



HaMoNee



HAW  
HAMBURG

HAMBURG/HANOI - MOBILE ENGINEERS 2021 - 2024

# Highlights

HOCHSCHULE FÜR ANGEWANDTE  
WISSENSCHAFTEN HAMBURG  
Hamburg University of Applied Sciences





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# Foreword

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## Dear reader,

When I travelled to Vietnam in 2019, I had no idea that this would be the starting point of an exceptionally exciting and enriching project. With the project coming to an end after four years, all those involved can be proud of what we have achieved.

I would like to thank our Vietnamese partners and the colleagues and staff at HAW Hamburg. With united forces and great commitment, we overcame the unforeseeable hurdles that arose along the way. Perhaps it is precisely these efforts that have made the relationships over many thousands of kilometres so strong that they will remain a solid foundation for future cooperation beyond the end of HaMoNee.

I would particularly like to thank the hundred students from both countries who took part in the project and embarked on the adventure of intercultural encounters. I am sure that they will benefit in their professional lives from the experiences they have gained. In our globalised world, science and business thrive on overcoming the boundaries of language and culture. Only together will we master the future.

If we can give our students the tools to do this, then that is applied science in the best sense of the word.



**Prof. Dr Dirk Engel**

Professor of Mechatronic Systems  
in Chassis Engineering,  
Initiator and project manager HaMoNee

A man with short dark hair and glasses, wearing a light blue striped button-down shirt and khaki pants, is seated in a driving simulator. He is smiling at the camera. The simulator includes a black steering wheel with orange accents and a red seatbelt. In the background, large screens display a virtual city street scene. The text "HaMoNee stands for a sustainable and effective partnership, that brings Hamburg and Hanoi closer together." is overlaid in white on the lower half of the image.

**“HaMoNee stands for a sustainable and effective partnership, that brings Hamburg and Hanoi closer together.”**

DR THẾ LƯƠNG NGUYỄN, PROFESSOR AT THE  
HANOI UNIVERSITY OF SCIENCE AND TECHNOLOGY

# Building bridges from Hamburg to Hanoi

**LAUNCHING AN INTERNATIONAL PROJECT IN THE MIDDLE OF A PANDEMIC IS A MAJOR UNDERTAKING, ESPECIALLY IF THE PARTNERS HAVE NEVER WORKED TOGETHER BEFORE. BUT SUCCESS IS POSSIBLE EVEN UNDER ADVERSE CIRCUMSTANCES IF EVERYONE INVOLVED WANTS IT.**

**PERSONAL** connections are the glue that makes cooperations halfway around the world and across sometimes seemingly sky-high borders between languages and cultures sustainable. Mutual appreciation, trust and understanding for one another help to overcome the inevitable hurdles on the way to a common goal by joining forces. The Hamburg/Hanoi – Mobile Engineers project, HaMoNee for short, demonstrates this in a very special way.

It all began with the acquaintance between Prof. Dr Dirk Engel, Professor of Mechatronic Systems in Chassis Engineering in the Department of Automotive and Aeronautical Engineering, and Dr-Ing. Quang Huy Nguyễn, a former colleague with whom he had completed his doctorate 15 years previously at Helmut Schmidt University in Hamburg. He now works at the Ministry of Transport in Hanoi. During Engel's visit in 2019, he established numerous direct contacts with researchers from various universities.

## LEARNING WITH AND FROM EACH OTHER

These contacts gave rise to HaMoNee, a project that promotes student exchange and cooperation between HAW Hamburg and Vietnamese universities as well as industry partners in both countries. On the Vietnamese side, five renowned universities took part: Hanoi University of Science and Technology (HUST), Phenikaa University in Hanoi, the University of Transport Technology (UTT), Ho Chi Minh City University of Technology (HUTECH) and the Vietnamese-German University (VGU).

HaMoNee focusses on the topic of mobility in two ways. On the one hand, HAW Hamburg wanted to use this project to stimulate the international mobility of students and teachers in the engineering disciplines. At the same time, it was also about research content, namely learning from each other in the development of innovative mobility concepts, intelligent urban planning and interdisciplinary climate and sustainability research.

Like all megacities in the region, Hanoi and Ho Chi Minh City, formerly Saigon, suffer from excessive private transport and the resulting high levels of pollution for people and the environment. "If you can solve the mobility problems there, then you can do the same here in Hamburg," says Engel, explaining the mutual benefits from the perspective of applied sciences. →



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→ Prof. Dr Dirk Engel und Dr-Ing. Quang Huy Nguyễn, who was a scholarship holder at the Institute for Automotive and Powertrain Engineering at Helmut Schmidt University when Engel was doing his doctorate there.



- **Vietnam:**
- **Population:** 98.8 million
  - **Capital:** Hanoi
  - **Largest City:** Ho Chi Minh City
  - **Inhabitants Ho Chi Minh City:** 9.46 million
  - **Coast:** 3,444 km
  - **Area:** 331.12 km<sup>2</sup>
  - **Universities:** 237
  - **Students:** 1.7 million
  - **Currency:** đồng (1€ ≈ 27,000 đồng)
  - **Per capita income**  
**2000:** 390 US dollars  
**2020:** 2,786 US dollars  
**2023:** 3,817 US dollars

"We do work on projects with similar topics. I would find it really exciting to create synergies here and to set up and finance joint projects," said Prof. Dr Thế Lương Nguyễn, Deputy Director of the Research Centre for Propulsion Systems and Autonomous Vehicles at the Hanoi University of Science and Technology, during his first visit to Hamburg.

Vietnam is a rapidly growing economy. The country is attracting large investments from international companies that are not only producing there but are also increasingly involved in product development. With a focus on interdisciplinary research into innovative solutions for climate-friendly mobility, the in large cities, the project directly contributes to the international competitiveness of teaching and research at HAW Hamburg. It also strengthens internationalisation skills and ensures the employability of its students.

The participation of two partners from Vietnam's automotive industry ensured the link between science and practice. The companies involved were the automobile and electric motor-bike manufacturer Vinfast and the Truong Hai Auto Corporation (THACO). The latter specialises in the manufacture, assembly, import and export of automobiles in Vietnam. German industrial partner was Tesa SE from Norderstedt, which belongs to the Beiersdorf Group. It opened a plant in Haiphong in October 2023.



With the project funded by the DAAD (German Academic Exchange Service) as part of the HAW International programme, which provided almost one million euros over four years, Prof. Dr Engel entered uncharted territory. At that time, all eyes were still on China. Vietnam's neighbour has long been enjoying growing popularity as a holiday destination. However, the country was insufficiently perceived as a dynamic economy with high growth rates and great technological potential, the country was not sufficiently recognised.

## OVERCOMING HURDLES TOGETHER

The German-Vietnamese partnership has a long tradition. Even in the former GDR, there was a lively exchange of workers and knowledge as part of various programmes. "Many Vietnamese came to the GDR at the time, then learned German and worked there. That's why there is a strong bond, especially in the older generation in particular," says Engel. Even today, the German qualification opens doors to coveted jobs for many Vietnamese.



