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MAGAZINE

of Heinrich Heine University Düsseldorf

Thomas Mann and the political present

Beleaguered democracies

LAW
Child welfare

CROP PLANTS
CEPLAS Research

MEDICINE
The enigma of endometriosis

hhu.

3 — 2025

PHOTO CEPLAS

The CEPLAS Cluster of Excellence is entering the third round. Researchers at five locations are examining how plants adapt to climate change.

PHOTO ETH LIBRARY ZURICH, THOMAS MANN ARCHIVE, PHOTOGRAPHER: FRIEDRICH MÜLLER/THEODOR HILSDORF

"Thomas Mann – for democracy and freedom" – the title of an exhibition at the University and State Library. What did the Nobel Laureate's activism entail and how do we take a stand today?

Legal notice

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Outlook

PHOTO LUKAS SCHULZE

Dear Reader,
This issue of the *HHU Magazine* is dedicated to topics which are of great importance to many of us: possible threats to democracy, the lack of economic growth and the question of public debt. Similarly, the need for an understanding of AI and for establishing related expertise at universities, or the effects of the climate crisis. Research and debates reported in this issue very much highlight that science can enable a better-informed discussion, and offers solutions, on these topics.

The benefit of science also depends on how it is communicated. In our digital world, we often experience that this kind of discourse is very demanding. Communication and factual exchange have become very challenging, which is described in this issue as the problem of a "beleaguered democracy". The texts of Thomas Mann, a "dedicated democrat", are an even more important legacy in this context, as you can read in the report on the Thomas Mann Collection of the University and State Library. Whether debts are good or bad is another matter of current debate. A panel discussion on our campus this summer focused on both the social and the economic dimensions of public debt. Other research topics presented in this *HHU Magazine* contribute to issues of our time on a more practical level: smart plants, which are able to deal with climate change, a better understanding of endometriosis and infertility due to more interdisciplinary medical research, and suggestions for legal reforms to enhance child welfare in modern forms of family life.

I wish you an enjoyable and inspiring read, together with a happy and hopefully "unbeleaguered" new year.

With best regards,

Professor Dr Heidrun Dorgeloh
Vice President for University Culture and International Relations

COVER CHRISTOPH KAWAN

A current debate –
with brief excursions into the past

Between economic growth and inheritance tax

Justus Haucap moderates a debate between Hartmut Haubrich and Jens Südekum (from left to right).

PHOTOS CHRISTOPH KAWAN

BY VICTORIA MEINSCHÄFER

It's rare that a mail has such an effect: After reading the report in the *Rheinische Post* newspaper in April 2024 about the "Berlin Declaration" signed by leading economists, Hartmut Haubrich wrote a mail to Professor Dr Jens Südekum – one of the signatories of the Declaration – and his colleague Professor Dr Justus Haucap. As a result, the two HHU economists from DICE (Düsseldorf Institute for Competition Economics) invited the Chairman of the Haubrich Foundation and former businessman to a debate. President Anja Steinbeck suggested opening up the debate to an audience. And so it came about that the three met in the Esther Betz lecture theatre in August 2025 – Haubrich and Südekum as debaters, with Haucap in the role of moderator.

Despite the event being held during the lecture-free period, many people attended the debate, which covered the questions: "How social is public debt?" "Has the social market economy failed?" "Do we need a new paradigm?" It quickly became clear: The two debaters do not consider debts – credit-financed investments in the future – to be a bad thing per se. Südekum considers them justifiable as long as they are used exclusively for the intended purpose, i.e. in the case of the Special Fund, for defence and infrastructure improvements. "Public debt is perfectly acceptable," says the economist, "but only for investments in the future." Haubrich does not contradict this, but wants to call a spade a spade, so to speak. The entrepreneur appeals for honesty and says: "*Respice finem* – consider the end. I do not rate debt negatively. Rather, I am just cautious! I would like to know how long the debt will run for, what the repayment schedule is and how much interest accrues, because we are creating a burden for the next generation! They will have less money available because they will have to pay our interest." He continues: "It is obvious that the normal budget cannot accommodate global economic crises such as the Lehmann collapse or the coronavirus when they occur. Consider the peace treaty of 1919 – the economist John Maynard Keynes knew that Germany's demands could not be met. And Keynes stepped down as a member of the British delegation in the peace negotiations after the First World War as his warnings about excessively high German reparations were ignored. He considered the end."

Issues must be addressed earlier

Haubrich clearly states that many of the current problems – from the poor state of the education system and the lack of progress in digitalisation, to the issues with the German national rail company *Deutsche Bahn* – should have been tackled long ago: "We do not need a special

> "The USA and China are leading the way – they do not fear incurring debt."
>
> **Professor Jens Südekum — economist**

“Many things need to be reformed, but that does not constitute the need for a new paradigm.”

Hartmut Haubrich — entrepreneur and donor

fund for such things. Instead, provision should be made for them in the normal budget on an ongoing basis.” And it would have been possible to deal with them in the “golden years” of burgeoning tax revenues, i.e. between the Lehmann collapse and the coronavirus pandemic: “We failed to invest in the expansion of infrastructure in those years in which we had excellent revenues. We have to deal with the issue now, as it will only get worse if we don’t. However, we need to be honest and admit that this is not new infrastructure. The infrastructure already exists, it just needs to be brought up-to-date.”

Wanted: economic growth

Both parties to the debate agree that growth is essential and that this growth will not happen by itself. “The pressure to act is high,” says Jens Südekum, “and we cannot use current tax revenues to finance investments in the future! That will result in too little being done.” Above all, however, the economist points to the rising interest charges: “The current interest charges amount to 20 billion euros and will rise to 60 billion euros by 2029. To cover these charges, we need notably stronger economic growth – and that will not happen without the Special Fund.” Südekum points to the economic policy of other countries by way of example: “The USA and China are leading the way – they do not fear incurring debt.”

Moderator Haucap summarises the debate so far: “So both agree that we need economic growth and that it will not happen by itself.” He then moves on to the next topic: inheritance tax. As Haubrich makes clear from the outset, this tax does not bring the Federal Government any revenue in the first instance as it is allocated to the federal states. However, it could represent an opportunity to level out the very high wealth inequality in Germany. As moderator Haucap explains, Germany is the country with the highest share of inherited wealth. “We have only a very small proportion of self-made millionaires; the majority of wealth is obtained by inheritance.”

The debate was moderated by Professor Justus Haucap (left).

When it comes to inheritance tax, everyone agrees: reform!

Südekum believes that “inheritance tax is currently poorly designed as it only affects the ‘poor rich’, i.e. those who are merely affluent with one to two million euros in assets.” The real wealth is inherited tax free through, according to Südekum, “the artificial separation of operating and private assets.” Haubrich agrees again – like Südekum, he too would like to see a reform of inheritance tax and taxes in general in Germany: “We currently have 40 types of taxes and 20 thereof contribute less than one percent of tax revenues. You really have to ask yourself how much administrative work that entails. We need to have the courage to question and change things.” However, Haubrich cautions against use of the term “wealth tax”, which he considers “derogatory”: “When entrepreneurs have a good idea and earn a great deal of money with that idea,

Hartmut Haubrich does not share Jens Südekum's bullish conviction that the "Commission for Welfare State Reform" (*Kommission zur Sozialstaatsreform*) will present meaningful results quickly and thus pave the way for initial reforms. "That has not been thought through to the end. The task of realising reform here has been delegated to a commission, which will never be able to complete its work before the end of the legislative period." As it was not (yet) possible to reach a decision on this question, the debaters agreed to a bet: If the reforms both consider necessary are implemented, a bottle of champagne will change hands. If they do not happen (so quickly), the champagne will be passed in the other direction.

Hartmut Haubrich (left) and Jens Südekum agreed on many things, but not everything.

then they should pay corresponding taxes. And society should also gratefully accept them because we need entrepreneurs and can only hope that they become billionaires and pay taxes."

Is scepticism vis-à-vis the state appropriate?

So, a strong consensus between the debaters, with the exception of one term – which was the reason for the correspondence in the first place: The Berlin Declaration, which was signed by many economists, including Südekum, calls for a "paradigm shift" in the economy. "My motivation for signing the Declaration was to highlight that the world is more complex than assumed by previous economic models: The old paradigm of the Washington Consensus, which assumes that everyone ultimately receives their share in a trickle-down economy as the profits spread from the top down, is not complex enough. And with this old paradigm there is a great deal of scepticism vis-à-vis the state, which I do not share. We need an active state. It should not only act as a 'repair shop'." Haubrich shares this opinion, but is uncomfortable with the term paradigm: "Many things need to be reformed, but that does not constitute the need for a new paradigm. That is normal government action! Governments are elected by citizens and they need to form a viable working relationship. They also need to risk being voted out." Haubrich makes reference to the development of the social market economy in the Federal Republic: It was conceived back in 1943 by the Freiburg Circles, which involved Walter Eucken and Friedrich von Hayek, and developed at the request of the theologian Dietrich Bonhoeffer: "Market freedom should be linked with social equality. That is the 'primordial cell' and should still be implemented in the same way today."

