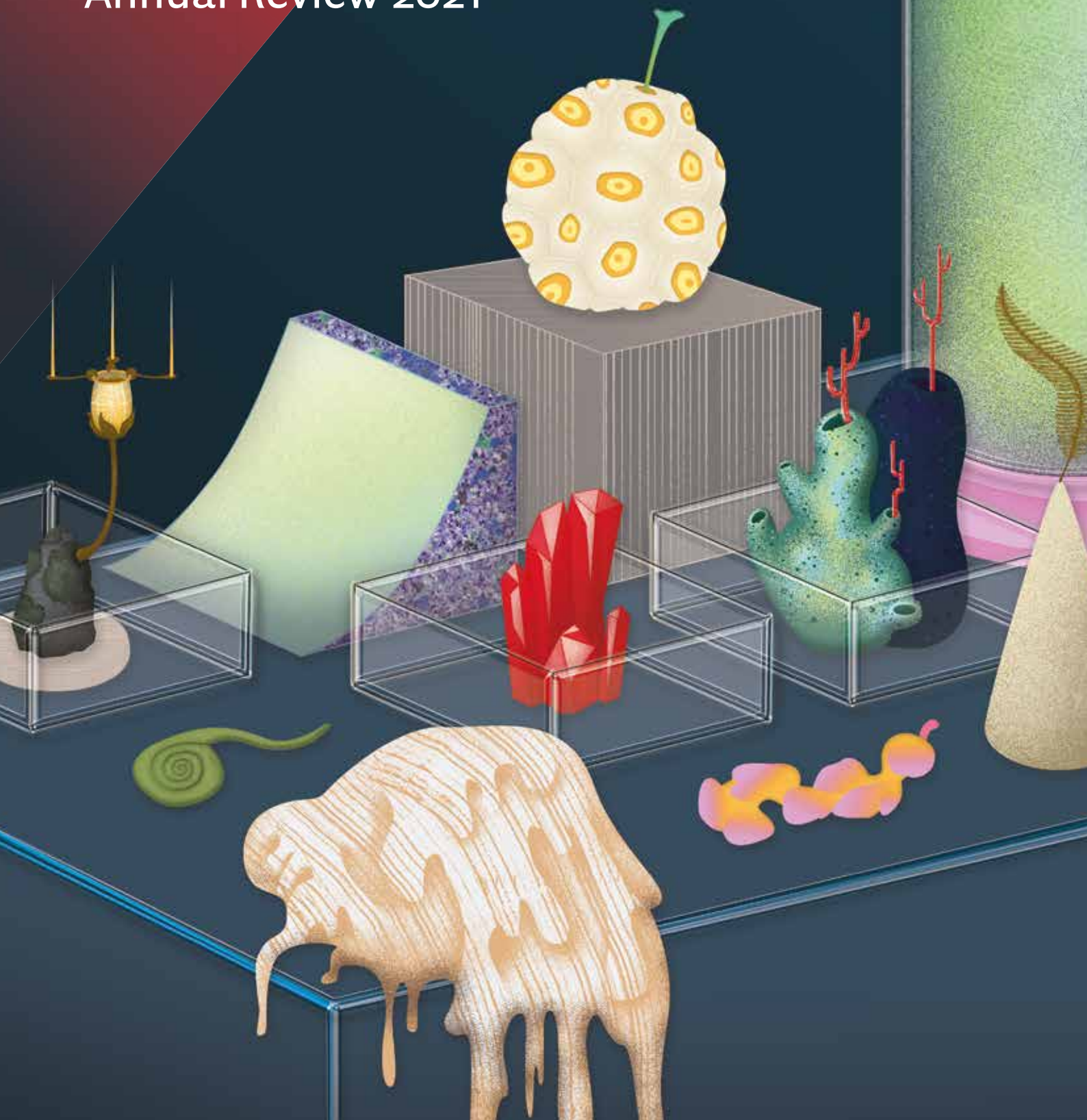




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# Science Shops Today

Annual Review 2021



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## Colofon

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Most of the projects covered in this annual review are published as reports or articles. You can download them for free via [www.rug.nl/wewi](http://www.rug.nl/wewi). Do you have interest in one of the projects, please get in touch with the Science Shop that did the project.

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## Does it matter what I write here?

**To be honest, I usually skip the foreword in journals and reports. It is too long for my taste, with too much form and too little content. You have started reading this, however, so I should try to meet your expectations. As a linguist, I naturally tend to note that ‘foreword’ is a singular noun. One word should therefore suffice. Which word should that be for 2021?**

The winner of the Van Dale (a Dutch dictionary) word-of-the-year contest was prikspijt (shot regret). According to those voting for it, who some have dismissed as ‘covidiot’, the word refers to people who have been vaccinated against the coronavirus and have later regretted it. Former Dutch Health Minister Hugo de Jonge subsequently turned the tables on this understanding with the following tweet: ‘If you land in the ICU because you have not been

vaccinated, then you will really have #prikspijt’. Thus illustrating the polarisation in our society.

I hope that I have not lost my readers at this point.

Let us quickly turn to the content of this annual review. Science shop projects are often closely related to the spirit of the times, and they often reflect what is happening in society. The coronavirus pandemic thus played a prominent role in 2021. In this annual review, you will read how people with mental problems were able to maintain the necessary social contact during this period at the Stichting (On)Gestoord (the [Un] Disturbed Foundation). Another article tells us how it felt to live and work in the border region Netherlands-Germany during the pandemic and what the political system can learn from these experiences. Our projects also focused on polarisation in society and the best ways for science to approach conspiracy the-

ories. After all, some conspiracies turn out to be true, at least in part. It is a good thing that no question is too crazy for our students. In 2021, the Green Office raised the question whether we might be able to use less plastic in the laboratories. Taking everything together—coping with the coronavirus, conspiracies and polarisation, and a critical approach to laboratories—prikspijt might just be a good summary for this magazine! Enjoy this annual report!

Saskia Visser

Chair of the UG Science Shops



## About the cover

“Saskia van der Post is an illustrator and workshop leader at the asylum center in Delfzijl and Burgum (Groningen). In these workshops, participants build decors for an alien planet, make fantasy costumes and cloth tapestries.



Within her illustrative work, Saskia plays with contemporary subjects and expectations of these subjects. With a fascination for the unknown and mysterious, she tries to put these subjects in a spotlight. In that way, she creates a mix of curiosity, confusion and humor.”

On the cover you will find objects that look like they are from another planet. However, these objects are real. Want to know what they are? Next to this piece you will find more information.

More information: [www.saskiavanderpost.nl](http://www.saskiavanderpost.nl)

From left to right

**Thismia Neptunis**

Thought to be extinct, rediscovered in 2017 Western Sarawak, Borneo (Indonesia)

**Rebond foam**

Found on beaches all over the world

**Noni Fruit (*Morinda citrifolia*)**

The fresh fruit has a strong, vomit-like odor

**Fiddlehead**

Mostly eaten from the Bracken fern (*Pteridium aquilinum*)

**Cinnabar**

Is a toxic hydrothermal mineral containing mercury sulfide

**Polychaete Worm (*Ramissyllis multicaudata*)**

It branches repeatedly, forming a tree-like structure, found in sea sponges

**Chlorine Gas**

Exposure can result in Chlorine gas poisoning

**Globster**

Unidentified organic mass found on shorelines and bodies of water

**Seed Pod**

From the Yulan Magnolia tree (*Magnolia denudata* ‘Forrest’s Pink’).

**Moth Antenna**

The large antenna of a male moth (*Saturnia - pavoniella*)

# “Ordinary people” sometimes have questions as well”

The Groningen Science Shops, past and present

‘Many thanks for the particularly fine treatment of my question about silverfish. Finally, someone who knows what it’s all about and who is willing to make an effort’. Anyone poking around in the archives of the Groningen Science Shops is sure to come across many messages of this kind. They speak volumes: citizens or organizations with questions that appear to be salient, but that are not always taken seriously. Since 1979, the Groningen Science Shops have been working to link society’s questions to research. What were the origins of science shops? Where are we headed?

By Vincent Hazelhoff

## Democratization of science

In the Netherlands, science shops emerged in response to a period of social movements in the 1960s and 1970s. Many students and progressive staff members found that the universities were at too great a distance from society. This gave rise to the notion of a science shop: a ‘shop’ where supply (from researchers) could be brought together with demand (from citizens or organizations). The words of the initiator at the University of Groningen, Hans Reddingius, speak volumes: “Ordinary people” are also curious at times, and they may also be walking around with questions that could be solved by scientific research’. The ‘democratization of science’ was shaped in practice through interactions between citizens and researchers.

