

Close-up

Public engagement at Utrecht University

Madelijn Strick

How can we measure
impact?

Marc van Mil

On education and public
engagement

Operatie Breinbreker

The Utrecht University
science show



Utrecht University

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Jim de Ruiter, PhD candidate at the Faculty of Science's Chemistry department during Operatie Breinbreker. Photo: Lize Kraan.

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Femke den Boer



Utrecht University believes it is important to engage a broad and diverse audience. This is why the university invests in public engagement. As director of the Centre for Science and Culture (CWC), I get to witness wonderful encounters between public and researchers on an almost daily basis. The selection of examples in this magazine represents a small portion of those interactions.

Crucially, our programmes and projects allow people who are less familiar with academic research to get a better sense of its value. This extends to both the fruits of research and education and scientific methodologies and thought processes. As a result, we can all make better-informed decisions on important social and personal issues, such as health care, lifestyle and politics.

Public engagement also benefits the research community. The insights and perspectives of our social partners and the general public offer researchers a source of new insights while motivating and stimulating creativity and innovation. As a part of this effort, we are eager to engage with the people of Utrecht.

We will also be exploring platforms and projects at national and international level together with the faculties and research groups within Utrecht University's strategic themes. We aim to build a broad, increasingly diverse and engaged audience that is eager to learn about, embrace and actively participate in academic research. Utrecht University will be presenting itself on new platforms in future in an effort to engage new audiences in different contexts. In addition to primary and secondary education, this includes prevocational secondary education (vmbo) and senior secondary vocational education (mbo), HKU University of the Arts, HU University of Applied Sciences, TivoliVredenburg

and the new Public Library on the Neude, as well as labs and libraries in the cities' various neighbourhoods, public spaces and the Botanical Gardens. Our University Museum is also currently developing an innovative and interactive new museum and exhibition concept.

Many researchers are enthusiastic about the idea of public engagement and are eager to engage and grow in this area, as demonstrated by the wonderful examples in this magazine. However, there are still many unanswered questions with regard to target group coverage, available venues, projects, cultural and civic partners, training and – naturally – the time and money needed to make all this possible. The Centre for Science and Culture will play a supporting role in this process. The CWC is currently developing public engagement programmes, projects and internal training and knowledge-sharing activities in conjunction with a broad and extensive network of researchers.

I look forward to working together and getting to know each other better over the course of this assignment, and am eager to discuss all this with you.

Femke den Boer
Centre for Science and Culture Director

Would you like to view the Public Engagement Plan 2020-2030? Send us an email: publicengagement@uu.nl

Feel free to contact us if you have any questions: publicengagement@uu.nl



“Uniquely, Impact Cafés draw students from all disciplines while helping us to connect with the people of Utrecht. This opens up a dialogue and allows us to reflect on day-to-day experiences in the context of our scientific understanding. The resulting debates are always interesting. A good case in point would be the issue of sustainable food: it remains an open question whether consumers can force manufacturers to produce sustainably without government intervention.”

Dr Herman Lelieveldt
Associate professor of political science and Jean Monnet Chair at University College Roosevelt in Middelburg

Impact Café

Impact Café is an initiative of the Faculty of Law, Economics and Governance, organised for and by Utrecht University students. Participating experts from the worlds of academic research, business and government, students and local residents work together to identify sustainability challenges and find ways to translate awareness into concrete actions.

Photo credits: Rosa Mosch





Rosan and Lieke: ‘We aim to bridge the gap between academic research and the general public’

Lieke Dekker works as project manager at the Utrecht Science Hub (Wetenschapsknooppunt), a part of the Centre for Science and Culture.

Rosan Reusken is science press officer at the Faculty of Veterinary Medicine.

Photo credits: **Lize Kraan** / Words: **Armand Heijnen**

Livestreams by professors aimed at primary school children, an online pop-up lecture on the Coronavirus and a forum for animal lovers [see page 16, ed.]. Lieke Dekker and Rosan Reusken develop and facilitate the university’s activities for the general public; Lieke does so at the Centre for Science and Culture while Rosan works from the Faculty of Veterinary Medicine. What are their roles, which challenges do they deal with and how has the Coronavirus pandemic affected their work over the last six months?



Rosan Reusken

What sort of projects do you work on?

Rosan: “Daily life and science are interwoven more than you might imagine. Good examples include your doctor’s consultation room, the roll-out of the 5G network and the introduction of self-driving cars. We aim to bridge the gap between science and the general public through public engagement. On the one hand, this will encourage researchers to listen to the general public’s questions and concerns. At the same time, the general public will become more aware of what scientists do.”

Lieke: “My work is mainly targeted at primary school pupils. We try to teach them how academic research works. That involves letting them learn by doing their own research projects. However, the pupils also inspire the researchers. They tend to come up with all sorts of unexpected questions. We recently got lots of great ones during Stream the Professor, our online alternative to Meet the Professor (cancelled due to the pandemic). We recorded eight live streams from professors’ homes, and children had the opportunity to ask them questions. We got lots of positive responses from primary school teachers, and some even used the live stream in their lessons.”