MORE INFORMATION
The video (German only) is now available on the HHU YouTube channel.

Hartmut Haubrich, entrepreneur, founder and Chairman of the Haubrich Foundation, is a key Düsseldorf patron who has received numerous honours, including the Cross of Merit (1st Class) of the Order of Merit of the Federal Republic of Germany and the Grand Ring of Honour of the city of Düsseldorf, which is awarded to just five living personalities. President Professor Dr Anja Steinbeck honours the long-term patron: "I admire Mr Haubrich for his positive attitude, his great financial generosity and the time he is willing to invest in commitments in many different areas. Düsseldorf and HHU are very lucky that such people exist." HHU has Hartmut Haubrich to thank for significant long-term and wide-ranging funding as well as numerous German National Scholarships. His commitments stretch from the Faculty of Business Administration and Economics to the Faculty of Arts and Humanities: "Mr Haubrich is generously supporting the formulation of a collaborative project between the Faculty of Arts and Humanities at Heinrich Heine University (Art History, American Studies, Philosophy) and the University of Siegen (History)," says Professor Dr Valeska von Rosen, the designated spokesperson. "He displays a keen interest in the topic, participates in meetings and contributes constructive criticism to our discussions. We greatly appreciate him as a discussion partner!"

How the German law of parentage can be reformed

Taking the best interests of the child as a basis

BY CAROLIN GRAPE

The family of today is more diverse than ever before: Same-sex parenthood, patchwork families, rainbow/co-parenting models and surrogacy characterise the social reality. The core of the current law on parentage set out in the German Civil Code (*Bürgerliches Gesetzbuch* – BGB) is based on regulations from the 1990s and takes too little account of developments, which have arisen from progress in modern reproductive medicine. In his outstanding dissertation supervised by Professor Dr Dirk Looschelders, the law scholar Ole Lueg calls for a reform of family law, which focuses primarily on the best interests of the child as the central criterion for the legal parent-child relationship.

ILLUSTRATION ELI ALAIMO DI LORO

The current law of parentage is based on a conventional heteronormative two-parent model: The mother is the woman who gave birth to the child and the father is the man she is married to or whose paternity has been recognised. From a legal point of view, by applying this regulation, legislators are ignoring the reality of modern family structures and no longer answering key parent-child relationship questions adequately. For example, how is the parenthood of same-sex couples, in particular two women, or co-parenthood recognised? What happens with children born to a surrogate mother but brought up by others?

These are questions, which Ole Lueg addresses in his research work *"Das Kindeswohl als Ausgangspunkt und Grenze der Elternschaft"* ("The Best Interests of the Child as the Starting Point and Limit of Parenthood"). The law scholar analyses existing law, formulates what he views as necessary reform in a legal comparison involving Canada, the United Kingdom and Austria, and presents concrete proposals.

Instead of basing parent-child relationship definitions solely on biological or formal criteria (such as marriage), the legal expert believes that the best interests of the child should become a central principle: "What is good for the child should also be legally recognised," says Lueg. The best interests of the child include all factors, which are key for the healthy physical, mental and emotional growth of a child. Although the complex term is incorporated in many areas of family law as a guideline, the legal expert believes it is not adequately reflected in current family law in particular.

Establishing the right to diverse, modern family forms

Lueg would like to change this and bases his argumentation on empirical research from sociology, psychology and philosophy: "Numerous studies – for example from Germany and the United Kingdom – prove that children who grow up in same-sex or multi-parent constellations do not experience a poorer upbringing; in fact, some even enjoy a better upbringing. A particularly important aspect in this is not the genetic origin, but rather the quality of the relationship to the guardians," explains Ole Lueg. "There is no scientifically justifiable reason to legally exclude certain family models." According to Lueg, the best interests of the child should therefore not only be a guideline, but rather a legal criterion, which legislators must already take into account when establishing parentage law regulations governing parent-child relationships.

The law scholar also appeals for the introduction of the term "biological parent" and thus a gender-neutral regulation of parenthood in the future. German law only recognises the "father" as the second parent, i.e. a man. This has made it impossible to enter two mothers on a birth certificate without complications to date: Lesbian couples and women in non-heterosexual family constellations must take the adoption route to enable the second mother to be recognised, while legal fatherhood applies automatically for husbands. This change would not only ensure an automatic legal position as a parent for the wife of the birth mother, but also enable trans- and intersexual individuals to be recognised as parents.

> "There is no scientifically justifiable reason to legally exclude certain family models."
>
> **Ole Lueg — legal expert**

In order to take account of modern family forms such as co-parenting and multi-parent families, Lueg is in favour of expanding legal parenthood from currently two to max. four individuals – always under the prerequisite that at least one of these individuals has given birth to the child. This would ensure that at least one parent has a particularly close bond with the child. The parenthood should be contractually agreed by all those involved before the child is conceived. The family court would then have the period up to the birth to review whether the constellation is in the best interests of the child. This would enable a gay couple and a lesbian couple to share legal parenthood of a child.

A further important aspect of his dissertation relates to surrogacy. Surrogacy is currently prohibited in Germany, which results in many couples going abroad. Lueg is in favour of regulated surrogacy in Germany, which protects the rights of both the surrogate mother and those seeking to become parents in this way. In his model, the court decides on the legal parenthood of those seeking to become parents via surrogacy after the birth, while the surrogate mother could also keep the child in individual cases. Commercial surrogacy remains explicitly legally excluded – compensation for the surrogate mother should be limited to coverage of the costs actually incurred.

Many of the changes proposed by Lueg are necessary in practice to accommodate the reality of today's family constellations. With his appeal to make the best interests of the child the deciding factor for the legal recognition of parenthood, the expert proposes a way to establish a fairer and more inclusive future for all families, irrespective of their form and origins.

Thomas Mann at the studio of the New York radio station WQXR in 1938 where he gave a precursor of his BBC addresses.