How did that work in Groningen? In 1979, the University of Groningen started with five science shops. Later, new

ones emerged, existing ones merged, some succumbed to budget cuts and others were assimilated into other organizational units. At present, six science shops are active in Groningen. The choice for this decentralized organization was (and still is) intended to ensure good service for the myriad of societal questions. Also, faculty specific science shops ensure short lines with the expertise of researchers and students. For example, the Science Shop Physics focused on questions relating to noise pollution on the A7 motorway (conclusion: the measurements were incorrect, and the existing sound wall needed to be raised), and the Science Shop Chemistry joined forces with action groups to address the stench emerging from the waste water from potato starch factories (conclusion: factory processes can and must be cleaner).

## Interaction

Many science shops are inseparably bound to societal trends. Following the Chernobyl disaster in 1986, the Science

Shop Physics published an important brochure on the dangers of radiation. In the 1990s, increasing streams of refugees led the Education Shop to conduct a study of migrant children in the classroom. In response to a growing focus on women’s empowerment, the Science Shop Pharmacy is conducting a research project on the representation of women in drug testing.

Science shop projects can also expose certain developments within society. A question submitted to the Language, Culture, and Communication Science Shop on culturally specific care for elderly Turkish people created a precedent for issues that will emerge soon: How will we ensure a good life in old age for people with a migratory background?

## Thorn in the side

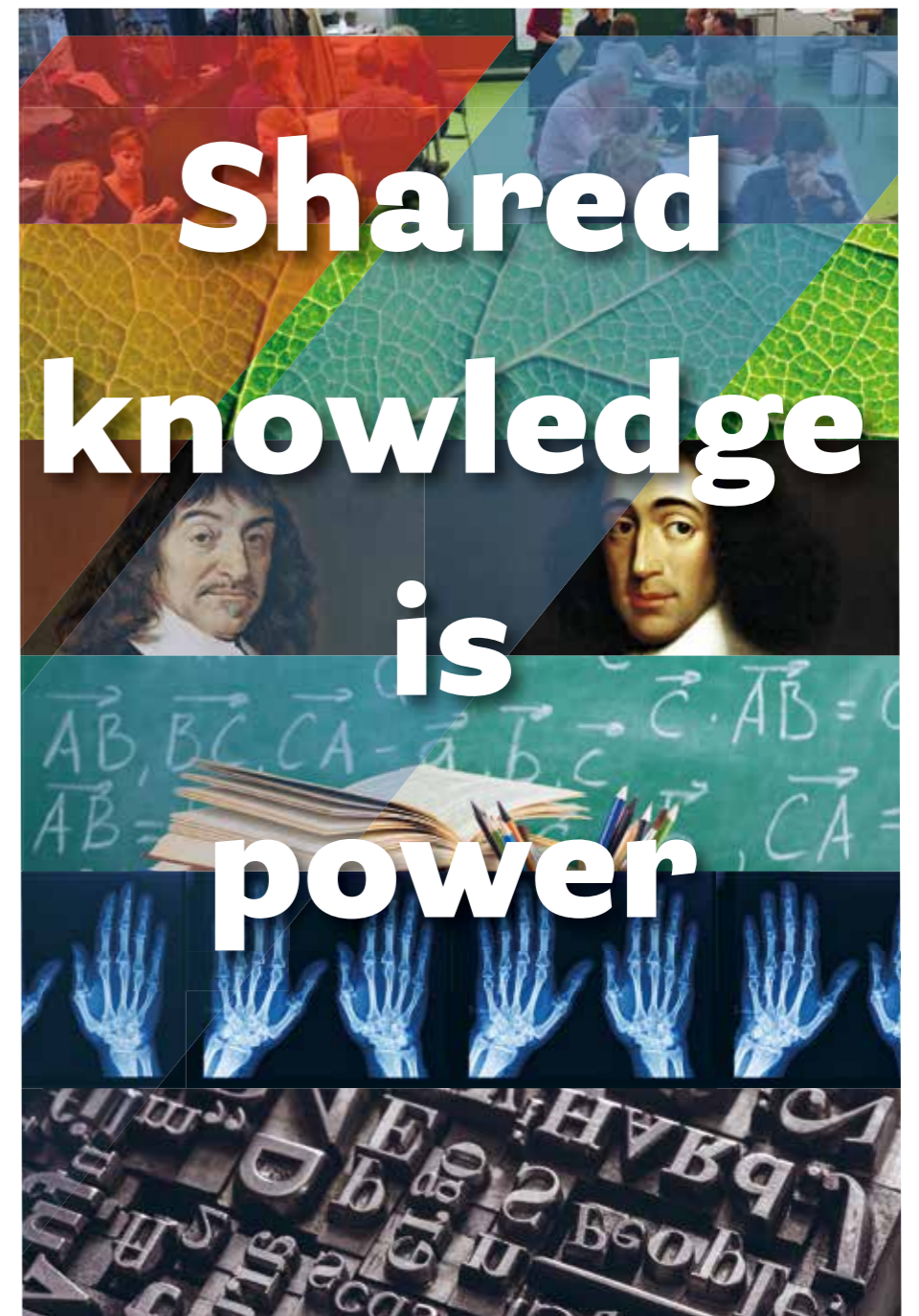
Not everyone is always happy with Science Shop work. For example, the Science Shop Physics performed measurements of noise levels during Defence Department shooting exercises in

proximity to the Marnerwaard nature preserve. The results indicated that the noise level was too high, thus preventing the construction of a second shooting range. This was quite a loss for the Defence Department, which dismissed the shop’s investigation as the work of ‘incompetent students’.

In some cases, research at the ‘frayed edges of society’ can lead to curious scenes. The Economics and Business Science Shop once conducted a study on the cultivation of silty vegetables, an expensive product and thus a lucrative enterprise. The study brought the former University of Groningen Rector Magnificus Elmer Sterken to the warehouse of the ‘trader’ Zwarte Jopie: ‘We obviously made a mistake by going to Zeeland in suits. The whole business had a slight air of illegality and wild harvesting of silty vegetables might not have been legal everywhere’.

## Mutual introductions

Trend followers or trend setters, figureheads or meddlers: the science shops remain an important link in the exchange of knowledge between the University and society. They do this by improving environmental permits, combatting low literacy, enhancing the sustainability of coffee cups, but most of all, by being an ambassador for the University’s role in our society. As the icing on the cake, the Science Shops of Groningen have the honour of hosting the ‘Living Knowledge’ international science shop congress in June 2022.



## A quick introduction Yorick Karseboom

“Hello, my name is Yorick Karseboom. Since September 2021, I have been the Coordinator of the Knowledge Centre of Philosophy, the science shop of the Faculty of Philosophy at the University of Groningen. In my work, I try to bridge the gap between research within the Faculty and the ever-changing world outside. In my

opinion, philosophy can be a useful tool within any organization or company. Outside the Faculty of Philosophy, I can often be found at concerts, whether on stage or in the audience. If you would like to know more about what goes on in the Philosophy Knowledge Centre, feel free to drop by for a cup of coffee.”



# An optimal rhythm for every child

## A comparative study on the advantages and disadvantages of various school timetable models in primary education

Apart from the number of teaching hours required by law, primary schools are free to determine their own school timetables. Starting and ending hours can vary from one day to another. What are the advantages and disadvantages of different school timetables, and to what extent do they affect the learning performance of pupils? In her Master's internship, Laura van Beek, a student of Educational Sciences, investigated this question and provided an answer to how the public Dalton school (ODS) De Starter in Groningen could benefit from the new school timetable model they had chosen.

By Denise Leidelmeijer and Laura van Beek

### Research background

There are two reasons for De Starter to opt for a different school model: an organisational and a pedagogical one. There is a growing desire to shorten the lunch break to 30 minutes and to opt for a different school timetable model. De Starter considers it important for pupils to see as many familiar faces as possible during their school career. The

Director of De Starter, Annemarie Beukema-Kars, has a long-standing curiosity about which rhythm would be optimal and appropriate for pupils, in addition to being in line with the core values of Dalton education. In this endeavour, she would like to consider all of the parties involved: pupils, parents, teachers, and external stakeholders, including the City of Groningen's childcare foundation, Stichting Kinderopvang Stad Groningen (SKSG), with whom De Starter forms the Integrated Children's Centre (in Dutch,

Integraal Kindcentrum or IKC).

