In partnership with

GERMANY ACADEMIC SALON 2020 REPORT

KEYNOTE SPEAKERS AND DISCUSSIONS

TABLE OF CONTENTS

Photos: Huawei, iStock, Times Higher Education

Introduction

The Huawei Germany Academic Salon 2020 opened with Phil Baty, chief knowledge officer of *Times Higher Education*, welcoming delegates from higher education, industry and policymaking to its online platform.

That salon was convening digitally served as a reminder of how technology has helped society adapt to the Covid-19 pandemic – a recurring theme in discussions throughout the day.

Because of the ever-increasing need for knowledge provision and collaborations with both public and private sector partners, Mr Baty noted that universities were more important than ever, not least because of the critical role they play in fighting the ongoing pandemic.

"Our institutions of higher learning and research produce the healthcare workers at the front line in the fight against the virus," Mr Baty said. "They provide the data, analysis and evidence-based expertise that is shaping effective public policy and driving the world's response to the pandemic."

In the sessions that followed, industry leaders looked at the challenges and opportunities facing Germany's higher education and technology ecosystem, and what the future might hold for research.

How can Germany remain at the forefront of innovation in the 21st century?

THE PANEL
Peter-André Alt, president, German Rectors' Conference
David Matthews, Europe reporter, *Times Higher Education* (moderator)

David Matthews opened the discussion by recognising the anxiety among Germany's thought-leaders and policymakers about falling behind technological and scientific progress. Could this help the German research ecosystem retain its edge?

Peter-André Alt responded that the German higher education system struggled with the internationalisation of its faculty, with only 7 per cent of its talent coming from abroad, but ultimately the German model was one of vigorously supported research.

Professor Alt described the German higher education landscape in three aspects: the distribution of excellence across the entire German science and research system, internationalisation and digitalisation in teaching and research. He said the distribution of excellence was "a hallmark of the system" in which there was no one superstar university. "We have no Stanford, no Oxford or Cambridge in Germany," he explained.

In Germany, the higher education sector's research activity is complemented by organisations such as the Max-Planck-Gesellschaft and Helmholtz Association. Collaboration is key. Since 2005, the German Excellence Strategy – formerly the German Excellence Initiative – has funded junior researchers in grading schools and supporting transdisciplinary research.

> *Open science is a chance to overcome isolation in competition*
>
> **Peter-André Alt**

"We have 57 clusters in place located at 34 universities, and many of them are driven by joint activities by universities and partner institutions in the non-university sector," said Professor Alt. "This has been very helpful to take advantage of this scattered, distributed excellence."

Professor Alt also noted the importance of open science as a means for reconciling universities' instincts to compete and to collaborate. "Progress and research is based on shared insights," he said. "For this reason we need more communicative tools. I think open science is a chance to overcome isolation in competition."

Digital futures

KEYNOTE SPEAKER
Ingobert Veith, director of public policy, Huawei Technologies Deutschland

Ingobert Veith used his keynote speech to outline some of the technological trends shaping industry and to explore how technological advancements will continue to be a crucial asset to business.

As a major information and communications technology (ICT) company, Huawei was uniquely positioned to take a broad view of the current landscape, he said.

Mr Veith also noted that we are on the cusp of a paradigm change, in which ICT assumes a broader purpose, with innovation in the sector transforming almost every aspect of the economy.

"A new business cycle has just begun," he said. "I am talking about the power of a general-purpose technology. When the steam engine was invented, it had a particular purpose. It was about making things better in the mining industry. But over a while, it developed to become a universal technology, boosting other industry sectors

"We are now at a tipping point. If you look ahead, we are going to see ICT technologies shifting or changing from a particular-purpose to a general-purpose technology. This is a very powerful effect that we are going to see, since it is penetrating into all industries."

> *We are going to see ICT changing to a general-purpose technology*
>
> **Ingobert Veith**

The Fourth Industrial Revolution will change the means of production, not least by enabling it to be on-demand and individualised.

In relation to this, Mr Veith described an "algorithmic economy", in which artificial intelligence would generate insights and solutions for real-world problems.

"You could apply algorithms to manage city traffic better, for instance," he said, adding that AI-assisted computer tomography could be applied to diagnose viruses such as Covid-19.

Mr Veith explained that the power of data representation of the real world would revolutionise economic capabilities, and that the path to progress lay in R&D and creating a healthy entrepreneurial environment for applied technologies – a key goal in Huawei's strategy.

Is curiosity-based research becoming extinct in Germany?

THE PANEL
Bernd Huber, president, Ludwig Maximilian University of Munich
Jens Schneider, vice-president, Technical University of Darmstadt
David Matthews, Europe reporter, *Times Higher Education* (moderator)

The session's title was derived from the notion that the increasing demand for social impact and industrial applications of technology could constrain higher education's academic freedom.

Both Bernd Huber and Jens Schneider answered the question posed by the title in the negative. A blue-sky approach was needed to seed long-term breakthroughs, they argued, and also, in the opinion of Professor Huber, economic growth.