Beleaguered democracies

Thomas Mann and the political present

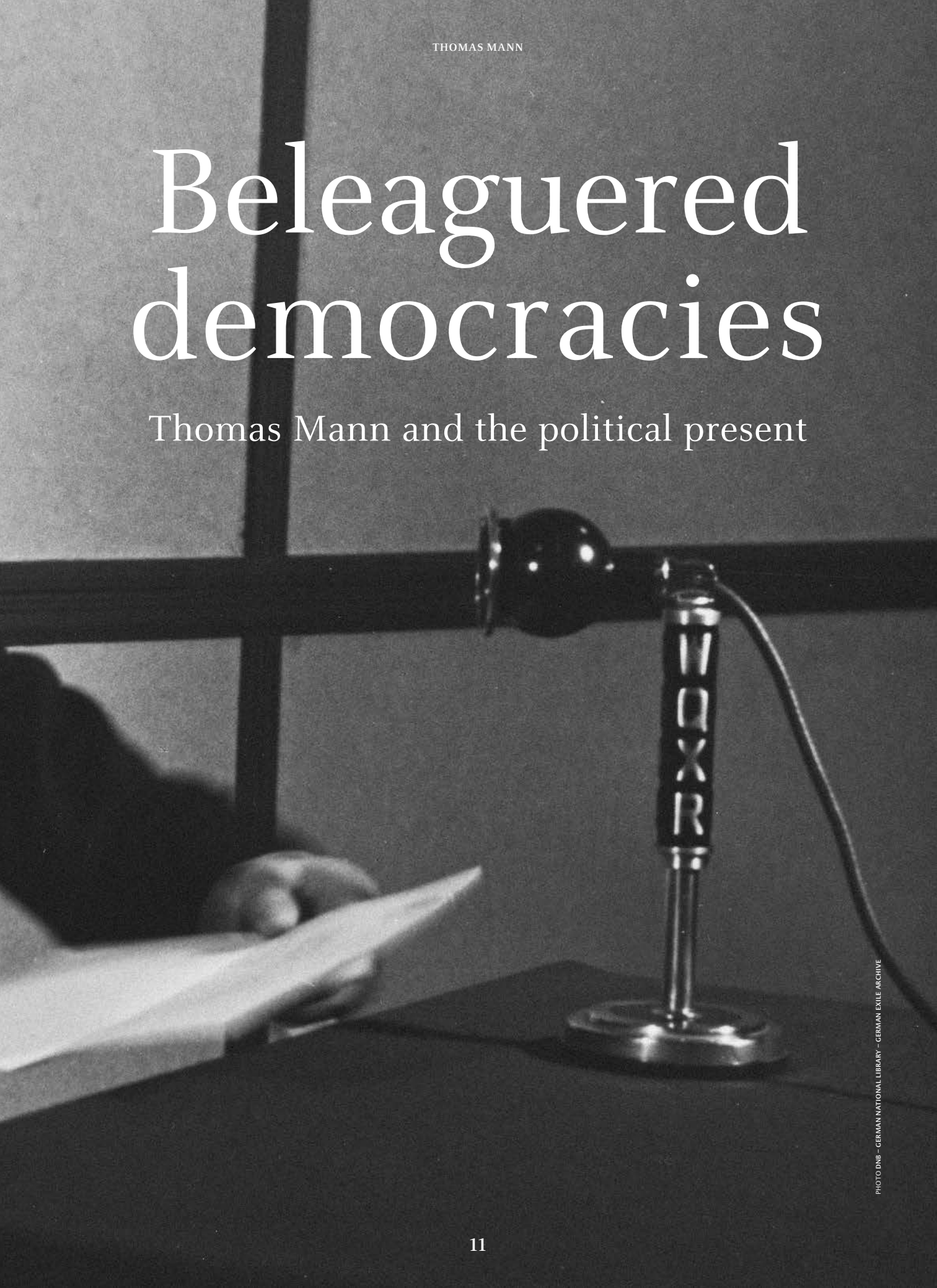


PHOTO DNB – GERMAN NATIONAL LIBRARY – GERMAN EXILE ARCHIVE

BY VICTORIA MEINSCHÄFER

The Thomas Mann Collection at the University and State Library is one of the largest worldwide. The collection not only includes all collected and individual editions of Mann's works, but also rare bibliophile editions, a newspaper cutting archive comprising more than 30,000 documents and originals or copies of more than 5,000 letters written by Mann. The collection documents the history of Thomas Mann not only as a writer, but also as an ambassador of Germany and tells of a life of upheaval. But can the statements made by the writer and – later in life – dedicated democrat still tell us something about democracy today?

The winner of the Nobel Prize for Literature is well known for both his works and his untiring resistance against Nazi Germany. He was an activist who, in his fight against National Socialism, employed what were state-of-the-art technical means at that time. "In the years from 1940 to 1945, he addressed Germans in 55 speeches at the request of the BBC," says Dr Ute Olliges-Wieczorek, Head of Division – state library & special collections, who curated the exhibition "*Thomas Mann – für Demokratie und Freiheit*" "(Thomas Mann – for democracy and freedom") at the University and State Library in late summer 2025. "Even though intercepting foreign radio stations was strictly prohibited, he is said to have reached an audience of millions." And that was not the only way Mann and the BBC appealed to the Germans to stand up to National Socialism – the speeches were printed in leaflet form and "dropped from planes over Germany by the sackful", which represented highly advanced information and propaganda methods at that time. "Thomas Mann would surely count as a kind of 'influencer' today. To a certain extent, the BBC radio addresses constituted the state of the art at that time – today's equivalent would be social media," says Dr Dennis Frieß, communication scholar and Coordinator of the DIID (Düsseldorf Institute for Internet and Democracy) at HHU, whose opinion of this medium is not entirely positive.

Ambassador of German culture

However, one way in which our present certainly differs from the 1930s and 1940s is the role as ambassador of German culture, which Thomas Mann held. "There is no longer just ONE such ambassador these days," believes Frieß, "there is a great deal of differentiation in the role of such a spokesperson now. Social media allow a large number of people to have a public voice and address a sub-audience in a targeted manner. I believe that picking out just one influencer comparable to Mann is extremely difficult. Back then, he was perceived – in particular in the USA – as a 'public intellectual'. This spokesperson role did and does not really exist in this form in Germany." The fact that so many people post on social media does not in fact help the cause of democracy in the opinion of the communication

scholar: "The sheer volume of communication is so great that the audience can no longer gain much orientation from it." Frieß warns people against believing that everything they read on social media constitutes broad-based public opinion and draws a clear comparison: "Many political statements can also be found on the walls of public toilets, yet it would never occur to anyone to consider these statements as THE public opinion or report on them. Yet, a lot of what we see on social media bears a strong resemblance to slogans in public toilets, which journalism does not adequately reflect." In this context, a profound change in public discourse is becoming apparent under digital framework conditions according to the communication scholar: "For a long time, we have assumed that more communication can strengthen the transparency function of public discourse. More positions and opinions become visible, which then give rise to further discussion, which in turn enables their validation through communication. Ideally, this leads to the emergence of informed public opinion, from which society can gain orientation," says Frieß. "It no longer works like that today though. There is too much information, everything happens too quickly and the communicative validation and resultant orientation are consequently out of sync." Frieß refers to a "beleaguered democracy" and believes: "This is not good for discourse and therefore also not good for democracy."

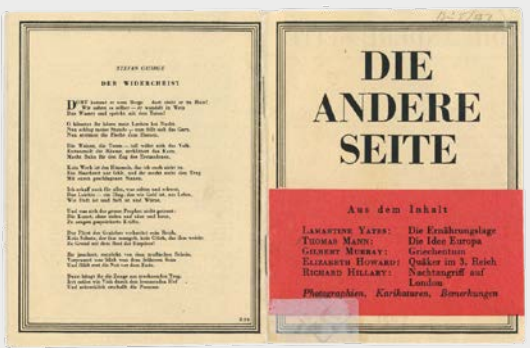
> "When discourse no longer functions, democracy no longer functions either."
>
> **Dr Dennis Frieß — communication scholar**

Like Thomas Mann, whose speech "*Deutsche Ansprache. Ein Appell an die Vernunft*" ("German Address: An Appeal to Reason") in Berlin in October 1930 was deliberately sabotaged by disruptive individuals, we are once again experiencing the targeted disruption of public debate and discourse. And social media are playing an important role in this. "It is widely known that e.g. speeches given in the German parliament by members of the AfD are tailored to achieve maximum impact on

Right: Thomas Mann at his desk in Pacific Palisades, 1941.

Thomas Mann addressed Germans in 55 radio messages on a largely monthly basis between October 1940 and May 1945, encouraging them to resist the National Socialist regime and offering them a moral alternative to Hitler. The speeches, which lasted between five and eight minutes, were broadcast via the BBC's German programme. Thomas Mann's radio messages were also printed in leaflet form and dropped over Germany by the Royal Air Force to bolster the spirit of resistance of the German population.

PHOTO ETH LIBRARY ZURICH, THOMAS MANN ARCHIVE



PHOTOS UNIVERSITY AND STATE LIBRARY

social media. Brevity, deliberate provocations and orchestrated uproar are part of a communications strategy oriented to the logic of social media," says Frieß. "These posts are then targeted at supporters and furnished with a corresponding narrative, which easily draws people in." Deliberate provocation is sometimes also employed as a strategy at in-person events, as Frieß continues: "Alleged 'members of the public' cause targeted and consistent disruption until the police have to be called to enforce the house rules of the event organisers. And at exactly that moment, out come the smartphone cameras. Minutes later, the videos are on the Internet with the claim that you 'can't say anything any more'." And this in turn confirms the worldview of those the videos are targeted at. "Rational discourse, which is essentially considered an indispensable part of the theory of democracy, is getting lost. People suddenly no longer have to subject themselves to meaningful argumentative discourse, but rather can simply claim things. In a perfidious way, it is a very clever approach," says Frieß, "as when discourse no longer functions, democracy no longer functions either."

Bourgeois beginnings

Thomas Mann's dedication to the democratic cause is not something he was born with. On the contrary, he started out as a bourgeois writer who even welcomed the start of the First World War in 1914. "Initially, he held very conservative positions, referred to the war as 'the great cleansing' and the conservative forces saw him as their guarantor," says Olliges-Wieczorek. In his "*Betrachtungen eines Unpolitischen*" ("Reflections of an Unpolitical Man") published in 1918, Mann professed his belief in the "German authoritarian state" and that this state was and would continue to be the "appropriate and fitting form of state fundamentally desired [by the German people]." Olliges-Wieczorek explains: "However, Thomas Mann already felt uncomfortable with his own position by the time the work was published in 1918. Initially, he wanted to withdraw the text, but the *S. Fischer Verlag* publishing company had already printed and delivered it. And his positions enjoyed broad support in conservative circles in the Republic."