## Fascinating country: Vietnam

Vietnam is one of the most exciting countries in Southeast Asia, not only for travellers but also for investors. The country is one of the fastest-growing economies in the region. The change from a centrally administered economy to a socialist market economy has meant that per capita income is now seven times higher than it was 20 years ago. The country is attracting large-scale investment from international companies, which not only manufacture here but increasingly engage in product development.

HAW Hamburg is extremely popular with Vietnamese students. "Due to the structure of our university, we offer something that is different from what is known in Vietnam, namely a high proportion of practical work. Our degree programmes are application-oriented and not as theoretical as a traditional university," says Engel, explaining the difference. This different approach is of great interest to the Vietnamese partner universities.

Since 2021, the project has had more than 100 participants from both countries. They studied together, solved problems and introduced each other to their home country. They developed valuable skills that will benefit them throughout their Professional lives.

The success of HaMoNee is all the more remarkable as the willingness to cooperate and flexibility on both sides were particularly in demand. This is because the hurdles mentioned at the beginning of this article far exceeded the usual: between Engel's visit to Vietnam and the start of the project on 1 January 2021, the Covid-19 pandemic swept across the world. Travelling became impossible, personal encounters only took place, if at all, under the protection of a face mask and meticulous adherence to hygiene rules. HAW Hamburg then fell victim to a cyberattack over Christmas 2022. The IT infrastructure was paralysed for weeks. It took months before it was halfway up and running again. Valuable data was irretrievably lost. Processes within the university were disrupted and valuable resources were tied up in dealing with the consequences of the attack.

## WELCOMED LIKE A FRIEND

HaMoNee kicked off with a three-day seminar entitled "Modelling Aspects in Advanced Automotive Engineering" from 6 to 8 December 2021. 52 students from the Hanoi University of Science and Technology took part in this seminar, which had to be held virtually due to the pandemic. Face-to-face contact was not possible again until early summer 2022, almost a year and a half after the start of the project.

As soon as the travel restrictions were sufficiently eased, project coordinator Svenja Henseleit travelled to Vietnam to discuss future measures with the partners there, in particular the exchange of students and teachers. She earned a Master's degree in Vietnamese Studies at the University of Hamburg and is therefore familiar with the country's culture and language. "Actually I travelled there with some uncertainty," she says, "but thanks to the



→ Svenja Henseleit and Prof. Dr Dirk Engel at one of their visits to Vietnam, together with Dr Bernd Tilp, Dr Đinh Vinh Mẫn Nguyễn and Prof. Anh Tuấn Vũ.

contacts Dirk Engel had already made, I was welcomed with open arms." She visited all the partner universities to discuss how what had been agreed on paper and in emails was to be implemented in practice. At a DAAD alumni meeting, she was then able to contact with the Vietnamese-German University. This university was not yet one of the HaMoNee partners, but soon became a very active participant in the project.

Although Vietnam is not one of the countries that students usually consider for a stay abroad, the interest among HAW Hamburg students was gratifyingly high. "Of course, I was very pleased that the student exchange and the interdisciplinary programmes, such as the language courses, intercultural training and workshops, were so well received and that so many students were interested in Vietnam. Our courses were actually fully booked," reports Henseleit.

An encounter with an initially foreign culture is always an opportunity to reflect on one's own cultural background. "For me, intercultural competence is not just about knowing how to behave in a certain country, but also about meeting people and cultures with an open mind and reflecting on your own →



→ Svenja Henseleit coordinated the project. As a Vietnamese scholar, she knows the language and culture very well.

**“Flexibility, pragmatism, and the courage to embrace change make the collaboration work with Vietnamese partners incredible agile and solution-oriented.”**

SVENJA HENSELEIT, PROJECT COORDINATOR HAMONEE





**“During my studies  
at HAW Hamburg, I benefit  
not only from the modern  
infrastructure, but also  
from new friendships.”**

THUẬN LÂM ĐÀM, EXCHANGE STUDENT AT THE  
UNIVERSITY OF TRANSPORT AND TECHNOLOGY





→ Students from Hamburg at their stay at the HUST in Hanoi (left) and students from Vietnam on the HAW Hamburg campus.

cultural background,” she says, outlining an important goal of the two-day intercultural training course, which was open to all HAW Hamburg students. The speaker was Prof. Dr Minh Tuấn Nguyễn from the Federal Institute of Labour in Schwerin.

The 2023 and 2024 summer schools at HUTECH in Ho Chi Minh City proved to be an attractive offer. This is an established event format that is organised in cooperation with the Dania Academy from Denmark. It offers a mixture of engineering and cultural content. In addition to the exchange with students from Denmark and Vietnam, the opportunity to gain an insight into the Vietnamese automotive industry by visiting factories was a major benefit of the summer schools from the perspective of the Hamburg participants.

From Svenja Henseleit’s experience in the project, is there anything that the Vietnamese partners have over us? “In my opinion, flexibility, the courage to change and pragmatism are much more important in Vietnam than in Germany. This makes working with Vietnamese partners incredibly agile and solution-oriented. In Germany, and especially in the official environment, many things have a firmly defined and sometimes very time-consuming process, which can lead to confusion and difficulties.”

#### A SUSTAINABLE PARTNERSHIP

Not least thanks to the many positive experiences during HaMoNee, Vietnam is now one of the priority regions in HAW Hamburg’s internationalisation strategy. Long-term cooperation agreements and the structural anchoring of the exchange programme will enable students and teachers from HAW Hamburg and the participating partner schools to continue to benefit from study and practical placements in Vietnam and Germany in the future. “We are also working intensively on exporting our mechatronics degree programme to the VGU. From the winter semester 2026/27 onwards, students at VGU and HAW Hamburg will be trained according to the same curricula, and the transnational study programme will be converted into a double degree programme

in the future,” reports Engel with regard to current cooperation activities.

HaMoNee is also a complete success from a Vietnamese perspective. “HaMoNee also offered the students the opportunity to explore German culture and the vibrant harbour city of Hamburg and to broaden their global perspective. Beyond expectations, the project has created a network of technical universities that paves the way for future cooperation and research. HaMoNee stands as a symbol for a sustainable and effective international partnership that brings Hamburg and Hanoi closer together,” summarises Prof. Dr Thế Lương Nguyễn from HUST. “The HaMoNee project has successfully built a bridge between HAW Hamburg and Hanoi University of Science and Technology and promoted close cooperation.”

The strength and durability of this bridge became clear at the closing event in Hamburg in September 2024, but also during Engel’s final visit to Vietnam in December. Both sides are determined to continue and expand the relationship. ■

**“We offer a high practical component, are application-orientated and not as theory-heavy as a traditional university.”**

PROF. DR DIRK ENGEL, PROJECT LEADER HAMONEE

# Five partner colleges

**FOUR VERY PRESTIGIOUS VIETNAMESE UNIVERSITIES WERE ON BOARD WHEN HAMONEE WAS LAUNCHED. AND SOON A FIFTH UNIVERSITY WAS ADDED.**



→ Popular photo motif: the four letters in front of the main entrance to the HUST.