Rosan: “We really had to improvise this spring. We organised an online pop-up lecture on the Coronavirus in March. It turned out to be a success: the lecture has already been viewed 28,000 times.”

So what role do you play in these types of projects?

Lieke: “I develop new forms of science communication and help to organise our projects. I also try to help researchers and contribute ideas: dealing with a class of school children is obviously very different from a group of colleagues. We can offer tips like: bring a tangible object along, share something personal, don’t dive right in the deep end, use metaphors, and so on.”



I’ve noticed that researchers don’t always get a lot of room to set up public engagement activities although they do find them important.

Rosan: “We also help each other in that respect. The university has a network of employees focused on public engagement. We help each other develop new activities for the general public and inspire each other during meetings. Although these efforts are obviously valuable, there’s still a lot of work to be done. For example, our virologists were deluged with questions at the start of Corona pandemic. Hundreds of people sent emails, and some virologists were up late into the night writing answers. That demonstrates their commitment; they really want to engage with people. Still, answering emails obviously is not the most efficient approach. I’ve noticed that researchers don’t always get a lot of room to set up public engagement activities although they do find them important.”

Lieke: “Yes, that is still a challenge. Thankfully there are many different forms of public engagement, so there is a good chance that almost every researcher will be able to contribute something. Some enjoy teaching, others prefer to do podcasts while others only want to contribute ideas. Researchers should focus on what they are good at, the things that give them energy. Collaborating with enthusiastic researchers and contributing to the process is the best part of my work.”



The pupils also inspire the researchers.



Lieke Dekker

Public Engagement Seed Fund

The Public Engagement Seed Fund offers Utrecht University researchers small grants for innovative, research-related public engagement activities.



The Seed Fund enabled Dr Saskia Stevens to develop a boardgame on her cross-border research activities.



The fund provided weatherman and climate scientist Dr Peter Kuipers Munneke a grant for his Weather Challenge, an initiative aimed at encouraging people to go outdoors, look up at the sky and photograph what they see.

Facts and figures



More projects developed with help of the Seed Fund in this magazine: the dialogue sessions on page 9 and the vlog-project on page 21.

Number of approved applications	
Faculty of Humanities	10
Faculty of Social and Behavioural Sciences	2
Faculty of Law, Economics and Governance	4
Faculty of Veterinary Medicine	4
Faculty of Science	7
Faculty of Medicine - UMC Utrecht	3
Faculty of Geosciences	3
Dynamics of Youth	2
Utrecht Young Academy	2

Recipe for... dialogue sessions



Dr **Özge Bilgili** is a researcher and lecturer at the Faculty of Social and Behavioural Sciences

International migrant mothers often struggle with questions such as: what goes on at the consultation centre? How should I raise my child, and how do other people raise their children? How should I deal with multilingualism in my family? Özge Bilgili was involved in a project that helps migrant mothers to navigate their new role. She did so with the help of a grant from the Public Engagement Seed Fund.

“Najuan Daadleh, a social worker and founder of Parenting Across Borders, wanted to initiate a series of conversations with recently settled women with children under the age of one. I really liked the idea. Firstly, it fits right in with my area of interest; I do research on diversity and integration. I also have a young child myself and recognise a lot of these issues as a Turkish woman who hasn't lived in the Netherlands for very long. Plus, as a faculty, we have a great deal of expertise, which we could use to help these migrant women. We organised six two-weekly meetings on specific themes, and have in-house expertise in each of these areas. For example, we offer expertise in the areas of parenting styles, bilingualism and work-life balance. The women can share experiences and talk to the expert.”

Özge followed a 'recipe' that can also serve as a source of inspiration for other researchers interested in organising dialogue sessions.

For more information on the project and Public Engagement Seed Fund, visit www.uu.nl/en/publicengagement/closeup



Ingredients



Partner

Parenting Across Borders (NGO)



Location

Utrecht Community Centre; Zoom for online conferencing



Staff

2 participant recruiters
2 external moderators
4 guest speakers (3 from Utrecht University, 1 from Parenting Across Borders)



Approach

Parenting Across Borders Dialogue Approach



Preparation time

40 hours of project organisation (Özge Bilgili)



Funding

A € 2000 grant from the Utrecht University Public Engagement Seed Fund

Method

Develop the dialogue sessions in six steps:

- 1 Determine the most suitable approach on the basis of the target group and theme in consultation with the moderators.
- 2 Identify topics the target group would like to learn more about.
- 3 Approach researchers with expertise in the relevant areas.
- 4 Listen to and reflect on participants' experiences and challenges.
- 5 Invite the researchers to attend a dialogue session where they can share experiences, inform participants about the available scientific knowledge and help them find ways to deal with their challenges.
- 6 Evaluate whether you have met your objectives: participants feel better equipped to reflect on their situation and cope with their challenges; researchers have received valuable input for their own research.