The corona crisis provided an unexpected opportunity to experiment with different school timetables. As noted by Tom Drukker, research agenda project leader, 'At Openbaar Onderwijs Groningen [Groningen Public Education], we have been working for some time with a research agenda to encourage research-based work and to bring focus and cohesion to the development of knowledge. From De Starter, we received a query on what is known about the advantages and disadvantages of different class times. A solid scientific foundation would be quite valuable in this regard'. Tom Drukker approached the Education Science Shop with this question.

### Literature research

Laura van Beek investigated the question through a literature study as part of her internship research. According

to the results, the learning performance of pupils can be influenced by intelligence, executive skills, personality traits, motivation, social-emotional development (including well-being and self-concept), attention, concentration and biorhythm, the home environment, and the degree of parental involvement. The study also indicates that, of all the school timetable models, the biorhythm model has the most positive effect on the academic performance of pupils. Laura van Beek explains: 'This is because pupils can concentrate best between 10 a.m. and noon and between 3 and 5 p.m. They do not learn as well between noon and 2 p.m. To match the biorhythms of pupils as closely as possible, the school day could be started by repeating information from the previous day. New material could be presented at 10 a.m. and addressed in greater detail around 2 p.m. to enhance retention in the long-term memory. In addition, a 10-minute break has proven to have a positive effect on the attention span and concentration capacity of pupils. It is recommended to encourage pupils, and especially young children and boys, to exercise as much as possible during these breaks.'

### Recommendations

Although ODS De Starter does not follow the biorhythm model, Laura van Beek notes that optimal learning performance can also be achieved through the important role of the teacher. 'The organization of the school day, the variety provided by the teacher, the relationships that the teacher builds with and fosters amongst students, and the effectiveness of instruction are at least as important as biological factors (e.g. biorhythm). Teachers should pay attention to all factors that have a positive influence on the learning performance. Cooperative learning, high expectations, ownership in tasks, warm teacher-pupil relationships—all of these teacher behaviours contribute to maximizing the school performance of all pupils.'

### In practice

Thanks to Laura's research, the schedules at ODS the Starter have now been

revised. There is a better look at which classes are offered in the morning and in the afternoon and the breaks have been shortened. As observed by Director Beukema-Kars, 'Laura's study also served as another trigger for us. Our school timetables do not yet match the

biorhythms of the kids. On the bright side, however, we can now work with the SKSG to explore opportunities for further development in learning, playing, being amazed, and learning together, including in connection with the school for after-school care.'



Nature- and exercise class in the open air



# Encounters with Stichting (On)Gestoord

*How have visitors to Stichting (On)Gestoord experienced the Covid-19 pandemic?*

Stichting (On)Gestoord (Foundation (Un)Disturbed) in Groningen provides a safe space where people with a psychiatric background can be themselves and meet each other. Some people in this target group have difficulty connecting with society, although their need for sociability, a chat, and human contact is as great as it is for anyone else. During the coronavirus pandemic, there was less space for such encounters, and this influenced the lives of visitors to Stichting (On)Gestoord. For this reason, Stichting (On)Gestoord in the city of Groningen asked their visitors about their experiences with regard to their mental well-being during the 18 months of the coronavirus pandemic.

By Vera Verhage

## Unequal access to resources

Master's student Wieke Steenbruggen took on this question by conducting a literature review and several interviews. According to previous studies on the impact of the coronavirus pandemic on people with mental health problems, people whose mental well-being was negatively affected by the pandemic developed more symptoms (e.g. stress, anxiety, depression, and loneliness). As a result of the various lockdowns and other measures, the encounters at Stichting (On)Gestoord had to be cancelled multiple times. In all, the foundation was unable to organise its monthly encounters for 10 months.

There is a degree of inequality between people with and without mental health problems, especially when it comes to support from others and loneliness. People with mental health problems often have smaller networks that they can use as resources, they often experience less support and experience more feelings of loneliness than other people. During the coronavirus pandemic, the loss of social contacts provided by

Stichting On(Gestoord) could be seen as the loss of resources needed for positive well-being. Prior to the study, the lockdowns were expected to have caused the visitors to experience a decrease in well-being.

## Reduced social contact and positive experiences

The results of the research indicate that the participants had fewer social (or other) contacts than they did before the coronavirus pandemic. Several participants reported that not being able to see as many people as before the pandemic was bothering them. According to one participant, online contacts were not a good replacement for actual encounters. The in-person group was disbanded and replaced by WhatsApp. "The WhatsApp group brought us in contact with each other and let us exchange something like half and half, so to speak, personal information. But it is not the same as actually being in the office with other people. [...] It is a clear reduction in contacts." In addition, participants reported having felt lonely. They experienced the fact that they saw fewer people and had fewer contacts as a loss. Finally, several

participants indicated that their mental problems had increased.

"For a long time, [I was] passive, and therefore listless and down. I wasn't doing much of anything, and I certainly didn't take the first step [to establish contact]. Due to the pandemic and burn-out, my battery was completely drained, and the threshold had become insurmountable. Partly because of the pandemic, I fell into a downward spiral, and it only got worse."

Other participants indicated that the coronavirus pandemic had little impact, or that it had even affected their feelings positively. The fact that they had to stay at home was not a big problem, because it was comfortable for them.

"I experienced all of the coronavirus measures as very pleasant. During the first year of the pandemic, I had the opportunity to process it. I no longer felt obliged to participate in social events and, instead, I spent all of my free time processing my trauma—and it produced fantastic results." Some participants were able to use other resources, or held online meetings instead of physical ones.



Wieke Steenbruggen



An afternoon at (On)gestoord in May 2021

## Working as a volunteer

In the meantime, Wieke has started working as a volunteer for the foundation. "When I started, it was very uncomfortable for me. Some of the visitors scream a lot or talk very loudly, however this does not frighten me anymore. In many cases, it is also quite easy to have good conversations with them. This has

taught me to look at people differently, and I learn a lot from these conversations as well'.

Esther Jansen of Stichting (On)Gestoord, who commissioned the study, is very pleased to have Wieke as the newest addition to the team. "Wieke joined us in February 2021. In addition to her research, Wieke participated in our (On)

Gestoord afternoons, as well as in our consultations. In the past year, Wieke has made a valuable contribution to our organization, in part by developing a variety of projects. We were eager to hold on to Wieke's valuable, enthusiastic efforts. We are very happy to add her to our team of volunteers'.

## A quick introduction Kim Dumoré

"As a communications officer for the Science Shops, my job differs from one week to the next. I write articles for our website and maintain our social media channels. I also work on design, both as part of my position and in my leisure time.

Many of the projects supervised by my colleagues truly do contribute to society. My goal is to ensure that these projects receive the visibility that they deserve."



# Reducing Plastic Waste in Labs

Every year, the Green Offices collaborates with students from different faculties to investigate how the university can become even more sustainable and how to foster sustainable behaviour in staff members and students. This is a win-win situation: the student can conduct projects into a 'real' case and the Green Office receives useful advice. Some of these educational projects are done in collaboration with the Science Shops, especially with the Beta Science Shop. Here Dr. Jeroen Vos and Drs. Karin Ree supervise projects in the Bachelor Industrial Engineering & Management. Via these projects, students learn how to design and assess products, conducting for example a life cycle assessment. Based on these findings, the Green Office can have an overview of the impact of various products used at the university, for example coffee cups or cutlery, and even have suggestions on how to improve the current situation, for example, how to make the university library more energy efficient. One of the topics of this year was University Labs.

By Irene Maltagliati and Francine Nijp

## Sustainability and Labs

The environmental impact of Labs is a rising issue. Labs consume a large amount of energy and plastic (especially pipettes and test tubes) and not all lab users and lab managers seem to know the basic tips for reducing energy and waste. As Green Office, we were approached one year ago by two PhD students - Suzanne Lanooij and Renate Kat - who wanted to do something to change the situation. We quickly saw that this environmental concern was more widespread than we thought: in the first meeting many lab technicians and lab users from the Faculty of Sci-



Photo: UG/Merel Weijer

ence and Engineering (FSE) and the UMCG joined. Despite the covid limitation, we investigated the situation and produced instructional materials for the labs. However, raising awareness and providing tips might not be enough. Therefore, we decided to investigate more in depth which structural changes the university can take to improve the situation. We have decided to start with pipettes and asked a student from Bachelor Industrial Engineering & Management - Pascale Six - to bring more clarity on the problem and find possible solutions.