Democracy and civilisation versus culture and artistic spirit

Not least the award of an honorary doctorate from the University of Bonn followed in recognition of his remarks. Mann drew a distinction between Germany and France: he attributed democracy, civilisation and parliamentarianism to France – and not least his brother Heinrich – while attributing culture and an artistic spirit, which transcends politics to Germany. However, the many political murders and increasing violence of the far right made him uneasy. "He wanted to stand on the foundation of democracy," says Olliges-Wieczorek. At the latest with his speech in the Beethoven Hall in Berlin on the 60th birthday of Gerhard Hauptmann, in which he refers to democracy as the "epitome of humanity", tracing its origins back to Romanticism and Walt Whitman, he switches sides and joins the ranks of democracy, which he declares to be everyone's business and for which he particularly wants to win over young people. As the work "*Deutschland und die Demokratie*" ("Germany

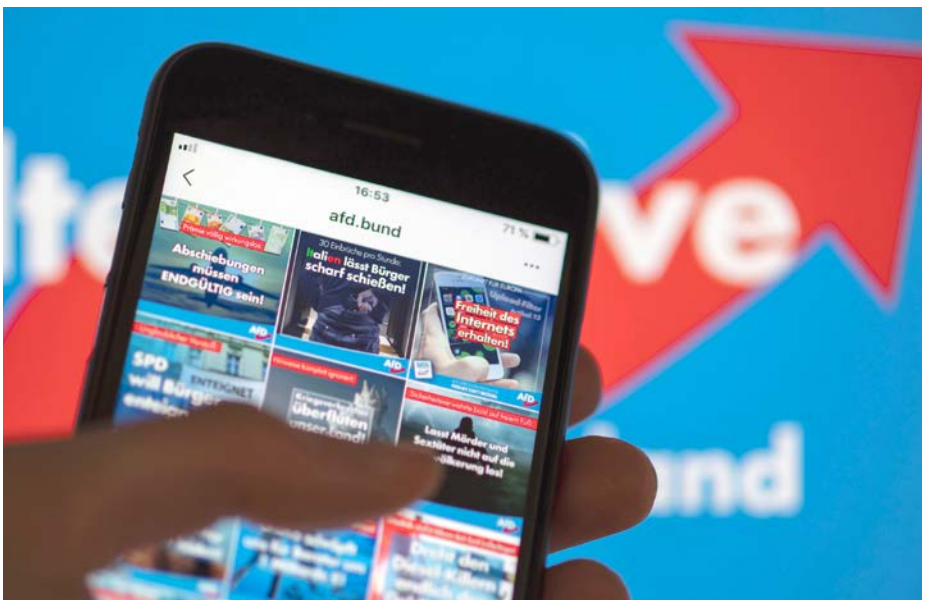


PHOTO PICTURE ALLIANCE/PHOTOTHEK | JANINE SCHMITZ

The AfD tailors its addresses to the German parliament for use on social media.

In 1936, Thomas Mann's honorary doctorate from the University of Bonn was withdrawn. The correspondence between Mann and the Dean of the Faculty of Arts appeared in Germany as a disguised edition.

Below: Images/captions already contained lies back in 1930. Mann's speech in the Beethoven Hall was subject to disruption by SA members. When the police arrived, the audience turned their backs. The *Völkische Beobachter* newspaper did not mention this, captioning the image as "Thomas Mann gives a speech."

PHOTOS UNIVERSITY AND STATE LIBRARY

PHOTO ULLSTEIN BILD

and Democracy"), published in 1925, states: "Service to life, for which we Germans have always been truly ready, is however today service to democracy, without which Europe is doomed."

After this sudden change of heart, Mann took on the role of ambassador of German democracy, calling himself the "travelling mouthpiece of democracy". In agreement with the Foreign Office, he undertook a large number of trips abroad, travelling throughout Europe and to the USA to speak. And, in view of the anti-liberal fascist movements in Europe, came to the conclusion that Germany must ally itself more closely to the West and France. "He supported the policy of Stresemann and saw the need to reach an understanding with France and a peaceful revision of the Treaty of Versailles," says Olliges-Wieczorek. "Mann already expresses a European notion here." Yet attacks on him increased and he was sent a burnt copy of "Buddenbrooks" after being awarded the Nobel Prize for Literature in 1929 – a clear warning. "He resisted the efforts of the National Socialists to appropriate Goethe and German culture for their own ends, and addressed the issue of mass suggestion literarily in the novella '*Mario und der Zauberer*' ('Mario and the Magician')," says Olliges-Wieczorek. "He knew the time had come at the latest when a protest article against his speech '*Leiden und Größe Richard Wagners*' ('Sufferings and Greatness of Richard Wagner') signed by 45 renowned citizens was published in the *Münchener Neuesten Nachrichten* newspaper over Easter in 1933 and the cultural elite of the city distanced themselves from him as a result." Mann travelled to Amsterdam and Brussels for speaking engagements and to Switzerland on holiday, and did not return to Germany afterwards. He had been warned in good time that a warrant had

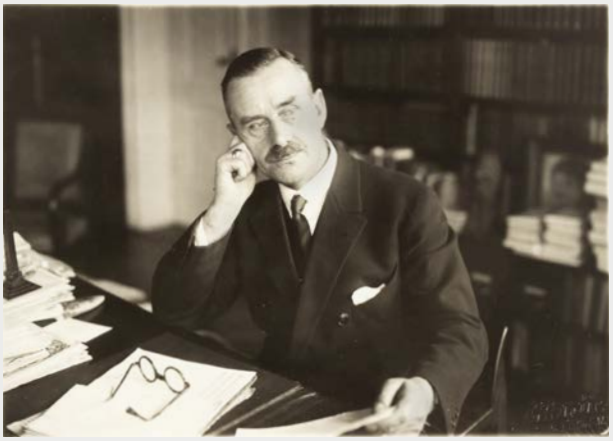
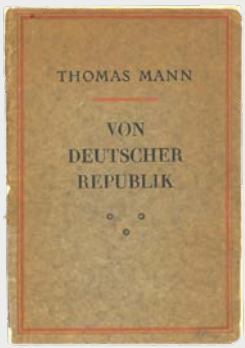
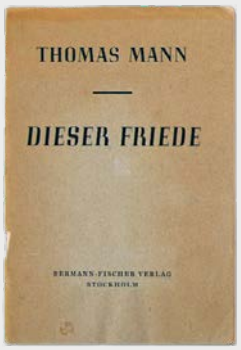


PHOTO ETH LIBRARY ZURICH, THOMAS MANN ARCHIVE, PHOTOGRAPHER: ATLANTIC-PHOTO

Left: Thomas Mann at his desk in Munich, 1930.

Thomas Mann's speech "*Bekenntnis zum Sozialismus*" ("commitment to socialism"), which he gave to workers in Vienna in 1932, was printed as a disguised edition only as big as a hand under the title "*Rede an die Nation*" ("Speech to the nation") in 1933 – one of the unique pieces in the Thomas Mann Collection.





PHOTOS UNIVERSITY AND STATE LIBRARY

been issued to take him into protective custody. "His works still appeared in Germany though," says OIliges-Wieczorek. "The Nazis ultimately did not have the courage to ban his books." However, the works did not appear in the usual editions; the exhibition at the University and State Library includes so-called "disguised editions". For example, Mann's correspondence with the Dean of the Faculty of Arts at the University of Bonn, which had withdrawn his honorary doctorate in 1936, was published as a disguised edition. "10,000 copies of the letter Mann wrote to the Dean were distributed in this way. It is seen as an important document for writers in exile in the fight against the National Socialists," says Olliges-Wieczorek, who naturally also has such disguised editions in the Thomas Mann Collection.

Peace with international understanding

After the Mann family moved to the USA in 1938, his work as a political speaker continued unchanged. "He spoke to many thousands of people in large halls," says Olliges-Wieczorek. The tickets for his events were sold out long in advance. And even 20 years after his own conversion to democracy, Thomas Mann continued to believe that the lack of upbringing in democracy made Germans susceptible to fascism. "National Socialism was not an occupational accident, but rather part of the German culture, which everyone carried within them," said Olliges-Wieczorek, summarising Mann's convictions. It was already clear to him during the war that there would only be real peace if an international understanding was also reached with the Soviet Union – a position, which was not very well received in the USA. Shortly after the end of the war, it became clear that there would be no happy end there or in Germany for Mann. In the McCarthy era, the family returned to Europe, but Mann did not want to live in Germany again. "How many Nazi hands have I shaken?" he asked himself after his trip to Germany in 1949. The fact that this trip took him to both parts of Germany in turn outraged the Americans.

Almost one hundred years later, the question of whether democracy is really secure in Germany is again not so easy to answer. "In the field of political science in the 60s, it was assumed that democracy and prosperity were linked – the German economic miracle and the consolidating democracy in the Federal Republic of Germany were a good example of this," explains Frieß, "yet that no longer applies today: Prosperity no longer seems