Breaking Science

Researchers are increasingly expected to explain their research to an audience of lay people in a short space of time. Explaining what you've been working on for years within the space of 3 minutes can be quite a challenge! However, this ability to pitch effectively can definitely come in handy. For example, it can be extremely useful in obtaining personal grants. Breaking Science is a pitching competition organised by Utrecht University in order to help young researchers practise and improve this important skill.

Photo credits: Thijs Rooimans



“If knowledge is power, then science communication is effectively a way of distributing power to an audience. That is why it is our responsibility as researchers to have the ability to communicate science in its simplest form. Like any other skill, science communication needs to be practiced and strengthened to the core, Breaking Science is a terrific opportunity for this.”

Michael Musandu
Winner Breaking Science 2019



Reinout Raijmakers on inspiration, funding and public engagement



Dr Reinout Raijmakers is team leader at the Research Support Office (RSO) at Utrecht University's Faculty of Science. RSO helps researchers to identify potential sources of funding, provides advice on national and international grant opportunities, and supports researchers in the process of preparing grant applications.

What sort of role does an RSO play in the public engagement process?

“Public engagement plans can make up part of grant applications, especially in cases where the call requires participation with social partners. A good example would be NWO calls for projects as part of the National Science Agenda. Researchers also occasionally seek our advice on funding for public engagement activities.”

How can we get researchers to consider public engagement activities at the start of the application process?

“I actually think we need to ask another question first. I would argue that we shouldn't automatically include public engagement activities in every project. We need to choose suitable projects where the researchers are actually receptive to the idea.”

“The first question should be: does this project lend itself to public engagement? If that proves to be the case, some sort of portfolio of options and appealing examples can be of great use to both us and the researchers. Inspiration is the best way to get people motivated.”



We need to choose suitable projects where the researchers are actually receptive to the idea.

So what can Utrecht University do to support researchers in this area?

“If Utrecht University really wants to make progress in this area, it will inevitably have to invest a lot more. But that will mainly involve making (more) funds available so that researchers can organise activities, or even providing research funding for projects with a significant or very strong public engagement component (these projects must also be willing to fund the research themselves).”

Read more at www.uu.nl/en/publicengagement/closeup





Prof. dr Henk Kummeling has served as Utrecht University's Rector Magnificus since 1 June 2018

Henk Kummeling: Encouraging Public Engagement

How does public engagement correlate with social impact?

Social impact is a broad concept. It relates to legitimacy, to being answerable to society. Public engagement is a specific form of accountability, of demonstrating what you do in and for society. Obviously, that relates to quality as well as legitimacy; public engagement helps to ensure that we ask and explore the questions that are relevant to society. If we want to be a part of society, we need to be able to understand it. That involves engaging with a broad audience.

So how can university administrators create conditions that will encourage researchers to engage with a broad audience?

We'll need to take a different approach to career development. Managers should be able to reach new types of agreements with researchers: this year, you'll be doing a video project with that civil society organisation rather than publishing five articles. That will require a real mentality shift among our managers: we need to recognise and appreciate those qualities, and give them room to develop. As an administrator, you can make sure managers' task-loads accommodate these activities and demonstrate that they are appreciated and valued, also in relation to scientific standards.

I really learned a lot myself, especially teaching primary school classes as part of Meet the Professor: the images and questions we get from pupils are so valuable to our work.

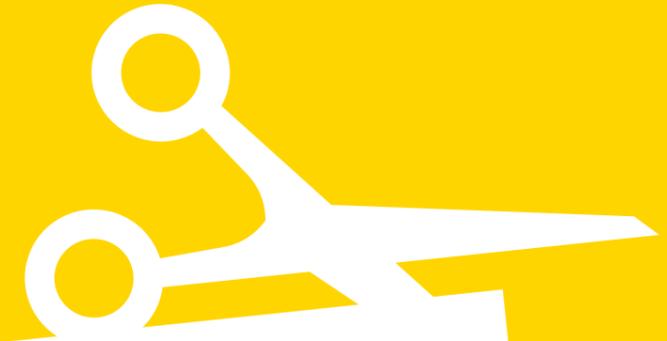


It was great to see the pupils, teachers and parents beaming with pride.

Could you name a good example?

This year, I was really moved by the UYA vlog project for pupils in prevocational secondary education (vmbo) [see page 21, ed.]. I attended the final presentation and was delighted to see that the pupils had been working with our people to address some major issues that also affect their lives. It was great to see the pupils, teachers and parents beaming with pride. The project was very special to me; all too often, I find that there is still a real gap between the university and other parts of society. Public engagement also has a role to play here; a more diverse university is a better university.

Photo credits: Arnaud Mooij



Public Engagement conversation starter cards

A practical tool for researchers and support staff discussing public engagement plans.

Are you working on your knowledge utilisation paragraph? Do you want to share your research results with a wider audience but don't know how to go about it? Maybe you're a support staff member and receive questions from researchers as to how they can engage a broader audience in their research?