Foto: Polina Tankilevitch/Pexels

## The Living Lab Project

Pascale investigated the problem with the help of two lab managers, Roy Meijer and Kunja Slopsema. The focus went on a specific part of the pipette, disposable filter tips, which are used to prevent cross-contamination and are the most common type of plastic waste in the biology labs. The student conducted a life cycle analysis of filter tips, worked on an overview on the use of filter tips and their boxes and analysed multiple alternative solutions to decrease it, in particular comparing advantages and disadvantages of different waste management methods: reduce, reuse, recycle, and recovery. With the analysis, she discovered that reusing the plastic disposals will have the highest plastic reduction rate. Delivery boxes reuse is

the most simple solution: boxes can be repurposed by lab users or sent back to the supplier to be used again. Reusing filter tips is quite complex due to risk of contamination. However, this issue is not problematic in all research labs at the same level, therefore in some cases filter tips can be reused multiple times by lab users themselves. For other cases, when in depth sterilisation is needed, Pascale suggested collaborating with external companies which can collect, sterilise and send the filter back to the labs to be reused. These companies already exist in the Netherlands. According to Pascale, the university should be able to start the process of reducing plastic waste by implementing this solution, which is simple and does not require too much investment.

## Experience of Pascale Six

"It was an interesting project since the project was very tangible and when applying the solutions, fast change in plastic reduction will probably be visible. In the beginning of the project, I was looking for a broader overview whereas the focus was more on the waste processing techniques rather than on preventive waste production. When looking at the preventive waste use, the project became tangible and seemed to be more useful for the university. Therefore, it became more interesting and motivating to conduct research on this. Therefore, my tip to other students would be to research a subject that is most interesting and easy to implement for the university".



Pascale Six

# 2021 in a frame

There is no annual review without figures. In 2021, the science shops once again received many interesting questions from society, which grew into flourishing projects and interesting publications. We are grateful to the interested organizations and knowledge-hungry students who have worked with us. Looking beyond the statistics, we would also like to illustrate a few notable questions from the past years.

**Questions**

- Beta 41
- Medicine 16
- Philosophy 28
- Green Office 35
- Education 19
- Language, Culture, and Communication 34

How can refugees learn Dutch quickly by chatting?



Can the blood loss of women in childbirth be measured in a bathtub?



**Staff members**

- Beta 3
- Medicine 3
- Philosophy 2
- Green Office 5
- Education 3
- Language, Culture, and Communication 2

**Students**

- Beta 108
- Medicine 12
- Philosophy 21
- Green Office 59
- Education 11
- Language, Culture, and Communication 64



What prevents students from growing edible plants at home?



**Presentations and events**

- Beta 14
- Medicine 11
- Philosophy 5
- Green Office 7
- Education 12
- Language, Culture, and Communication 13

**External publications**

- Beta 43
- Medicine 6
- Philosophy 18
- Green Office 4
- Education 2
- Language, Culture, and Communication 6

Can we grow oyster mushrooms in coffee grounds?



**Settled questions**

- Beta 38
- Medicine 15
- Philosophy 24
- Green Office 30
- Education 17
- Language, Culture, and Communication 25

Illustrations: Kim Dumoré

# Ten years of ~~odd~~ <sup>creative</sup> questions

**Hairstylist:**

*Is there a good way to reuse hair waste?*

**Major:**

*Could the use of piezoelectric materials in the soles of army boots help soldiers to march longer?*

**Port authority:**

*Can the noise from boats be measured underwater?*

**Polynesian:**

*Can we recycle abandoned boats on the Fiji islands?*

**Grower:**

*Can oyster mushrooms be grown on coffee grounds?*

**Villager:**

*Can stored energy be used to freeze the skating rink?*

**Midwife:**

*Can the blood loss of women in childbirth be measured in a bathtub?*

By Karin Ree

**From the helicopter**

This year, the Beta Science Shop is celebrating a milestone anniversary. For 10 years, Industrial Engineering and Management bachelor students have been taking on our questions in their Integration Projects. One team each semester, now for a total of more than 75 students. In these projects, my fellow supervisor Jeroen Vos is known for his invitation to 'Board the helicopter', thus encouraging students to consider their research questions from a broad perspective. We are doing this here as well, with a few examples from 2021.

What makes projects in Industrial Engineering and Management special, and why is it so much fun to supervise them?

Firstly, there are hardly any questions that are odd or impossible to ask. As illustrated by the examples presented above, any challenge is welcome. The

students go out on their own in search of research methods and experts. The project focuses on the process of conducting research, and not on following the example of an experienced researcher. Students must thus find their own way in the research process. This does not mean that the supervision is any less intensive or challenging. The emphasis is on the systematic exploration of possibilities together, zooming in and out of the research together.

Secondly, many students love to work on questions originating from society. Engineering students are problem solvers. They can be challenged by concrete goals and conditions for achieving them. Industrial engineering managers also like to work with the big picture: What does the problem look like in practice? This is why the questions from the Science Shop are so popular with the students, they provide an opportunity to explore a problem in the practice of

the party asking the question, as well as a chance to do something meaningful for society. This is now known as educational innovation, but we have been doing it for years.

**Examples from 2021****Owner of an equestrian centre:**

*Could 'green sand' in the horse arena help to counteract the greenhouse effect?*

Olivine is a mineral that can bind carbon dioxide, the main greenhouse gas. Could the application of ground olivine instead of sand in equestrian centres contribute to fighting the greenhouse effect? Medas Girdzius, an Industrial Engineering and Management student, took on this question. He charted the life-cycle analysis of olivine to compare the carbon dioxide emissions from extraction, transport, and processing with the possible uptake

of the gas by olivine in the equestrian centre. One problem is that, under the conditions of the equestrian centre, the binding of carbon dioxide by olivine is a slow process. In the most favourable scenario, it would take more than six years for the uptake in the equestrian centre to equal the emissions during the earlier phases of the life cycle. The application of olivine as 'green sand' thus makes only a limited contribution to fighting the greenhouse effect.

**Laboratory technician:**

*Is it possible to reduce the amount of plastic waste in the laboratory?*

Plastic waste is a global problem and a popular topic for projects. Cigarette butts, marine plastic debris, cutlery, waste bins—with so many kinds of waste from plastic products, one might wonder how it could be prevented or processed. The same applies to waste from the University's laboratories. The Green Office is conducting campaigns to increase the sustainability of the University and laboratory waste is also on the agenda.



Single-use products (disposables) are becoming increasingly common in laboratories. Could things be done differently? Pascale Six is working with laboratory technicians to identify possibilities for more sustainable use of pipette points. Pipettes are used to measure precise quantities of liquids. After use, the plastic points of the pipettes are discarded. There is no clear, simple solution for preventing this type of waste. Pascale

demonstrated that some possibilities lie in the details, like using the proper size of the pipette point and reusing the collection container. Every little bit helps. Additional information is reported in an article by the Green Office in this annual review. A sequel to this project is also in the offing. In 2022, a project will be conducted on disposable instruments for minor operations performed by general practitioners.

**Meet-o-theek (loan desk for measurement devices):**

*Can citizens measure light pollution?*

Learning to design is one of the objectives for Industrial Engineering and Management students. For some questions, it requires experimental research. Geertje Motzelt went in search of a new campaign for the Meet-o-theek: a collaboration between the University and Forum Groningen to organize citizen science. They chose to pursue a campaign against light pollution, which is an underestimated environmental problem. Artificial lighting is omnipresent in inhabited areas. Where in Western Europe can the Milky Way still be seen with the naked eye? The problem involves more than only

the beauty of the starry sky: light pollution is hazardous to nature, human health, and the economy. It would be good if citizens could help to chart this problem. Geertje reviewed the methods available to measure night sky brightness, ranging from toilet-paper rolls to expensive light meters. After concluding that the Meet-o-theek needed a new method, she designed a prototype. The project was too short to make the design ready for use, but we did not stop there. Light pollution is now a campaign and, as part of the 'Darkness of the Wadden' project, light and darkness at the Delfzijl Chemistry Park will be on the agenda for a student in 2022.

Let us hope that many more odd, no, creative questions are yet to come.



Photo: Gary McGillivray-Birmie/Unsplash



# Conspiracy theories, science shops, and philosophy

About 25 years ago, when people still wrote letters, a professor of logic told me that he occasionally received letters from people claiming that Gödel's incompleteness theorem was false. This theorem is one of the most famous results of the field of logic. He had grown tired of answering such letters, as it takes time to follow the reasoning and spot an error, and the reasoning was sometimes so muddled that it did not make sense. This professor had finally decided to answer such letters by agreeing with the writer and adding the advice to keep their discovery a secret and not to tell anyone about it.

