U BREMEN

update.

University of Bremen Magazine

05

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Universität Bremen

50 YEARS OF THE UNIVERSITY OF BREMEN

What does the President think about the university? How does the new Director of Finance and Administration want to shape it? An interview.

update.
is available online!

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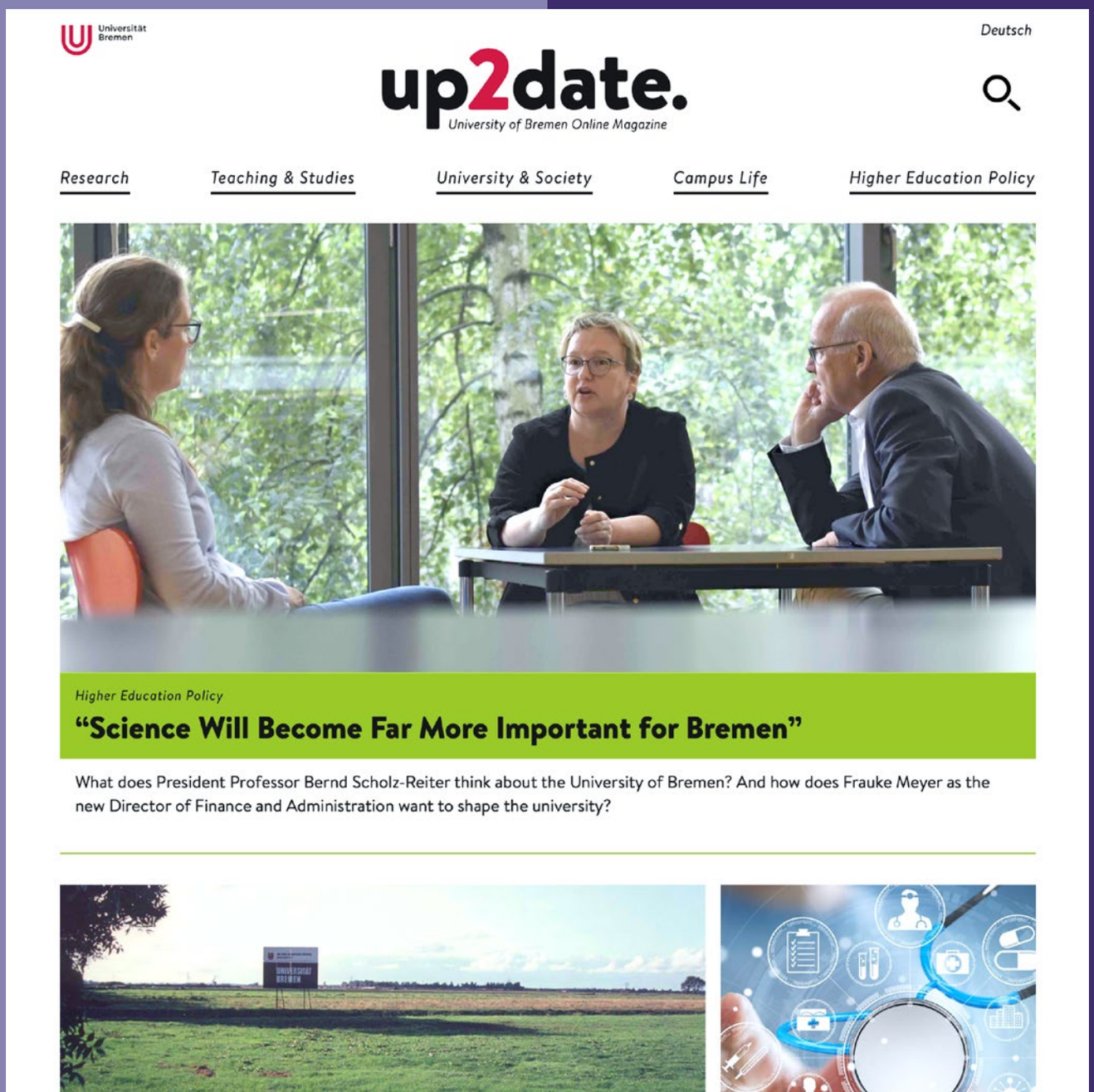

Dear readers,

The University of Bremen has been around for 50 years — it is a milestone birthday. An event like this must be celebrated and that is exactly our plan this year. On October 14, 1971, the university officially opened its doors. Since that day, the university has been a defining element for both the city of Bremen and Bremen State. An important economic factor, one of the largest employers — and above all, a now internationally recognized teaching and research institute that prepares young people for the challenges of the future and investigates solutions for current and future problems.

50 years — old or still young? When compared to the history of universities, half a century is a very, very short space of time. On the other hand, the University of Bremen is no longer allowed to take part in special rankings for "young" universities, in which it often did extremely well. When measured in terms of the dynamic and successful history of this institution, it would seem fitting for the university to feel a little old — or one might even say experienced!

50 years of the University of Bremen marks the right time for taking stock and looking to the future. This year, we decided on a short look back to the past and a long look forward into the future. The university's President, Professor Bernd Scholz-Reiter, and the Director of Finance and Administration, Frauke Meyer, who took on the role at the beginning of the year, outline in an extensive interview how the university should and will develop. They also confirm once more that many reform ideas with which the university started out in 1971 have caught on in the German university landscape in past years.

The fact that the university was ahead of its time in many aspects can be seen in an article about the institution's history in the field of climate and environmental research. Since its founding, the higher education institute has always felt a special responsibility towards the environment. Work on climate change and environmental strains was already being carried out when these topics were just side notes in the media.

A research report from the field of communications engineering, which focuses on the development of tomorrow's mobile network systems, highlights that the university is helping to shape the future. And you can, of course, also find stories about campus life, startups, higher education policy, and much, much more in this issue.

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We wish you enjoyable reading,
the editorial team

content

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Photo: Jonas Ginter / WFB

university & society

“A Special Responsibility Towards the Environment”

Climate and environmental research at the University of Bremen since 1971

Photos: Alena Weiß / Universität Bremen

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campus life

Cooking Time

Try these Mensa cafeteria recipes at home

in short

The University Researches “van der Waals Materials”

A lot has been said about graphene — it is deemed a “wonder material of the future” as it makes entirely new products and applications possible. However, graphene is now only one of many atom-thin materials. The university is involved in the research surrounding these “van der Waals materials” with three projects and will receive a funding volume of around 650,000 euros in the German Research Foundation’s SPP2244 Priority Program with the title “2D Materials — Physics of van der Waals [hetero]structures (2DMP).”

New and International: Marine Geosciences

Rising sea levels, CO2 storage in the oceans, possible consequences of deep-sea mining. These and other pressing issues of the future are on the curriculum of the new international Marine Geosciences bachelor’s degree at the University of Bremen. The degree program is ideal for dedicated students who are interested in the ocean and its natural environment, dynamics, and the effects of human activities and for those who want to help to find solutions for urgent problems in the marine world.

University Involved in Significant Climate Research

Germany is to have a new infrastructure for research into fine dust particles, clouds, and trace gases — and the University of Bremen is playing an important role. The university is one of eleven German institutions contributing to the EU research infrastructure ACTRIS (Aerosol, Clouds and Trace Gases Research Infrastructure). ACTRIS-D funding enables investments of around 2.5 million euros at the university. These funds will contribute greatly to strengthening the scientific location of Bremen in the field of atmosphere and climate research in Germany.

High Willingness to Share Health Data

In the pandemic, many people have been prepared to make their health data available for research purposes. These are the significant findings of a study carried out by the University of Bremen investigating the behavior of users of the corona data-contribution app for the early recognition of COVID-19 hotspots. The Center for Computing Technologies (TZI) assessed users’ personal attitudes towards the corona data-contribution app from the Robert Koch Institute (RKI). The center will create recommendations for the development of technologies that are to be used in future crises based on the above.

ITEM Develops Know-How Protection

Self-driving cars, service robots, communication: Our daily lives are increasingly influenced by microelectronics. Electronics are no longer developed and produced in one country and at one location but rather in many steps around the globe. Who knows if everything is being done properly, if impeccable quality is being produced, and no hidden functions are being added to the software and hardware? The Institute of Theoretical Electrical Engineering and Microelectronics (ITEM) at the university is now coordinating a network project on expertise protection for such electronic systems. The government is providing funding of six million euros.

Award-Winning: Outstanding PhD Supervision

For the second time, the University of Bremen has honored outstanding PhD supervision. Two first prizes were awarded to the political scholar Heiko Pleines and the computer scientist Rolf Drechsler. With this award, the university wants to show that excellent supervision of doctoral students is important to them and that such

↓ Rising sea levels, CO2 storage in the oceans. These and other pressing issues of the future are on the curriculum of the new international Marine Geosciences bachelor’s degree.
Photo: divedog / Adobe Stock

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A NAO robot from the Bremen team – B-Human. For the first time ever, the deciding factor at the RoboCup World Championship was not the number of goals scored. Instead of a traditional football tournament, the international teams faced new formats.
Photo: Jannes Knychalla / Universität Bremen

a relationship also includes collegial support between experienced researchers and early-career academics. The Alumni Network of the University of Bremen donated the prize money of 2,000 euros per person.

University Researcher Contributes to World Climate Report

Professor Veronika Eyring from the University of Bremen and the German Aerospace Center (DLR) has contributed to the Intergovernmental Panel on Climate Change's (IPCC) report that was presented at the beginning of August 2021. The climate researcher is the coordinating principle author of the "Human Influence on the Climate System" chapter. Veronika Eyring's research focus is on Earth system modeling and model analysis with observation data, including the development and application of artificial intelligence methods for reliable climate forecasts and technology assessments (see page 25).

Minister of Labour Heil Opens New Institute

The German Institute for Interdisciplinary Social Policy Research (DIFIS) of the Universities of Bremen and Duisburg-Essen (UDE) has started its work. Federal Minister Hubertus Heil opened the institute in the summer 2021. The Federal Ministry of Labour and Social Affairs is providing around eight million euros over five years for the establishment and research. The institute is to carry out research on social policy issues of the future and support transfer between science and practical fields of application.

B-Human Wins RoboCup Once Again

They remain unbeatable: For the eighth time, B-Human – the team from the University of Bremen and the German Research Center for Artificial Intelligence (DFKI) – were able to win the world championship in robot football. After the event was canceled in 2020, it was under the title "RoboCup 2021 Worldwide" that the traditional competition took place in an unusual way. The teams all competed virtually. B-Human was able to win three of the four new competitions in the Standard Platform League and thus, successfully defend its 2019 title.

New Trust Foundation Fosters Equal Opportunities

The promotion of equal opportunities is of a high priority at the University of Bremen. A new trust foundation from Dr. Hella and Bernhard Baumeister wants to support this. The couple wishes to contribute to the breaking down of structural disadvantages in this way. The Baumeister Foundation for Equal Opportunities will mainly support teaching and research in the fields of gender, the future of work, and social security. Additionally, the foundation wants to help female students and early-career researchers.
www.uni-bremen.de/stiftung

"Intelligent Fence" Against Wolves

A research project by the Center for Computing Technologies (TZI) at the University of Bremen, Giessen University, and the company RoFlex is investigating and developing a pasture fence that is to recognize and drive away wolves with the help of artificial intelligence. The system should provide better protection for pasture animals and thus promote the co-existence of humans, farm animals, and wolves. Furthermore, it is planned that the "mAInZaun" – the name of the project – will also warn against unauthorized persons in the pasture or against holes in the fence.

“Science Will Become Far More Important for Bremen”

What does President Professor Bernd Scholz-Reiter think about the University of Bremen? And how does Frauke Meyer as the new Director of Finance and Administration want to shape the university?

Interview by Meike Mossig

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A bird’s-eye-view of the campus and the adjacent Technology Park.
Photo: Studio B / Universität Bremen

50 years of the University of Bremen – that is certainly an event that warrants an interview with the President and the new Director of Finance and Administration to talk about the present situation and future of the scientific institution. In this **double interview**, Professor **Bernd Scholz-Reiter** and **Frauke Meyer** talk about their personal views of the university, the location of Bremen, and how they imagine the university to be in the future. The interview was held in the Mensa cafeteria.

Mr. Scholz-Reiter, the university is now 50 years old and you shaped a good ten of those years as President. Where does the university stand today? What makes it stand out?

Bernd Scholz-Reiter: The university is shaped by its history. What certainly makes us stand out is that we are cooperative and push matters forward together – often with a pioneering spirit. Maybe that is down to the reform idea of the 1970s when the university was founded.

Where does this become visible?

In the fact that we are developing new staff structures, for example. Let us think back to the senior lecture and senior researcher positions in the mid-level academic sector that offered permanent positions at an early stage in academic careers. Other states are copying them now. Some of our staff advise other states and universities, as they want to learn from our experience. Another example is the university's early initiative in the frame of the European university alliances. We took part in the EU's first round of bids and were among the first successful universities in 2019. We are now able to look back on nearly two years of work within the Young Universities for the Future of Europe alliance (YUFE), in which we are creating one of the first European Universities together with nine universities in Europe and four non-university partners. Thus, our internationalization really gained momentum in the past years. We definitely directed our focus on this path.

Why?

Firstly, due to the international visibility and the internationalization of academia in all disciplines. It used to be restricted to natural sciences and medicine. However, internationalization has greatly increased in the humanities and the liberal arts. The second reason is that we can profit internationally from a far larger pool of great students and researchers. That can only be enriching, as expertise is obviously increased globally in comparison to nationally. Another reason is the demographic development. It is well known that the number

→ Frauke Meyer has been the Director of Finance and Administration at the University of Bremen since January 2021.
Photo: Philipp Batelka

President Bernd Scholz-Reiter has led the university since 2012.
Photo: Philipp Batelka

of potential students in Germany is decreasing. However, if we require the same number of graduates in order to organize our societal system in an expedient way, we need more international students at German universities who then stay in Germany and Europe after graduation. Another aspect plays a role for the European university alliance YUFE: We have seen that certain nationalist interests in certain communities in Europe are coming to the fore again, which is not in our interest. I especially mean right-wing, nationalist, anti-democratic tendencies. And that is why it is good if our university positions itself as a European university in order to strengthen the awareness of the European identity among the students by means of joint studying. That strengthens Europe and the European ideal.

"Some of our staff advise other states and universities, as they want to learn from our experience."

President Professor Bernd Scholz-Reiter

Ms. Meyer, you have been Director of Finance and Administration of the university since January 2021. How do you want to shape the next years?

Frauke Meyer: We have a few big tasks ahead of us. One of them is internationalization. By far the biggest task at the moment is digitalization: It is all about changing processes, structures, and how we work together. That all needs to be accompanied intensely with staff development and organizational development measures.

What do you find particularly important?

That we feel the "University of Bremen identity." We know that we are not particularly well equipped by the state financially but we have a certain spirit, which will not, however, stay around by itself. It needs to be lived and felt. This spirit is important for us as a resource. All of our staff and students should have the feeling that 'this is our university – we want to help create it.' It is only in this way that we can be so successful despite our restricted means. It is the awareness that we are really fantastic because we're doing it together with this special Bremen spirit that we need to maintain.

How is it possible to take this into consideration when organizing processes?

By not becoming too bureaucratic but rather taking a good look at how we can get into a flow that makes all of our lives easier. One challenge will be to keep, further develop, and win over new staff. We know that there is a lack of trained staff and we must make use of everything that we, as the University of Bremen, have to offer.

What would that be in your opinion?

I think that the factor that motivates us all is our special cooperation, which is what I can shape as the Director of Finance and Administration. The question is: How can we

work together? In a trusting and cooperative way with each other. We cannot afford to strictly adhere to hierarchical processes. That does not work and is not enjoyable and it is exactly that – enjoyment – that we need when working. Which is obviously sometimes difficult in day-to-day life. That is something that we have felt during the pandemic. Many people are exhausted and our staff resources are limited. In the first part of my term in office, I believe it to be an important task to ensure that we all get through the pandemic well and then continue afterwards with fresh energy. It will be hard work and it is what we are all focused on.

Internationalization and digitalization bring changes with them. Some people are scared of this.