→ The fifth in the group: the newly built, modern VGU campus in Ho Chi Minh City.



**ĐẠI HỌC  
BÁCH KHOA HÀ NỘI**  
HANOI UNIVERSITY  
OF SCIENCE AND TECHNOLOGY

## HANOI UNIVERSITY OF SCIENCE AND TECHNOLOGY (HUST)

The Hanoi University of Science and Technology is one of Vietnam's leading technical universities. It was founded in 1956 and plays a central role in Vietnamese higher education, particularly in the fields of engineering, technology and applied sciences. Its campus is located in the heart of Hanoi. With a long history and an outstanding reputation, the university has developed into an important education and research centre. It offers 160 degree programmes, 65 of which are at Bachelor's level and 63 at Master's level. A doctorate is possible in 32 subjects. With almost 37,000 students, it is the largest university in Vietnam.

The Hanoi University of Science and Technology is a leading centre for applied research in Vietnam. It specialises in the fields of nanotechnology, information technology, robotics and renewable energy. It maintains numerous partnerships with leading universities and research institutes worldwide, promoting the exchange of knowledge and innovation. HUST has excellent facilities, including modern laboratories, libraries and computer labs, which provide students with a first-class learning environment. The university plays a key role in developing professionals who contribute to Vietnam's economic and technological development. It is proud of the high number of graduates who are employed in leading positions in industry, research institutions and international organisations. ■

**Students: 37,000**  
**Founded: 1956**  
**Bachelor's degree programmes: 65**  
**Master's degree programmes: 63**  
**Doctoral programmes: 32**  
**Research projects: 350**

→ Scan the QR code for more information about HUST



## PHENIKAA UNIVERSITY

Phenikaa University was founded in 2007. Since 2017, it has been part of the Phenikaa Group, one of Vietnam's largest industrial conglomerates. Since then, the university has undergone a comprehensive restructuring in all aspects to become one of the three centres of Phenikaa's activities: Production, Education and Science. The university has four departments: Engineering and Technology, Healthcare, Business Administration, and Social Sciences and Humanities. Its goal is to become one of the top 100 universities in Asia.

### PRIVATE AND ULTRA-MODERN

With a clear focus on the future and the needs of the industry, Phenikaa University pursues a practice-oriented education. It pursues an interdisciplinary approach that enables students to combine expertise from different fields. The university promotes creative and technological research, particularly in the fields of artificial intelligence, sustainable energy, smart cities and healthcare.

Phenikaa University is characterised by its state-of-the-art infrastructure, which offers students a first-class learning environment. With modern laboratories, computer rooms and libraries as well as an innovative campus design, an interactive and collaborative learning atmosphere is created. In addition, the university places great value on international cooperation and maintains partnerships with renowned universities and research institutions worldwide. ■

**Students: 10,000**  
**Founded: 2007**  
**Faculties: 17**  
**Bachelor's degree programmes: 41**  
**Master's degree programmes: 12**  
**Research projects: 4**

→ Scan the QR code for more information about Phenikaa University





## UNIVERSITY OF TRANSPORT TECHNOLOGY (UTT)

The University of Transport Technology specialises in transport technology, engineering sciences and management. It was founded in its current form in 2011 and has quickly gained in importance. Today, it is a leader in the training of specialists for the transport and logistics industry.

UTT offers a wide range of Bachelor's and Master's degree programmes as well as the opportunity to study for a doctorate. It specialises in the fields of traffic engineering, transport management, civil engineering, electrical engineering, logistics and information systems.

Particularly noteworthy is the close cooperation with the Vietnamese government and international institutions to develop and implement modern solutions for the transport sector.

The university strives to prepare its students for the challenges of the globalised world by imparting practice-oriented knowledge. UTT has well-equipped laboratories and modern research centres that deal with the latest developments in transport technologies, including sustainable mobility and intelligent transport systems.

UTT maintains numerous partnerships with international universities and companies, giving its students access to global perspectives and internship opportunities. The university offers its graduates excellent career prospects, particularly in the field of transport, logistics and infrastructure development. ■

## HO CHI MINH CITY UNIVERSITY OF TECHNOLOGY (HUTECH)

HUTECH in Ho Chi Minh City plays a key role in the training of engineers and specialists in a variety of technological fields. Founded in 1957, it has developed into a leading institution for technical and applied sciences. It offers Bachelor's degrees in 21 subjects. In addition, a Master's degree can be obtained in Business Administration, Computer Science and Construction Management.

### INNOVATION AND TECHNICAL EXCELLENCE

HUTECH has more than 27,000 students. The university pursues a practice-oriented approach that helps students to apply their theoretical knowledge in real, industrial contexts. This is supported by close cooperation with leading companies and international partnerships. Students thus can gain valuable practical experience and expand their professional networks. In addition to academic education, the university places great importance on research and innovation. It operates several research centres that deal with current topics such as sustainable technology, artificial intelligence, renewable energies and industrial applications.

With its clear focus on technological excellence and innovation, HUTECH has established itself as an important institution and trains good academic specialists who are in demand on both the Vietnamese and the global labour market. ■

## VIETNAMESE-GERMAN UNIVERSITY (VGU)

The Vietnamese-German University in Ho Chi Minh City is the result of an agreement between Vietnam and the state of Hesse. Founded in 2008, VGU is a university that is strongly inspired by German universities and educational institutions. Its aim is to offer high-quality educational programmes that meet international standards. Since its foundation, VGU has been funded by the German Federal Ministry of Education and Research (BMBF) via the DAAD.

VGU currently has 1,700 students and offers them Bachelor's and Master's degree programmes as well as the opportunity to do a doctorate in nine different subject areas. One speciality is the Smart Mobility Engineering subject. The curriculum is geared towards the needs of the global labour market and is based on an interdisciplinary approach that promotes technological innovation and practice-oriented education. VGU works closely with German universities and research institutions. Depending on the subject area, between 20 and 80 percent of lectures are held by lecturers from Germany.