By Marc Pauly

It is up to the reader to judge whether this communication strategy might encourage or oppose the formation and dissemination of a conspiracy theory: a theory opposing the official theory and hypothesizing the existence of a conspiracy. Conspiracy theories seem to have been springing up like mushrooms recently. Both the number of conspiracy theories and their following seem to be growing, as it has become much easier for people to encounter them and because people might have become more sensitive to the reasoning. The negative effects that conspiracy theories have on society, particularly the increasing polarization, have also become more visible than they were in the past.



Photo: Kajetan Sumila/Unsplash

## Conspiracy theories and science shops

As science shops, we are also occasionally confronted with questions that appear to have emerged from conspiracy theories. For example, people have expressed concerns about their health due to chemtrails, 5G technology, vaccinati-

on, or other phenomena that are widely reported as conspiracies on the internet without any scientific evidence. Given the increasing impact of information as spread through conspiracy theories, it seems useful to consider how we might respond to questions that are fuelled by conspiracy thinking. To this end, the UMCg Science Shop, the Beta Science Shop, and the Knowledge Centre of Philosophy asked students following the Bachelor's course unit Scientific Communication to investigate this issue in three projects.

In the first project, students investigated how fact sheets could be used to convey scientific information to peo-

ple who may have been influenced by conspiracy thinking. The students created fact sheets on 5G radiation, low-frequency noise, and the causes of global warming. The objective was to connect to the questions and concerns that people have about these subjects, to refute misinformation and to communicate sometimes difficult scientific information in an understandable way through text and images.

We would also like to know whether and how we can enter into dialogue with conspiracy theorists. The students working on this project created a dialogue format that emphasizes shared learning. Empathy and understanding are central objectives, and the presence of a moderator can help to achieve them.

The third group of students reflected on how certain controversial films (e.g. Cowspiracy) can be used to encourage students to think about what conspira-

cy theories actually are and to recognize the difference between conspiracy thinking and being critical.

## Conspiracy theories in philosophy

For me, the conclusion from these student projects is that customization is needed when dealing with both conspiracy theories and conspiracy theorists. Both are characterized by a high level of diversity. Scientific communication should take this into account by analysing both the theory and the person behind it. Interestingly, this insight corresponds to recent thinking on conspiracy theories in philosophy.

Many philosophers believe that it is difficult to dismiss conspiracy theories outright as irrational or implausible, simply because they are theories suggesting a conspiracy. History provides plenty of examples of actual conspiracies. On closer inspection, it is not so

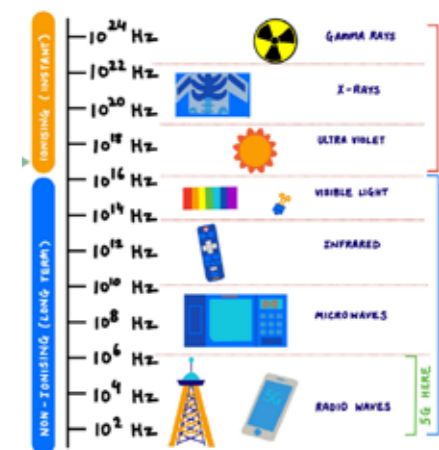
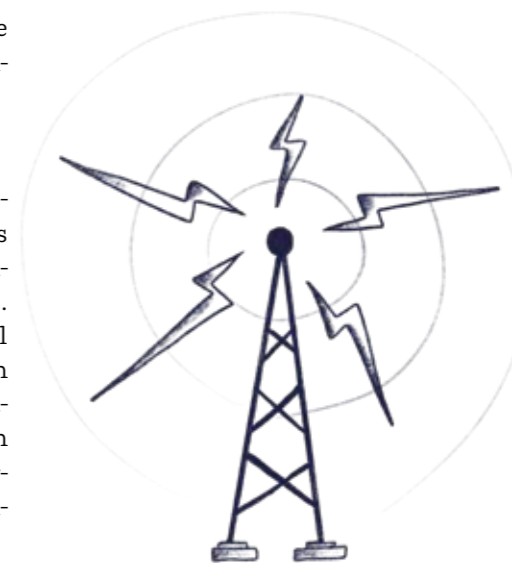


Photo: Mika Baumeister/Unsplash

easy to come up with criteria that can distinguish between true conspiracy theories and false conspiracy theories. So what can we do?

There is little choice but to examine the value of each concrete case of a conspiracy theory. How well are the arguments constructed? How reliable are the sources? These and other questions can be used to test the value of a theory instead of rejecting it just because it is a conspiracy theory. Although this requires more effort, it is ultimately the only way to investigate whether a theory is credible. To me, it also seems to be the best way to take the person behind the theory seriously.

To learn more about the philosophy of conspiracy theories, visit <https://iep.utm.edu/conspira>



# Effects of the Covid pandemic in the border region



In times of crisis, we have a natural urge to withdraw into an orderly and safe environment. We make sure to have a cupboard full of toilet paper and pasta to keep us going for a time. At the same time, some people need to act and communicate, that goes especially for politicians, policy makers and specialists. In a pandemic, however, they also have a need for an orderly and safe environment. This can easily lead to national or regional policies that stop at the border. But what does this mean for those living in the border region? In the midst of the pandemic, the Science Shop Language, Culture and Communication crossed the German border to search for answers together with German partners and, especially, with border residents.

By Saskia Visser

## Focus on border residents

The initiative for this international project came from Michael Klafft, an expert in crisis communication at the Jade University of Applied Sciences in Wilhelmshaven. He usually conducts research on natural disasters far away, but the crisis suddenly arrived at the doorstep. He regarded the science shops in Groningen and Vechta/Cloppenburg as good partners for a study that would focus on the voices of border residents. We therefore combined our expertise into a plan, which we were able to implement with financial support from the Ems Dollart Region (EDR).