These cards will help you structure the conversation so that you end up with more concrete ideas for a public activity that fits the subject, the audience and the researcher.

The Centre for Science and Culture regularly organises networking events on public engagement for Utrecht University staff under the name ‘Wetenschnapps’. The May 2020 edition of Wetenschnapps saw various support staff discuss their public engagement plans with researchers on the basis of these guideline questions.

Susanna Bloem participated in the event and had this to say:



“What I took away from the event: there are skilled people at the university who are more qualified to translate my research into activities for the general public than I am – that really offers added value in that it makes the idea for my activity much more concrete. I don’t have to do everything on my own and can get help on public engagement from Utrecht University. The idea of developing a module (online or otherwise) for a musical dialogue on the perception of time between grandparents living in the Rosa Spier House and their grandchildren really ties in with my project. That’s precisely the kind of “valuable” impact I’m trying to achieve through my musical approach. I never would have come up with such a unique, concrete idea on my own.”

Susanna Bloem is obtaining her PhD in collaboration with the Descartes Institute, Erasmus MC and the Royal Conservatoire in The Hague. Her research focuses on conceptions of time and translates these perceptions into music for a broad audience.



-2-

Which goals would you like to achieve by engaging with this audience?



-4-

Which resources do you have?



-1-

Which audience are you trying to reach?



-3-

What would be the most suitable format?

How can you measure your impact?



Dr Madelijn Strick is a lecturer and researcher at the Faculty of Social and Behavioural Sciences

Can we measure the impact of public engagement activities? Which active ingredients actually generate impact? Madelijn Strick is exploring these questions:

“Although we have a lot of implicit knowledge on the impact of public activities, we still don’t know exactly how it’s generated. We will be analysing all these aspects in collaboration with colleagues from Leiden University over the next few years, so that we can develop a useful framework model. You can carry out those analyses at various levels. For example, you can gather knowledge on individual projects, or focus on Utrecht University as a whole: what do we want to achieve in terms of impact and how do we intend to do it? We will be exploring the latter question with a group of researchers as part of the university’s Open Science Programme.”

Madelijn surveyed visitors at the 2019 Betweter Festival to find out which aspects of the activities helped to generate impact. One initial finding: if participants felt that an activity was personally relevant to them, they were more likely to report that it had helped them become more familiar with and knowledgeable about science.

Photo credits: Ruud Pos

Read more at www.uu.nl/en/publicengagement/closeup

Resources/processes

According to factor analysis, the activities mainly vary in terms of three key resources/processes:

 <p>Personal relevance</p> <p>For example, I learned something about myself, I was moved on an emotional level</p>	 <p>Interactivity</p> <p>For example, there was room for dialogue, I actively participated in the activity</p>	 <p>Accessibility</p> <p>For example, I felt at ease, the subject matter was easy to understand</p>
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Impact

Impact factor analysis reveals two types of impact:

 <p>Familiarity</p>	<p>For example, after taking part in the selected activity...</p> <ul style="list-style-type: none"> • I feel there is less distance between me and researchers • The idea of science feels more familiar • I have a better understanding of research
 <p>Knowledge</p>	<p>For example, after taking part in the selected activity...</p> <ul style="list-style-type: none"> • I acquired new knowledge • I’m more aware of the gaps in my knowledge • I’ve become curious

Which ingredients generate which type of impact?

Personal relevance is the most accurate predictor for both types of impact.

In order to achieve familiarity, it is especially important that people find the activity amusing, are moved on an emotional level and are stimulated to think.

In order to enrich knowledge, it is especially important that people find the activity amusing, feel challenged on an intellectual level and are encouraged to think.



How much time and money do you have?
Who can help you, which forms of expertise are you still missing?
What are you good at?
What else will you need to realise your ideas?

Which goals would you like to achieve by engaging with this audience? Why?
Can your target audience help you in any way? (Gathering or analysing data, offering new perspectives, etc.)
Do you want to share research results, or explain how research works?

How can you reach your target audience? Where can you find your target audience?
How can you make your research accessible and appealing to your target audience?
How will participation benefit your target audience?
How can you evaluate whether you have met your objectives afterwards?

To whom is your research relevant?
Why is it relevant to them?
Which questions might this target audience like to ask you?
Which broader social issues could you tie in with your research?

Operatie Breinbreker

What did dinosaurs sound like? What are black holes? Why are countries separated by borders? These are the sorts of questions researchers grapple with on a daily basis. But what are the answers to these questions and how do they find them? Utrecht University researchers showcased their day-to-day research activities during the science show Operatie Breinbreker on 4 October 2020. Visiting children and their families also got a glimpse behind the scenes as they participated in research and experiments.

Photo credits: Lize Kraan



Dr Saskia Stevens
Researcher and Assistant Professor of Ancient History and Classical Civilisation at the Faculty of Humanities

“It’s great to get to share your research with a broad audience. You can feel people’s enthusiasm in a lecture hall; that’s obviously more difficult online, but it’s been great to see how the Coronavirus measures suddenly lent the project a far greater reach online. I think we managed to highlight the curiosity, sense of wonder and enthusiasm that drives every research project in a really appealing way.