### A NEW CAMPUS

In November 2022, the university moved into a state-of-the-art campus, which was built at a cost of around 200 million euros. Students have access to state-of-the-art laboratories and facilities. VGU aims to become one of Asia's leading research universities and plans to have 5,000 students by 2030. ■

**Students: 18,000+**  
**Founded: 2011**  
**Bachelor's degree programmes: 38**  
**Master's degree programmes: 16**  
**Research projects: 5**

→ Scan the QR code for  
more information about  
UTT



**Students: 27,000+**  
**Founded: 1957**  
**Faculties: 17**  
**Bachelor's degree programmes: 21**  
**Master's degree programmes: 3**  
**Research projects: 8**

→ Scan the QR code for  
more information about  
HUTECH



**Students: 1,700**  
**Founded: 2008**  
**Bachelor's degree programmes: 8**  
**Master's degree programmes: 10**  
**Research projects: 24**

→ Scan the QR code for  
more information about  
VGU



# Final conference in Hamburg

**AFTER FOUR YEARS, THE HAMONEE PROJECT CAME TO AN END IN DECEMBER 2024 – AN OPPORTUNITY TO TAKE STOCK, BUT ALSO TO LOOK AHEAD. THERE ARE PLENTY OF IDEAS FOR CONTINUING THE PARTNERSHIPS.**



→ Scan the QR code for the HaMoNee film by students Marcel Kaminski and Khánh Hà Tống, sharing their experience and that of their fellow students.

A successful project deserves a crowning finale. To conclude HaMoNee, a one-day conference was held at HAW Hamburg at the end of September 2024 under the title “Mobility for tomorrow. People. Experiences. Ideas.” The conference was opened with a welcoming address by Dr Melanie Leonhard, Senator for Economics and Innovation of the Free and Hanseatic City of Hamburg, and a speech by Prof. Dr-Ing. Peter Wulff, Vice President for Research and Knowledge Transfer at HAW Hamburg. Both emphasised the importance of the cooperation between HAW Hamburg and the Vietnamese partner universities.

## A LOOK INTO THE FUTURE

The programme included specialist presentations on the importance of cybersecurity for the mobility of the future by Simon Heine, Managing Director of Cymotive Technologies, on Hamburg's new foreign trade strategy by Kolja Harders, Head of the Foreign Trade Department at the Ministry of Economics

and Innovation, and on the importance and prospects of the immigration of international talent by Florian Kückenmester, Head of the Welcome Centre Hamburg. Dr-Ing. Quang Huy Nguyễn, Head of Department at the Vietnamese Ministry of Transport, described the prospects for German-Vietnamese cooperation in the field of training.

In panel discussions in the auditorium of HAW Hamburg, the guests from Vietnam and German experts and colleagues discussed the question “How can our societies chart their way to sustainable mobility?” and the value of international exchange for research and teaching. The day was expertly moderated by Friederike Holm.

The programme concluded with a slam in which international students shared their personal intercultural experiences with the audience in an entertaining way. The slam and the subsequent discussion about the experiences of the students who took part in the HaMoNee project were moderated by Dr Nils Bernstein from the Language Centre of the Hamburg University. →

→ Dr Melanie Leonhard, Senator for Economics and Innovation of the Free and Hanseatic City of Hamburg, gave a welcoming address.



→ Prof. Dr-Ing. Peter Wulff, Vice President for Research and Knowledge Transfer at HAW Hamburg, welcomed the guests from Vietnam.





**“Studying abroad broadens  
your perspective and helps  
your career.”**

DR DƯƠNG QUANG KHÁNH, PROFESSOR AT THE INFORMATION  
TECHNOLOGY INSTITUTE AT VIETNAM NATIONAL UNIVERSITY









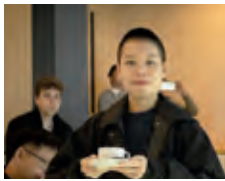




### ATTRACTIVE SUPPORTING PROGRAMME

In addition to the conference, the guests had the opportunity to visit the vehicle laboratory at HAW Hamburg on the first day, including a live demonstration of AUDEX, which allows students to research vehicle dynamics and vehicle development in a virtual environment with the help of miniature vehicles. They were welcomed there by Prof. Dr. Frederike Masemann, Vice President for Studies and Teaching at HAW Hamburg. The event with the barbecue at the end provided ample opportunities for an exchange with the professors of the Department of Automotive and Aeronautical Engineering.

The last day of the programme was dedicated to aviation. In the morning, the guests from Vietnam were given a guided tour of the Airbus plant in Hamburg-Finkenwerder. They were able to look behind the scenes of the world's most modern final assembly line for commercial aircraft. Vietnam Airlines has been an Airbus customer for a long time. Its fleet consists mainly of Airbus A321 and A321neo aircraft, which are produced in Hamburg, as well as Airbus A350-900s. No less interesting was a visit to the ZAL (Center of Applied Aeronautical Research). In its halls, laboratories and offices, this globally unique facility offers a state-of-the-art infrastructure in which 30 partners, including Airbus, HAW Hamburg and numerous medium-sized companies, to work on innovative solutions for aviation. ■





# Switching made easy

**“HOW CAN OUR SOCIETIES CHART THEIR WAY TO SUSTAINABLE MOBILITY” WAS THE QUESTION POSED IN A PANEL DISCUSSION AT THE FINAL CONFERENCE. HAMBURG HAS AMBITIOUS GOALS FOR THIS.**

**WHETHER** Hamburg or Hanoi – climate-friendly mobility for their citizens is a major challenge for all metropolises. Intelligent concepts rely on digitalisation to link the various services. Large cities are hot-spots of energy consumption. Only if something changes in urban centres will global CO<sub>2</sub> emissions fall sufficiently. Although heating and air conditioning of buildings and industry account for the largest share of energy consumption, this is followed by the transport sector with motorised private transport. Furthermore: A city without traffic noise, without endless traffic jams at rush hour and with clean air means a better quality of life for its citizens.

In Hamburg, the mobility transition is a central theme of urban development and sustainability strategy. One focus is on promoting local public transport. The aim is to reduce car traffic. Today, 70 percent of trips in Hamburg are made without a car. By 2030, this figure is set to rise to 80 percent. The target is 20 to 25 percent on foot, 25 to 30 percent by bicycle, 30 percent by public transport and only 20 percent by car. 40 percent of private car traffic and 25 percent of lorry traffic should be emission-free by then.

It is not just about satisfying the increasing demand for mobility with lower CO<sub>2</sub> emissions. It is also about improving the flow of traffic and reducing land consumption due to ever more and ever wider roads. These goals cannot be achieved by imposing bans, but by making it easy for people to switch from their own cars by offering attractive services.

## ALREADY ON THE RIGHT TRACK

After all, Hamburg has long been on the right track when it comes to car traffic. It has decreased by 20 percent since 2000. The number of cyclists, on the

other hand, has risen sharply. The same applies – apart from the time during the pandemic – to the number of passengers travelling on Hamburg's public transport network.

With around 150 mobility projects, Hamburg is one of the pioneers in the transport transition and is mentioned in the same breath as Barcelona, Vienna or Copenhagen. The local train service providers Hamburger Hochbahn and S-Bahn Hamburg are investing heavily in the expansion of their route network, the modernisation of vehicles and train stations, and in digitalisation in order to make operations more efficient. A new 24-kilometre S-Bahn line is under construction to close the last gaps in the network. The trains should run every 90 seconds. →



→ Panel discussion “How can our societies chart their way to sustainable mobility?” with Dr Johannes Lauer, Simon Heine, Dr-Ing. Quang Huy Nguyễn, Stefan Matz and Prof. Anh Tuấn Vũ as well as presenter Friederike Holm (from left).