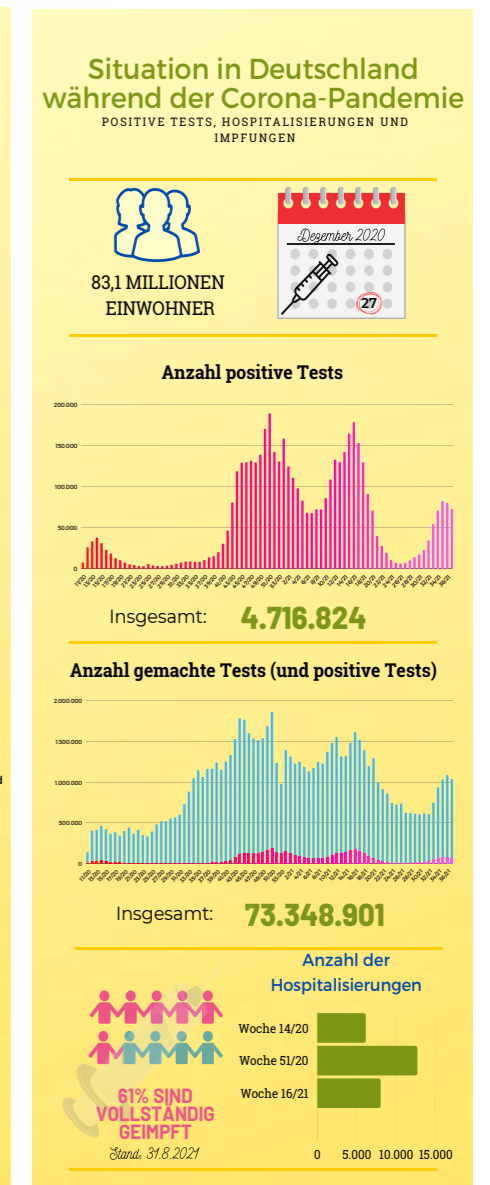
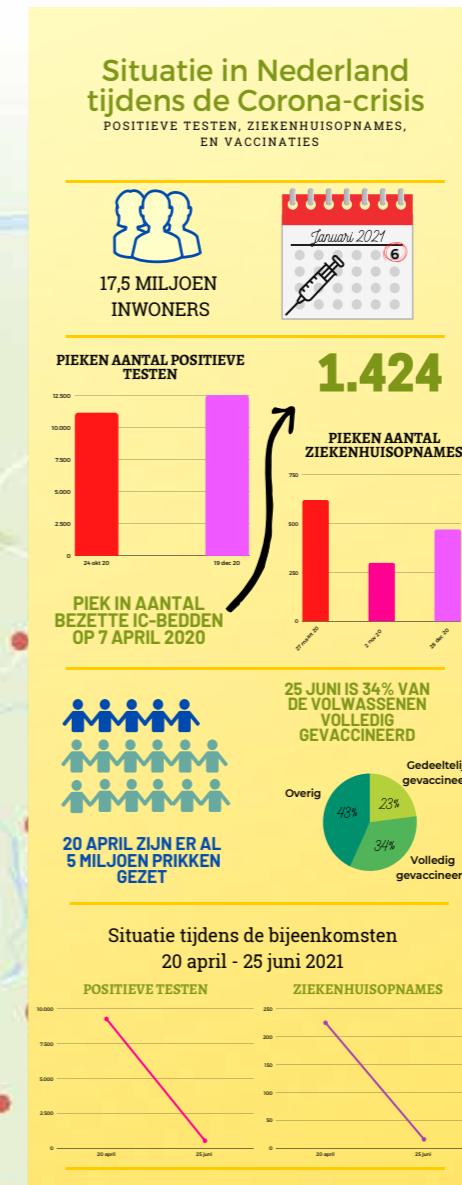
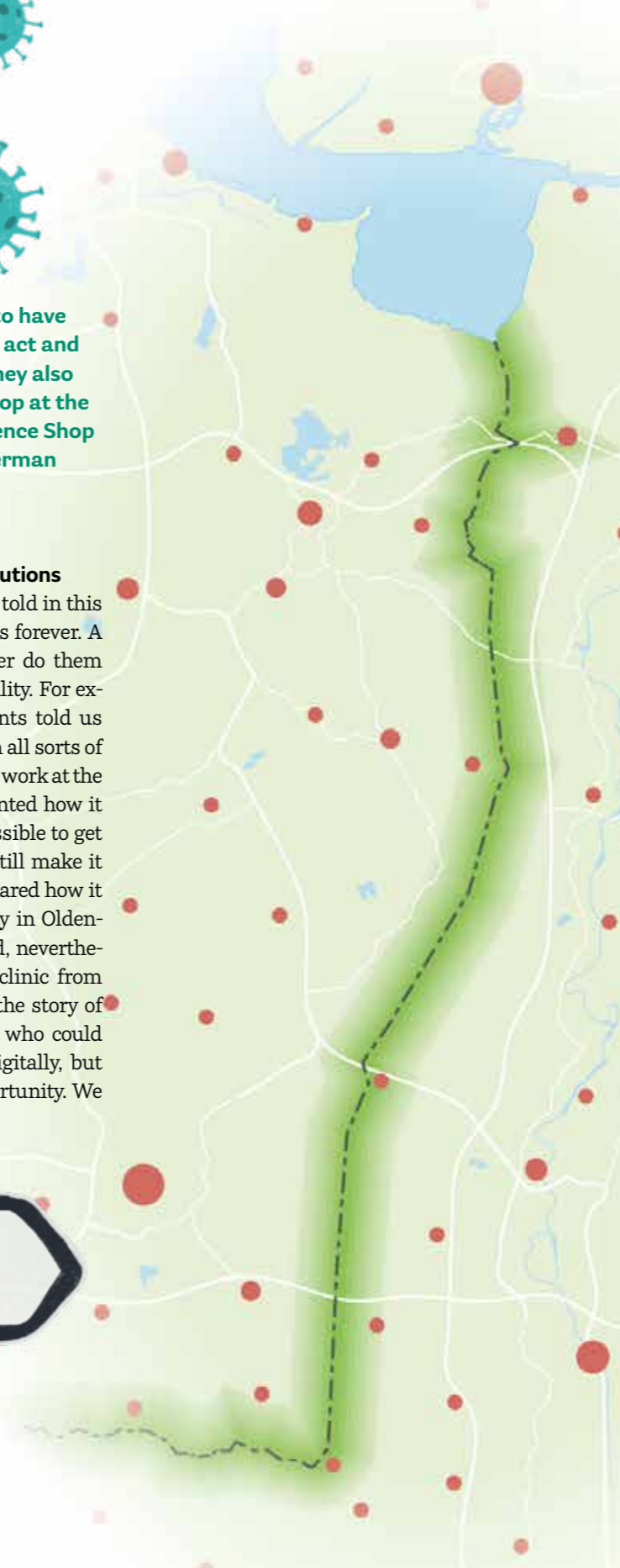
In the spring of 2021, we organised five thematic online sessions, each involving Dutch and German residents of the border region who were somehow affected: people living in Germany but working in the Netherlands, representatives of schools with exchange programmes or cross-border internships, entrepreneurs with customers or suppliers on the other side of the border, families with relatives in both countries. It soon became apparent that for residents of the border region, going abroad is not only for holidays: it is a part of their everyday lives. Participants discussed the

following themes with each other: Education, Work, Social life, Health, and the Local Economy. As moderators, we helped to keep the discussion going and structured it into positive/negative experiences and recommendations for the future.

At a concluding session in June 2021, we discussed the preliminary results with local and regional political representatives. Did they recognize the experiences and observations? Were the suggested solutions realistic and feasible? With these latest insights, the team members—with the indispensable help of student assistants and translators—were able to create a bilingual website and a booklet containing all of the results.

## Differences and possible solutions

Many of the stories that were told in this project will stick in our minds forever. A general summary could never do them justice—it would simplify reality. For example, Dutch medical students told us that they had to jump through all sorts of hoops in order to be allowed to work at the Oldenburg clinic. They recounted how it was logistically almost impossible to get tested every three days and still make it to work on time. They also shared how it felt to make the choice to stay in Oldenburg, miss their families, and, nevertheless, feel unwelcome at the clinic from time to time. We also heard the story of a woman living in Germany who could only visit her dying father digitally, but was very happy with the opportunity. We



An informative flyer about the covid situation in Dutch and German.

all soon realised how normal border traffic was for the participants. For them, the border had not existed for a long time—until it was suddenly about to close. For most Dutch people, closing the border simply meant cancelling their planned holidays. The consequences were much more far-reaching for border residents, a group that is easily forgotten in a crisis.

Many conversations also concerned differences between the policies in the Netherlands and Germany. Whereas the Netherlands chose to adopt a national approach, German policy was of a much more regional character. Each region set its own specific rules based on infection rates and, in some cases, the rules even

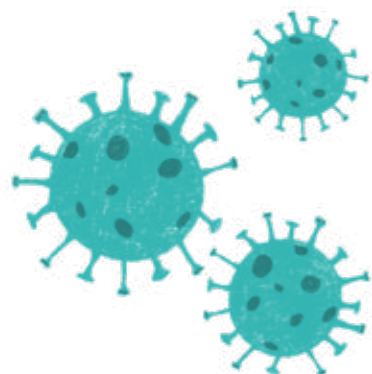
varied from one town to another. We had expected that the participants would have a clear preference for either a national or regional approach, but this was not the case. They understood the choices made by the other country very well, and they saw the advantages and disadvantages to both approaches. These differences posed above-average difficulties for border residents, for whom confusion was an almost daily occurrence. For this reason, the participants called for clear communication and transnational cooperation within the region. The ideal solution would be to strive for a transitional area in which rules would be synchronised.

### A call for connection

When the project started in 2021, we thought that we would be talking primarily about the past, but the crisis obviously persisted. The participants therefore often asked each other about the vaccinations and infection rates across the border. A sort of Russian doll effect occurred as well, because we were asking questions about it, but also collaborating with partners across the border during the coronavirus pandemic ourselves. Paradoxically we started an international exchange, even as such exchanges were the first to be halted everywhere. Some participants also indicated that they had signed up to strengthen contacts with their neighbours.

It thus became clear to all of us that, although the desire to retreat to one's own home, region, or country is understandable, it is not advisable. We need to seek connection. That also means not immediately dismissing people as conspiracy theorists, but trying to preserve exchanges, and allowing space for more perspectives (e.g. so that we can understand how women or migrant workers tend to be affected relatively more profoundly in a crisis). This is important, given that existing problems and inequalities are often exacerbated during a crisis. The unanimous conclusion was that this should encourage us to cooperate.

*If you would like to know more, the project website provides an online book (in German and Dutch) containing all background information and results (<http://coronabegegnun.gen.projekt.jade-hs.de>)*



## A participant's view

**Annelies Brekveld**

*Lives in Vlagtwedde (East Groningen), a few kilometres from the German border*

### Why did you participate?

"I participated in the project because I believe that living in a border region allows us to learn a lot from our neighbours on both sides of the border and that through collaboration we can help and strengthen each other. In addition, I am of the opinion that we are too far away from the Randstad and The Hague, which means that our interests tend to be overlooked. This is definitely the case with regard to healthcare: think about the extensive decommissioning of hospitals in the region. We have to make sure that we take up issues more broadly within the region itself. Looking across the border allows us to make use of the best of both countries. I am glad that I could contribute and draw attention to this cooperation. The approach to the Covid-19 pandemic was a well-defined topic for this purpose."