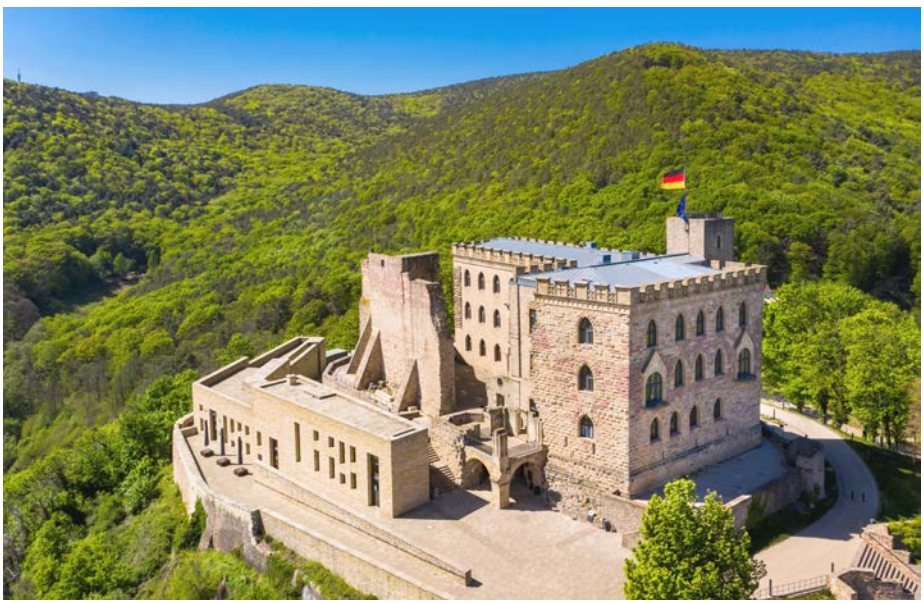
> "He resisted the efforts of the National Socialists to appropriate Goethe and German culture for their own ends."
>
> **Dr Ute Olliges-Wieczorek — head of the Thomas Mann Collection**

to be a guarantee of democracy in the same way that democracy is no longer a guarantee of prosperity." So why does democracy find itself in such a difficult position again? Frieß sees the lack of experience of self-efficacy as one reason. "Many people feel overwhelmed by everything that is happening. And in such a situation, simple solutions and people that are easy to blame are welcome." Yet it is precisely this self-efficacy that people in the former East Germany experienced with the fall of the Berlin Wall and the period that followed, as Frederick Bellhoff remarks: "The people there experienced for themselves how it is possible to topple a dictatorship and they were able to learn that democracy does in fact depend on individuals." The research associate at the Chair of Professor Dr Anja Oesterhelt is completing his doctorate on the Thomas Mann researcher Harry Matter. His estate forms part of the Thomas Mann Collection, as he maintained close links with the founder of the collection, Hans Otto Mayer. In his function as editor of the *Aufbau Verlag* publishing company, Matter was also responsible for the planned major Thomas Mann edition for East Germany, which was ultimately discontinued after the fall of the Wall. "In East Germany, Mann was of course perceived differently. Ideologically interpreted, he was a chronicler of the decline of the bourgeoisie, i.e. not conventionally elitist and not an inhabitant of the ivory tower; rather, the position of his writings in everyday life was perceived," says Bellhoff.

However, Bellhof also points to the diversity of the roles, which Thomas Mann assumed virtually simultaneously throughout his life. This is clearly evident in a speech Mann gave to around 20,000 people at a mass rally in Madison Square Garden in 1938. The reason for the rally was the failure of the Munich Agreement in the form of the establishment of the "Protectorate of Bohemia and Moravia": "Here, Mann finds himself in an interesting role again, in which his multiple perspectives become evident: He is not only a political activist, he is part of a 'crowd' (and has thus outgrown the elite circle), yet at that time he was also a citizen of Czechoslovakia. This means that he (invents and) finds himself in the role of ambassador of civil, anti-Hitler Germany." Bellhoff is impressed by Mann's clear understanding of the aggressive and eliminatory foreign policy of the Third Reich.

What and who is part of the elite today, in which Thomas Mann should undoubtedly be included, and which – as Dennis Frieß emphasises – now no longer enjoys an exclusively positive reputation? "Elites are no longer perceived as morally normative points of orientation and high culture is quite definitely no longer the generally accepted rule of thumb." Perhaps this is a reason why no such generally accepted ambassador exists today.

PHOTO ADOBESTOCK – DAVID BROWN



The far right consistently seeks to hijack historical locations, people and movements for their own ends, including Hambach Castle (image) and the Hermann Monument.

The excellent CEPLAS research enters the next round

Improving crop plant resilience to climate change

PHOTO CEPLAS/LISA BELLER

Cultivation of *Arabidopsis thaliana* seedlings (thale cress) in the laboratory. This is a model plant, which can be used to test many different research questions.

BY ARNE CLAUSSEN

A great success for Heinrich Heine University Düsseldorf and the University of Cologne: Their CEPLAS Cluster of Excellence ("SMART plants in dynamic environments") is now entering the third funding round within the framework of the Excellence Strategy of the federal and state governments. In collaboration with colleagues from Jülich Research Center (FZJ), the Leibniz Institute of Plant Genetics and Crop Plant Research in Gatersleben and the Max Planck Institute for Plant Breeding Research in Cologne, the researchers in Düsseldorf and Cologne will examine how plants adapt to climate change.

Securing food supplies for the growing global population is a huge task. To master this challenge, food production must become sustainable. This is the only way to preserve natural resources and secure the basis of future agriculture. Climate change is making this task more difficult, as rising temperatures, a shortage of water and extreme weather conditions are threatening crop production. Existing agricultural land is becoming unusable due to erosion and salinisation, while the opportunity to cultivate new agricultural land is rare.

Adapting crop plants to adverse environmental conditions

The CEPLAS scientists have been examining how crop plants can adapt to adverse environmental conditions since 2012. The findings obtained are expected to contribute toward making plants more resistant to drought, increasing their yields and improving their nutrient content. Among other things, molecular mechanisms have been discovered, which influence complex traits such as plant growth, metabolism and interaction between plants and microorganisms.

In the first project phase of the Cluster of Excellence, which ran until 2018, central plant traits such as lifespan, leaf development, metabolism and interaction with microorganisms – the microbiome – were examined. This research showed that the microbiome plays a key role in the health and performance of the plant.

The research areas were then linked to form a more comprehensive picture in the second phase (2019 to 2025). The researchers examined how development affects the form and anatomy of plant organs, such as the leaf and flower, and thus plant metabolism including photosynthesis

Great celebrations at HHU on 22 May 2025: The German Research Foundation and the German Science and Humanities Council resolve to fund the CEPLAS Cluster of Excellence on Plant Sciences for a further seven years.

PHOTO HHU/ARNE CLAUSSEN

and sugar allocation. They also established that the immune system of a plant balances the interaction with beneficial microbes and resistance against pathogens, which fundamentally changed how researchers view the plant microbiome.

The CEPLAS researchers also developed state-of-the-art tools to support their work: Biosensors track how nutrients or hormones are transported in real time; synthetic biology approaches are used to reconstruct metabolic pathways in a targeted manner; complex plant genomes are decoded using AI-based data analyses and the activity of enzymes can be predicted.

How are plant traits controlled by environmental influences?

The third CEPLAS funding round starts on 1 January 2026. Over the next seven years, research will be conducted into how complex plant traits are controlled by environmental influences. Professor Dr Maria von Korff Schmising, CEPLAS spokesperson from the HHU Institute of Plant Genetics, says: "We want to understand the genetic and molecular foundations of plant traits so comprehensively that we can precisely predict growth and yield under various environmental conditions. To this end, we want to gain a mechanistic understanding of the highly complex interconnections between the plant genome, molecular networks and traits in complex environmental conditions, and the metabolic interactions between plant and microbes. On the basis of this understanding, a 'proof-of-concept' approach will then be used to develop initial prototypes of 'SMART' plants – which can better adjust to changing environmental conditions and thus contribute to securing global food supplies on a sustainable basis."

> "We want to bring our research closer to citizens and actively involve them through so-called citizen science projects."
>
> **Dr Céline Hönl — CEPLAS Coordinator**

These SMART plants will include e.g. perennial grain varieties that allow for more sustainable, soil-preserving farming practices. Annual crop plants – alongside barley, also wheat, rice and maize – are currently the cornerstones of global food supplies. However, "annual agriculture" is not sustainable, as the land needs to be worked every year, fields are left fallow and are thus at risk of erosion. Pesticides and fertilisers are also needed to enable the seeds to sprout and grow. By contrast, perennial plants develop deep roots, which protect the soil from erosion and allow them to access water and nutrient resources deep in the ground.

Several perennial wheat and rice varieties already exist. However, breeding such varieties is extremely time-consuming and cost-intensive, while their grain yields are still significantly lower than those of annual grain varieties. In CEPLAS III, the intention is to clarify how longevity and yield are linked mechanistically. Understanding how the development of the plant and the distribution of nutrients in its organs are coordinated is a critical aspect in this.

The meristems of the plants represent the key. The meristems are the undifferentiated, dividing cells from which all the organs of the plant – roots, stems, leaves and flowers – develop. They are the starting point for the growth and regeneration of the plant. The balance between differentiation and preservation of the meristems determines how long a plant grows for, when it flowers and what resources it invests in seed production compared with the maintenance of vegetative structures. This balance has a direct effect on the lifespan, resilience and yield of the plant.

Plant breeding at HHU.

PHOTO CEPLAS / LISA BELLER

PHOTO CEPLAS

Field trials with crosses between related annual and perennial species of barley. These are used to identify genetic variation, which influences longevity and yield. The ears are encased as they break apart and fall to the ground when ripe in wild, non-domesticated grasses.

Von Korff Schmising: "In CEPLAS II, we decoded the genetic control of spike meristems in annual barley. In order to develop perennial grain varieties with high yields, we now need to understand which genetic and metabolic mechanisms coordinate the activity of various meristems in order to optimise lifespan and yield, and how these processes are influenced by environmental factors."