I avoid using the word "scared" in connection to work. I find it to be unsuitable; it's not my choice of wording. I rather believe that we should act in a manner less centered on the problem and rather view the opportunities that we have and the chances available for creating something. Based on my working experience, that is one of the great things about the University of Bremen. Basically all positions have the chance to shape a great deal themselves. Recognizing this scope, using it responsibly, and aligning it with the university's goals is important in my opinion. This also applies to internationalization. Some people may ask themselves how quickly we all need to have command of a foreign language in our positions. I feel we should all have the confidence that we will slowly get to grips with it. The example of YUFE: We will certainly not have 5,000 YUFE students here and send 5,000 of our students to the other nine YUFE locations from one day to the next. Not every one of us will have to communicate in nine different languages. I rather think that we will get to know it all step-by-step. Especially as we have many well-trained university staff already. Having confidence and trust in ourselves is what we need and should have, as we are doing well in many areas. I would also like to explicitly support what the President said: I find the European ideal to be extremely important. It affects us all. We should think in a European manner, stand up for European values, and live in co-existence.

What do you both particularly value about Bremen?

Scholz-Reiter: What we repeatedly hear from others is that we work well together. With that I mean the staff from different institutions – even across institute boundaries. One example is the U Bremen Research Alliance, made up of the university and twelve non-university research institutes in Bremen State, which are jointly supported by the government and states. The network has developed in such a way since its institutionalization in 2016 that we no longer are only able to use joint resources. We also move certain matters forward together. In this way, we are addressing and developing Bremen State's high-profile areas in science and the innovation and technology focus points. One success is the German Research Foundation's (DFG) National Research Data Infrastructure (NFDI). No other German state is quite as well set up in this regard as Bremen. The U Bremen Research Alliance plays a central role in this.

Frauke Meyer: The advantages in Bremen are, of course, that we have very short distances to all institutions with which we work – whether it be in science or politics. What I also always experience in a positive way is the support of the citizens. If I am somewhere and explain that I am there as a representative of the university, it seems to mean something to everyone. Many people studied here or know people who are doing a degree or work at the university. I have noticed that there is a great deal of support. We especially took note of it in last spring, when we stood up for the full funding of the Science Plan. I found it very impressive to see from how many different fields we received said support.

And finally, a question that looks to the future: What do you imagine the University of Bremen to be like in 50 years?

Scholz-Reiter: Naturally, this is dependent on all surrounding factors. How will our society develop? In which situation will our state system, Europe, and the world find themselves? However, if we take the last 50 years, which were peaceful in Germany and had a prospering state and societal structure, and project that into the future then I would say that the University of Bremen will be ever better positioned in 50 years. We will then mainly be an international research university that works on many important issues for society – topics that we are already aware of today. And we will also have hopefully solved several problems by then, for example in connection to global warming. We need to have control of that by that point in time. Our university is very competitive in terms of climate and environment research. With our regional and international partners, we will surely create important stepping stones in the coming years in order for us to overcome this crisis. Yet, it will certainly also be the case that we will have new research questions, which are already becoming apparent today. I am thinking of space exploration as an example: It is to be assumed that the first people will be able to stay on planet Mars for an extended period of time. This will bring up new questions and thus also great scientific challenges and opportunities. Additionally, migration issues and changes in

"In 50 years, one will immediately connect the university, science, and internationality with Bremen's name."

Director of Finance and Administration Frauke Meyer

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Director of Finance and Administration Frauke Meyer (center) and President Bernd Scholz-Reiter in conversation with our editor.
Photo: Philipp Batelka

power relationships will also play a different role. Therefore, I ask: What will societal cohesion look like in 50 years?

That means that this will still play a key role in science at the University of Bremen in 50 years.

Scholz-Reiter: Exactly. Moreover, our vision of a European university should have become reality in 50 years. It is, after all, a decade-long process. Frauke Meyer already stated that we will develop in this direction slowly. It will take one or two generations. However, we should have brought this vision to life in 50 years and should be a YUFE university together with our European partners.

An exciting thought. What do you think, Ms. Meyer?

I think that the work of the University of Bremen will have changed in 50 years – provided that our world remains peaceful. If this is the case, we will work together internationally and nationally in an entirely different way. Less spatially based and more flexibly and agile. I do, however, also believe that our university will be more important for Bremen in 50 years than it is today. That science will become more significant for Bremen. One will immediately connect the university, science, and internationality with Bremen's name if we continue to develop as we are. I am of the opinion that there will also be a different form of studying. That people will maybe return to the university more frequently in the sense of life-long learning. That is why we will then need to have a different structure available. And I am sure that the University of Bremen will still be one of the best places to work in Bremen in 50 years' time.

Why?

Because the diversity of topics we deal with and how many different people meet and work here is interesting. I am very sure of that. Yet, I also think there will be changes that we cannot yet imagine.

Do you mean digitalization?

In part. What I believe is that further parts of Bremen will carry the university logo and we will be far more anchored in the city in 50 years. ●

Around 23,000 people from more than 120 nations learn, teach, research, and work at the University of Bremen today. Their joint aim is to contribute to the further development of society. **How did everything start** 50 years ago?

→ An unusual perspective: In 1973, the view from the Stadwaldsee to the campus is still a complete construction area without any nature. *Photo: Erwin Blindow*

Established 1971

The University of Bremen's History

By Nils Ehrenberg

● The early 1970s were a time of renewal for the young Federal Republic of Germany. Especially the student movement of the 1960s triggered important societal reforms that led to changes in politics and institutions. It was during this time of change that the University of Bremen was founded. When the first semester started on October 19, 1971, the reform university had only 459 students and most of them were training to become teachers. However, the university was on everyone's lips across the country. This was down to the fact that the "Bremen Model" was practiced on campus – a system that broke with some ideas of the traditional university. Many of the academic establishment regarded it as too radical. Which is exactly why many young people found it so attractive.

The Bremen Model anticipated many developments that were in store for all German higher education institutions. Its key elements remain untouched at the university today: interdisciplinary work, research-based projects, practical orientation, and responsibility towards society. New goals have been added over time: internationalization of teaching and research, gender equality, and environmentally friendly actions.

Consolidation and Growth

After various reforms during the beginning stages, an important phase of consolidation and growth followed in the 1980s. In 1982, a cooperation contract was signed with the newly established Alfred Wegener Institute for Polar and Marine Research (AWI) in Bremerhaven. By doing this, the university laid the foundations for its broad expertise in marine and climate research, which has been expanded over the years thanks to many additional cooperations and newly founded entities. The university also positioned itself more broadly in research and teaching with new faculties – for example, Production Engineering (1983) and Geosciences (1986). The University of Bremen was accepted into the German Research Foundation (DFG) in 1986, and in 1988, with the establishment of one of many Collaborative Research Centers that were to come,

Photo: Jochen Mönch

Back when the campus was still a green field is when this photo was taken. The story of this photo can be read in the University of Bremen's online magazine:

https://up2date.uni-bremen.de/en/university-society/who-is-the-child-on-this-photo

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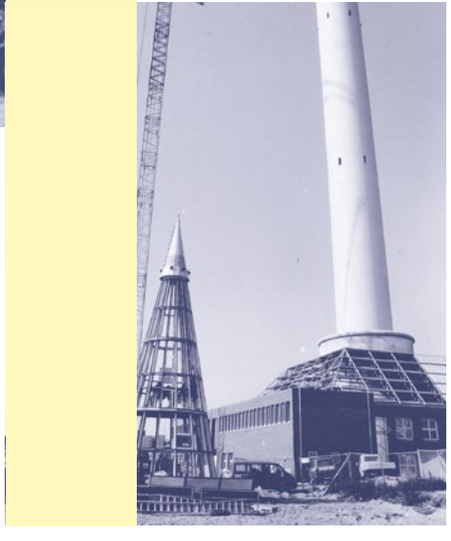
The Central Campus Area without the Glass Hall and tram in 1992.
Photo: Bertil Krause-Odén



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Drop Tower construction was completed in 1990. It is hard to image the Bremen city horizon without the "sharpened pencil" and landmark of the university.
Photo: Universität Bremen

it showed its continuing and outstanding strength in acquiring third-party funding.

From 1988 onwards, the Center of Applied Space Technology and Microgravity's (ZARM) Drop Tower, which received its 146 meter "crown" in 1990, was constructed on the Technology Park Bremen campus.

Modernization and Excellence

The university has always gone down innovative paths in matters of structural modernization and been connected to the pioneering spirit of the early days in this way. In 2001, the university was the first in Germany to introduce the tenure track system for the support of assistant professors: This was the so-called "Bremen perspective." The switching of the degrees into bachelor's and master's courses was also completed particularly quickly in Bremen.

Intense support of early-career academics, internationalization, and the shaping of its research profile elevated the regional and international visibility of the university and was finally rewarded with great recognition. Together with numerous partners from the fields of science, politics, economy, and culture, the university won the title of "City of Science 2005" for Bremen State. The university also celebrated great success in the three rounds of the Excellence Initiative and the subsequent German Excellence Strategy – for example for the Cluster of Excellence at MARUM Center for Marine Environmental Sciences at the University of Bremen, which is still in existence today. The university also held the title "University of Excellence" for several years. Today, as one of the leading European research universities, the University of Bremen maintains cooperations with universities and research institutes across the world. Regionally, the university is part of the U Bremen Research Alliance. ●

Find out more about the University of Bremen's history:

www.uni-bremen.de/en/50years/publication

The jubilee publication "DARUM. ALL THE REASONS WHY" marks 50 years of the University of Bremen:

www.uni-bremen.de/en/50years/publication

Many readers of this article most probably cannot imagine that there ever was a life without mobile communication. The German Federal Post Office did indeed establish a comprehensive mobile network in 1958, however, one can only speak of mass usage since the beginning of the 1990s. What once began with analogue networks is now being continued in the form of digital ones and is classified according to mobile communication generations — from 1G to the quickest connection possible with the highest data rates at the moment: 5G. A group of communication scientists from the University of Bremen, led by Professor **Armin Dekorsy**, has contributed significantly to many developments over the past years. And whilst 5G is establishing itself, they are already working on the next generation of mobile communication: 6G.

Mobile Networks of the Future

Communication engineers from the University of Bremen play a significant role in the research and development of mobile communication systems

By Kai Uwe Bohn

On the path to a three-dimensional mobile network: With 6G, the connections will not only be created by means of masts on the ground but also by drones, balloons, aircrafts, and mainly satellites.
Photo: Tatiana Shepeleva / AdobeStock

● An ICE train travels at up to speeds of 300 km per hour in Germany. Several hundred passengers are usually on board and many of them are online, whether it be on a smartphone, tablet, or laptop. Even when the train travels through a long tunnel, the connection never falters. Passengers from other continents also have reception on the devices they brought with them. “The fact that quick mobile communication generally functions without a problem across the world is actually sensational when we think of the speed in which this technology develops,” says the communication engineer Professor Armin Dekorsy from the University of Bremen. “The innovation cycle of one new mobile communication system to the next only spans seven to eight years. A similar amount of time is required to create a new car; however, an automobile manufacturer can mainly develop each new model individually.” Mobile networks function across the world and on very different devices — there is the theory that this is the most complicated thing that humans have ever created.

At the center of it all is Armin Dekorsy himself. Since 2010, he has been the head of the Communication Engineering department within the university’s Faculty of Physics / Electrical Engineering. Today, the department has 26 staff members who are working on the newest developments in the field and are gaining further qualifications with

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Professor Armin Dekorsy has been the head of the Communication Engineering working group within the university's Faculty of Physics / Electrical Engineering since 2010. The group currently has 26 staff members. *Photo: Andreas Caspari*

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A world without mobile communication is unthinkable. A group of communication scientists from the University of Bremen has contributed significantly to many developments over the past years. *Photo: ipopba / AdobeStock*

"We always need to be one step ahead."

Professor Armin Dekorsy

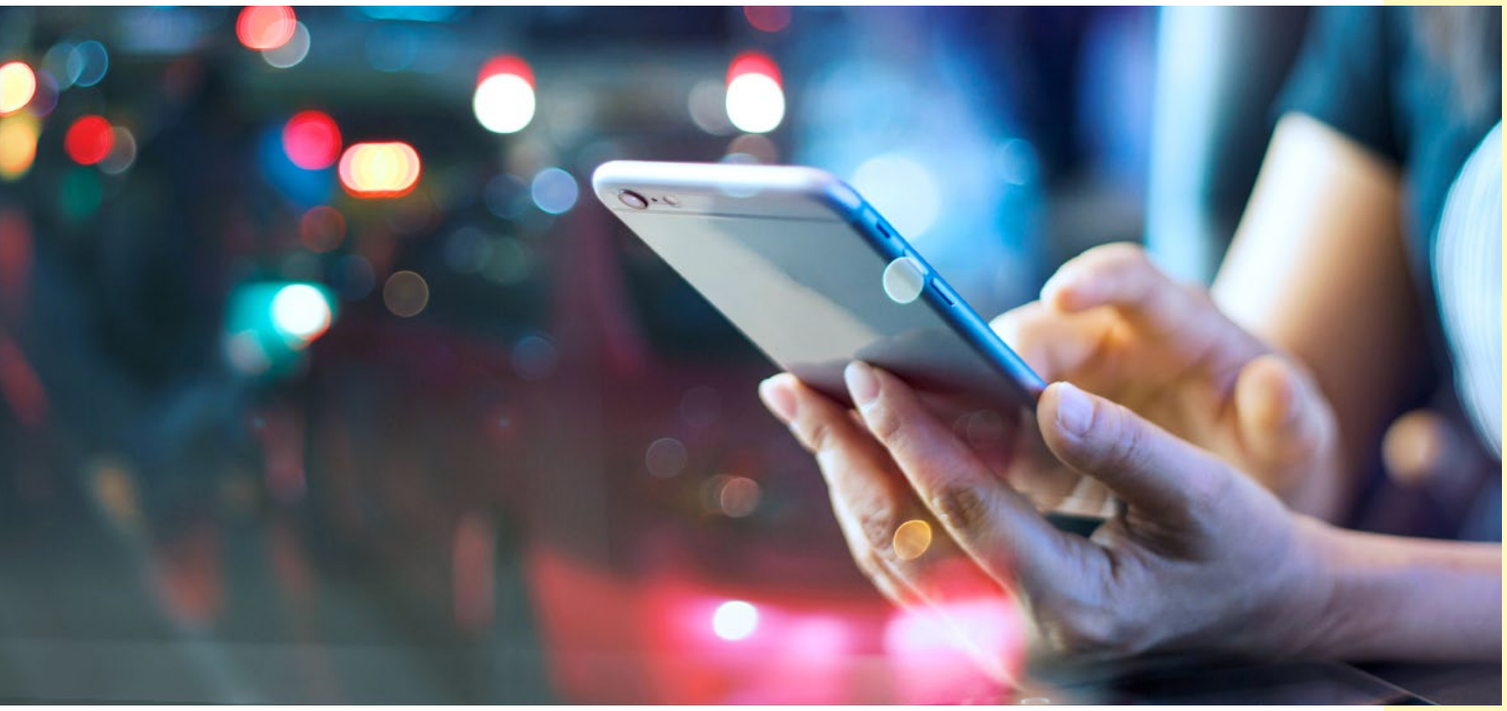
their scientific work. This research from the Hanseatic city forms an important proportion of new developments for industry. Dekorsy: "It is an unbelievably large market. Life without mobile communication is already unthinkable when you consider smartphones, the linking of cars, or the networking of robots in industry. Companies are really putting the pressure on for innovations. After all, there is a lot of money to be earnt. But the things that are being implemented tomorrow and are to work smoothly are being researched today — by us as well!"

From Practical Work into Science

The university lecturer knows what he is talking about. He worked for many years in industry and helped to develop many foundations of today's mobile communication as a research engineer for Deutsche Telekom Innovationsgesellschaft, Bell Labs (Lucent Technologies), and finally as a European research coordinator for the chip manufacturer Qualcomm. Since he took on the role at the University of Bremen, his ever-expanding team has often worked together with industry on the further development of mobile communication.

