publisher Corporate Communications & Marketing, Wageningen University & Research





[SERIOUSLY?] Kooky ne



Photo Guy Ackermans



THE GULF OF WUR

The pond between Forum and Orion will be getting a new name by decree: the Gulf of WUR.

he idea came as a sudden brainwave a few days after the inauguration of the American president Donald Trump, says WUR rector Caroline Cruise. 'Say what you will about the guy, he's certainly a breath of hot air — I mean fresh air. I was standing at my office window on the sixth floor of Atlas looking down at the pond, when I suddenly realized that pond was nameless.' She soon had a new name for it. Convincing the other board members was a little trickier. 'Mr Finance poured cold water on the suggestion as usual: "it's just an oversized puddle and the gap between the buildings is hardly a gulf". But you need to take a broader view of these things. A narrow gap can soon develop into a gulf, certainly in our polarized times.'

In contrast, Google Maps responded enthusiastically, says Cruise. 'Especially because the pond didn't yet have a name, which cartographers hate. And the Gulf of WUR is such a great name. It underlines the importance of our organization as a major player in research on soil, atmosphere and, last but not least, water.' Now she's tested the water, Cruise wants to try out some more ideas. The name Wageningen, for instance. 'I'm considering WURgeningen. That shows immediately what this Food Valley city is all about: WUR as a WURId leader. Without us, Wageningen would just be another Culemborg. And we don't want that. Of course I would

'A narrow gap can easily become a gulf in these polarized times' need to get our WURthy mayor on board'. Criticisms that 'WURgeningen' draws a bit too much attention to WUR's dominance of the town are brushed aside by Cruise. 'It's about creating clarity, especially for travellers who

want to get to the campus by public transport. No more Ede-Wageningen; the train station should be called WURgeningen! But that might not be so easy. The railway guys don't like ideas without a track record?