"In Germany, I think we have had a strong support of basic research in the past and I am confident that this will continue in the future," said Professor Huber. "We have programmes like the Excellence Strategy, which supports basic research. Basic research is an integral part of the research process, and it has huge benefits in the longer term."

Professor Schneider echoed those sentiments, citing blue-sky research as "one of the most important driving forces for innovation in society". But both acknowledged the need to balance long-term progress with achievable, applicable breakthroughs in the short to medium term.

> *Basic research has huge benefits in the longer term*
>
> **Bernd Huber**

Legislators in Germany agreed, said Professor Huber. While Bavaria's high-tech agenda aims to stimulate more breakthroughs in specific targets such as AI, it does not represent the wholesale prioritising of applied research.

Basic research is not just a question of technological innovation. Social sciences and the humanities had a mandate to seek knowledge for its own sake to help us better understand the world we live in. This will never change, but Professor Schneider noted that it was incumbent on higher education to communicate its strategy better so that the public could understand its impact on society. Professor Huber urged a balance between pure research for long-term gain and applied research to fix contemporary social issues because the blue-sky thinking of today could hold the answers to tomorrow's problems.

Are universities over-promising when they say that research can solve global challenges?

THE PANEL
Thomas Hofmann, president, Technical University of Munich
Wolfram Ressel, rector, University of Stuttgart
Jörg Rocholl, president, European School of Management and Technology
David Wang, chief representative, Berlin office, Huawei Technologies
Ellie Bothwell, rankings editor, *Times Higher Education* (moderator)

The task of developing and applying scientific breakthroughs to technological innovations that address global challenges falls heavily on the higher education sector's shoulders. But contrary to arguing that universities were over-promising on social impact, the panel for this session said that institutions were well placed to tackle society's biggest challenges.

Thomas Hofmann said that problems of such a scale touched on many disciplines, and higher education's research initiatives – and also its education function – were geared towards finding multidisciplinary solutions to global challenges.

"Universities in recent years have invested quite a lot structurally, in reorganising, and are still very strong in disciplinary research," he said, "and they are finding structures to bring scientists together across different disciplines, to join forces in the alignment of global challenges."

> *We have to bring solutions to industry and also to the public*
>
> **Wolfram Ressel**

All of these challenges are interconnected, said Professor Hoffman. He added that it was important to incentivise multidisciplinary research.

Jörg Rocholl agreed, but said that the public and private sectors' role was crucial in providing the resources and funding universities need to sustain high-impact research programmes. He argued that communicating the aims of research initiatives was important for gaining public support for new technologies.

Wolfram Ressel said that more flexible organisational structures were needed in Germany. The country's federalised system, with 16 different state laws for education and research, can stymie organisational restructuring, he argued.

"Agility is the key for the future," he explained. "Our structures are very narrow. We have to open them to bring solutions to industry and also to the public."

David Wang said that higher education had a role to play in underpinning society's digitalisation. "I believe that the next Nobel Prize should be given to the scholar who contributes to building the new thought-leadership system for these digital worlds," he said. "The industry really needs this new philosophical theory to guide the policy and regulation and safeguarding criteria, for industry to develop smoothly."

Data masterclass: THE World University Rankings 2021

THE PANEL
Phil Baty, chief knowledge officer, *Times Higher Education*
Elizabeth Shepherd, managing director of consultancy services, *Times Higher Education*

In this session, Phil Baty and Elizabeth Shepherd took at deep dive into data and how they inform the *THE* World University Rankings 2021. They also identified some of the key global trends in higher education, some of which had been affected by the Covid-19 pandemic.

Mr Baty opened the talk by explaining the three main data sources for rankings: the portal, through which universities submit their data; the Reputation Survey, which is taken from 22,000 individual voters; and Scopus, the world's largest database of peer-reviewed literature. "We have 13 different performance indicators, with five broad pillars of activity," he explained.

Citation Impact is the single largest indicator that *THE* has in the ranking, carrying a weighting of 30 per cent, and it demonstrates numerically the impact of an institution's scholarly research, judged across all subject areas. Citations are normalised for subject so as to show no bias towards any discipline.

> *We have 13 different performance indicators, with five broad pillars of activity*
>
> **Phil Baty**

This year, there was a clear surge in the Top 200 rankings from institutions in APAC, with a relatively stable result for North America and a decline across Europe.

Ms Shepherd noted that the wealth of data shared by the sector facilitated deep insights. "The qualitative data – the policy evidence – that are provided by universities is incredible," she said. "The depth and the breadth of the work they are undertaking, and the corpora of data that we now have to illustrate universities' commitment to [the UN] Sustainable Development Goals has been such an incredible undertaking and is something that we hope will be even more successful in 2021."

Mr Baty also noted that it was important that universities – especially those in Germany who have not shared their data with *THE* – showcase the good work that many are undertaking that can be amplified to a global audience.

Huawei Technologies is delighted to be working in partnership with *Times Higher Education* to produce a series of blogs, videos and events.

Our sector experts contribute their insight and knowledge, tackling the challenges and opportunities of closer collaboration between academia and the business community.

To learn more about Huawei in higher education, visit: timeshighereducation.com/huawei

#UKAcademicSalon