What is just as important as functioning technology in this field is standardization. "You can create the most groundbreaking things, yet if they are not accepted by all players, they won't actually be used in practical applications," says Dekorsy. A new technology needs to find its way across the world and be included in components and devices of different manufacturers. It is often the case that there are individual interests that dictate why one solution is the favorite and why another, which may be the technically better choice, is scrapped. "Clarifying issues of standardization is often a very time-consuming, arduous, and tough process," says Dekorsy. The boards of the 3rd Generation Partnership Project (3GPP), a global cooperation organization for the standardization of mobile network systems, have been in place since 1998. All of the large companies in this field can be found there. The Com-

The team has acquired several million euros in third-party funding for the specific application of mobile network technologies in different areas.



munication Engineering unit works directly with some significant members. Armin Dekorsy: “Thanks to this cooperation, our research results find their way into industry quickly.”

Innovation Pressure on Science

When Dekorsy started his job at the University of Bremen eleven years ago, the 5G mobile network generation was being developed – a technology that has been on the market for a while now. Dekorsy and his team, on the one hand, are working on the further development of 5G, for example, for specialized application in medicine or industry. On the other hand, they are already contributing to 6G. “We always need to be one step ahead. The pressure to innovate also has consequences for our scientific papers: We need to publish our research findings very quickly in order to provide impetus in the economy.”

That is why the Bremen experts maintain close relations to the industry. Additionally, the developments are strongly supported by the government, as Germany’s competitive position on the global field can mainly be secured by innovations. Several million euros of third-party funding have been acquired by Dekorsy and his team in order to implement current mobile communication technologies in various areas as part of specific projects. Some examples can be found on pages 20 and 21.

Great Recognition for the Bremen Departments

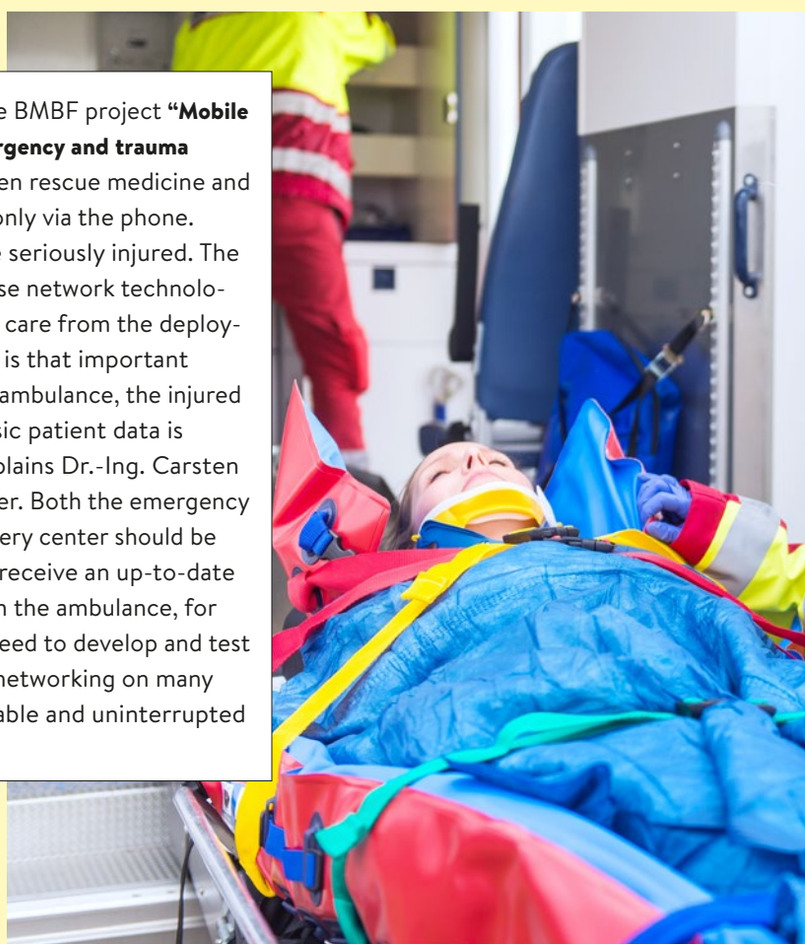
According to Armin Dekorsy, it is a Herculean task to “reinvent” an extremely complex system of global relevance every few years, at least in parts, and thus connect billions of users and trillions of sensors perfectly. The Communication Engineering department is contributing to this task and the team is truly remarkable: “We have created application solutions for mobile network technologies that have been taken on in the industry exactly as we made them. There is no better form of recognition for us.” ●

● The network project **“Artificial intelligence enhanced radio communication” (FunKI)** is being financed by the Federal Ministry of Education and Research (BMBF) with more than 6.5 million euros. The project is coordinated by Bremen’s Communication Engineering department. “It is all about the use of artificial intelligence in the 5G and 6G networks of the future,” explains Dr.-Ing. Dirk Wübben, senior research group leader. The number of connected devices is increasing rapidly and many of them cannot be connected to the internet via a cable. That is why the cableless communication systems need to be high-performing and efficient. “One of the things we are researching is how to reduce energy consumption and at the same time – under conditions where data volume is growing – improve the quality.”

Modern Mobile Network Technologies for Different Scenarios

Data from the Ambulance into the Clinic

● MOMENTUM is the abbreviation of the BMBF project **“Mobile Medical Technologies for integrated emergency and trauma response.”** It looks at the contact between rescue medicine and emergency call centers, which is often only via the phone. Every second counts with regard to the seriously injured. The project researches new possibilities to use network technologies to create an uninterrupted chain of care from the deployment location to the hospital. “The aim is that important assessments can already be made in the ambulance, the injured person can be x-rayed, and that the basic patient data is directly sent to the surgery center,” explains Dr.-Ing. Carsten Bockelmann, senior research group leader. Both the emergency medical staff and the doctors in the surgery center should be able to talk to each other via video and receive an up-to-date x-ray for possible diagnosis directly from the ambulance, for example. “In order for this to work, we need to develop and test suitable concepts and technologies for networking on many levels. For us, it is about ensuring a reliable and uninterrupted data flow from the ambulance.”



In the network project “Artificial intelligence enhanced radio communication” (FunKI), one of the aims is reducing energy consumption but improving quality at the same time.
Photo: peshkov / AdobeStock

● **5GSatOpt (“Design, Evaluation and Optimization of 5G Satellite Constellations for the Internet of Everything and Everywhere”)** is a network project including both science and industry, which is being financed by Bremen State with funds from an EU program. It centers on 5G mobile network provision by means of a group of small satellites. “In Germany, at least 98 percent of all households are to have access to 5G by the end of 2022, however, only 80 percent of the area will be supplied with the network. Many rural regions will therefore remain cut off. Yet, a gapless supply, even in the furthest corner, is imperative for applications such as ‘digital agriculture.’ And we want to ensure this by means of small satellite constellations in space,” states Dekorsy.

● BMBF is also a funding party for the multi-million euro project **“Industrial Radio Lab Germany” (IRLG)**, which will run over several years. In this project, the Bremen unit supports small and medium-sized enterprises in the further development and testing of 5G by means of research findings and laboratory technology. In detail, the focus is on using the Internet of Things for German industry. “Due to the fact that devices and components will be connected more closely in production in the future, entirely new manufacturing processes become possible. Highly modern network technologies are the ultimate factor,” explains Frank Bittner, the unit’s research manager. How is it possible to use these technologies in enterprises? “The small and medium-sized enterprises are to profit from our approaches in order to bring their innovations to market more rapidly. Industries, such as automation, robotics, logistics, air and space travel, or also water management, will be able to profit in the short term,” according to Bittner.

The small and medium-sized enterprises are to profit from the Bremen approaches in order to bring their innovations on to the market more rapidly.
Photo: Monopoly919 / AdobeStock

Better communication during emergency response: In order for this to work, the data flow between the ambulance and hospital must be reliable and uninterrupted.
Photo: benjaminnolte / AdobeStock

● **Open6GHub** is part of a multi-million research program from the consortium developing the upcoming 6G mobile network generation, in which the working group plays an important role. “We have taken on the work package ‘Beyond Cellular’ and are thus looking at turning away from the terrestrial mobile networks with radio cells used today and moving towards a three-dimensional mobile network. In the future, the connections will not only be created by means of masts on the ground but also by drones, balloons, aircrafts, and mainly satellites,” explains Dekorsy. In order to assess the new 6G technologies, a test field will be created at the University of Bremen, for which a working small 6G satellite is being developed.

Today, he is a sought-after expert on social matters — but the social scientist **René Böhme** had not always planned on this path. He initially worked in an entirely different field and subsequently worked practically in the social sector. Finally, his interest in social policy reigned. He is now a research assistant at the Institute for Labour and the Economy (iaw).

Social Report instead of Weather Forecast

René Böhme from the Institute for Labour and the Economy turned his interest for social sciences into a job

By Kai Uwe Bohn

● "René, what's the weather going to be like?" René Böhme's colleagues often ask him the same thing. It's simple — the man's a meteorologist. "It was seriously an option when I asked myself where my career journey should take me after my civilian service," laughs the kind scientist. But then meteorology "only" turned into a hobby — a hobby with a private weather station and computer connection. Böhme turned another of his interests into his job: his interest in social sciences.

Close to Urgent Matters

"Thank goodness for that!" is something that many people — not only those at the Institute for Labour and the Economy at the University of Bremen and Bremen Chamber of Labour — will say. After all, René Böhme is one of Germany's most sought-after experts on topics such as poverty and social divides, the cleft between rich and poor, social inequality, the integration of refugees in the job market, the working conditions of academic staff at German universities, or childcare at atypical times. Projects, publications, talks, classes, transfer: The native of Saxony is very close to the topics that are of burning importance to society.

It was a long path to get to the position he is in today — it wasn't always straightforward, it was influenced by different factors when finding the "right way," and included many temporary jobs and experiences in different areas. Thus, not your "typical research assistant career." For a long time, it wasn't even a given that René Böhme would choose an academic career.

After completing his high school qualification in the core subjects mathematics and history at the Werner-von-Siemens Gymnasium high school in Großenhain, Böhme went on to do civilian service and then studied meteorology at Leipzig University. He also very quickly realized that it wasn't the right thing for him. "Large, anonymous classes where the lecturers held monologues and 'filtered out' the students with hard exam questions — that's not how I imagined my studies to be. In some phases, the classes solely revolved around proving some abstract formulas."

End of Meteorology Degree — Start of Marriage

So what next? Reorientation. Although it meant a career detour, the short period studying meteorology did have some good aspects: René Böhme met his future wife. "She stopped her studies as well and we both switched to Leipzig University of Applied Sciences. My wife trained to become an engineer and I — with positive memories of my civilian service — decided to study social work."

Böhme found the social policy classes particularly interesting. "One of the tasks was to develop and defend our own social policy theories. That's when I realized that I was captivated." Minimum wage, combined wage, basic income — those are only a few of the matters that he worked on more intensely. "After I graduated with a diploma, which is comparable to today's bachelor's degree,

"The University of Bremen was the only university at the time offering a master's degree in social policy."

I started the master's degree in social policy at the University of Bremen in 2010." He received a scholarship from the Protestant Academic Foundation.

So, off to Bremen he went! "The university was the only university at the time offering a master's in social policy." The path to iaw was then a short one: As early as during his degree, he worked as a student assistant and later as a research assistant. "My colleague Rolf Prigge was looking for a research assistant for the "Armutsbekämpfung im Großstadtvergleich" (A comparison of poverty reduction in metropolitan areas) project back then. He sort of stumbled across me at the social authority — where I was completing an internship — as I was working on the same topic there." His career as a research assistant began.

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René Böhme from the Institute for Labour and the Economy is one of Germany's in-demand experts when important social topics are in discussion.
Photo: Matej Meza / Universität Bremen

Temporary, Part-Time Roles at the Start

However, the beginning is often difficult in the academic mid-level sector. For René Böhme, this meant that he initially had part-time roles that usually ended after one and a half years, often less, at the iaw. His wife also found a job in Bremen region and that's when the couple decided to stay in Bremen. In the aforementioned project, which focused on poverty comparisons, René Böhme soon found out how demanding and challenging the work can be at times: "The Mayor of Dortmund once asked that I present our findings related to Dortmund to 300 people in the City Hall. My heart did start to beat a little quicker," he says and grins.

Such talks are now part of day-to-day life for the 37-year-old. Poverty, social inequality, family-related topics — they interest René Böhme. Especially as there is a connection to his practical, social pedagogy work that he did prior to entering academia. "I am able to combine that well at the iaw. My topics often focus specifically on the framework conditions of social work — it's an area in which I feel very comfortable. Sometimes I am able to choose the topics and sometimes they're determined by the funding parties."

If someone has expert knowledge on certain topics, much like he does, they regularly receive requests for analyses. That is how it came about that Böhme and the iaw produced the sixth Poverty and Wealth Report for Rhineland-Pfalz. They competed against two other institutes for the contract. "That shows that we are being taken seriously with our expertise in South Germany now." Another contract that he recently received involves accompanying 60 childcare facilities in Bremen in their further development into child and family centers.

Many Connected Scientific Papers for Cumulative Dissertation

Such projects stack up in René Böhme's CV. They're also listed on his page on the iaw website. René Böhme now wants to use many of his papers and publications for a so-called cumulative dissertation. By doing this, he will acquire the doctoral title by means of several thematically related papers and not only one research project. "I actually wanted to get going with it in 2020, but then the pandemic happened and changed all my plans." As Böhme's family was not granted emergency childcare for their two children, he had no headspace: "Both of us working from home with the kids — it's just not possible to concentrate on a dissertation like that."

René Böhme now has a permanent job at the iaw — the research center is a cooperation between the university and the Chamber of Labour. "I am very happy. It's a great job. I not only enjoy research but also transfer." He holds many talks, teaches in the social work degree course at Bremen City University of Applied Sciences each summer semester, teaches classes at schools, and much more. His knowledge is in high demand. And it's safe to say that he does in fact find a social report far more interesting that a weather report nowadays. ●

It could hardly be more fitting: In the University of Bremen's 50th birthday year, two of its female researchers have each been awarded one of the German Research Foundation's (DFG) most significant prizes. The climate researcher **Veronika Eyring** received the renowned Gottfried Wilhelm Leibniz Prize in March. The Romance scholar **Julia Borst** was awarded the Heinz Maier-Leibnitz Prize in May. Both awards once more show the University of Bremen's strength in research.

Highest Accolades for Two Female Researchers

The professors Veronika Eyring and Julia Borst were each awarded one of the DFG's most significant prizes in 2021

By Christina Selzer and Meike Mossig

VERONIKA EYRING

Photo: DLR

Human Influence on the Climate

● Veronika Eyring's research focuses on better understanding and predicting climate change in the complex Earth system with all its interactions and feedback. "The climate change caused by humans is indisputable and is already having an effect on many aspects of society, the economy, and ecosystems," says the professor of environmental physics at the University of Bremen. At the Institute of Atmospheric Physics, a research facility belonging to the German Aerospace Center (DLR), she is the head of the Earth System Evaluation and Analysis department.

The researcher is sure that the effects will become more visible and will intensify in this century. "To what extent this will occur depends on how many additional greenhouse gases are emitted by humans. The future development of climate change does, however, also depend on how strong the Earth system's reaction is to said emissions."

In order to be able to foresee the developments and corresponding scenarios, computer-supported climate and Earth system models are being developed globally. In order to make climate forecasts more precise, they are combined with artificial intelligence processes. In the researcher's opinion, machine learning has extraordinary potential to move climate research forward and discover new fields of research.

Improved Climate-Forecast Accuracy

Veronika Eyring received the Leibniz Prize as she has significantly contributed to the understanding of climate forecasts by means of process-oriented modeling and model evaluation and the improvement thereof. She expanded her original research, which focused on the effects of ship emissions on atmospheric composition, the climate, and human health, to include modeling of the Earth system and climate.

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The virtual world of climate modeling is able to show what a future with and without climate protection would look like. Veronika Eyring received the 2021 Gottfried Wilhelm Leibniz Prize.
Photo: Philip Halley / DLR

Greenhouse Gas Reduction Urgently Required

One thing is certain for Veronika Eyring: “Climate models show us very clearly that it is urgently necessary that greenhouse gases are reduced in order to counter further rises in temperature.” With the virtual world of climate models, it is possible to observe a future with and without climate protection. By doing so, the scientist is providing important foundations for political action options and sustainable climate protection.