### What do you remember most from the project?

"Before participating, I had already read a great deal about how Germany was approaching the virus. During the sessions, however, I discovered that the differences in approach were much bigger."

### What did you think about the fact that both Dutch and German people were involved in the sessions?

"The different views of the German participants in particular have broadened my view of the pandemic. I think that such crises can only be addressed in collaboration. The possibility of responding to each other makes it possible to adjust opinions, thereby giving rise to a broader common view."



Annelies Brekveld

## Column



# Outsider Philosophy

By Yorick Karseboom

**From time to time, strange questions appear in the inboxes of science shops, including at the Knowledge Centre of Philosophy. One strange question was received from an amateur philosopher who had been working for 50 years to develop a general classification model for concepts. This model seeks logical connections in the ways in which people define words. It subsequently provides a foundation for a systematic online dictionary. The question was as follows: 'Are there any philosophers who could review this online dictionary?' A link to a website was included.**

One double-click later, I am in the mind of that particular amateur philosopher. The website is an endless list of links that subsequently lead to endless lists of words—all conceivable words, and I do mean all words. These words are then arranged in all sorts of classifications, in an incomprehensible way that I cannot make any sense of. After wandering around the website for half an hour, I was none the wiser as to what I was looking at. One thing, however, was abundantly clear: all of these lists of words had been compiled by someone with tremendous passion and an abundance of time. Unfortunately, we had to disappoint the amateur philosopher. We do not have the time to review his library of concepts, nor is that the purpose of a science shop, in my opinion.

In such situations, it is only fair to answer the email politely and then pay no further attention to it. It is precisely such situations, however, that reveal the creativity of our profession. When I shared the incoming question with my colleague and introduced him to the wonderful world of commonly defined terms, the colleague told me that the website reminded him of 'outsider art'—art created by various 'outsiders'. One example could be an exhibition of artwork created by inmates. These types of exhibitions provide a podium to artists and artworks originating from less familiar sources other than those from which they ordinarily emerge.

Although anyone can practise philosophy, attention to it often arises only within academic environments. Something like 'outsider philosophy' might exist too, and the answer to an unanswered philosophical question might be contained somewhere in this general classification model for concepts. Moreover, there might still be many sources of philosophical wisdom that we have collectively overlooked. My colleague and I quickly began brainstorming about a museum, or even an academy for outsider philosophy. None of these ideas has come to fruition, unfortunately, and the science shop soon returned to business as usual. As a whole, however, this example demonstrates that there is a new idea hidden in every question. It also reveals that no question is too crazy, bizarre, or weird for science shops. It is always possible to find a creative way to approach each question. This is what makes our work so much fun.

### A quick introduction Eline Huizing

"Since November 2021, I have been working as a student assistant at the Science Shop Language, Culture and Communication. The Science Shop appealed to me because of the diversity of projects, as well as because it provides the opportunity to contribute to society and be in touch with many people. The work at the Science Shop is quite diverse, and my tasks

include editing this annual review. With all these new challenges, I am learning a lot, and this is important to me in a job. In addition to my work at the Science Shop, I am currently in the last year of my Bachelor's programme in International Relations and International Organization, and I will start the Master's programme in Middle Eastern Studies next year."



## — Bèta —

## Publications

- *Eline Bolt, Veerle van Citters, Joachim van Eig, Hugo Nijenhuis, Hanne Punt, Pieter Riesenkamp, Freya Solomon. Zernike Campus; A stepping stone to the world of tomorrow.* Bachelor report Future Planet Innovation 2021 Sustainable contributions to society.
- *Alain Hanny. Techno-Financial Model of Renewable Energy Technologies.* Investment Scenarios for Local Energy Initiatives in Groningen. Bachelor report Industrial Engineering and Management.
- *Geertje Renate Motzelt. Night sky brightness sensor node appropriate for Citizen Science.* Bachelor report Industrial Engineering and Management
- *Carlijn van Dorst. Supplying EVs with electricity from renewable energy sources at Zernike Campus Groningen.* Bachelor report Industrial Engineering and Management.
- *Jos Groendijk. A qualitative analysis of technical, financial and toxicity parameters of nanocoatings to increase the aesthetics of reinforced concrete Dutch public art.* Bachelor report Industrial Engineering and Management.
- *Luke Pearson. Design of a Heat Stress citizen science campaign.* Bachelor report Industrial Engineering and Management.
- *Medas Girdzius. Olivine's CO2 sequestering efficacy when utilized in the Netherlands horse-riding sector.* Bachelor report Industrial Engineering and Management.
- *Pascale Six. Waste management for lab disposals.* Bachelor report Industrial Engineering and Management.
- *Merel Winters. Sustainability and recycling of cutlery.* Bachelor report Industrial Engineering and Management.
- *Jan Willem Hulsebos. Reducing maintenance dredging at the Eemshaven harbor.* Master Internship report Energy and Environmental Studies.
- *Marjanne van der Bijl. Want to work near the Wadden Sea? Exploring the potential of a collaboration between the University of Groningen and the Stichting Werelderfgoedcentrum Waddenzee.* Master report Energy and Environmental Studies.
- *Bianca Sibering. Advice towards the improvement of the Process Performance Qualification phase for the production of monoclonal*

- antibodies at Thermo Fisher Scientific Groningen.** Master advice report Science Business & Policy.
- *Esther Homan. Manifest bewegen en dementia. Onderzoeksrapport naar de wensen, behoefte en motivatie van mensen met geheugenproblemen tot dementie met betrekking tot beweegactiviteiten.* Master advice report Science Business & Policy.
- *Javier Diaz. Opportunities for offshore large-scale macro-algae production in the Dutch North Sea.* Master advice report Science Business & Policy.
- *Myrna Kosters. Improving employee turnover and safety through stress reduction and cognitive reframing. A look at safety policies and the impact of stress within the UMCG.* Master advice report Science Business & Policy.
- *Jesse Dijk. Het beleid bij zonneparken in de Provincie Drenthe en het gebruik van regenwormen om de bodemgezondheid rond zonnepanelen te vergelijken.* Master advice report Science Business & Policy.
- *Julian Bruinsma, Bram Haverkort, Joost van der Laan, Caterina Pezzola, Julien van Schaik, Annika Schmidt. Exploring offshore market opportunities for Albatrozz BV.* Master report Science & Business.
- *Puck Heerink, Nino van Hees, Jorn Hollander, Joost van der Laan, Caterina Pezzola, Julien van Schaik, Melanie Wong. Legal Protection for Curacaoan coastal ecosystems. An advisory report on how legislation can be implemented on Curaçao to protect its coastal ecosystems.* Master report Science & Policy.
- *Vera Thijssen. 'Nature Play for Kids: Engaging Children with Nature' Heppy Box voor Het Vergeten Kind.* Masterwork Activity Book Honours College FSE.
- *Benedicta Bella Benita. Towards a Circular Wind Industry – Recycling and Repurposing Waste Wind Turbine Blades.* Honours Masterwork – High Tech Systems and Materials.
- *Naveen Kumar, Adithya Mohan, Soundarya Senthilkuma.* Honours Masterwork – High Tech Systems and Materials.

## Presentations

- *Eline Broekema, Maya Bijlsma, Leonardo Widodo and Sofie Wolf. Nature inclusive solar parks in the Netherlands.* First Year Symposium Biology/Life Sciences and Technology, 28 January 2021.
- *Francien de Boer, Laurens Hamersma,*