→ Since 2020, HOCHBAHN and vhh.mobility have only been ordering hydrogen or electric buses for Hamburg.



→ MOIA's electric on-demand shuttles are on the road with a driver. Autonomous minibuses are already on the road for test operations in Hamburg.

The days of missed trains are already over on the first routes: it only takes two and a half minutes for the next one to arrive. Rail travel is becoming more relaxed and attractive. Since 2020, Hamburg has only been purchasing zero-emission electric and hydrogen buses. The underground and suburban trains already run on 100 percent green electricity.

#### 10,000 ON-DEMAND SHUTTLES

On-demand shuttles are another component of the concept. Initial tests with 25 autonomous shared taxis from Volkswagen subsidiary Moia have been running in Hamburg since November 2024. From mid-2025, there will be selected autonomous shared taxi journeys with passengers, and by the end of 2026, the

electric minibuses will go into regular service in Hamburg and take passengers to buses and trains. The aim is that even in the suburbs, no-one should have to travel more than five minutes to the nearest bus stop or railway station. In the long term, up to 10,000 on-demand shuttles will be on the road in the city, ensuring a truly seamless mobility service.

#### DIGITAL MOBILITY TWINS

The engine driving the mobility turnaround in the background and giving it the necessary momentum is digitalisation. This is a strategy on its own. Traffic management that encompasses all modes of transport and recording traffic volumes in real time will help to control traffic intelligently. This is done with the help of digital mobility twins that are fed with forecast data and real-time information.

The data is also shared with external partners. In this way, those who set off in their own car are not only shown the fastest route, but are also directed to a free parking space. If there are major traffic disruptions, the car's navigation system recommends changing to the bus or train and guides you to the most conveniently located park-and-ride car park.

Digital technologies such as smartphone apps, sensors, artificial intelligence and the networking of all services are key components. They enable people to switch flexibly between bus, train, bicycle or car sharing or to combine them with each other as required. Because only if the new form of mobility is more convenient, cheaper and faster will people rethink and change. ■

**“A sustainable, future-proof and digitally supported mobility system is one of the most important changes of this decade.”**

DIGITAL MOBILITY STRATEGY  
OF THE FREE AND HANSEATIC CITY OF HAMBURG



A portrait of a young man with dark hair and a light beard, wearing a blue denim shirt over a white t-shirt. He is sitting with his arms crossed, looking directly at the camera with a slight smile. The background is a blurred indoor setting with warm lighting.

**“The time in Vietnam was the most exciting of my entire degree programme. I can only recommend something like this to all students.”**

TOLGA ACAR, EXCHANGE STUDENT  
AT HAW HAMBURG





**“I have always been  
interested in Vietnam.  
That’s why it wasn’t difficult  
for me to spend part of  
my degree programme here.”**

JONAS KRUKENBERG, EXCHANGE  
STUDENT AT HAW HAMBURG

# Applied science in miniature

**A KEY FEATURE OF A DEGREE PROGRAMME AT HAW HAMBURG IS THAT STUDENTS NOT ONLY RECEIVE A SOLID THEORETICAL FRAMEWORK, BUT ARE ALSO PREPARED AS MUCH AS POSSIBLE FOR THE PRACTICAL TASKS THAT AWAIT THEM IN THEIR FUTURE CAREERS. THE AUDEX DRIVING SIMULATOR IS AN EXCELLENT EXAMPLE OF THIS APPROACH.**

**AUDEX** stands for Automotive Development in 1:x – developing on a small scale what would also be relevant on a large scale. AUDEX enables students to work on modern development tasks with realistic remote-controlled (radio-controlled) vehicles using standard industry tools. Trying out the effects of a modified chassis geometry or self-developed algorithms for recognising obstacles on a real car is too time-consuming in a university setting. This would require not only a suitable vehicle, but also a large enclosed test site.

However, the test site for HAW Hamburg students is located directly on campus. A course is painted in blue and white on the floor of the vehicle laboratory, reminiscent of a miniature traffic training ground. The driver of the miniature car whizzing along it sits a few metres away in front of large

screens in a driving simulator. His steering movements and the input from the accelerator and brakes are transmitted to the small racer. This in turn not only sends the image from a gimbal-mounted camera to the simulator, but also acceleration data, which is used to give the students in the driving simulator a fairly realistic driving experience. The project, which is the brainchild of two students in 2019, is anything but a gimmick.

“It allows students to realise a complete project, from defining the requirements, through design and implementation, to integration testing and testing the overall system,” explains Prof. Dr Dirk Engel. They set the task themselves. “They choose their favourite tool and the area of interest they want to work on,” says Engel. →



→ Prof. Dr Engel talks to Simon Heine and Prof. Dr Frederike Masemann on the benefits of AUDEX for studies and research.

→ Marcel Kaminiski explains the 1.50 metre-long truck models at AUDEX.





→ Prof. Dr Frederike Masemann, Vice President of Studies and Teaching at HAW Hamburg, clearly enjoys the driving simulator.



→ Prof. Dr Dirk Engel presents the AUDEx concept and vehicle fleet.

→ More detailed information on the Project AUDEx can be found here:



But the students not only program the electronics of cars, they also improve the motion platform for controlling the virtual vehicle. As car manufacturers often use driver-in-the-loop configurations similar to those in the AUDEx project, these unique programming skills can help graduates find their first job. Over time numerous Bachelor's and Master's theses have contributed to expanding the possibilities of AUDEx. All results of student work are entered into a knowledge database and are available to future students.

### SMALL BUT NICE

The fleet of test vehicles consists of five cars in 1:5 scale and two trucks in 1:14 scale, each measuring one and a half metres in length. Since the project began in 2019, the technology has been refined further and further, creating new possibilities, such as the use of VR glasses and the implementation of mixed reality. The high-quality models in the AUDEx vehicle fleet are equipped with microcontrollers, sensors and actuators. The students can therefore develop and realise complex control algorithms themselves. For example, one group realised a rear axle steering system with its own control and actuation. Another project aimed to enable the car to reverse park sideways automatically. In view of the growing number of assistance systems and the trend towards autonomous driving, the electronics are playing an increasingly important role in vehicle development. Students at HAW Hamburg are ideally prepared to help shape this trend.

With AUDEx, the development process – from component and function development to the evaluation of various chassis setups and autonomous driving tasks – can be experienced in the virtual as well as the real world in the truest sense of the word. Not everything works perfect: "When programming their software, two students overlooked the fact that it's not enough just to brake, you also have to take your foot off the accelerator," says Engel. They literally drove their test into a brick wall.