In the frame of the “Coupled Model Intercomparison Project” (CMIP) – a World Climate Research Programme project – Veronika Eyring and her team are currently analyzing a new generation of climate and Earth system models. As part of a large international research network, I am heading the development of the “Earth System Model Evaluation Tool” (ESMValTool). Thanks to the development of this software, the routine analysis and assessment of complex Earth system models with observational data could be continually improved and expanded.

Most Recent IPCC Climate Report

The researcher’s findings can also be found in the Intergovernmental Panel on Climate Change’s (IPCC) sixth report, which was presented in August 2021. Veronika Eyring took on the role of coordinating principle author of the Human Influence on the Climate System chapter. The facts from the first volume send a clear message: The atmosphere and ocean have increased in temperature over the past decade, snow and ice quantities have decreased, the global sea level has risen, and the concentrations of greenhouse gases have gone up. The report states that the global community must bring the total balance of emissions down to zero quickly and with combined strengths in order to be able to still attain the goals of the Paris Agreement. ●

Watch a video of the Leibniz Prize awarding ceremony 2021:
www.youtube.com/watch?v=3z9PcyVedwE

Read an interview with Veronika Eyring in the University of Bremen’s online magazine up2date
https://www.up2date.uni-bremen.de/en/research/leibniz-prize-for-bremen-climate-scientist

JULIA BORST

Photo: Andreas Sierts / Julia Borst

Most Notable German Young Academics Prize

● The Romance scholar Dr. Julia Borst from the University of Bremen received the Heinz Maier-Leibnitz Prize 2021. It is the most significant honor for early-career researchers in Germany. The Romance scholar has made an excellent name for herself as an internationally renowned expert for diaspora research. The immense relevance and quality of her research on postcolonial literature and culture, her innovative research approaches, and her scientific ethos really make her stand out.

Julia Borst has been a scientific assistant in Professor Gisela Febel’s working group within the Faculty of Linguistics and Literary Studies at the University of Bremen since 2015. “Julia Borst’s dedication to French and Spanish literature and cultures from the Caribbean, Africa, and Europe far succeeds an academic role,” says Gisela Febel. It is a matter close to her heart that the cultural and humanitarian implications of the literature that she works on are made visible and that the authors, as well as their topics, are treated with respect and dignity. Excellent and relevant outcomes, brave and innovative analyses, and a high level of scientific ethics have characterized her academic work to date.

Amongst other things, the literature and cultural studies scholar works on French and Spanish literature beyond the western canon from a postcolonial viewpoint. She is currently leading a DFG research project that

focuses on Spanish literature from authors with African heritage and on afro-diasporic communities in Europe, for example. In other projects, she has worked on the presentation of violence and trauma in the contemporary Haitian novel and the literary handling of the Holocaust in the contemporary novel from the Global South.

At the university, Julia Borst is also the vice spokesperson of the Institute for Postcolonial and Transcultural Studies (INPUTS) and one of the founding members of the Bremen research group "Worlds of Contradiction."

Received Several Awards

The Romance scholar has been honored several times. In 2019, Julia Borst received the Sibylle Kalkhof-Rose Academy Prize for the Humanities (The Academy of Sciences and Literature in Mainz). The 39-year-old also teaches: In 2016, together with the former Bremen scholar and private lecturer Dr. Natascha Ueckmann, she received the Berninghausen Prize from the University of Bremen for a joint study day and a class on Haiti. Julia Borst studied romance philology and economic policy at the University of Freiburg and subsequently completed her PhD in Romance philology / literary studies at Universität Hamburg.

About the Heinz Maier-Leibnitz Prize

As both recognition of and incentive for excellent achievements in research work, the Heinz Maier-Leibnitz Prize has been awarded annually to outstanding young researchers since 1977. Named after the physicist and former president of the DFG (it was awarded for the first time during his time as president), the prize is now seen as the most significant of its type for young scholars in Germany. In a survey by the "bild der wissenschaft" magazine, the big research organizations chose the Heinz Maier-Leibnitz Prize as the third most important scientific prize in Germany after the Gottfried Wilhelm Leibniz Prize from the DFG and the German Future Prize awarded by the German President. ●

Read an interview with Julia Borst in the University of Bremen's online magazine up2date:

https://up2date.uni-bremen.de/en/research/one-should-always-critically-view-ones-own-perspectives

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Professor Julia Borst, Romance scholar at the University of Bremen, received the 2021 Heinz Maier-Leibnitz Prize.
Photo: Julia Borst

A good idea that is done quickly: Many environmental protection projects start with simple ideas. Their aim is to realize sustainable solutions in a quick and specific manner – for example enabling more ecological mobility with car sharing. What is often missing for such activities is a **solid legal foundation**. In the Environmental Law Clinic of the Research Center for European Environmental Law (FEU) at the University of Bremen, law students acquired expertise that sheds light on the legal background.

Environmental Law Clinic: Students Assess Legal Foundations

Research-based learning: In the Environmental Law Clinic, students shed light on legal matters for sustainable projects

By Kai Uwe Bohn

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Not everything has to be thrown away: Repair cafes and re-use initiatives try to find a different way to increase the life of devices.
Photo: aNdranik123 / AdobeStock

● Necessity is the mother of invention and where the necessity is great or societal objections can hardly be withstood, new projects and approaches grow. Let us take the example of housing: There is an increasing lack of housing in large cities and rent is rapidly becoming more expensive. Alternatives must be found – and there are plenty: Initiatives such as "Mietshäuser-Syndikat" (Apartment Building Syndicate) want to slow down rent price increases via crowdinvesting, and the tiny house movement is to make living in simple, small, cheap houses possible. But what are the legal foundations?

Law Clinics Are Nothing New

"Sometimes, there is only very rudimentary information available," says Professor Gerd Winter. The law scholar therefore founded the Environmental Law Clinic in the winter semester 2020/21. The clinic is located at the Research Center for

Tiny houses are finding increasingly more fans. However, there is no legal foundation for them. *Photo: lowphoto / AdobeStock*

Taking a look at the bigger picture, thinking critically, and searching for creative solutions – that are only some of the skills that students at the University of Bremen learn alongside their subject fields. A teaching concept with a high proportion of practical work and a close connection to research makes this possible. Since its beginnings, research-based learning has been a characteristic of the University of Bremen.

European Environmental Law (FEU). "So-called law clinics are nothing new." At the University of Bremen, where research-based learning is an important building block of teaching, such activities where students have to work very practically on cases have already taken place," explains Winter. In the past, the students acquired knowledge on the topics of the Ems barrier and Dollarthafen port, and there was a law consultation for prisoners.

The issue at hand was environmental law. "That we started this initiative does have something to do with corona. In times of pandemic, we wanted to promote students' involvement," says the university lecturer. In the frame of a law degree, one usually learns top-down. "However, with this approach we wanted to take a direct look at society."

Environmental Protection Often Starts "from the Bottom Up"

Society is facing a number of legal issues, especially with the topic of the environment. Traditionally, environmental law is a government management tool. "The approach where environmental protection is managed from the top down has achieved a great deal, yet, in some aspects has also failed," according to Winter. Many initiatives therefore try to realize environmental protection from the bottom up. The involved parties are "simply" starting to do things differently: With new forms of living, via crowdfunding of social issues, with repair cafes and climate workshops, with container diving, farm shops with regional / organic agriculture, car sharing, and much more.

The aim of the Environmental Law Clinic was to assess the arising legal questions by contacting various agents and then being able to provide answers with expertise. This is what law student Louisa Decker did when she worked on the topic of tiny houses. "It was twice as interesting for me as I had already done a bachelor's degree in architecture prior to studying law," she explains. There is absolutely no legal foundation for the tiny houses that are finding increasingly more fans and that could be one of many solutions for the current housing crisis. "That doesn't make it very easy for constructors and those who live in them as the German construction law is very strictly set out in terms of regulatory and planning law. If you do not have the required background knowledge, it is very difficult to understand it all."

In Planning: Guidelines for Tiny House Movement

That is why the 25-year-old has set herself the aim of writing a type of "guidebook" for the tiny house movement. "There is a large grey area," is the summary of her analysis. "If one complies with the foundation regulations, it is, however, legally sound to build something 'small'." This is not just accepted but even sometimes promoted in more rural areas.

Affordable housing is also the topic that Max Groth chose: the Apartment Building Syndicate. "The syndicate consists of self-organized groups that want to fight rent increases with crowdinvesting," explains the student. He took a closer look at the legal matters surrounding financing, "as money is a frequent topic for legal scholars." Corona did

> *"In times of pandemic, we wanted to promote students' involvement with the Environmental Law Clinic."*
>
> *Professor Gerd Winter*

not aid his research, as many places where such groups meet were closed. Law on bank supervision, subordinated debts, legal loan issues, and much more plays a role in his legal financial assessment of the syndicate that often functions as a GmbH company – these are all terms that point to this being a very specific legal field.

Competence to Communicate Important Circumstances Trained

Alina Noglik is also in awe of the possibilities of the Environmental Law Clinic. "I worked on the issue of the legal background of repair cafes and re-use initiatives," says the 24-year-old. It is an area that she's very interested in. Thanks to her research, her competences to analyze circumstances that are the basis of a legal investigation, were trained – "that is something that we did too little of in the mandatory part of our degree and is now possible in compulsory elective classes, such as the Environmental Law Clinic."

Re-using and repairing as instruments against so-called obsolescence is a very current topic. "The term refers to the rapid 'ageing' of products or fashion due to the constant and quick development of new models," explains Alina Noglik. "There are now a great deal of initiatives that view this development critically and aim to attain more sustainable product usage." Where people fix devices in their free time and give them "a second life," is also where legal issues arise – "especially due to the fact that repair cafes are so popular that they can no longer offer the originally planned 'help for self-help'," according to the law student. Instead, centers are being created that carry out repairs as a professional service – "and now we're back to liability issues," she says and names a sub area of her research.

All Knowledge Available on Web

Further topics from the Environmental Law Clinic included car sharing, container diving, or the "double wallet," where a second wallet or purse makes the carbon dioxide emissions connected to individual consume visible. All analyses are available as a PDF on the Research Center for European Environmental Law website at *www.uni-bremen.de/feu/umweltrechtsklinik*. All ten participants from the first cohort had fun – a repetition of the idea is planned for winter semester 2021/22. ●

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In order to ensure that housing does not become unaffordable, self-organized groups are putting their hopes in crowdinvesting. The legal background for this has now been investigated by the Environmental Law Clinic.
Photo: magellan01 / AdobeStock

The advanced master's degree program **Work-Consultation-Organization. Forming Participative Processes** ("Arbeit-Beratung-Organisation. Prozesse partizipativ gestalten") (MABO) is unique in Germany and aimed at work representatives. Dr. Simone Hocke and Professor Andreas Klee from the Center of Labor and Politics (zap) coordinate the degree together.

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Work and staff councils require certain skills in order to be able to help shape the working world. *Photo: contrastwerkstatt / AdobeStock*

Part-Time Master's Degree for Work and Staff Councils

The working world is changing rapidly. This degree course is passing on important skills to work councils

By Christina Selzer

● Digitalization, flexible working hours, demographic change, a lack of trained staff. There are many rapid changes in the working world. That is why the demands on occupational representatives, such as work and staff councils, are becoming more complex and challenging. "In order for them to continue to shape working conditions for staff, they require specialized and advanced skills," says Professor Andreas Klee from the Center of Labor and Politics (zap). "Studies that we have carried out at zap have shown this." Zap is very experienced in the field of advanced training. Employee-oriented, political further training and research has been carried out at the center for 50 years now. Societal challenges are also always considered.

Work Experience Counts Towards Master's Admission Requirements

Those who are active as part of a staff council may not have necessarily completed a degree previously but have gained valuable work experience. The skills that staff train whilst working on a staff council are equal to a bachelor's degree, explains Simone Hocke: "We have developed this master's degree for those people in order to give them the opportunity to professionalize their work and provide recognition of their competences, which they have trained whilst working, in the form of a degree."

The special aspect of this degree course is that work experience counts towards the master's admission requirements. "That makes the course particularly attractive," states Simone Hocke. At the same time, she views it as a good chance to open the University of Bremen up to other target groups.

"It is all about better understanding the system and acting within it."

Sandra Werner, student of the MABO program

One of the students is Sandra Werner. She is a full-time member of the works council for the Bremer Straßenbahn AG and loves her studies. "It really is a fantastic opportunity to be able to complete such a degree without university entry qualifications."

The trained tram driver has worked on various boards for many years. Initially as a gender equality officer, then as a member of the staff council. The 53-year-old is very familiar with her company and knows how it works. Sandra Werner has advised her colleagues and spent many a meeting talking with the management. However: "In my consultations or during talks with the management, I ascertained that there are professional skills that help in better structuring such conversations," she explains. "It is possible to engage in a better manner during staff appraisals for example." It is such techniques and the scientific background behind them that she is learning in the master's degree MABO. "It is all about better understanding the system and acting within it."

Advisory Competence, Knowledge of Management Methods, and Participation

The MABO degree course is made up of three units that can each be taken individually to gain a certificate. Together, they form the master's degree. For example, one thing that is taught is what a consultation session with staff should be like – both in groups and individually. Organization theories, thus how institutions work and which mechanisms play a role, are also featured. Management knowledge is also on the curriculum. The third certificate passes on knowledge about how the working world is changing, good working conditions, and staff participation.

"Those are all topics that staff council members have to deal with on a daily basis and in relation to which they already have knowledge," emphasizes Andreas Klee. "We want to enable them to deepen and expand on the know-how and experience that they already have. By doing this, they will have the tools to help shape the working world of the future."

Degree Can Be Organized Flexibly and Individually

The degree is constructed in a type of building block manner so that the students can integrate their studies into day-to-day life. The way it works makes it different from conventional degree courses. "We want to make it easier for the students to schedule the study time alongside their jobs and as they need. Thanks to online-based classes and autonomous learning phases, the students are flexible in terms of location and are free to schedule their study times in a family-friendly manner."

Students can directly apply to do the master's degree. However, it is also possible for them to initially take up one or several certificate units. If they then choose to complete the master's course at a later point in time, the previously acquired certificates will be counted towards the full degree. ●

Simone Hocke *Photo: Private*

Andreas Klee *Photo: Peter Mehlis*

Impress the right people at the right time with the right idea and success is guaranteed? It's unfortunately not that simple for a spin-off company from the scientific sector. The young Bremen company cellumation GmbH, a startup company from the Bremen Institute for Production and Logistics GmbH (BIBA), has done exactly that. In the logistics sector, their conveyor development – **the celluveyor** – is an innovation that has woken a great deal of interest.