New, state-of-the-art research facility

Four new professorships in the fields of synthetic biology, data sciences and plant/environment interaction will help tackle the new key research areas. In addition, the PEAC (Plant Environmental Adaptation Center), which is currently under construction, will provide the appropriate research infrastructure in Düsseldorf. In the future, it will be possible to control the environmental conditions in the state-of-the-art research facility precisely and vary them dynamically. In turn, this will enable plant/environment interaction in various scenarios to be examined.

Dr Céline Hönl, Managing Coordinator of CEPLAS, makes reference to a further aspect in the CEPLAS III research plan: "We want to bring our research closer to citizens and actively involve them through so-called citizen science projects. We will be establishing such a new project in the near future with Professor Dr Marc Ziegele from the field of Communication and Media Studies at HHU." In collaboration with citizens, communication strategies are to be developed and evaluated in a creative process to aid the dissemination of socially relevant topics that are the subject of critical debate.

Professor von Korff Schmising: "Supporting young talent is a further important focus of CEPLAS. A new 'Academic Tenure Programme', which is being launched as a pilot project for CEPLAS III at the universities in Düsseldorf and Cologne, is aimed at providing clear and reliable career perspectives for our young scientists. They are to be offered specific scope for their own project ideas and research projects, so they can develop their own specialist fields." The programme comprises a two-year qualification phase with defined development targets, which are evaluated. In successful cases, the scientists will be offered a permanent position – ensuring a secure academic career pathway.

EndoFERT and the enigma of endometriosis

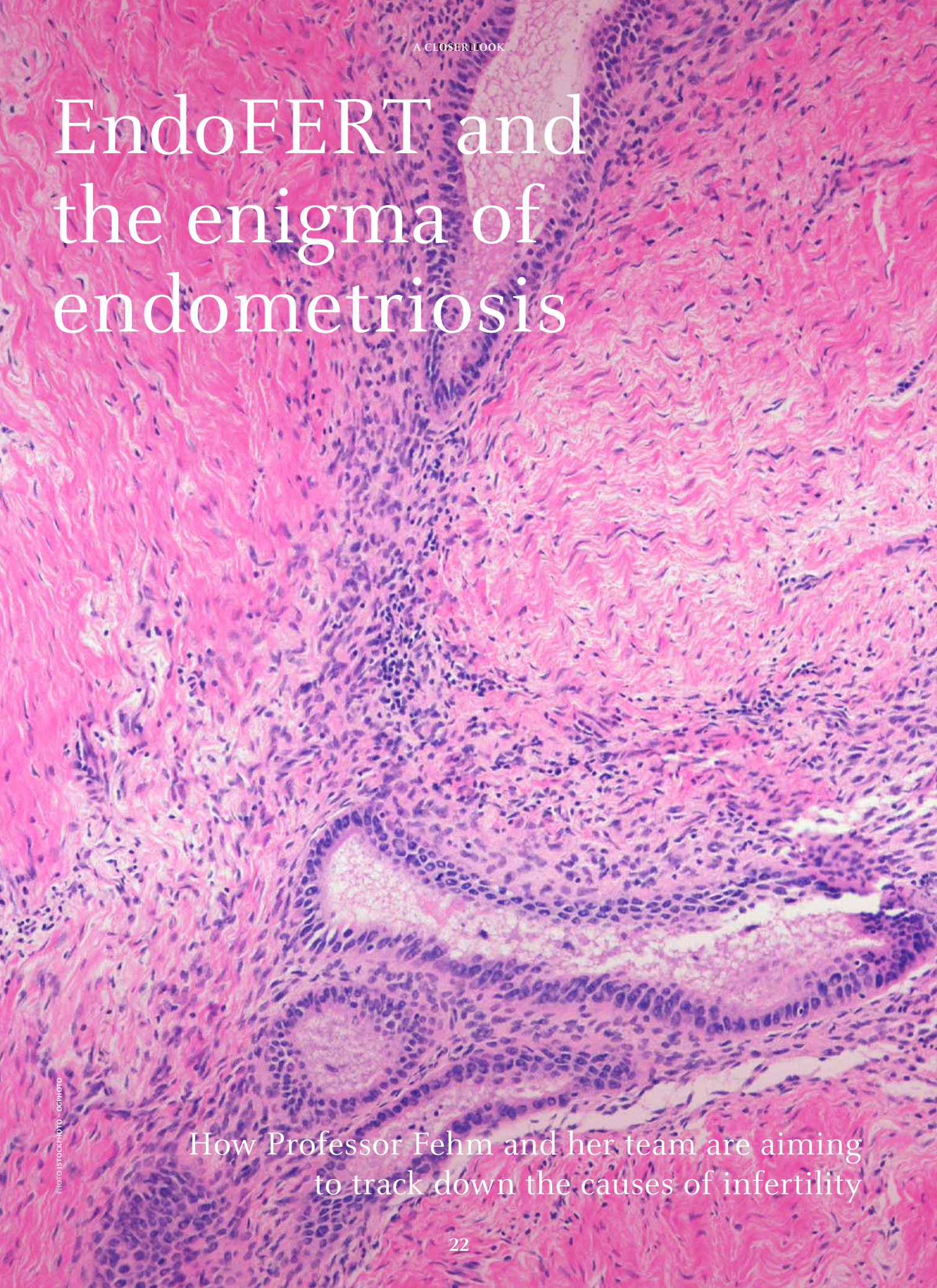


PHOTO: ISTOCKPHOTO – OCPHOTO

How Professor Fehm and her team are aiming to track down the causes of infertility

BY ANNE WANSING

Endometriosis is common. Very common. It affects approximately one in four women before the menopause. Around one third of these women experience significant symptoms: severe menstrual pain, pain during sexual intercourse or infertility. There has been little research into endometriosis to date and, particularly with regard to the issue of infertility, neither the causes nor the precise extent are known. An interdisciplinary research team at Heinrich Heine University and University Hospital Düsseldorf (UKD) is now seeking to change this and understand endometriosis better in the future. The project is headed by Professor Dr Tanja Fehm, Director of the Department of Obstetrics and Gynaecology.

Endometriosis has only started to attract public attention in recent years. In the past, women affected by the condition often felt they were not being taken seriously, the severe menstrual pain was dismissed as normal and it still takes between five and ten years to obtain a diagnosis – often a highly unsatisfactory situation for sufferers. It is also unsatisfactory that there was little to no research into endometriosis for a long time. The fact that this is now changing is a great success and offers real hope for the women affected. A pioneer in this progress is the EndoFERT study (short for: "Pathomechanisms of Infertility and poor Pregnancy Outcome in Endometriosis"), in which researchers from HHU and UKD are also involved. In collaboration with the Institute of Pathology and the Institute of Molecular Medicine I, they are working with the University of Münster, Hanover Medical School, the University of Duisburg-Essen and the Endometriosis Association of Germany.

Endometriosis is a benign hormonal disorder in which tissue similar to the lining of the uterus grows outside the uterus. In healthy women, this tissue only grows inside the uterus. It builds up and breaks down again over the course of a woman's monthly cycle under the influence of hormones – this is the biological mechanism behind menstruation. The areas of the uterus lining penetrated by the endometriosis, so-called endometriosis lesions, also react to the monthly hormone fluctuations and bleed, causing the severe menstrual pain – one of many symptoms.

The symptoms are so diverse – and often dependent on the localisation of the endometriosis lesions – that the condition is often referred to as a "chameleon", explains the spokesperson for the study, Professor Tanja Fehm. Some women have virtually no symptoms, while others experience symptoms including severe pain during menstruation or sexual intercourse, nausea, headaches or others, which significantly impact their day-to-day and working lives, as well as their relationships. The wide variety of symptoms is also one reason why the condition takes so long to diagnose.

For a long time, the standard in endometriosis diagnosis and treatment was a laparoscopy in which endometriosis lesions were sought and then removed. This invasive operation is no longer the gold standard. Instead, guidelines recommend that women who display the conventional range of endometriosis symptoms are treated directly with hormone therapy and observed to see whether the symptoms improve. The hormone therapy can take the form of a contraceptive pill, the so-called "mini pill", which contains gestagens and can be taken on an ongoing basis. Taking this pill prevents menstruation and thus also the bleeding of existing endometriosis lesions and the development of new ones.

Symptom: infertility

Many women with endometriosis experience no symptoms at all and the condition does not always require treatment. It often only becomes evident when women attempt – unsuccessfully – to become pregnant, as infertility is one of the many symptoms of endometriosis. However, irrespective of whether women are aware that they have the condition or not: It is currently impossible to predict which of the affected women will have difficulties becoming pregnant. And what causes the infertility is also still unclear. A difficult situation for women with the condition. "We recommend that women with endometriosis attempt to become pregnant naturally for max. one year. If this proves unsuccessful, they should then go to a fertility clinic," says Professor Fehm.

"We recommend that women with endometriosis attempt to become pregnant naturally for max. one year. If this proves unsuccessful, they should then go to a fertility clinic."