It was also fun to watch five enthusiastic researchers mess up the entire TivoliVredenburg stage in less than an hour.”

Prof. dr Anne Schulp
Paleontologist and Professor of Vertebrate Palaeontology at the Faculty of Geosciences



Timo Verlaat on his research into a more effective welfare system



Timo Verlaat is a PhD candidate at the Utrecht University School of Economics of the Faculty of Law, Economics and Governance

Verlaat is currently researching the options for a more effective welfare system. The current social welfare regulations are complicated and strict, and the municipality of Utrecht wanted to know whether a different system might be more effective. Some 750 welfare recipients from the municipality of Utrecht were divided into groups with different regulations. They filled in questionnaires and, in some cases, were also interviewed. However, the researchers were also keen to engage in dialogue with the participants: “We wanted to find out whether we had missed anything and gain a better understanding of the research results by learning from their views and experiences.”

To this end, Timo and his fellow researchers organised dialogue meetings. Welfare recipients were invited to take part in a conversation at the University Hall, followed by a guided tour. Timo shares some of the lessons he learned from the experience.

1

We got some really tangible results

“While the results confirmed some of our assumptions, the conversations also prompted us to focus on some issues that hadn’t been addressed much before. For example, the fact that people appreciated less regulations but still wanted the same amount of information. That’s an important nuance which we’ll be including in our report for the municipality.”

2

You should start thinking about public engagement when you’re designing your study

“If I had thought about organising dialogue meetings during the research design phase, I would have been able to arrange a budget. That was a valuable lesson learned: you don’t tend to focus on public engagement in the initial stages of your research process, but you should really force yourself to think about this aspect.”

3

There’s no need to reinvent the wheel

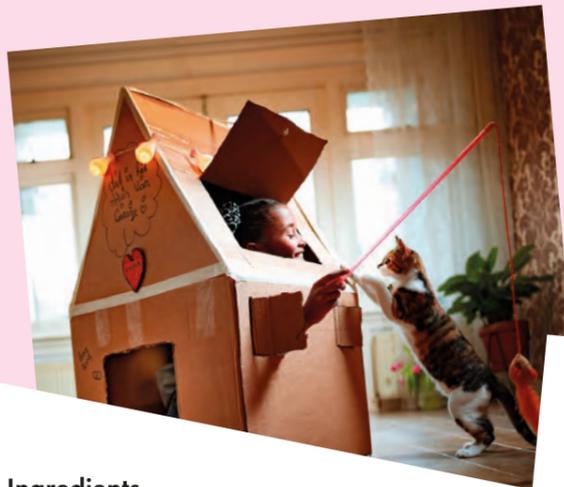
“The support we received from the public engagement programme was useful and valuable. They really contributed good ideas and helped to push us in the right direction. As a researcher you’re mainly focused on what you want to get out of it, you don’t have a lot of time. It doesn’t really occur to you that there should also be something in it for the participants.”

Read more at www.uu.nl/en/publicengagement/closeup

Recipe for... a platform for questions



Dr Inga Wolframm is head of fundraising at the Faculty of Veterinary Medicine



In the spring of 2020 – just after the start of the Coronavirus pandemic – Inga Wolframm developed a platform that enabled pet owners to ask questions about their pets: PetTails.

“Veterinary Medicine students couldn’t do work placements because of the pandemic. At the same time, we noticed that many pet owners were stuck at home and couldn’t or didn’t want to go to the vet with their concerns or questions. PetTails killed two birds with one stone: the students answered questions from pet owners, with support from experts from the Faculty of Veterinary Medicine. They were allowed to count the project as a work placement. The pet owners, on the other hand, had a great opportunity to ask questions they wouldn’t have been able to otherwise.”

Inga approached the project as follows: This recipe can also serve as a source of inspiration for other researchers interested in organising a platform for questions.

Ingredients



Software
A software package that allows users to create a forum (Inga was offered this package free of charge by a commercial party because of the lockdown)



Preparation time
40 hours of weekly moderation by students (equivalent to the number of hours they would normally work in the clinic)



Approach
A content calendar featuring issues that are relevant to the students, in order to organise and highlight content on the platform effectively



Supervision
Supervision by the communication and fundraising departments



Staff
A support team of researchers and lecturers

Method

- 1 Make arrangements with the director of education in order to ensure that this project counts as an alternative work placement assignment.
- 2 Recruit students.
- 3 Recruit lecturers/researchers that are willing to take part.
- 4 Offer the students a brief training course on communicating with the general public.
- 5 Set up and test the forum platform.
- 6 Promote the platform among pet owners by attracting media interest, reach the target group through targeted use of the various social media channels and promote the platform in collaboration with civil society partners.
- 7 Make the students responsible for managing the schedule and content calendar.
- 8 Regularly consult with the students to check how things are going and find out which opportunities for improvement they have identified.