"The Lego Blocks of Conveyor Technology"

The core of the celluveyor is formed by the hexagonal cells with three wheels that can be individually controlled. *Photo: cellumation GmbH*

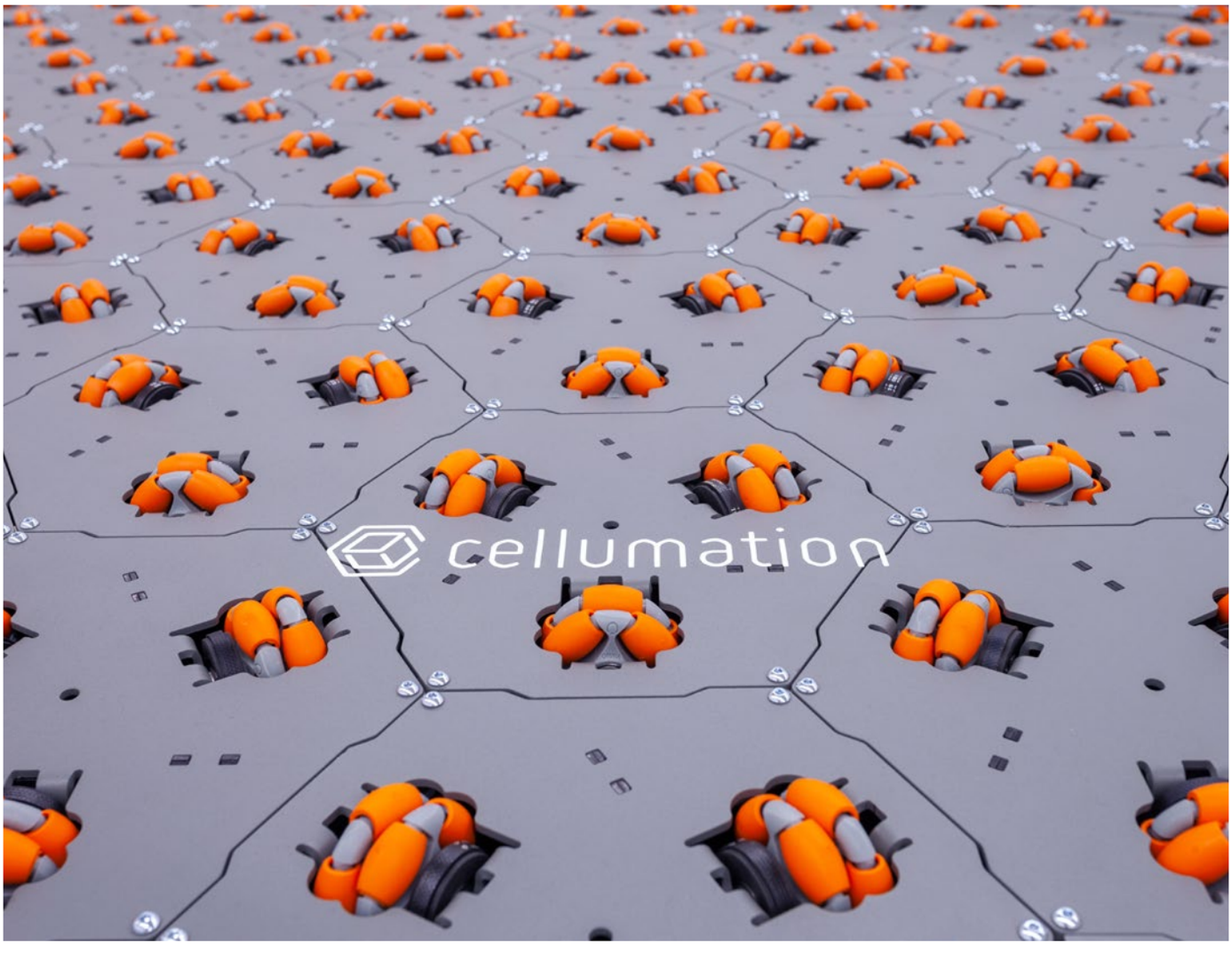
Successful startup company from the university: The BIBA spin-off company "cellumation GmbH" has developed an entirely new conveyor system

By Kai Uwe Bohn

● Omnidirectional and hexagonal. Both of these words play a central role when you try to clearly explain the celluveyor invention from the Bremen startup cellumation GmbH. The placing of the wheels allows for omnidirectional movement of the transport system – thus, movements in all directions. And hexagonal means it has six sides. That is how the individual system cells are formed. They can then be combined with other cells to create the desired conveyor belt.

Click – click – click: It's as simple as that if you want to connect the modules. "That is why we also speak of the Lego blocks of conveyor technology," grins Dr.-Ing. Hendrik Thamer, managing director of cellumation GmbH,


cellumation


cellumation

A great logistics solution: Packages and other objects with a flat bottom surface can be perfectly transported on the celluveyor wheels.
Photo: cellumation GmbH

"If you can work a tablet or cell phone, you can also use the celluveyor system."

which was founded in 2017. Highly flexible, space-saving, and innovative: Some press releases even call the celluveyor a "revolution."

The invention from Bremen fits well into a world experiencing a boom in logistics. Due to the number of rapidly increasing online orders – that have been additionally driven by the corona pandemic – one can nearly speak of a stampede with regards to parcel logistics. "Many people are aware of the photos taken in large halls where long conveyor belts with packages run. That works quite well in a straight line but there are jams when the direction is changed, at nodal points, or crossroads," says Hendrik Thamer.

Inventor Spirit from BIBA

It is a little odd: Logistics research into packing robots and parcel delivery by drones has been carried out, "but not a great deal has changed since 1900 for conveyor technology." But thanks to the inventor's spirit at BIBA, where intelligent production and logistics systems have been investigated since 1981, it's happening now.

That is where Hendrik Thamer and Claudio Uriarte met. After his computer science degree in Oldenburg, Thamer took a job as a scientific assistant at BIBA and completed doctoral studies in the field of artificial intelligence in logistics automation at the same time. In 2014, he took on the role of the head of the department for robotics and automation at the institute. Uriarte studied machine engineering in Chile, qualified as a design and patent engineer, has been the leader of many development projects since 2009, and laid the foundation for many technical innovations at BIBA with his innovation spirit.

Together with colleagues, they expanded on one of Claudio Uriarte's ideas in 2012: He was to develop a highly flexible conveyor surface that could be moved in all directions as part of a research project. "However, there was no suitable technology on the market," remembers Uriarte today. "That's why nothing became of the project."

Several months later, the man who is now cellumation's Chief Technical Officer (CTO) watched a few robots play football. "The football robots moved freely in all directions without difficulty. That's when I thought: If we turn them on their heads, packages and other objects with a flat bottom surface must surely be able to transported perfectly on the wheels!" he reminisces.

Year-Long Work on Product Development

The idea had been born but as we all know, our minds are quicker than our hands. "Creating and designing an invention, then further developing it and making it patent ready, building hardware and programming software – that means years of hard work," underscore Thamer and Uriarte. And you need support from the other side: From the institute, from startup sponsors, from consultation services. The cellumation directors, who emphasize the support received from BIBA, the InnoWi Patent Center, the UniTransfer office, state services, Bremen startup networks, and many more, had all of that.

Both of the cellumation bosses worked on the celluveyor with other dedicated colleagues for nearly six years. "At BIBA, we had great freedom and were able to try out a lot in order to develop the system. But we often had to do the work

during the night and at the weekend, as we primarily had to do our actual jobs," according to Thamer. The prototypes of the novel conveyor system were initially made from remaining materials and replacement parts. One of them is still hanging on the wall of the cellumation GmbH meeting room.

Simply Clicking Together Desired Transport Paths

The core of the celluveyor is formed by the hexagonal cells with three wheels that can be individually controlled. The cells can simply be "clicked together" on each of the six sides. This means that the conveyor system can be put together as one desires and can be adapted to the space and the differing tasks depending on material flow. "Regardless of which transport path is created: The hardware always remain the same — independently of its application," says Claudio Uriarte. "The cells are controlled only by means of the software. An intuitive, graphic user interface makes it possible for the users to complete the programming with no need for special knowledge."

If you can work a tablet or cell phone, you can also use the system. Simple construction, easy set-up, uncomplicated usage, and it's space saving: That's the sort of thing that does well in the logistics industry.

The logistics experts received time and money for the development up until the product was ready and until their own company was established from the two-step EXIST Research Transfer Program from the Federal Ministry of Education and Research (BMBF). The program is specially designed for university and non-university research institutes. In May 2017, the company was founded as the final act of phase one. Afterwards, actually starting the business and findings investors were the next job.

Sponsors for Growth Path

"We wanted to enter into batch production with our product but first needed to produce innumerable cells ourselves and find our first customers — and of course sponsors who believed in us and with whom we were able to begin our growth path,"

↓ Rapid growth: Six staff members have now turned into 60 staff members at several locations. The Bremen team is shown. *Photo: cellumation GmbH*

Successful entrepreneurs: Both of the cellumation bosses, Claudio Uriarte (left) and Hendrik Thamer (right), are on the road to international success with their company. *Photo: cellumation GmbH*

> *"We are very proud of what we have achieved to date — and we have big plans."*
>
> *Dr. Hendrik Thamer, cellumation Managing Director*

remembers Hendrik Thamer. Cellumation GmbH took its first steps at BIBA and then at the beginning of 2019, the company moved into their own space in the Technology Park. The move entailed an office, a hall, a small workshop, and six staff.

Today, nearly two years later, the number of company members has increased tenfold and cellumation is looking for more space and more staff. "We are very proud of what we have achieved to date — and we have big plans," is how Hendrik Thamer summarizes the first two years of self-employment. The celluveyor is actually fulfilling many expectations that the logistics industry has with regard to a modern conveyor system.

Thanks to "system integrators" — service providers that buy new technical innovations for logistics companies and set them up technically in the logistical centers — cellumation has business with the parcel service provider DHL and the print and industrial corporation Arvato Bertelsmann Supply Chain Solutions. The Spanish company Vector Conveyors has come on board as an investor. They have brought a great deal of expertise from the fields of production and industrial requirements to cellumation GmbH and are now batch producing the celluveyor cells.

Highlight: Spanish TV Show

It is not least down to this partner that the celluveyor has already made it onto Spanish prime time TV. In February 2020, the invention from Bremen was one of the highlights of the very popular TV show "El Hermiguero," which is all about science, culture, comedy, and politics. "At absolute prime time, we were able to show an amazed audience how the celluveyor brought together a chaos of square parts to form a film poster by means of rapid turn and push maneuvers." With these connections to South Europe, it is a given at cellumation that not only the Chilean Claudio Uriarte speaks fluent Spanish, but that Hendrik Thamer now does too. ●

Links to videos on YouTube:

https://youtu.be/HFupUT7YmCY
https://youtu.be/PoTWDAH5nXA

The University of Bremen is committed to the most pressing issue of our time: It is standing up for climate and environmental research in an urgent manner. The university is the only one in Germany that helped to establish the "International Universities Climate Alliance" (IUCA) – a network of 35 universities that are leaders in climate research on a global level. This type of dedication is not new. Environmental research has been going on for **many years** at the University of Bremen.

A SAIU Project excursion to the marshland in Butjadingen in 1987. *Photo: Klaus Bätjer / Universität Bremen*

"A Special Responsibility Towards the Environment"

Climate and environmental research at the University of Bremen since 1971

By Sarah Batelka

● The Federal Republic of Germany in the 1970s: The years of economic boom are over and the price of the apparent development becomes visible – harmful emissions are polluting the air, water, and earth. At the same time, trust in the apparently clean nuclear energy is disappearing. The West Germans discover environmental protection and the red-yellow coalition under the lead of Chancellor Willi Brandt lays the foundations for the new field of environmental politics. New social movements, such as Greenpeace and the anti-nuclear-power groups, are established.

It is under such circumstances that the University of Bremen is established in 1971 and it is these conflicts that influence the university's members. "Carrying out critical and socially relevant research was always the aim of the University of Bremen," says Dr. Doris Sövegjarto-Wigbers, the director of the Sustainability Forum and the environmental manager at the university. Since its founding, the higher education institute has always felt a special responsibility towards the environment. University of Bremen members intensely looked at issues and problems from the field of environmental research right from the beginning. What topics were investigated in the 1970s and 1980s? update. went to the university archive to find out.

Addressing Problems with Teaching and Research

One example from the university's early days is the project "Pollution Load in the Workspace and in the Industrial Unterweser Region" ("Schadstoffbelastung am Arbeitsplatz und in der Industrieregion Unterweser – SAIU"). It was an attempt

Photo: Jonas Ginter / WFB

"I recognize the atmosphere of change that was around back then in the 'Students for Future' and 'Fridays for Future' movements today. That gives me hope."

Dr. Doris Sövegjarto-Wigbers, director of the Sustainability Forum and the environmental manager at the University of Bremen

to "address the urgent problems with teaching, research, and publications," stated the participants in an intermediate report. Together with students, researchers have observed the ecological consequences of biological, chemical, and physical river strains since 1973. In terms of the Weser, these are; salt influx into the Werra due to the GDR potash mining, polluted substance influx from agriculture, and industrial waste water.

In the middle of the 1970s, the investigations were expanded to include Bremen's drinking water, which was made up of 20 to 30 percent of processed river water in certain districts. The findings that showed there were carcinogenic substances in the water led to discussions and conflict with the political sector and the public utility companies. The≈SPD Senator for Science Horst Werner Franke defended the study: "We should be happy that young Bremen students present extremely socially relevant investigations in their state examinations. That is exactly what we wanted when founding the uni."

Looking for an Alternative to the Finite Resource that Is Oil

Another research focus stands around 45 kilometers to the north of Bremen's city center; the Unterweser nuclear power station. In 1972, researchers reacted to the construction plans and founded a nuclear power working group as part of the SAIU project. Their results were clear: "We — the lecturers, staff, and students involved in the University of Bremen's SAIU project — are unanimously of the opinion that the practical establishment of nuclear energy is not justified when taking the current status of science and technology into consideration." They demanded that all construction work be stopped. They were well aware that they were combining science and activism and that was a risk they were willing to take: "We believe that the frequently cited responsibility of the researcher for the consequences of his/her work also entails actively participating in the political debates in order to contribute to the application of science and technology."

In 1973, the republic broke out into an "energy panic:" The oil price crisis made the dependency on this finite resource visible. Alternatives were being researched — also at the University of Bremen. In 1979, the University of Bremen presented current degree course projects as part of the "Energy and the Environment. Alternative Energies of the Future" exhibition. In biology, the acquisition of energy from sun stored in biomass was being researched. In physics, wind energy as an alternative to nuclear energy was the focus. In the work study degree, education material was developed in order to pass on knowledge of operating and maintaining alternative energy technology.

Paradigm Shift in Environmental Research

Alongside knowledge transfer, the exhibition is socially and politically motivated: Citizens' hopes for a quick solution for all energy problems was to be dampened, "and not in order

The Unterweser nuclear power station in 1978.
Photo: Klaus Bätjer / Universität Bremen

Sandoz chemical company buildings went up in flames in 1986. The extinguishing water flooded 30 tons of toxic material into the Rhine River. One of the effects was that the entire eel population along a distance of 400 kilometers was killed.
Photo: Comet Photo AG (Zurich)

Damaged by acid rain: A forest in the Harz Mountains.
Photo: LaSa /Adobe Stock

How Climate and Environmentally Friendly Is the University Itself?

This is the question that students from the AStA Students' Union posed in 1995. They then presented 19 suggestions for an ecologically efficient university. Director of Finance and Administration Gerd-Rüdiger Kück took their work seriously and commissioned the creation of an environmental board. In 1997, the university's first environmental report documented its successes in terms of the whole institution's environmentally-friendly behavior.

Today, the University of Bremen is on its way to becoming a climate-neutral campus and has stated its dedication to systemic climate protection. This dedication is certified, realized by means of specific measures to become climate-neutral, and is continually decided on as part of a joint process at the university. One example: All of the electricity that the university uses is green.

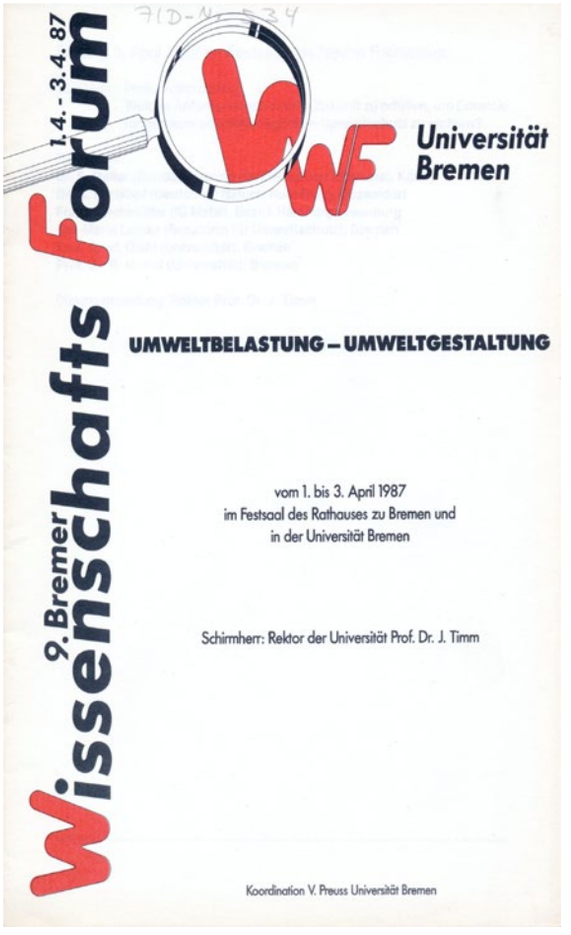
The Aim: Creating More Living Space for Plants and Insects

University members are also active as volunteers: With their cooperative "Uni Bremen SOLAR," staff produce solar power using solar panels on university buildings. Students are supervising a nature conservation group that is focused on biodiversity on campus. The aim is to create more living space for plants and insects. Many students are also part of the Students for Future climate movement.