### NOW ALSO IN VIETNAM

Until recently, AUDEx was unique in the world. But the project is now setting a precedent. During his visit in December, the partners at the Hanoi University of Science and Technology presented Prof. Dr Engel with their version, which is still under construction. It is intended to help students on the new Digital Automotive Engineering degree programme to gain practical experience. The Vietnamese-German University would also like to give the same opportunities to students enrolled in its Smart Mobility engineering programme. In general, Prof. Dr Engel has noticed that the idea of project-based learning is gaining momentum in Vietnam. The experiences and the exchange within the framework of HaMoNee have undoubtedly contributed to this. ■



# A safety belt for the data

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**DIGITALISATION IS ENABLING COMPLETELY NEW MOBILITY CONCEPTS AND GIVING THE TRANSPORT SECTOR A MAJOR BOOST TOWARDS SUSTAINABILITY. HOWEVER, THIS ALSO INCREASES THE RISKS AND THUS IMPORTANCE OF CYBERSECURITY.**

**THE** rapid digital transformation of the automotive industry has turned the car from a mere means of transport into a highly developed, networked machine. This development is accompanied by an urgent problem: the security of data. As Simon Heine explained in his presentation at the HaMoNee closing conference, the future of mobility depends on robust cyber security solutions. Heine is CEO of Cymotive Technologies, a company that specialises in cyber security for automobiles.

This expertise is becoming increasingly important as cars become rolling data centres equipped with advanced software, sensors and connectivity features. The automotive industry is undergoing a profound transformation driven by four key trends: Connectivity, shared mobility, electric vehicles and autonomous driving. Connected vehicles use IoT technologies to communicate with their surroundings. New business models are opening up ways of sharing vehicles instead of individual ownership. →



→ Safety on the road it is not possible without security for the rapidly growing amount of data that modern cars generate.



A man with short dark hair, wearing a blue and white plaid button-down shirt, is sitting in the driver's seat of a car. He is smiling at the camera. His right hand is on the steering wheel, and his left hand is resting on his lap. He is wearing a black watch on his left wrist. The car's interior, including the black leather seats and the dashboard, is visible. The background shows a bright, modern interior space, possibly a parking garage or a modern building.

**“I really appreciate HaMoNee.  
The exchange helps Vietnamese  
students to improve  
their English and learn about  
new cultures and  
modern technologies.”**

DR QUANG VINH TRẦN,  
PROFESSOR AT PHENIKAA UNIVERSITY



# “With increasing digitalisation, the topic of cybersecurity is becoming ever more important.”

SIMON HEINE, CEO CYMOTIVE TECHNOLOGIES

At the same time electric vehicles are on the rise and autonomous vehicles will soon be part of the street scene. Each of these advances is highly dependent on the software.

“Cybersecurity is a key to mobility,” emphasises Heine in light of this development. Real-life incidents show how important vehicle cybersecurity is: from ransomware attacks on car manufacturers to hackers taking control of a vehicle remotely. Today's cars are packed with electronics. They have up to 150 ECUs (Electronic Control Units) and around 200 million lines of code. That is ten times as much as an Airbus A350. On the way from today's SAE Level 2 vehicles to autonomous driving and driverless taxis with the multitude of sensors that need to be integrated, the importance of software continues to grow. All the more so as entertainment, gaming and location-based services an integral part of the software equipment will be.

## THE AMOUNT OF DATA IS GROWING

Vehicles are generating and processing ever larger amounts of data. In today's cars it is 380 MB per hour, in future advanced autonomous vehicles (from 2027) the data volume will be up to 4 TB per hour. One percent of this will be uploaded to the cloud. The resulting risks are enormous, as this data inevitably contains sensitive personal information. Protecting it is of the utmost importance.

However, cyber security in mobility is not just about protecting individual vehicles, but also about securing the mobility infrastructure of smart cities. It is based on systems that are closely networked with each other and exchange large amounts of data. Traffic management systems, ride-sharing centres and public transport networks, from on-demand taxis to closely timed underground trains, are potential targets for cyber attacks. However, the more interconnected the individual systems are, the greater the risks and thus the importance of cybersecurity at each node of this network. An intruder who manages to manipulate the traffic light control system or the metro traffic control system could plunge an entire metropolis into chaos from one moment to the next. In Moscow, the potential became apparent when hackers infiltrated the Yandex taxi service and ordered a large number of vehicles to an address in the city centre. They caused a traffic jam that was only resolved after several hours.

In addition to the direct economic damage and the threat to safety because, for example, emergency services are unable to reach their deployment location, such a cyberattack also weakens the trust of users in smart city concepts and thus the social acceptance of networked mobility solutions. “As a user, you only log in where you have the feeling that your information is secure,” says Heine.

The advantages of strong cyber security are diverse. It protects against hacker attacks, ensures data protection and promotes trust in new technologies. Consumers must be able to rely on the fact that autonomous and connected vehicles are protected against cyber threats. Anyone who has to fear that their car could be stolen because someone is tampering with the electronics, or who has to fear that their usage data could fall into the wrong hands with a manufacturer, will favour a different brand. The trust factor is much more central for autonomous driving.

This is why every euro in cybersecurity is also a good investment from an economic point of view. The consequences of business interruptions caused by cyberattacks or data loss due to ransomware by far exceed the costs of protective measures. In addition, the recent past shows that we are no longer only dealing with criminal attackers, but increasingly also with state or state-commissioned actors for whom a country's transport infrastructure is a top priority alongside its energy supply.

In the future, mobility will depend more than ever on ensuring that the data generated and used is protected in the best possible way. As vehicles are increasingly connected, autonomous and shared, protection against cyber threats is essential to realise the full potential of the next generation of transport. Without this protection, the promise of a safer, more efficient and connected future remains in danger. ■

→ A modern car has ten times as much software as an Airbus 350.

# “HaMoNee was a real door opener”

**PROF. DR-ING. PETER WULF, VICE PRESIDENT FOR RESEARCH AND KNOWLEDGE TRANSFER AT HAW HAMBURG, ABOUT WHY INTERNATIONALISATION IS IMPORTANT FOR THE UNIVERSITY AND ITS STUDENTS.**

## How important is internationalisation at HAW Hamburg?

Internationalisation has been of strategic importance to our university for years, and we have noticed that it is becoming increasingly broadly anchored within the university. It is not only supported by a few enthusiasts, but there is a high level of support overall for driving internationalisation forward. Colleagues, especially the newly appointed ones, are now offering significantly more internationally orientated and English-language events.

We have given us a new internationalisation strategy in the summer of 2024. This envisages that we will prioritise the expansion and support of international cooperation in our strategic focus regions of Europe, the USA/North America and China/Vietnam/East Asia, as well as supplementing international and intercultural exchange with digital offerings. We also prioritise the integration and academic success of international students at our university.

## What are the benefits of internationalisation for HAW Hamburg?

A cosmopolitan attitude, an awareness of global responsibility and intercultural skills are essential today. Promoting them is an important part of our students' qualifications. This requires an active international environment. Without this, everything remains theoretical. That is why we want to promote internationalisation by attracting international students, lecturers and researchers



through attractive offers and promoting international mobility through exchange programmes and networks.