Betweter Festival 2019

“Outreach is one of the best parts of being a researcher: in addition to exposing you to a wider audience, it also helps me to refocus my teaching and research and make the results more accessible. The Betweter Festival is a wonderful platform in that regard, and helps to strengthen the relationship between academia and society.”

Dr Dan Hassler-Forest
Media scientist at the Faculty of Humanities and member of the Utrecht Young Academy

Betweter Festival

The Betweter Festival is an annual art and science festival held at TivoliVredenburg. The event includes mini-lectures, interviews, music and movie screenings, and challenges visitors to put on their thinking caps. The fact that visitors can actually have hands-on involvement in scientific research makes this festival truly unique. The event is organised by Studium Generale, Utrecht University’s platform for knowledge and reflection.

Photo credits: Anna van Kooij



Keeping eyes and ears open

Maud Radstake

I was doing research in Ghana in the mid-1990s. I wanted to learn more about the situation in households where someone was living with HIV or AIDS. In order to find these people, I joined a local team from a small hospital that visited patients in the region several times a week. There were no HIV inhibitors at the time, so all they could really do was give advice on healthy living, sex and abstinence and hand out paracetamol, soap and rice.

The nurses felt frustrated that patients frequently ignored their advice, but spent lots of effort and money on spiritual remedies and healers. As they kept emphasising, the biggest problem was denial. They hoped that my research would help people with HIV to accept the painful medical reality of the situation. But the more of these people I spoke to, the more I began to understand that most of them weren't denying the diagnosis at all. However, this truth was far less relevant to them than the daily reality and meaning of their lives.

I currently work at the Centre for Science and Culture, where I am one of the driving forces behind the Public Engagement pillar of the university's Open Science Programme. The Open Science programme aims to ensure that researchers' work can be put to better and wider use by both fellow researchers and anyone else who believes academic research can help them to understand more about the world and perhaps even make it a better place.

I'm basically still intrigued by the same question I struggled with 25 years ago in Ghana: In what context does academic knowledge actually become meaningful? How do you factor that in to the interactions between those involved? Public engagement mainly relates to the relationship between the academic community and various target audiences. These can consist of citizens, civil society organisations, schools, or government bodies. Productive interactions between these target audiences and the academic community are key to achieving social impact. As a part of my work at the Open Science Programme, I supervise and support a network of public engagement fellows and researchers who will be sharing and developing their knowledge and experiences over the coming period. That will ultimately benefit other researchers, the rest of the university and the wider world. Recognising the context and listening to those you don't understand continues to be a major challenge in that regard. Still, that's also what makes public engagement so valuable.

For more information on the Open Science Programme, visit www.uu.nl/en/publicengagement/closeup



Dr Maud Radstake is director of Studium Generale and member of the management team at Utrecht University's Centre for Science and Culture. She is one of the driving forces behind Public Engagement activities at the Open Science Programme.

Photo credits: **Laura Mol**

Slimme Gasten

Researchers from the Wilhelmina Children's Hospital, UMC Utrecht and Utrecht University visit primary schools in the Utrecht area as part of the Slimme Gasten programme. They explain more about their work to children in the final two years of primary school. They also answer questions such as: What do researchers working at the hospital or university actually do? What did they want to become when they were young?

Photo credits: **Ivar Pel**



“Kids come up with all sorts of wonderful unexpected questions. They also tend to have a really different perspective on things in comparison with adults. In fact, some of their questions really get me thinking. It's also a useful exercise to explain your own research in a way that children can understand.”

Dr Rick Admiraal
Paediatrician in training at Wilhelmina Children's Hospital and Postdoc at the Princess Maxima Centre stem cell transplant unit



Experiences with public engagement

Isabel Arends



Prof. dr Isabel Arends is professor of Sustainable Organic Chemistry and dean of the Faculty of Science

Does public engagement provide an effective pathway to impact for the Faculty of Science?

I think public engagement ties in very well with both our fundamental and applied research. We obviously contribute to some major social issues, such as climate change, sustainable food supply, energy and circular materials. However, fundamental physics and mathematics are also all around us everywhere you look. Sharing that knowledge strengthens the relationship between the university and its environment, while enabling you to demonstrate how science works. This effort to promote scientific literacy will yield long-term benefits for society.

How does this all tie in with faculty policies?

Social impact is an important part of our promotion policy, which also covers public engagement. This demonstrates our genuine commitment to engaging with the general public. Our faculty supports U-Talent, an initiative aimed at promoting scientific research at secondary school, and many of our professors enthusiastically participate in the annual Meet the Professor event. We have a dedicated Outreach policy officer who supports our researchers in their public engagement activities. We have also formed Open Science teams at our faculty, one of which is focused on public engagement.

Can you give us a good example of public engagement from your faculty?