The current University of Bremen paper on climate and environmental research in German and English can be downloaded at:

https://www.uni-bremen.de/fileadmin/user_upload/presse/download/20210511_Klima_Universitaet.pdf

↓ An old tradition: Environmental research at the University of Bremen.
Photo: Matej Meza / Universität Bremen



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The program booklet of the 9th Bremen Science Forum. The sponsor was the President of the University of Bremen, Jürgen Timm. *Photo: University Archive*

to dissuade them from alternative energy sources but rather — on the contrary — to gain the willingness to persevere for a long time, as was to be needed."

Ozone holes, acid rain, and death of the forests increased environmental awareness in the 1980s. The Green Party won seats in the German Bundestag in 1983. Catastrophes, such as the reactor disaster in Chernobyl and the Sandoz chemical spill, catapulted environmental issues into the field of everyday politics. A paradigm shift took place in environmental research: Where damage descriptions and restoration of old burdens once took center-stage, a focus on how to avoid damage and the sensible forming of the human environment now became more important. Specific social policy issues were the center of attention. For example: How can these ecological goals be transformed into rational, economic behavior and how can environmental protection be shaped in a way that it is more compatible with society.

Nearly 50 Research Projects on the Environment

In the 1980s, there were nearly 50 research projects at the University of Bremen that were made up of foundation and application research in all faculties that carried out their work "with dedication and responsibility for the environment," stated President Jürgen Timm. They spanned from "Ecology and Its Biological Foundations" and "Construction Materials Made of Waste" to "Sport as an Environmental Problem. Criteria for Testing the Environmental Compatibility of Sport Facilities."

Even the ecologically oriented restructuring of the economy formed the core of several projects in the faculties of social sciences, economics, and law. That is how researchers investigated the "Toxic Substance Loads in the Workspace," "The Environmental and Law," and "The Environment and Energy" together with the Chamber of Labour. The cooperation report from the "The Environment and Labor" project concluded, "that increased environmental protection is in no way a 'job killer'." It was findings such as these that the researchers passed on to society, for example in 1987 at the 9th Bremen science forum "Environmental Strains — Shaping the Environment." The forum was to clarify "where science can contribute to environmentally-friendly behavior and in which direction the university, economy, and politics in Bremen should go in the close future."

What becomes apparent when visiting the university's archive: In the 1970s and 1980s, researchers already had answers to many of the issues that are the focus of today's climate and environment debates. Environmental policy seems to be stalling. What are the chances that the 1.5-degree climate protection goal outlined in the Paris Agreement is still achieved? Doris Sövegjarto-Wigbers: "I recognize the atmosphere of change that was around back then in the 'Students for Future' and 'Fridays for Future' movements today. That gives me hope." ●

In the summer, the 14th **International Coral Reef Symposium** was hosted virtually (ICRS VIRTUAL) by the University of Bremen between July 19 and 23. Around 1,300 participants from 80 countries presented roughly 850 talks and posters. The researchers also made an urgent appeal to the responsible persons in politics, administration, business, and civil society that they stand up for the protection of reefs. Bremen and its university will once more be the hosts and organizers when the 15th ICRS takes place from July 3 to 8, 2022. An in-person conference is being planned.

The Next Decade Is Decisive in Saving Reefs

Protecting tropical coral reefs is of global importance. That is the result of the first virtual International Coral Reef Symposium, which was organized by the University of Bremen in 2021

By Heinz Krimmer

● "The first virtual conference in the 50-year history of world coral reef conferences was a complete success," says Professor Christian Wild happily. The head of the Marine Ecology group at the University of Bremen planned and hosted the conference together with his team. "Thanks to the virtual format, we were able to resume the urgently required scientific exchange of the most recent findings this year, despite the COVID-19 pandemic."

The 14th International Coral Reef Symposium was also the first climate-neutral global coral reef conference and also the most cost effective," according to Christian Wild. This is down to the fact that it was possible to keep the financial contributions of the participating scientists low due to the virtual format. Costs for travel and accommodation were also not incurred by the conference visitors. As a result, the participation of people from developing countries was extraordinarily high. It was also possible to keep the price for students low. "Both of these groups were very enriching for the scientific exchange," according to Inae Kim-Frommherz from the conference office at the University of Bremen, who is also partially responsible for the scientific program.

Researchers Emphasize Global Significance and Responsibility for Coral Reefs

Less pleasing news: The research findings from the recently completed 14th International Coral Reef Symposium confirm that we are in the middle of a serious coral reef crisis and also indicate that the situation has worsened in comparison to the last status report of global coral reefs from the year 2008," says Christian Wild.

←

In 2016, coral bleaching took place on a global scale. The before (left side) and after (right side) images of the same reef section clearly show that the complete reef top is bleached. Photo: USA, American Samoa, 2016. *Photo: The Ocean Agency / icrs2021.de*

↓

In 2016, the reefs in New Caledonia were also affected. Several stony corals fluoresced before they turned white. A phenomenon that was observed for the first time. *Photo: The Ocean Agency / icrs2021.de*

This is an important message as coral reefs, much like tropical rainforests, are ecosystems of global significance. They exist along the equator between the latitudes 30 degrees north and south around the entire world. “Their economic value adds up to ten trillion US dollars per year,” says Dr. Sebastian Ferse from the Leibniz Centre for Tropical Marine Research (ZMT) in Bremen and a member of the ICRS 2021 VIRTUAL organizational team. Around 600 million people and thus 8 percent of the world’s population are directly economically dependent on functional coral reefs. Additionally, reefs are points of concentration of species diversity and also influence species diversity and the biomass of the oceans far beyond their own borders.

Industrialized Nations Significantly Contribute to Coral Death

The dangers that the coral reefs face are also of a global nature: The CO2 emissions that have caused human-made climate change and will directly lead to the loss of worldwide coral reefs mainly stem from industrialized nations. That the 14th International Coral Reef Symposium has been hosted by a European institution for the first time is not just a coincidence. “It is an indication that we are assuming co-responsibility for the coral reef crisis in the tropics and must try to find solutions for said crisis,” says the marine biologist Christian Wild.

The current situation forms the basis for the important strategy paper that was presented to the public at ICRS 2021 VIRTUAL: “Rebuilding Coral Reefs: A Decadal Grand Challenge.” The paper targets worldwide decision makers from politics, administration, economy, and civil society.

Next International Coral Reef Symposium in Bremen in July 2022

“We are already in the middle of the preparations for the 15th ICRS,” explains Professor Christian Wild, who will once more be the chair of the conference. “And after having completed the virtual event, we are now looking forward to meeting each other again, which will hopefully be possible again in 2022.” Up to 2,000 researchers from across the globe are expected to come to Bremen next July in order to once more dedicate their time to the most important ecosystems in our oceans. ●

More information:
www.icrs2021.de

Petra Droste established the Career Center at the University of Bremen. She emphasizes that she obviously didn't do it alone but rather with her team, which is made up of freelance lecturers, student assistants, administrative staff, and her colleagues from the job center. The team has provided support to many people embarking on their career journey. This fall, the Career Center will turn 20.

Workshops, consultations, as well as self-help. Petra Droste from the University of Bremen Career Center.
Photo: Philipp Batelka

The Networker

Petra Droste and her team from the Career Center help people embarking on their career journey

By Christina Selzer

● When Petra Droste looks out of her office at the University of Bremen, she has a direct view of the Mensa cafeteria lake. "It's really nice. Especially in the summer when the colorful flowers blossom." She loves gardening. "As the daughter of a forester, I grew up in an area of flat countryside surrounded by nature." That was in the south of the Münster region. "That's where I get the stubbornness from, which is typical for the region," laughs the bright woman with the page-boy haircut. "It's definitely something that I hear quite often. Colleagues have also confirmed that I am very assertive. It's not always a compliment. We do sometimes clash but we've always managed to get back on track quickly so far."

Getting her point across, that is part of her profile as head of the Career Center. The Career Center team permanently has to ask companies whether they have any internship places available and this is one of the most important tasks of the job. "We want to enable people to start their career journey," is what Petra Droste says when explaining the purpose of the Career Center.

She studied sociology and social sciences, initially stayed in academia, and focused on research into women, the job market, and biographies. She worked as an academic writing coach among other things for the Hans Böckler Foundation and the Studierwerkstatt at the University of Bremen. "When I was asked if I wanted to establish a Career Center at the University of Bremen, everything that I needed for the task popped into my head straight away."

Everyone Should Try Different Things

"Do internships! Try different things out!" That's an important tip for all students from Petra Droste and the advisors. "It's only possible to ascertain whether the field that you're interested is actually the right thing for you by doing internships." Another thing that she wants to tell the students is: "It is good to build a network and maintain contacts over a long period of time." Many students initially hardly think about how useful early contacts could be at a later point in time.

The Career Center is not only an advisory service for students and graduates, but also a point of contact for academics with work experience. Researchers who have unsure perspectives due to temporary contracts also go there for advice. As do international persons, some of whom are refugees.

The courses are often very varied thanks to the breadth of experience, which is certainly an advantage as it enables two-way learning – the young students can learn from the older researchers and vice versa. "The younger people have

The Career Center

The Career Center is a joint endeavor of the University of Bremen and Bremen-Bremerhaven Job Center. Students who wish to prepare for their career start whilst studying, graduates, and scientific assistants on their path to a professional career receive support from the Career Center. The Career Center services are only available for the University of Bremen.

The center is located next to the theater entryway under the Mensa cafeteria.

different ideas," explains Petra Droste. "Such an exchange enriches our workshops."

Workshops, Consultation, and Self-Help

Petra Droste and her team permanently observe the job market dynamics. "We always need to stay up-to-date, as the working world changes very quickly nowadays," she states. "We need to know which technologies are particularly in demand at the moment and which skills our graduates should have in order to manage well as employees." The Career Center offers courses in rhetoric, international job markets, and intercultural communication alongside job application training. Workshops on sustainability are also now being held. Petra Droste has noticed that "this matter is becoming increasingly important. More and more companies are asking themselves how they can implement sustainability within their work processes."

One aspect that is particularly important to the Career Center: The team wants to provide advice, give you tips, accompany the transition to working, but not patronize. Petra Droste explains this approach: "In our consultations, we provide help so that people can help themselves. We are happy to show people where what information can be found but we do not search for and put together the information for those needing advice. That is really important, as some people were quite sheltered at home have the expectation that everything will be done for them at the university or on the way to a career. We cannot and do not want to do that."

Transitioning to Online Consultations Was No Problem

When asked about the restrictions stemming from the corona pandemic, Petra Droste answers with an energetic shaking of her head. "We were able to switch out workshops to an online format very quickly. That worked well because we had been working on digitalization intensely for many years already – transitioning was no problem for us." And the participants, who logged in from all across Germany during this time, were very appreciative. Demands for the courses remained stable, even during the most critical pandemic periods. This experience made the Career Center even more flexible. "We – that means all lecturers who offer courses – are always alert," underscores Petra Droste. "We need a feeling for how society is changing."

And which changes has she noticed with regard to the graduates? Are they different today than they were years ago? Petra Droste takes a moment to think and chooses her words carefully. Maybe it's more difficult to tolerate the speed and constant availability today, she believes. In the working world 4.0, you need resilience, thus, the skill of being able to overcome difficult situations without developing psychological problems. However, the younger generation also has many skills that most people did not have in the past: marketing themselves, for example. On the other hand, this generation finds it more difficult to go against the grain.

Petra Droste has worked hard over the past 20 years. Her energy – her stubbornness as she calls it – helped her immensely. She gets this energy from her hobbies. Alongside gardening, she enjoys hiking in her free time. "I also like cooking and eating," she states. She is a person of pleasure. And there is truly nothing better than her two cats. ●

From the **Bremen Student Services Organization's recipe books** to your home kitchen. We're cooking popular lunches from the university Mensa cafeteria!

Mensa Cafeteria at Home: Try These Recipes

By Jacqueline Schäfer and Alena Weiß

Apricot Spinach Curry

Ingredients for four people:

- 4 apricots
- 1 zucchini
- 1 bell pepper
- 125 g baby spinach
- 240 g chickpeas
- 2 tsp curry paste
- 2 tsp turmeric, ground
- 3 tbsp olive oil
- 2 tbsp flour
- 400 ml coconut milk
- 100 ml passion fruit nectar
- 2 tsp agave syrup
- A pinch of salt
- ½ organic lemon

How to cook it:

Wash the apricots, stone them, and cut them into slices. Wash and clean the zucchini and bell peppers. Cut the zucchini into strips about three centimeters long and dice the bell peppers. Wash and clean the baby spinach and spin dry. Drain chickpeas in a colander, rinse cold, and drain.

Lightly fry curry paste and turmeric in olive oil, then dust with flour. Pour in coconut milk, passion fruit nectar, and agave syrup while stirring, simmer everything without a lid for about five minutes and season with a little salt.

Add the zucchini, bell pepper, and chickpeas, then cover and cook for about five minutes. Finally, fold in the apricots and baby spinach and continue cooking over a low heat for about five minutes. Finely grate the lemon zest, squeeze the juice, season to taste with curry, and serve.

We recommend that the curry is served with rice.

Bon Appetit!

Photos: Alena Weiß / Universität Bremen

Soft Wheat Berry and Sweet Potato Skillet With Spicy Coconut Sauce

Ingredients for four people:

- 1 kg sweet potatoes
- 200 g soft wheat berries
- 1 head of broccoli
- 3 bell peppers
- 1 red onion
- 200 g chickpeas (cooked)
- 4 spring onions
- 2 tbsp olive oil
- Salt, pepper

For the sauce:

- 1 tbsp margarine
- 1 onion, diced
- 400 ml coconut milk
- 2 tbsp flour
- 2 tsp ginger, finely diced
- 2 tsp salt
- 1 tsp sugar
- 2 tsp coconut flakes
- Chili, cardamom, garam masala

How to cook it:

Peel and roughly dice the sweet potatoes. Remove the broccoli stalk. Then clean and cut the bell peppers, spring onions, and red onion into strips.

Blanch the sweet potatoes, soft wheat berries, and broccoli successively in salted water until everything is firm to the bite. Then sauté the vegetables in the skillet with oil. Add the chickpeas, soft wheat berries, and sweet potatoes. Add salt and pepper to taste.

Ginger, diced onion, and coconut flakes are then sautéed in the margarine and lightly dusted with the flour for the sauce.

Cover with coconut milk and simmer. Arrange the vegetables on a plate and pour the sauce over the top.

Colorful Gnocchi Skillet With Bell Pepper, Zucchini and Onions With Herb Dip

Ingredients for four people:

- 1.2 kg gnocchi
- 120 g broccoli
- 100 g peas
- 80 g sweetcorn
- 120 g bell pepper
- 120 g zucchini cubes
- 80 g egg plant
- 120 g onion
- 120 g oil
- A little fresh parsley
- Salt, pepper and Herbes de Provence

For the dip:

- A handful of chives, parsley, and dill
- 200 g quark
- 120 g yoghurt
- 40 g sour cream
- Salt, sugar, and pepper
- A splash of olive oil

How to cook it:

Cook the gnocchi — in this case store-bought but you can of course make them yourselves — and let them cool. Wash the vegetables and cut them into cubes or any shape you desire. Fry the vegetables, add the gnocchi, mix and add spices to taste.

Finely chop the herbs for the dip. Then mix all ingredients in a bowl and add spices to taste. Present the dip together with the gnocchi.

You still have to quickly read the text for the seminar, then prepare the presentation for tomorrow, and you really should have already started with the term paper as well. Especially at the beginning of the semester, there is a lot of work to do. It can be hard enough to balance assignments with part-time jobs and leisure activities. On top of that, many things are done digitally. Simone Buchholz from the Psychological Counselling Centre of the Bremen Student Services Organization (PBS) gives tips on how to **organize learning** successfully for your digital degree during the corona pandemic.