## Does this also make HAW Hamburg more attractive for students?

Yes, of course, for both domestic and international students. This is what our International Mobility field of action stands for. It enriches a degree programme and increases intercultural skills if you can spend a semester abroad or complete an internship there. In a globalised world, this is of great importance and also significantly increases your chances on the job market. We want to continuously increase the proportion of students who spend part of their studies abroad and, in particular, reach those students who have been underrepresented in international mobilities to date.

In addition, HAW Hamburg attracts prospective international students with an attractive international study programme and contributes to the development of skilled workers in the Hamburg metropolitan region by training them. With the internationalisation of our study and

teaching programmes, we are also opportunities for prospective German students who want to consciously orientate their studies internationally – whether at Bachelor's or Master's level. As a university located in Hamburg, however, we particularly want to attract more international students to complete their studies here. Creating the conditions for this is an important part of our internationalisation strategy.

## What are these framework conditions?

For example, it is about promoting a welcoming culture that gives international students a sense of belonging on the first day of their stay with us. This includes advice and support from the International Offices and the faculties, but also our weBuddy programme, the international culture café, language cafés and a tandem language programme. We must do our part to strengthen the academic and research success of those who come to us from abroad. This includes ensuring effective communication with them by further expanding bilingualism in research, teaching and university administration.

## What role do partnerships play in the internationalisation strategy?

International networks such as CARPE (Consortium on Applied Research and Professional Education) and the Baltic University Programme as well as partnerships from the HAW goes USA sub-strategy and our university network UAS7, the Shanghai-Hamburg College and now





→ Creating lasting connections if you want to succeed, you need to meet in person. Prof. Engel and Svenja Henseleit during their visit to the HUST in March 2024.

## DAAD IN VIETNAM

# A growing network

## ACADEMIC EXCHANGE BETWEEN UNIVERSITIES HAS SHAPED THE LINKS BETWEEN VIETNAM AND GERMANY FOR AT LEAST 50 YEARS.

also the collaborations established as part of HaMoNee are very important. They open up numerous opportunities to expand our international range of courses through joint degree programmes, guest lectures and seminars, summer schools, winter schools and workshops. They also increase the international visibility of HAW Hamburg. We will expand our range of Bachelor's and Master's degree programmes taught entirely in English and will work with our university partners to further develop the existing range of Bachelor's and Master's degree programmes with double degrees. Our focus is on the priority regions that we have defined. This also means Vietnam.

### How much impact do these activities have beyond the university itself?

This can be clearly seen from the list of participants at the HaMoNee closing event: with Dr Melanie Leonhard as Senator for Economics and Innovation of the Free and Hanseatic City of Hamburg, representatives of the Senate Chancellery, the Economic Authority and experts from companies and institutions in Hamburg. This emphasises the great interest in a cooperation with Vietnam. Prof. Dirk Engel and all those involved in HaMoNee deserve our sincere thanks for this very comprehensive and very successful project. It was a real door opener. Vietnam will remain a very important partner for us as a university in Southeast Asia. All the more so because Vietnamese students already are one of the largest groups among our international students. ■

**EVEN** when Vietnam and the Federal Republic of Germany established diplomatic relations in September 1975, the German Academic Exchange Service (DAAD) supported scientific cooperation through scholarships, projects, networking and advice – and continues to do so today. Since 2003, it has had its own branch office in Hanoi.

"Interest in cooperation between German universities and partners in Vietnam has increased continuously in recent years," says Felix Wagenfeld, head of the DAAD in Hanoi. "There are very good and mutually beneficial opportunities for cooperation in Vietnam for German universities and especially for German universities of applied sciences."

For many years, more than 7,000 Vietnamese students have reliably chosen Germany as their destination for studying abroad. Many return to Vietnam after graduating or after their first few years on the job. Almost 6,000 people can currently be found in the DAAD alumni database – a great treasure for joint relations. They become bridge builders at home and open doors to the respective other culture. The DAAD supports this with a wide range of activities. In the field of science, it is very often alumni from Germany who lay the foundations for cooperation, joint projects and a growing network of academic relationships.

In the case of students, mobility between the two countries mainly flows from Vietnam to Germany. Teachers, on the other hand, usually move from

German to Vietnamese universities. They teach there, support the further development of degree programmes or provide training on topics such as internationalisation, faculty management or leadership skills, often in the frame of DAAD scholarships.

### INTERNATIONAL APPEALS

Vietnamese universities are increasingly trying to actively position themselves as forward-looking partners, among other things with a steadily increasing number of internationally accredited and English-language courses. "Support through cooperation with German universities can further strengthen this development and broaden its reach," says Wagenfeld. Such cooperation also pays off for the Vietnamese in a second way: the participation of international partners and the opportunity or prospect of being able to spend at least one phase of their studies abroad makes the study programmes much more attractive.

Conversely, German research institutions can benefit from cooperation with Vietnamese universities in terms of promising and well-qualified international students, as well as natural research environments, for example in forestry, water or environmental science, in the energy sector, in urban, rural and transport planning, or even in medicine. In addition, good contacts with Vietnamese universities can also be very helpful for German industrial partners. ■

A portrait of a young man with dark hair, smiling and leaning against a railing. He is wearing a grey blazer over a black sweater and a white collared shirt. The background is a blurred indoor setting with a window showing greenery.

**“The culture in Germany  
is very diverse and interesting,  
especially for someone  
like me, who hasn’t travelled  
much yet.”**

PHÚC ANH PHẠM, EXCHANGE STUDENT AT THE  
UNIVERSITY OF TRANSPORT AND TECHNOLOGY



# Support on site around the globe

THE DAAD HAS BEEN PROMOTING INTERNATIONAL EXCHANGE FOR 100 YEARS.  
HAMONEE IS ONE OF THE PROJECTS MADE POSSIBLE BY A PROGRAMME SPECIFICALLY  
TAILORED TO THE HAW.

**FOUR** letters stand for the worldwide networking of study, research and teaching at universities: DAAD – German Academic Exchange Service. It is the internationalisation agency of German universities. Its most important tasks also include strengthening German studies and the German language abroad as well as supporting developing countries in establishing efficient higher education institutions. The DAAD is also the national agency for cooperation with European universities as part of the Erasmus+ programme.