It's hard to choose, so I'll give you three. The Wall Formulas are a series of murals of mathematical formulas in public spaces around Utrecht. The initiative is the brainchild of teacher and researcher Ingmar Swart, an enthusiastic academic and lecturer who enjoys working with artists. Then there's the Galapagos Plastic Free project by oceanographers Erik van Sebille and Stefanie Ypma, who are currently developing an app that predicts when and where plastic waste will wash ashore. The duo are organising all sorts of activities to engage the general public in the issue. Finally, Merel Soons is conducting a biodiversity project in collaboration with the Botanic Gardens. Among other activities, she takes aldermen on excursions to show them how the nitrogen problem is affecting biodiversity.



Street Poetry

Dr Kila van der Starre is a literature scholar and launched the crowdsourced Straatpoezie.nl website in 2017

I've been living in Utrecht for almost fifteen years now, so I didn't expect to be surprised by the local entries when I launched the Straatpoezie.nl crowdsourcing website as part of my research on 'poetry off the page'. As it turned out, I was very wrong about that. The many examples of poems in public space really made me look at my own city with new eyes. A good case in point would be the poetry by J.C. Bloem on the Ganzenmarkt. I must have cycled over it a hundred times! Thanks to Straatpoezie.nl, I now know we have a drain cover bearing the poem 'Bemuurde Weerd'. It's actually been there since 15 March 1990, when it was fitted to commemorate completion of the canal sewerage system. Over 2,500 street poems have been registered on the map since I launched my website almost four years ago, resulting in a unique and valuable database of our literary heritage. Colleagues at various universities and universities of applied sciences, teachers and pupils at various schools and many other website visitors use the map to learn more about the street poetry in their area. I personally used the information to write the chapter on street poetry in my doctoral thesis and plan the street poetry walks and bike rides I guide in various cities. All thanks to the many people who registered street poems on the site!

Want to learn more? Visit www.straatpoezie.nl and/or like Straatpoezie on Facebook.



"As researchers, it's crucial that we keep on explaining why our work is relevant to everyone in this city. We need to make it clear that our research is relevant to kids who read comics as well as sophisticated broadsheet readers. In fact, it's especially important that we communicate with people who may not even realise that science is relevant to their daily lives. When Utrecht Young Academy applied to the Public Engagement Seed Fund, they advised us to choose a different target group this time rather than doing another project with pre-university students. I'm delighted and proud that we managed to develop a unique vlogging project with vmbo students thanks to that advice and the funding we received."

Dr Erik van Sebille
Oceanographer and climate scientist at Utrecht University and member of the Utrecht Young Academy

Vlogs

Eight researchers from Utrecht Young Academy and sixteen pupils in prevocational secondary education (vmbo) joined forces to create vlogs on issues such as climate change, identity and the power of language. The vlogs were featured in an interactive presentation in March 2020, during which students and researchers shared their views on the benefits of working together.

Photo credits: Eva Gossink

Watch the vlogs at www.uu.nl/en/publicengagement/closeup



"The support of the Public Engagement Team enabled us to build an equal relationship between members of the Utrecht Young Academy and vmbo students over the course of a video project. Vlogging on scientific and social issues helped us to learn with and from each other."

Dr Martine Veldhuizen
Cultural and literary historian at Utrecht University and chair of the Utrecht Young Academy

Three questions on development for Marc van Mil



Dr Marc van Mil is Associate Professor of Biomedical Genetics, an educational innovator and educational researcher at the University Medical Centre Utrecht (UMC) Biomedical Sciences programme. He is involved in the ongoing DNA dialogue (discussions between experts and the general public on DNA modification in embryos) and travelling DNA lab, for which he trains students to discuss DNA with secondary school pupils. He served on the jury at the 2019 Breaking Science pitch competition.

1

How do you keep evolving as a researcher?

That naturally inquisitive attitude you tend to have as a researcher can also be applied to other activities. We're constantly engaging with different audiences as a part of the DNA Dialogue: no two sessions are the same. I try to choose an approach that fits the audience in advance, and review the session afterwards: did things go the way I hoped they would? I rewatch sessions so I can learn from them. I also ask others for their input: your own perspective on things is always limited. I suppose listening is actually the most important skill.

2

Which career development step would you recommend to any colleague?