How Do I Organize My Semester?

Around 1,200 students contact the Psychological Counselling Centre of the Bremen Student Services Organization every year. A common topic at the start of the semester: how to organize your studies

By Maria Bossauer

● "The best approach is to adopt a 'job mentality' for your studies. That means that studying is regarded as a proper job that needs to be done, with a fixed number of weekly working hours," advises Buchholz. This creates a framework that is often lacking at university. However, the counselor also observes that digital learning, in particular, can be very stressful for many students and demands even more self-organization and discipline. For this reason, the PBS has put together some helpful tips as part of their online offer "Studying Successfully in Times of Corona." The tips focus on topics such as learning techniques, taking breaks, workplace setup, and motivation aids. Here, Buchholz also shares a few recommendations on how to better organize learning.

Completing your semester work whilst working part time and having hobbies can be tiresome. The PBS provides tips on successfully organizing your learning for your digital studies during the corona pandemic.
Photo: Prostock-Studio / AdobeStock

Psychological Counselling Centre

The Psychological Counselling Centre services are offered free of charge to students at the university and higher education institutions in Bremen and Bremerhaven. Consultations can only take place on the phone at the moment.

Appointments can be made by phone:
Mon, Tue, Thu, Fri 9 a.m. to 1 p.m. / Wed 2 p.m. to 4 p.m.
+49 421 2201–11310 oder *pbs@stw-bremen.de*

Online Consultation
www.stw-bremen.de/de/beratung/psychologische-beratung/online-beratung

Tip 1 — Make a plan and specify goals

Books are piling up, notes are everywhere, and you have no idea where to start? “Ideally, you make a study plan — Which tasks are pending; when is the deadline? — and set yourself concrete daily and weekly goals,” suggests Buchholz. This creates a sense of commitment, which is particularly lacking during the digital semester, since who actually attends the online lectures is rarely monitored.

Tip 2 — Self-control

With your first weekly plan, you will probably notice that your own habits get caught between your plans and reality. Buchholz knows: “It helps to monitor and control yourself at the beginning and then adjust your plans. After all, it is very demotivating when set goals are not met.” So, if you realize that at 3 p.m. you’d rather drink a cup of coffee than study, just plan for it and get back to work later.

Tip 3 — Correctly estimate the amount of work

Your first study plan week is over and you haven’t even finished the ten assignments yet? Lower your expectations. The expert advises: “The plan must of course be realistic and doable. In addition, digital learning usually requires more time to make arrangements with teaching staff, including the preparation and follow-up of seminars, which most people do not expect.” So, be patient with yourself if you don’t get as much done as planned.

Tip 4 — Talk to others

Since some lectures are held digitally, there are currently neither coffees with fellow students nor tram rides with a friend to discuss the course material. Buchholz’s advice: Find a study buddy with whom you can regularly discuss the study content. Learning groups are also an option, if you meet virtually at a set time.

Tip 5 — Take enough breaks

Washing the dishes in-between tasks, then getting lost in the depths of the internet for a while and watching cat videos — and in the end there is no time for a proper break, because otherwise the paper will never get done. It is better to plan fixed break times at regular intervals, recommends the advisor. Additionally, you should take one longer break during the day — preferably combined with some exercise.

Tip 6 — Reduce screen time

The currently increased amount of digital learning causes you to look at the screen even more than usual. In addition, you also spend your free time with your smartphone and television. The boundaries between study and leisure time are blurred and it is harder for you to switch off. Buchholz’s tip: “Don’t spend your breaks in front of the screen. Writing notes by hand or reading a printed version of the texts also reduces your screen time.”

Tip 7 — Separate work from leisure time

Usually, the advisor recommends not to use your living space for learning, but to rather go to the university or library. Of course, this is not so easy when you have to revise at home. “Still, one should have a fixed workstation and study only there, in order to be able to separate leisure from work time,” explains Buchholz. She also advises people to take their leisure activities even more seriously: “Making plans for some fun activities in the evening is especially important for relaxing.”

The PBS has put together a comprehensive summary of tips for learning organization on its website.
www.stw-bremen.de

As part of the YUFE alliance, the University of Bremen is creating a European University together with nine universities and four non-university partners. The acronym stands for Young Universities for the Future of Europe. The **Diploma Supplement Track (DST)** pilot project began in the summer semester and students from the ten YUFE universities are taking classes at the partner universities. Due to the COVID-19 pandemic, the project started digitally and participants were able to experience a piece of Europe at home.

Getting to Know Other European Universities via YUFE

A pilot project is currently enabling students to take part in classes at several universities in Europe

By Meike Mossig

● Tuesday, 3 p.m.: Jelle Schuermans and Lorena Zavidić have logged into their German class in Bremen via Zoom. Jelle is taking the class in Belgium, where he studies law at the University of Antwerp. Lorena is a physiotherapy student at the University of Rijeka (Croatia). The other participants of the class log in from Italy, Spain, Great Britain, and Poland. Accusative / dative prepositions are on the teaching plan this afternoon and sentences like the following are practiced: "Das Bett steht vor der Lampe." Or in English: The bed stands in front of the lamp. Then, the teacher, Sophie Lahr-Eigen, plays an audio excerpt for the group. The atmosphere is relaxed and everyone is paying attention. It may be the case that the six class participants don't actually know each other but they have one thing in common: They are all some of the first students that are taking part in the Diploma Supplement Track (DST) program of the YUFE network.

With the DST program, the alliance is taking first steps to gather experience from its first two-year course that is to be offered and which can be credited towards the degree programs of the students in some cases. In the DST program, it is possible for students to take classes from the other nine partner universities – of course only digitally this summer semester. They are able to put together their own schedule and chose from academic classes from all ten universities that are offered in a special catalog. The alliance even developed a virtual campus – or rather a virtual learning platform – especially for this purpose.

As well as taking the German class at the languages center in Bremen in the summer semester, Jelle also had a place in the English-language seminar "Multinational Enterprises" offered by the Faculty of Business Studies & Economics at the University of Bremen. The law student liked what was on offer. Lorena also took two classes at the University of Finland alongside the language class in Bremen. Both of them don't mind that the classes

The physiotherapy student Lorena Zavidić studies at the University of Rijeka (Croatia). She took part in classes in Bremen and Finland as part of YUFE in the summer semester.
Photo: Private

Jelle Schuermans from the University of Antwerp improved his German at the languages center in Bremen. He also took a business studies and economics class in the summer semester.
Photo: Private

Profited from YUFE's international, online studies: The Bremen student Hannah Dubbels.
Photo: Private

do not count towards their regular degrees. "That's not that important," says Lorena. Jelle adds: "Thanks to YUFE, I am able to improve my English and German and get to know other European universities and students. That's great – the network has a great deal to offer."

"We Can All Learn a Great Deal from Each Other"

The German class is only one of many classes offered to YUFE students by the Bremen language center. "They also like to use our language cafés," says Friederike Weiß, who coordinates the classes. In the cafés, you meet weekly in order to chat freely and practice language skills and they are open to all students. There is also a tandem system where YUFE students can network with fellow Bremen students. "What we offer is growing thanks to the alliance," says Friederike Weiß. The digital classes enable virtual mobility for students. "We definitely want to keep that." Additionally, the SZHB staff member and her colleagues have other ideas – for example, hybrid formats that take place in person and digitally as well as language classes and cafés for staff from the nine partner universities. Friederike Weiß is in contact with the other language centers of the YUFE universities. "We can all learn a great deal from each other," she states. The University of Eastern Finland is offering interesting further training opportunities, for example. "The colleagues there are very advanced with their digital learning formats and that's motivating."

The Bremen YUFE student Hannah Dubbels also took online classes at the University of Eastern Finland and was impressed. "It was great to gain alternative digital learning experience there," she states. YUFE's international, online studies really appeal to the student of psychology at the University of Bremen. "I completed my bachelor's degree at a British distance learning university. The international aspect was something that I enjoyed." And it is exactly this aspect that she has found again since YUFE established its digital offers. She would, however, really like to study on site at the YUFE universities, which is exactly what the alliance is planning for once traveling is possible again. ●

Further Information:

www.uni-bremen.de/en/yufe
www.yufe.eu

YUFE Offers for Staff and Regional Networking

YUFE is not only attractive for students. The alliance offers exchange and further training opportunities for staff from academia, administration, and technical fields. The first YUFE post-doctoral researcher posts have already been filled. Additionally, there are events and further training sessions on offer for all university staff, which have taken place digitally to date due to the pandemic. When it is possible to travel again, everyone should have the opportunity to embark on exchange trips. YUFE will connect the towns and regions involved, as well as promote cooperation and communication. The EU, the DAAD, and Bremen State are funding the alliance.

back then

Eight years' imprisonment — that was the sentence handed to **Rudolf Bahro** by the First Criminal Division of the Supreme Court of the German Democratic Republic on June 30, 1978. What had happened? The court found it proven that the social scientist — a long-time member of the SED — had leaked information to the West German Office for the Protection of the Constitution through his book "Die Alternative — Zur Kritik des real existierenden Sozialismus" (The Alternative — A Contribution to the Critique of Actually Existing Socialism), which was published in the Federal Republic of Germany in 1977. Therefore, the Criminal Court convicted him of "treasonous espionage and disclosure of secrets."

Lively discussion included: Rudolf Bahro's book "The Alternative" and his research work at the University of Bremen in the early 1980s attracted a great deal of attention. *Photos: University Archive*

A Dissident at the University of Bremen

Disgraced in East Germany, welcomed in the Hanseatic City of Bremen: On how Rudolf Bahro came to complete a research stay at the young university in 1980

By Lars Nothdurft

● All over Western Europe, Bahro's conviction and arrest triggered a wave of public outrage and solidarity. This was also the case at the University of Bremen: Teachers and left-wing student groups organized events to inform the public and distributed leaflets demanding his release. In March 1979, the economist Otto Steiger suggested establishing a visiting professorship for Bahro within the economics and social sciences programs (former Faculty 5).

Bahro himself had stated in a letter sent from prison that he would be prepared to go to West Germany if he were released prematurely, since "Marxists of his type" could find a field of work there as well. And, Steiger concluded: "Where could this field of work possibly be more appropriate than at the University of Bremen?"

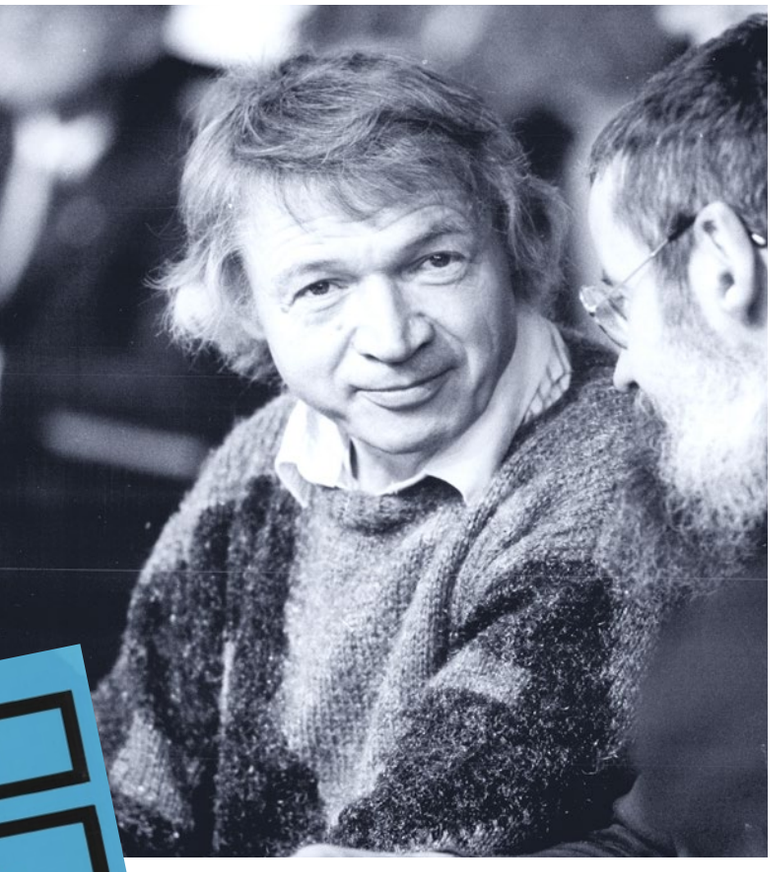
Visiting Professorship for a Dedicated Communist

A visiting professorship for a dedicated communist — obviously not everyone was immediately excited about this idea. In a letter to the faculty council of Faculty 5 in early July 1979, Steiger expressed his hope that the council would cease in obstructing the visiting professorship "with formal nonsense."

That same month, the university's President, Alexander Wittkowsky, addressed the GDR Chairman of the State Council Erich Honecker directly in a letter that was subsequently supported by several intellectuals and politicians — among them sociologist and author Jean Ziegler and former Swedish Prime Minister Olof Palme. Wittkowsky asked Honecker to pardon Bahro and took the chance to offer Bahro a two-year research stay at the University of Bremen.

In the end, the massive international pressure worked: On October 11, 1979, on the occasion of the 30th anniversary of the GDR, Bahro was granted amnesty, released from prison, and allowed to move to the Federal Republic.

Anticipating his imminent arrival in Bremen, the Marxist Group (MG) warned Bahro in a welcome note in the October 30, 1979 issue of its Bremen university magazine



↑ A dissident at the University of Bremen: In March 1980, Bahro moved to Burglesum and began his research activity at the University of Bremen. *Photo: Gabriele Senft / German Federal Archives*

that his political beliefs would not be met with unanimous approval by both proponents and opponents of communism: "Thus, all prerequisites for a discussion in Bremen are set (...)."

Bahro revealed in a letter of thanks to Wittkowsky that he was at first still reluctant to accept the offer from the University of Bremen. He planned to take up residence in the Frankfurt area. Not long after, however, Bahro did express interest in the Bremen offer, provided the Academic Senate agreed to the request of the President; it did so in December 1979.

The nuclear physicist Jens Scheer — who was banned from working for several years because of his membership in the KPD due to the Anti-Radical Decree ("Radikalenerlass") — wrote to his "comrade" in a letter in January 1980: "By the way, both of our relations with the University of Bremen are intertwined in a morbidly ironic way, as it has been suggested that your stay here — about which I'd be very happy — be financed from the half of my salary saved by my suspension ..."

Teaching Positions for Bahro and His Ex-Wife

In March 1980, Bahro moved to Burglesum and began his research activity at the University of Bremen. While his ex-wife Gundula Bahro, who had accompanied him to West Germany, held seminars on children's and youth literature in the GDR and on contemporary Soviet literature in 1980, Bahro conducted research on the "General Theory of Historic Compromise" from May 1, 1980, to April 30, 1983. In addition to various publications, his research resulted in a class entitled "'Historical Compromise' for Western Europe? Fundamental Issues and Problems," which was held as part of the work studies/politics degree program in the summer semester of 1981.

The "Historic Compromise" was intended to help overcome the divide in the socialist movement and to include non-left democratic forces in order to pave the way for "genuine" socialism and a radically new world economic order. According to Bahro, this was necessary simply because of the "ecological crisis arising from the capitalist mode of production." If nothing were to change, he believed, "we will, in the course of a few decades, wreck the whole of human civilization, call into question the existence of humankind as a species, and provoke the most serious antagonistic clashes."

Bahro, who in the 1980s increasingly turned to a spiritually influenced communism, made this critique of civilization the focus of his second major work "Avoiding Social and Ecological Disaster — The Politics of World Transformation," published in Germany in 1987.

Fully Rehabilitated in June 1990

In June 1990, the Supreme Court of the GDR fully rehabilitated Bahro. After German reunification, he rejected proceedings against the jurists who had convicted him in 1978 because he considered it "victor's justice." From 1990 to 1996, he directed the Institute for Social Ecology, which he founded himself, at the Humboldt Universität in Berlin. His research focused on ways of living shaped by the industrial society, forms of communitization, and global environmental destruction.