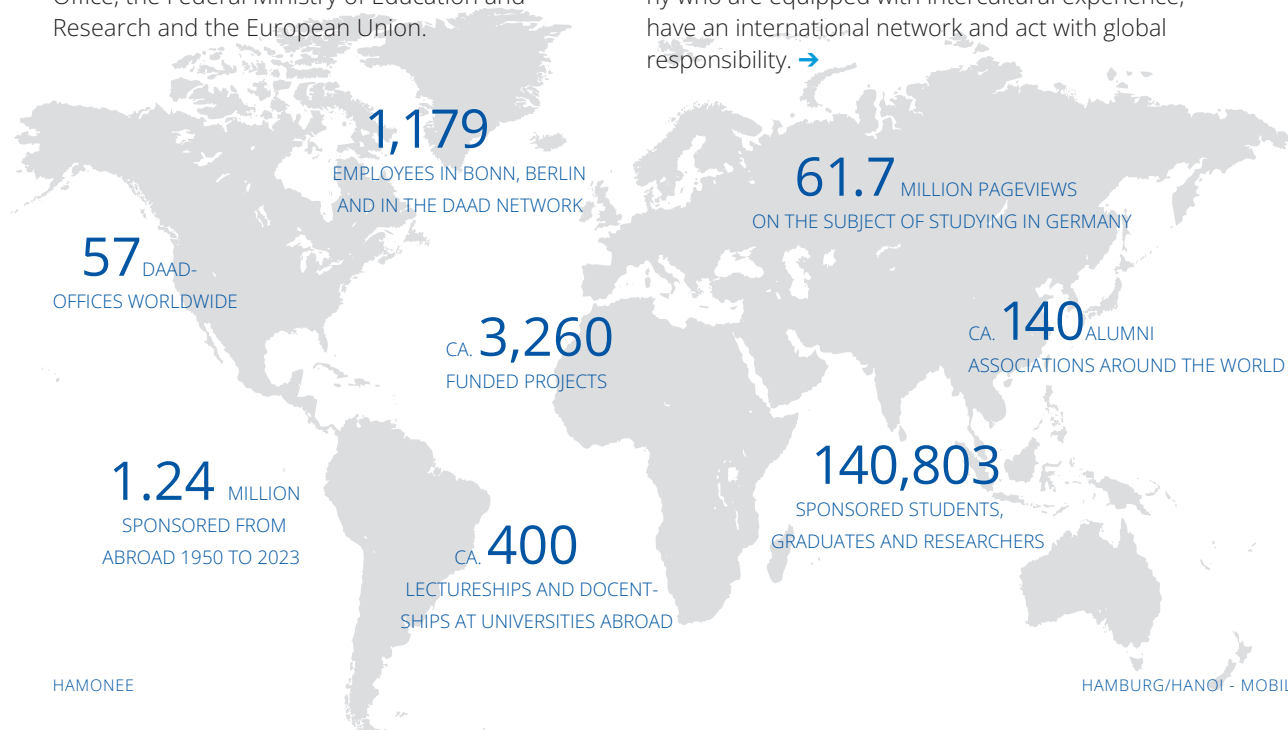
The DAAD has a network of 57 offices on all five continents. This makes it the world's largest funding organisation for the international exchange of students and academics. Interestingly, it is neither a public authority nor a public-law institution, but an association with 243 universities and 104 student representatives as members.

The total annual budget of more than 800 million euros is mainly financed by the Federal Foreign Office, the Federal Ministry of Education and Research and the European Union.

These funds were used to support around 141,000 students, graduates and researchers in over 3,000 projects in 2023. 40,000 students were supported in their studies abroad through an Erasmus+ scholarship. The work of the DAAD is not an academic end in itself, but also serves Germany's foreign, science and development policy goals. "Internationally networked science is indispensable for Germany's ability to perform," states the DAAD's strategy.

## LEADERS OF TOMORROW

Germany is one of the five most sought-after destination countries for international students and graduates. It is important to secure this position. The more than 400,000 foreign students now studying at German universities are the potential future leaders of tomorrow in their home countries. However, it is also important to train future leaders in Germany who are equipped with intercultural experience, have an international network and act with global responsibility. →



# “The HAW.International programme is a beacon for us in the promotion internationalisation.”

PROF. DR JOYBRATO MUKHERJEE, PRESIDENT OF THE DAAD

This is why the DAAD aims to give every second student substantial international and intercultural experience on their career path. Ideally, this is achieved through a stay abroad, but also through virtual international experience or intercultural experience through encounters with foreign students during their studies.

Since 2019, the DAAD has been promoting the internationalisation of universities of applied sciences in Germany in a separate programme called HAW. International. It supports students and academics on stays abroad and universities in developing strategies and establishing and expanding strategic cooperation with international partners.

## FINANCING SECURED

The programme, which is funded by the Federal Ministry of Education and Research (BMBF), is expected to run until 2029 and has so far received more than 70 million euros in funding. This has 119 projects with universities and partner institutions from around 100 countries. HaMoNee was also made possible in this way. “The HAW.International programme is a beacon for us in the promotion of internationalisation. It ensures for more global visibility of Germany's universities of applied sciences,” said DAAD President Prof. Dr Joybrato Mukherjee on the occasion of the programme's fifth anniversary. More than two thirds of the universities of applied sciences in Germany have already participated in the programme. In the coming years, the DAAD wants to support as many universities as possible in expanding their international competitiveness and preparing students for the challenges of a globalised working world. “The results so far show how effective the support provided by the HAW is in terms of internationalisation,” says Mukherjee.

The DAAD has also had a representative office in Hanoi since 2003. It is based in the Vietnamese-German Centre on the campus of the Hanoi University of Science and Technology. It is also responsible for Cambodia, Laos and Myanmar, although Vietnam is by far the most important partner. The five-member team, headed by Felix Wagenfeld, provides information on study and research opportunities in Germany, advises on scholarships and academic exchange programmes and represents German universities locally.

## ON SITE IN HANOI

They are supported in their work by four so-called lecturers. These are teachers at the foreign language centres or in the German departments of universities. The DAAD ambassadors are valuable contacts for all interested students and academics at the country's universities. They are DAAD alumni and have studied and researched in Germany themselves. This means that they know the German higher education system from their own experience and can therefore provide valuable tips.

In terms of the number of people sponsored by the DAAD, Vietnam is now even ahead of Australia, although the number of people coming to Germany from Vietnam is three times as high as vice versa. Engineering is the most active field on both sides. In recent years, a growing network between German and Vietnamese universities has emerged, made possible by the DAAD. In July 2023, the Higher Education Compass of the German Rectors' Conference recorded 188 collaborations.

## 100 YEARS OF DAAD


The foundation of the DAAD goes back to a trip of the student Carl Joachim Friedrich to the US. The political scientist, who later became known worldwide, succeeded in organising 13 scholarships for students of his subject there. On 1 January 1925, the Akademischer Austauschdienst e.V. was founded in Heidelberg, later becoming “Deutscher Akademischer Austauschdienst e.V.” (German Academic Exchange Service). After the the Second World War, DAAD was reestablished in 1950. From the point of view of the Allies, academic exchange was a key factor in the democratisation of German society. ■



→ More on the DAAD's milestone birthday







**“Not only have I learnt a lot technically, but I’ve also got insights into the country, that are hardly possible by other means.”**

SHIMON SEILER, EXCHANGE STUDENT AT HAW HAMBURG  
WITH AN INTERNSHIP AT THUAN BINH WIND POWER