- Siem van Hensbergen, Floris Mennema. The cat-astrophic effects on wildlife.* First Year Symposium Biology/Life Sciences and Technology, 28 January 2021.
- *Tijmen de Jonge, Rob Koops, Jules Taverner, Arvid Venhuizen. Ziggy Streetdust and the Spiders from Town.* First Year Symposium Biology/Life Sciences and Technology, 28 January 2021.
- *Clara Groth, Vera Huitema, Raywan Bejaoui, Dephny Mulder, Carolin Schröder. Microplastics from Polyester.* Honours College broadening module Garbage Patchwork, 12 January 2021.
- *Charlotte Axman, Roos Turkstra, Cristiana Foglia, Tyralee Thiessen, Ivo Gross. The life cycle of nylon fishing nets.* Honours College broadening module Garbage Patchwork, 12 January 2021.
- *Lotte van Ingen, Victor Budinic, Lilly Goll, Sara Németh. Low Density Polyethylene.* Honours College broadening module Garbage Patchwork, 12 January 2021.
- *Vueke Nelissen, Bjorn Fokkens, Frouke Minkema, Lasse Palm. Packing peanuts.* Honours College broadening module Garbage Patchwork, 12 January 2021.
- *Gina Biddlecombe, Rens Rolink, Jasmine Rowe, Marla Schockmöhle. The problem with PET plastic bottles.* Honours College broadening module Garbage Patchwork, 12 January 2021.
- *Thijs Becker, Dörte Beuermann, Ciarán Dorrian, Seyedkashayar Ghavami, Nadine Manatos, Tijne Neerbos, Anne-Puck van Ommen, Ella Rees-Baylis, Shanisa Rahmaputri Dewanto, Niklas Voß, David Wollenberg, Gfré Wortelboer. Responsible plastics, from source to end.* Honours College Petrus Camper Festival 23 June 2021.
- *Karin de Boer & Daniëlle Fluks. Screening of Seaspiracy and discussion.* Green Office Sustainability week. 7 October 2021
- *Ahmad Dibajeh, Froukje van der Woude, Hauke Zerhusen. LCA PE coated single-use paper cups.* Honours College broadening module Garbage Patchwork, 21 December 2021.
- *Selena-Maria Bota, Tamara Lühr, Luuk van der Kolk, Wojtek Anyszka, Lana Bitar. Dirty Fashion.* Honours College broadening module Garbage Patchwork, 21 December 2021.
- *Paula Boltze, J.Q. Chen, Koen Folkers, Sustainable Polypropylene,* Honours College broadening module Garbage Patchwork, 21 December 2021.
- *Daisy Blijdorp, Iulia Dragan, Jacob-Jan Haaksma, Lars Hof. Honours College broadening module Garbage*

Patchwork, 21 December 2021.

- *Eline van Aalderen, Maria Kathryn Alberto, Jan-Henri van den Berg, Nettuno Nadalini, Siri Bahnsen. Tiny Waste Big Problems EPS.* Honours College broadening module Garbage Patchwork, 21 December 2021.

## — Medicine and Public Health —

- *L. Leemhuis, Child Friendly Cities: De Indische Buurt en De Hoogte, Groningen:* Een kwalitatief onderzoek naar de ervaringen van kinderen en ouders.
- *E. Boonstra, De ondersteuningsbehoeften van gezinnen in armoede.*
- *K. de Haan, Tover je met me mee?* Het gebruik van de Tovertafel bij getraumatiseerde kinderen in de vrouwenopvang.
- *A.Dijkstra, Waar zijn de jonge mantelzorgers?* Een onderzoek naar de mate waarin (zorg)professionals zich bewust zijn van de prevalentie van de jonge mantelzorgers en zicht hebben op de doelgroep.

## — Green Office —

- *R. Rao, Investigating the interactive effects of value priming and classical conditioning on pro-environmental consumer behaviour.* Master thesis in Behavioural and Cognitive Neuroscience.
- *D.A. Nicolai. Vragenlijstontwerp en het effect van vragenlijstvolgorde op de gegeven antwoorden:* Een onderzoek naar het beïnvloeden van gedrag en intentie met betrekking tot duurzaamheid. Masterscriptie Communicatie- en Informatiewetenschappen.

## — Knowledge Centre Philosophy —

## Publications

- *Yorick Karseboom, Taal is een Kever,* Filosofische dichtbundel.
- *Meerdere studenten, Leeswijzers,* Leeswijzers voor Stichting Senia
- MOOC, Lespakket, Lespakket over democratie

## Presentations

- *Marc Pauly, Presentatie over burgerparticipatie,* voor gemeente Hoogeland
- *Marc Pauly, Presentatie over burgerparticipatie,* in de Oosterparkwijk

## — Education —

## Publications

- *Yanelis Botman-Jimenez, Maatjesproject Landstede groep.*

## — Language, Culture and Communication —

## Publications

- *Anouk Bakker, Elias Faour, Eilina Sonnema, Anna Spiridakis, Adviesrapport 'Global Goals' Gemeente Westerkwartier,* Adviesrapport Career Minor.
- *Ydwer Hoekstra, Joren Arkes, Roos Gielen en Stefan Ivanov, Bouwen aan een culturele democratie: Culturele betrokkenheid van jongvolwassenen in Het Hogeland,* Adviesrapport Career Minor voor gemeente Het Hogeland.
- *Ydwer Hoekstra, Joren Arkes, Roos Gielen en Stefan Ivanov, Cultural Engagement of Young Adults in Het Hogeland,* Wetenschappelijk rapport Career minor
- *Annetje Gleichmann, Latinos en los Países Bajos, Un estudio enfocado en la ansiedad en una lengua extranjera,* Bachelor thesis.
- *Elise Knibbe, Learning Dutch and English in Parallel, a Qualitative Study exploring the Language Learning Situation of Young Adult Refugees in the Netherlands.* Bachelor thesis.
- *Evgenia Korvesi, Chatting with your Peers, The Role of Text-based Synchronous Computer-Mediated Communication on L2 Oral Development, Language Learning Motivation, and Anxiety,* Master thesis.
- *Aliya Al Uariachi, Franka Tremblay, Hunter Simes, Marcus Dugan, and Vincent Zanen, European Talent Exchange Programme, stakeholder analysis,* Adviesrapport.
- *Ana Octavia Georoceanu, Benthe Klep, Zixin Wang, Zhilin Wu, Qiao Zhao, Stichting Beeldlijn Strategic Plan,* Adviesrapport.
- *Kevin Barron, Fiene van Bodegraven, Veronika Kiselova, Laying Wan, Analysis of Stichting Beeldlijn,* Adviesrapport.
- *Charlotte Dommerholt, Mila Tukker & Emma Zuidema, Bidbook voor Rijtuigmuseum te Nienoord,* Atelier MA geschiedenis.
- *Celine Oosten, The presence of religion in three hospitals in the region of Groningen: How do these hospitals encounter religious diversity?,* Masterscriptie.
- *Marit Evers, Jet Sterkman, Anneroo Voetberg, Imme Schalijs, Jessay Beukema*

- en Megan Postma, 6 leeswijzers Nederlands,* Stichting Senia
- *Ivris Roling en Yanniek Moll, 2 leeswijzers Duits,* Stichting Senia
- *Cate Brazendale, Jetske Venema, Merel Jacobs, Jeroen Vermunt, Kuljit Dhani, 5 leeswijzers Engels,* Stichting Senia

## Presentations

- *Anouk Bakker, Elias Faour, Eilina Sonnema, Anna Spiridakis, Presentatie adviesrapport 'Global Goals' Gemeente Westerkwartier,* 20 januari 2021.
- *Ydwer Hoekstra, Joren Arkes, Roos Gielen en Stefan Ivanov, Presentatie adviesrapport Gemeente Het Hogeland,* 21 januari 2021.
- *Aliya Al Uariachi, Franka Tremblay, Hunter Simes, Marcus Dugan, and Vincent Zanen, Presentatie adviesrapport European Talent Exchange Programme (ETEP)/ Eurosonic,* 27 mei 2021.
- *Kevin Barron, Fiene van Bodegraven, Veronika Kiselova, Laying Wan, Presentatie adviesrapport Beeldlijn,* 28 mei 2021.
- *Ana Octavia Georoceanu, Benthe Klep, Zixin Wang, Zhilin Wu, Qiao Zhao, Presentatie adviesrapport Beeldlijn,* 28 mei 2021.
- *Charlotte Dommerholt, Mila Tukker & Emma Zuidema, Presentatie Rijtuigmuseum Nienoord,* juni 2021.
- *Annetje Gleichmann, Presentatie resultaten Latinos en los Países Bajos,* Stichting Empower Yourself, 22 juni 2021.
- *Saskia Visser en Michael Klafft, Presentatie eindresultaten online burgerbijeenkomsten over Effecten van de corona-pandemie op de Eems-Dollard grensregio,* 25 juni 2021.
- *Vincent Hazelhoff, Over de Wetenschapswinkel Taal, Cultuur en Communicatie,* Presentatie bijeenkomst YARN, 29 oktober 2021.
- *Jan Phillip Bussmann, Vincent Hazelhoff en Saskia Visser, Mapping your project, twee workshops in Career Minor,* 18 en 22 november 2021.
- *Vincent Hazelhoff, Wetenschap in Praktijk, Presentatie wetenschapswinkel in college Vertaalwetenschap,* 24 november 2021.
- *Saskia Visser en Jan-Philipp Bussmann, Presentatie wetenschapswinkel en opdracht Stichting Senia in college Writing, Editing and Mediating,* 25 november 2021.

# Shall we create synergy?