Fortunately, the apocalypse has failed to unfold up to the present day — but the same applies to a fundamental transformation of West European societies and economic forms. Rudolf Bahro passed away in Berlin on December 5, 1997. ●

people

Since October 2020, **Andrea Daase** has been a Professor of German as a Second/Foreign Language within the Faculty of Linguistics and Literary Studies. Prior to permanently taking on this role, she filled in for this professorship for three semesters. Daase studied German as a foreign language, Spanish and Latin American studies, and sociology at Bielefeld University. After years of teaching German as a second language (DaZ) and holding a coordinating role in language support for adult immigrants, she returned to Bielefeld University, where

Photo: Private

she completed her doctoral studies in the field of German as a foreign and second language on the topic of the language socialization experienced by adult immigrants in the working world. She subsequently taught a DaZ module for teacher education students, which she also helped to create. In Bremen, she wishes to further research the topic of migration-based multilingualism and German as a second language in the context of schools, vocational training, and work. She also wants to support the education of teachers.

Since November 2020, **Birte Berge-Höger** has held the position of Assistant Professor for Nursing Science at the Institute of Public Health and Nursing Research. She is taking over the leadership of the Department for Evaluation and Implementation

Photo: dsfotos.de

Research in Nursing Science. After her vocational training to become a nurse, she studied teacher education for vocational schools with a focus on health sciences at Universität Hamburg. In 2019, she completed her PhD on the topic of decision coaching by specialized nurses in oncology there. Her research received the David Sackett Prize from the German Network for Evidence Based Medicine (Deutsches Netzwerk Evidenzbasierte Medizin DNEbM). Research jobs at Martin Luther University Halle-Wittenberg followed. In her research, she focuses on the development, evaluation, and implementation of complex interventions for the promotion of informed, joint decision making between care providers and those in need of care.

Since June 2020, **Rainer Fechte-Heinen** has held the role of Professor of Material Engineering / Metals within the Faculty of Production Engineering. Additionally, he is also Chairman of the Board of Directors of the Leibniz Institute for Material Engineering (IWT) and Director of the Bremen State Institute for Material Testing. After his mechanical engineering degree, he completed his PhD on the simulation of martensitic phase transformation in shape memory alloys at Ruhr-Universität Bochum, where he was named honorary professor after his part-time habilitation phase. Between 2007 and 2020, he worked in the steel industry for thyssenkrupp. His most recent role there was as the head

Photo: IWT

of product development. In his field at IWT, he carries out research into metal materials, their production, thermal treatment, coating, and characterization.

In the winter semester 2020/21, **Prof. Dr. Patrick C. Leyens**, LL.M. (London) accepted the appointment for the Professorship for Civil, Commercial, and Company Law. Leyens completed his PhD at Universität Hamburg in 2006 with a dissertation on company law. He went on to complete his habilitation phase there in 2015 with a publication on capital markets law. Prof. Dr. Dr. Dr. h.c. mult. Klaus J. Hopt, M.C.J. (NYU) supervised both publications. Leyens was a research assistant and later senior research fellow at the Max Planck Institute for Comparative and International Private Law in Hamburg between 2001 and 2007. In 2007, he was then appointed Junior Professor of Private Law and Economic Analysis of the Law at Universität Hamburg. Since 2014, he has held the role of honorary Professor of Law & Economics at Erasmus University

Photo: Private

Rotterdam. He held the Professorship for Law & Business at the University of Graz until joining the University of Bremen.

Since February 2021, **Marvin Wright** has held the position of Professor of Machine Learning in Statistics within the Faculty of Mathematics / Computer Science. The appointment took place within the frame of a cooperative professorship together with the Leibniz Institute for Prevention Research and Epidemiology – BIPS. Marvin Wright studied computer science and engineering sciences at Hamburg University of Technology and mathematics in medicine and life sciences at Universität zu Lübeck. After working in the automobile industry, Wright returned to Lübeck in

Photo: Fotowerker Ganzer & Berg GbR

2014 and completed his PhD on machine learning processes for high dimensional data with survival endpoints at Universität

zu Lübeck in 2017. He subsequently worked as a post-doctoral researcher at BIPS and had a five-month guest stay at the University of Copenhagen. Since 2020, Wright has led an Emmy Noether junior research group on interpretable machine learning with application in epidemiology at BIPS.

In March 2021, **Daniel Schmand** took on the role of Assistant Professor of Discrete Optimization at the Center for Industrial Mathematics within the Faculty of Mathematics / Computer Science. Prior to this, he studied mathematics at the TU Berlin and completed his PhD within the Faculty of Mathematics,

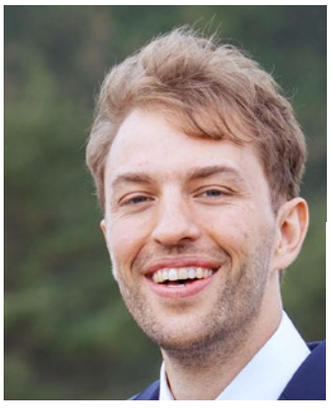


Photo: Carolin Ludwig

Computer Science and Natural Sciences at RWTH Aachen. He subsequently worked as a post-doctoral researcher at the Goethe University Frankfurt. Daniel Schmand works on efficient solution methods for discrete mathematical optimization problems, as they occur in production, mobility, company management, medicine, and sport, for example. It is often the case that possible uncertainties, such as defective data or uncertain assumptions, are incorporated and treated as such within the optimization process.

Krasimira Aleksandrova has been a Professor of Methods in Molecular Epidemiology within the Faculty of Human and Health Sciences since January 2021. She is also the deputy head of the Department of Epidemiological Methods and Etiological Research at the Leibniz Institute for Prevention Research and Epidemiology – BIPS. She studied at the Medical University Varna in Bulgaria and the Hebrew

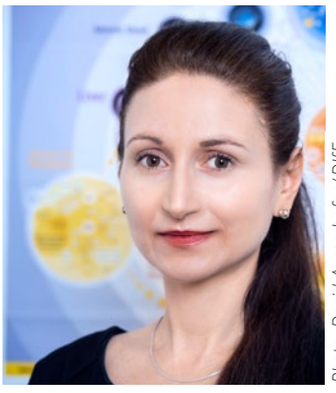


Photo: David Ausserhofer / DIfE

University of Jerusalem in Israel. After completing her doctoral studies in the field of medicine and the health sector in 2009, she moved to the Department of Molecular Epidemiology at the German Institute of Human Nutrition Potsdam-Rehbruecke and worked there until 2020. Aleksandrova completed her habilitation phase in the field of epidemiology at the University of Potsdam. Her main research interests are molecular epidemiology, chronic illnesses, and the role of nutrition, lifestyle, and metabolism as modifiable health factors.

In April 2021, **Sarah Brommer** took on the role of Professor of Applied Linguistics with a focus on text production research within the Faculty of Linguistics and Literary Research. After studying in Freiburg, one of the topics she researched at the University of Zurich was the influence of digital writing on writing standards. Her PhD focused on the linguistic patterns

Photo: Iwan

in academic text. Prior to her appointment in Bremen, she stood in for the professor of applied linguistics at the Leuphana University Lüneburg and was a visiting professor at the KU Leuven, Belgium, and University of Teheran, Iran. Her work is focused on research into and didactics of writing, media linguistics, corpus linguistics, and grammar. At the University of Bremen, she is evaluating the learning efficacy of writing tasks and written formats in degrees and is analyzing to what extent such work qualifies students for possible career paths.

In March 2021, **Jan-Hendrik Hehemann** took on the role of Professor of Glycobiochemistry within the Faculty of Biology / Chemistry. He researches the relevance of algae polysaccharides in marine substance flows. His "Marine Glycobiology" working group is a bridge group attached to both MARUM – Center for Marine Environmental Sciences and the Max Planck Institute for Marine Microbiol-

Photo: Volker Diekamp

ogy in Bremen. The "Glycobiochemistry" group will be established within the Faculty of Biology / Chemistry and Hehemann's work will be funded with a Heisenberg Professorship from the German Research Foundation (DFG). After his degree in biochemistry in Hamburg, Jan-Hendrik Hehemann completed his doctoral studies at the Université Pierre et Marie Curie in Paris and Station Biologique de Roscoff (France). He subsequently worked as a postdoctoral researcher at the University of Victoria, Canada, and Massachusetts Institute of Technology, USA, prior to coming to Bremen in 2015.

Since April 2021, **Kerstin Brandes** has held the position of Professor of Visual Culture at the Institute for Art History – Film Studies – Art Education within the Faculty of Cultural Studies. She previously filled in for this professorship. Kerstin Brandes studied art and English in Oldenburg and Leeds and completed her doctoral studies on the topic of photography and identity construction in artistic works of the 1980s and

Photo: Private

1990s. Between 2014 and 2020, she was a temporary professor of theory and history of contemporary media and professor of art history at the Carl von Ossietzky University of Oldenburg. Furthermore, she was the director of the Center for Interdisciplinary Women- and Gender Studies (ZFG). Her works focuses on the interdependencies between art studies and media studies, history and theories of photography, image migration and transculturality, postcolonial studies, cultural gender / queer studies, and cultural animal studies.

Since May 2021, **Vera Schlindwein** has held the role of Professor of Polar and Marine Seismology within the Faculty of Geosciences at the University of Bremen. It was a joint appointment together with the Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research (AWI). After her

degree in geophysics at LMU Munich, Vera Schlindwein completed her PhD at the University of Bremen. She subsequently carried out research as a Marie

Photo: Private

Curie Fellow at the University of Durham, UK. Between 2007 and 2014, she led one of the German Research Foundation's Emmy Noether Junior Research Groups at AWI in Bremerhaven and also habilitated at the University of Bremen in 2013. Since 2021, she has led the Geophysics Department at AWI. Vera Schlindwein has been teaching seismology at the University of Bremen since 2007. Her research interests include submarine earthquakes and volcanic activity in the polar oceans. She also investigates how icequakes can reveal information about the condition of polar ice masses.

Since February 2020, **Ruth Schilling** has held the position of Professor of Communication of Museum-Related History of Science within the History Department of the Faculty of Social Sciences. Her work looks

Photo: DSM

at the interplay of historical narration and research on and with objects. The professorship is connected to the leading conceptualization of exhibition and research projects at the German Maritime Museum / Leibniz Institute of Maritime History. Ruth Schilling completed her PhD studies in the field of modern / contemporary history at HU Berlin. Her last position was as an assistant professor at the University of Bremen. In her work, Ruth Schilling wants to dive more deeply into cooperations between museums and universities with a promising future.

Professor **Herbert Obinger** has received an honorary doctorate from the University of Southern Denmark (Syddansk Universitet, Odense), where he already held the role of visiting professor. The honorary doctorate was awarded to him for political science ("doctor honoris causa scienticarum politicarum") in October

Photo: Private

2021. Obinger studied political science, contemporary history, and economics at the University of Vienna. He was a visiting researcher at the University of Bern, Heidelberg University, and Harvard University and has held the role of Professor of Political Science at the University of Bremen since 2006. His work focuses on comparative welfare state research. He is currently also the spokesperson of the DFG Collaborative Research Center 1342 "Global Dynamics of Social Policy."

Professor **Ingo Eilks** from the Faculty of Biology / Chemistry was awarded the title of MINT Ambassador of the Year 2021. The prize was awarded to a total of 46 persons who are active in STEM subjects (science, technology, engineering, mathematics)

Photo: Harald Rehling / Universität Bremen

during a virtual ceremony in July. Around 20,000 STEM ambassadors across Germany work as part of the "MINT Zukunft schaffen!" initiative in order to win over young people for careers in STEM fields. The initiative places a focus on inspiring school pupils for the disciplines and on motivating, supporting, and honoring schools in STEM areas.

The Federal Ministry of Education and Research appointed **Jutta Günther** as the chair of the Advisory Board for Research Data Collection of German Economy. The Professor of Economics is also Vice President Research at the University of Bremen. Data collection on research and development (R&D)

Photo: Harald Rehling / Universität Bremen

in German industry is regularly carried out by the Wissenschaftsstatistik GmbH of the Stifterverband on behalf of the Federal Ministry of Education and Research (BMBF). The research data is part of official statistics in Germany and the European Union and flows into other international reporting systems. For many years, these statistics have formed an important basis for the BMBF's research and innovation policy and are also used by scientists through the Research Data Center of Wissenschaftsstatistik GmbH.

Professor **Anne Levin** and Professor **Andreas Grünewald** have received a Tandem Fellowship from Stifterverband and the Baden-Württemberg Foundation. The fellowship is endowed with 30,000 euros. Stifterverband and the Baden-Württemberg Foundation are providing support to great concepts that the university teaching staff then further develop and improve.

Photo: Julia Baier

Photo: Private

The educational researcher Anne Levin and the linguist Andreas Grünewald cooperate across subject boundaries. In their tandem project, a classroom simulation on the topic of diagnostics is to be developed. The aim is to support teacher education students in connecting fields of knowledge from subject-specific didactics and educational sciences.

Professor **Yvonne Rogers** from University College London (UCL), an Excellence Chair holder within the Faculty of Mathematics / Computer Science at the University of Bremen, received the Suffrage Science Award. The prize for women in the fields of science, technology, and computer science, which is named after the suffrage movement, was established in 2011 to mark the 100th anniversary of International Women's Day. It is awarded by the by the Medical Research Council's London Institute of Medical Sciences. In 2013, the prize for engineering sciences and physics was created and the prize for mathematics and computer science followed in 2016. The awards themselves are heirloom items of jewelry commissioned from students of the art and design college, Central Saint Martins-UAL. Each of the

Photo: Private

women who have been awarded the heirlooms nominate who they wish to pass on their award to every two years. This creates an international network of inspiring female role models.

In May 2021, **Professor Ansgar Gerhardus** from the Institute of Public Health and Nursing Research (IPP) was appointed a member of the advisory board for the further development of public health services by the Federal Health Minister Jens Spahn. Alongside providing recommendation for structural developments, the board must also accompany the implementation of said recommendations. The board will present an initial report to the government and states by the end of October 2021. The report will pay particular attention to the management of pandemics and health crises by the public health services. Ansgar Gerhardus is a member of the Institute of Public Health and

Photo: Harald Rehling / Universität Bremen

Nursing Research's Board of Directors, Professor of Health Services Research within the Faculty of Human and Health Sciences, and head of the Health Services Research department at IPP.

Jeff Bale, an educational scientist from the University of Toronto, has been awarded a research fellowship by the Alexander von Humboldt Foundation and took this opportunity to stay in Bremen in June. One of the things he is doing is a comparative study on teacher education in migrant communities. Bale interviewed those in charge, as well as teacher education students for this. He has the goal of finding out more about teacher education in Bremen and comparing this with the system in Canada. The researcher is particularly interested in the attitude and knowl-

Photo: Matej Mezo / Universität Bremen

edge of teacher education students towards diversity in migration and how these aspects are included in their studies. Jeff Bale is an associated professor at the renowned Ontario Institute for Studies in Education (OISE) at the University of Toronto in Canada. The Faculty of Education Sciences and Pedagogy maintains a strategic partnership with the Canadian university. Another stay in Bremen is scheduled for the summer semester 2022.

Professor **Heidi Schelhowe** passed away in August 2021 at the age of 72 years. Between 2011 and 2014, she held the position of Vice President Academic at the University of Bremen. The goal of making the outstanding teaching visible within the university and beyond its border was something that motivated Heidi Schelhowe. In her role as Vice President Academic, she also got many a ball rolling in the field of research-based learning. In 2001, Heidi Schelhowe was appointed as the Chair of Digital Media within the Faculty of Mathematics / Computer Science at the University of Bremen. She built up a research group

Photo: Harald Rehling / Universität Bremen

that developed novel software and hardware, especially for children and youths, and always viewed their work in connection to pedagogic concepts. Heidi Schelhowe was a member of the ZDF advisory board between 2011 and 2020. She remained head of the Digital Media in Education working group in the Faculty of Mathematics / Computer Science until her passing.

Dr. Hans Heinrich Maaß-Radziwill passed away at the age of 85 in August 2021. The legal scholar was the first Director of Finance and Administration at the University of Bremen after its establishment in 1971. His work entailed many of the great challenges connected to the construction of the university. He held this position until 1983. Prior to

Photo: Private

taking on said role at the university, he worked for the Bremer Landesbank and Staatliche Kreditanstalt Oldenburg-Bremen.

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