Professor Tanja Fehm — medical professional

The lack of knowledge about the link between endometriosis and infertility is a direct consequence of the fact that the topic has received little attention in the allocation of research funding in the past. EndoFERT is one of the first major research projects launched, which focuses not only on endometriosis itself, but also on the issue of fertility in sufferers and simplifying diagnosis. Studies focusing on pain (EndoPAIN, Charité Berlin and others) and the development of endometriosis (Endo-Relief, University of Tübingen and others) being conducted in parallel at other locations now offer many sufferers hope.

Unique collaboration between various disciplines

The special feature of the Düsseldorf project is that it brings together various disciplines, institutes and specialist expertise. For example, the Endometriosis Centre at the Department of Obstetrics and Gynaecology is working closely with the "UniKiD" fertility centre. In Düsseldorf, the Institute of Pathology and the Institute of Molecular Medicine I are also involved. This close collaboration between the various disciplines is aimed at creating a new level of quality in the research. "The fact that we – as clinicians and specialists for endometriosis and fertility treatment – are working together with scientists conducting basic research and translational researchers in this way is unique. We are benefiting significantly from the cooperation with Münster, Duisburg, Essen and Hanover, which has enabled the collation of a huge amount of patient data and brought a great deal of know-how together," the EndoFERT spokesperson is delighted to report.

At the heart of the project is the setup of a tissue bank. Women who undergo a laparoscopy can donate their tissue to research. The intention is to connect this tissue bank with a clinical database to provide a valuable foundation for identifying biomarkers – measurable indicators in blood, tissue or saliva, which can make it easier to assess the clinical development of endometriosis – for example with a view to having children. "With the setup of this tissue bank, we now have a unique opportunity to embark on a voyage of discovery and find markers, which can be linked to the clinical development of endometriosis in patients. This will enable us to provide patients with an assessment of how endometriosis will affect their quality of life," says Fehm.

Blood and saliva tests

At the same time, it should also make diagnosis easier. Although blood and saliva tests, which can diagnose the condition, are already available, the intention is for these tests to identify the defined biomarkers in the future as well. To this end, Professor Hans Neubauer (Department of Obstetrics and Gynaecology) is working on the development of a liquid biopsy. This should not only simplify diagnosis, but also make the clinical development of the condition directly assessable. Professor Dr Alexandra Bielfeld (UniKiD, Department of Obstetrics and Gynaecology) is also using the tissue samples for her research – she is seeking the cause of the fertility problems, which should also aid the direct treatment thereof in the future. "We have great hopes that our research into the biomarkers will have a positive effect on patient quality of life. However, there is still has a long way to go before it will be possible to use the liquid biopsy and biomarkers in diagnostics. "We hope to be able to identify these biomarkers within the three-year project term of EndoFERT," says Professor Fehm. "Follow-up studies must then of course prove whether these biomarkers can really achieve what we think they can." It is not yet clear when exactly that will be.

The goal is to make endometriosis and infertility caused by the condition understandable and treatable. EndoFERT is the first study in Germany to work on exactly this goal and thus open up genuine perspectives for sufferers.

PHOTO UNIVERSITY HOSPITAL DÜSSELDORF

Professor Dr Tanja Fehm, Director of the Department of Obstetrics and Gynaecology

Manchot research group strengthens AI expertise at HHU

Fascinating science with fascinating data

BY ARNE CLAUSSEN AND VICTORIA MEINSCHÄFER

In 2019, the Rectorate of Heinrich Heine University identified a problem: It was clearly visible on the horizon that artificial intelligence (AI) would force its way into university research in a massive way in the future. But how could the situation be organised in a way that ensured AI itself would not be the driving force, but rather that researchers could decide for themselves and shape how/where to use AI tools in their work? Ideally via start-up funding.

RENDERING ADOBESTOCK – VEGEFOX.COM

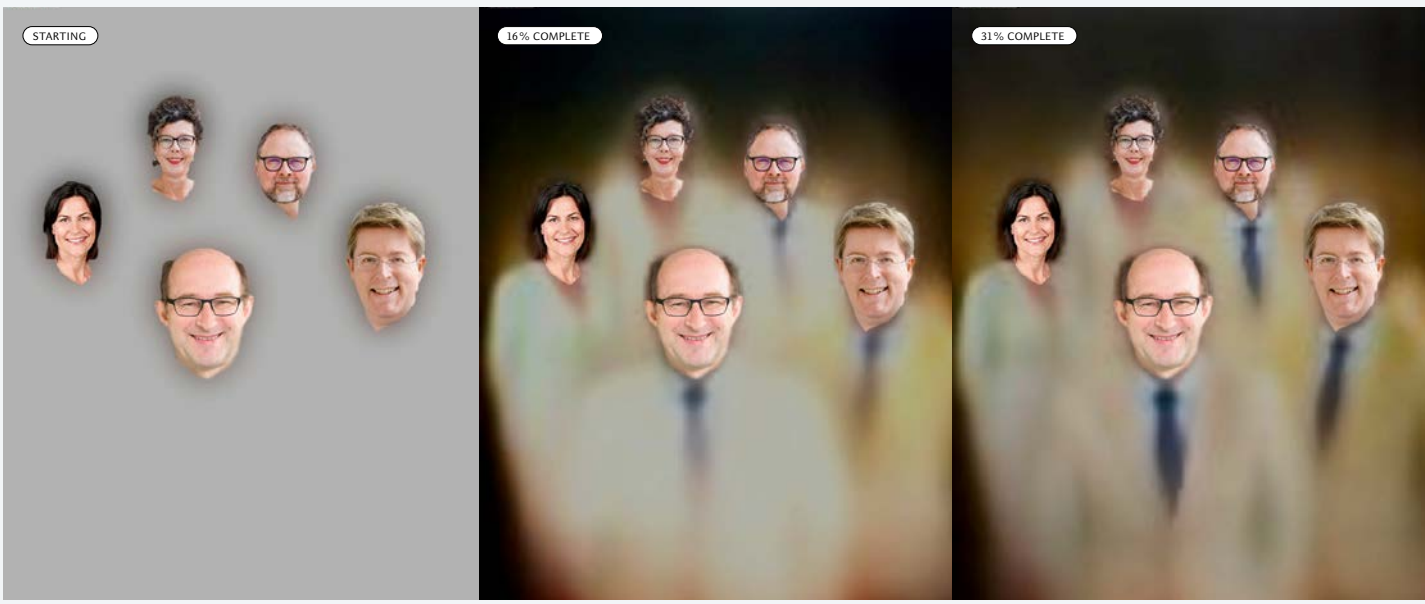
Professor Dr Klaus Pfeffer and Professor Dr Martin Mauve (at that time Vice President for Strategic Management and Equal Opportunities, and Dean of the Faculty of Mathematics and Natural Sciences, respectively), sat down with the President, Professor Dr Anja Steinbeck, and Dr h. c. Anne Springorum, the long-term Chair of the University Council, to seek ways to support and anchor AI research at HHU. In Dr h. c. Thomas Manchot, they found a donor who was willing to support this broad-based project. The Manchot Foundation provided generous funding. "Six years ago, we all started from scratch," says Martin Mauve. "We knew that AI would become extremely important, but did not yet know the direction it would take. And that was the unusual aspect of this funding from the Manchot Foundation – the Board of Trustees was kind enough to place its trust in our idea, even though the topic was new for us."

Developing expertise

Pfeffer adds: "The Foundation drove the establishment of AI expertise at HHU. This would have been almost impossible in conventional funding processes such as those of the German Research Foundation, as you really already have to be an expert in a research field to obtain funding there. What we wanted to do was establish this expertise in the first place."

AI was not yet a hot topic back then: "It was before the launch of ChatGPT and thus also years before the time where everyone started using AI in day-to-day life," emphasises Mauve. Pfeffer adds: "At that time, AI was however already known in connection with the analysis of medical/biological data and it had reached a level of maturity, which made it necessary for every university to consider the topic. None of us knew how things would develop, but we had a strong feeling that we could conduct fascinating research with the right questions and data."

The aim was to network the Computer Science department at HHU and its AI expertise with the other faculties to enable all sides to benefit and researchers from all sides to produce good scientific papers as a result of their collaboration. Martin Mauve explains how this was



Generating images using AI: Graphic designer Paul Schwaderer gave the AI tool five portraits and the prompt: "Five people in bright white suits with a flower pattern and blue ties. A painted studio background. Lots of little white polar bears on their shoulders." The image was slowly created on the basis of these instructions. Why there are not polar bears on everyone's shoulders, a tie is missing and one suit is still white remains one of the mysteries of the AI used. Once again, it becomes clear: AI is a clever servant – but it can only support people, not replace them.

brought to fruition: "While we, as computer scientists, had the algorithms, we did not have the volume of data required to test our algorithms. We are dependent on finding scenarios where we can review our algorithms using concrete data. In the first instance, you need to imagine AI as an extensive toolbox full of very generic tools, which are then tailored to concrete problems." This requires a great deal of expertise on both sides – and trust is also essential: "It works well when the parties involved are willing to play around with a few ideas and are prepared to go down paths, which may turn out to be dead-ends without engaging in mutual criticism when that proves to be the case."