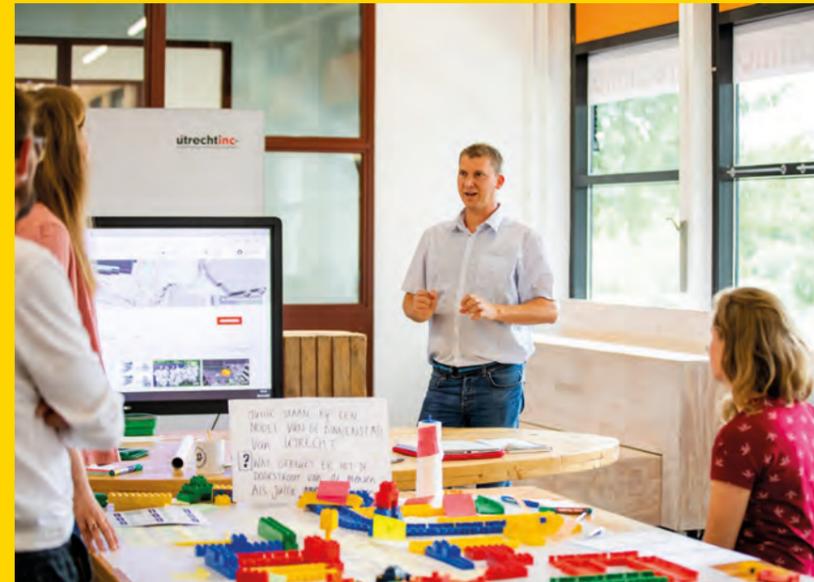
Try to find a mentor or buddy, someone who can hold up a mirror to you. Preferably, get someone from a different field. For example, we always have a group of different experts at the DNA Dialogues; not just biologists, but ethicists and lawyers too. That way, you'll learn more than you would from the colleague who works next to you in the lab. You also need to be consistent and keep reflecting on your development and progress.

3

So what can Utrecht University do to help researchers interested in developing their public engagement skills?

We need to make sure activities for and with the general public are valued and compensated. If not, they'll always end up competing with research time. That will require a systematic change in terms of recognition and appreciation, to which we've obviously been contributing through the Open Science Programme. You could also put together a class of young talent whom you then train, and develop a plan for multi-level training. In addition to planting seeds the way we do at the Breaking Science programme, you can also create a mentoring system where you pair young talent with more experienced researchers, organise peer review sessions in order to share experiences, and create safe practice environments. It's also important to establish role models. Present stories that young researchers can identify with, and make it clear that wonderful things can happen when supervisors give young researchers the opportunity to engage with the general public.

Photo credits: Thirza Luijten



Dr Roland Geraerts
Researcher and Computer Science lecturer at the Faculty of Science

Aniek Bax
Exhibitions and innovation project leader at the University Museum

Photo credits: Lize Kraan

Visit UMU online at www.umu.nl



The new Utrecht University Museum

Aniek Bax and her colleagues develop exhibitions for the Netherlands' leading research museum: a family-oriented museum where visitors can actively explore Utrecht University's past and present academic research. So how do you inspire an inquisitive attitude among museum visitors? The University Museum (UMU) is using prototypes to test the most effective approaches among both researchers and the general public.

For example, a table with Duplo blocks, handwritten instructions and initial sketches is proving useful in understanding the various stages of visitor interaction. Aniek and her colleagues are currently developing an interactive augmented reality simulation table with researcher Roland Geraerts. The table will allow visitors to experience the process of crowd behaviour research, drawing from actual current research projects.

The museum is set to open its doors in 2022.



What role can public engagement play in achieving social impact?



“Science should help to make our lives better. That’s real impact, as far as I’m concerned. If you want to have an impact, you’ll need to understand that science and society are always interconnected and make sure that relationship is as open and democratic as possible. Open Science is all about sharing results and data, and deciding what to focus on in consultation with people outside the academic community. In order for that to happen, scientists and other members of society must learn how to connect, get to know each other and understand one another more effectively. That’s basically the core of public engagement.”

Prof. dr Frank Miedema

Professor of Immunology, Professor of Open Science, vice-rector of Research and Chairman of the Utrecht University Open Science Programme

“We need to make sure academic knowledge is readily available and put to good use by broader society. People outside the science community also need to understand what science is and how it works in order to appreciate its value. Public engagement can play an important role in nurturing this broad sense of societal “scientific literacy”. Every contribution in this area has an enormous impact.”

Prof. dr Appy Sluijs

Professor of Palaeoceanography at the Faculty of Geosciences

“As a medical ethicist and member of the Senate, I feel a real duty to connect with broader society. Activities like Meet the Professor and the Betweter Festival give me an opportunity to discuss my research with a broad audience. That ranges from eleven-year-old primary school pupils from a deprived neighbourhood to a critical audience of adults having a beer.”

Prof. dr Annelien Bredenoord

Professor of Ethics of Biomedical Innovation and chair of the D66 Senate delegation

“If we aim to ensure the success of our strategic Dynamics of Youth theme, public engagement will be crucial in aligning our child and youth research with the actual needs of children and young people. The participation of young people and children is a crucial factor in various research projects. How do they experience home life after a divorce, how do they feel about climate change and how is the Coronavirus pandemic affecting their plans for the future? The involvement of civil society partners is a real asset to this type of research. These parties have access to young people and are in touch with the day-to-day practice. Our researchers gather data and insights from questionnaires and interviews, which our civil society partners can then build on. This knowledge also benefits policy makers, youth professionals, parents and the young people themselves. In the process, your research can really help to generate greater social impact.”

Prof. dr Catrin Finkenauer

Scientific Director at Dynamics of Youth

What role can public engagement play when it comes to achieving social impact? We’d love to hear from you! Contact us at publicengagement@uu.nl or Twitter @UniUtrechtPE