Testing AI applications in four use cases

The advantage of Mauve and Pfeffer was that, after many years at HHU, both already had a good overview about who might be interested in working with AI when the project was launched. "We approached individual researchers on a targeted basis," reports Pfeffer, "enabling us to steer the overall project a little right from the outset." Initially, there were three individual projects – so-called use cases – while a fourth was added subsequently.

The topic of blood stem cell transplantations was the focus of the "Use Case Health" (spokespersons: Professor Dr Rainer Haas, Professor Dr Gunnar Klau). In the project, the researchers developed AI models to assess prognoses and evaluate risks using clinical and laboratory parameters of patients. The models can help predict complications at an early stage so that treating doctors can initiate countermeasures before life-threatening situations arise. Where high-risk patients have left the clinical facility, wearables can be used to support patient monitoring, with AI helping with the risk analysis. AI can also be used in the diagnosis of leukaemia. Within the framework of the use case, an automated system was developed, which classifies cell types after a bone marrow smear, thereby supporting the search for abnormal cells. AI was also developed to decode the changes in the microorganisms during stem cell transplantation (microbiome analyses).

These AI approaches were successful in the project and attracted the attention of other medical experts – not just in Düsseldorf. However, approval processes are still necessary before the methods can be translated into broad use in patient care. Further projects also developed from the use case, which offer great potential with regard to the use of AI for diagnostics and therapy. In this context, Professor Pfeffer mentions a fundamental issue: "There is a broad consensus among the researchers that the use of medical data – anonymised, of course – to train AI systems is desirable. However, this is very cumbersome for us at this time as it is necessary to apply to the Ethics Committee for a separate model process for each research question."

In the "Use Case Economics" (spokesperson: Professor Dr Barbara E. Weißenberger), the focus lay on the

GRAPHIC HHU/PAUL SCHWADERER

use of AI in companies. AI algorithms can support decision-making through effective forecasts, as they can identify patterns in economic and company data, which humans would miss. The HHU researchers examined e.g. how well accounting fraud can be predicted using AI – a question concerning many people in the wake of the Wirecard scandal – or how companies can find the right candidate in an application process.

AI as an advisor

The key finding: AI is helpful – yet, its advice is accepted much less often than that of another human being. And, while applicants generally view algorithms positively, this quickly turns into rejection when they affect the individuals themselves. One cause of this is that AI also learns human errors and prejudices in the course of training. In companies in particular, the use of AI is therefore not only a technical issue, but also a behavioural science issue.

Can AI improve the quality of online debates on contentious political issues? This question was answered by the "Use Case Politics" (spokespersons: Professor Gerhard Vowe, Professor Marc Ziegele). First of all, problems in such debates were identified in surveys, for example that individual participants dominate discussions, which in turn discourages others from participating, or that the thread of the debate gets lost. In a second step, two AI tools were used in experiments with an online discussion forum developed specifically for the purpose: One tool confronted discussion participants with dedicated opposing positions. The second analysed the course of the debate and highlighted particularly valuable contributions. It became clear: AI instruments can reduce the problems in online formats and thus strengthen opinion-forming and joint decision-making in groups.

The "Use Case Law" (spokesperson: Assistant Professor Dr Johann Justus Vasel LL.M. (NYU)) was added in the second funding period. In addition to internal research questions, the use case also contributed legal and ethical expertise to the other topics addressed. HHU experts also advised the NRW State Parliament as well as federal and state ministries on AI issues. The original research question the researchers addressed was about how AI can be used in decision-making in areas, which are particularly sensitive in terms of basic law aspects. Where do boundaries need to be drawn, how far can decision-making processes be delegated to AI and where is it essential that people still make decisions? This can result in significant dilemmas: Such as with regard to the issue of whether people are prepared to act against recommendations made by AI. For example, the use of artificial intelligence in asylum proceedings and by security authorities in the form of police use of data mining and facial recognition technology was examined. One overarching subject of examination was the dynamic development of the regulatory framework and in particular the so-called AI Act of the European Union.

International expertise

A further element of the funding from the Manchot Foundation related to the broadening of expertise by enabling the research group to bring in international experts. "This happened through the international AI conferences at the *Haus der Universität* ("University House")," reports Pfeffer. "This gave us the opportunity to invite world-renowned AI experts and interact with them. For example, Nicola Segata – a world-renowned bioinformatician – from the University of Trento in Italy visited HHU, which has led to long-term cooperation with our researchers." It offered the research group and HHU as a whole two advantages: On the one hand, the University gained international recognition and on the other hand, such events always offered the opportunity to network with the international research community. "Now, after two three-year periods of very generous funding, everyone is well-connected and can lead the way in their field," says Mauve in summary. "At the start, we had an extremely broad remit, but now it is more

> "None of us knew how things would develop, but we had a strong feeling that we could conduct fascinating research with the right questions and data."
>
> **Professor Martin Mauve — computer scientist**

specific, meaning that new research projects can now apply for their own funding."

HeiCAD founded

What remains from the early days is the central institution HeiCAD (Heine Center for Artificial Intelligence and Data Science), which was founded during the six-year project phase and continues to support AI initiatives at HHU. Above all, it manages the "AI for all" programme. "Our aim with this is to bring AI to the University as a whole and anchor the topic in studies," says Dr Saskia Reither, the Scientific Manager of HeiCAD. A programme is offered, which comprises two courses over two semesters and is now already integrated into more than 50% of study programmes. The project was launched with funding from the Federal Ministry of Education and Research (BMBF) under the "AI in higher education" initiative. Reither notes that the programme has also been well-received far beyond the original target group. "We originally developed it for students so they could earn four ECTS credits per course by participating. However, we have in fact reached many individuals beyond that original target group. More than 5,000 people have now completed the course on the AI Campus online platform.

> "The project has achieved its objective – we have developed our own research topics, which have in turn become independent and able to generate their own funding opportunities."
>
> **Professor Klaus Pfeffer — medical professional**

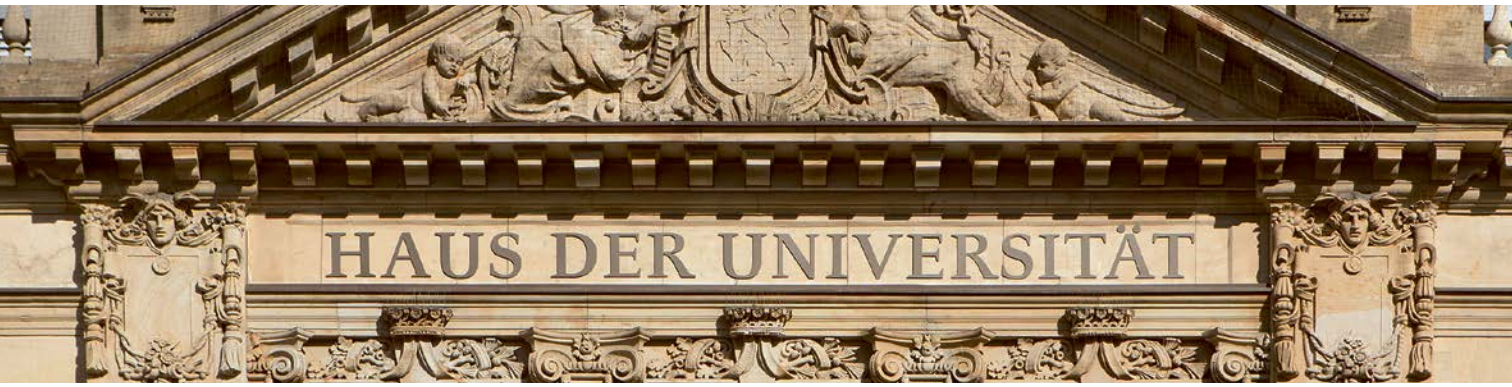
Many participants are attracted by the breadth of topics covered – we not only impart knowledge about AI itself, but also consider the legal and ethical implications."

So a whole range of things have developed from the idea of bringing artificial intelligence to HHU and implementing it. "The project has achieved its objective – we have developed our own research topics, which have in turn become independent and able to generate their own funding opportunities," says Pfeffer in conclusion. "And with HeiCAD (Director: Professor Mauve), we have created a structure that organises and drives AI at HHU."

The members of the Manchot research group at a retreat at Schloss Mickeln in 2025.

PHOTO HANS-JÜRGEN BAUER

Heinrich Heine University Düsseldorf



Haus der Universität

The *Haus der Universität* is a place of dialogue and exchange between science and society – in the heart of Düsseldorf. After extensive renovations, the van Meeteren Foundation kindly allowed Heinrich Heine University to use the building at Schadowplatz 14 as an event centre and, since 2013, as a venue for scientific conferences and for presenting university research and teaching as well as academic culture. The *Haus der Universität* takes on a central function for Heinrich Heine University at the interface between science and the public. It is part of the higher-level public engagement strategy being pursued by the university, which actively furthers the exchange between the city of Düsseldorf, its citizens as well as society as a whole.

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