

Challenge^{eu}

European University Alliance



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News from ChallengeEU



Dear Reader,

we are happy to introduce you to **ChallengeEU**, our new European university alliance, and invite you to participate in our activities.

ChallengeEU is an alliance of nine small-to-medium sized universities in Europe that are firmly rooted in their respective regions and maintain close contact with the people, businesses and organizations around them. We believe that the major challenges of our time – including climate change, digital transformation and maintaining a robust healthcare system – can only be tackled together. Innovations and new technologies are not created at a desk or in a lab alone, but in communal dialogue. We follow this principle in our work, in the education of our students and in our research projects. In our alliance, we want to systematically develop this approach further: challenge- and impact-driven, open and inclusive, as well as co-creative with society.

The expected EU Commission's funding as part of the European Universities initiative will support us in this for the next four years, starting in January 2025. During this time, we will develop new teaching methods for students and lifelong learners, introduce formats for structured dialogue with various stakeholders, and more closely involve underrepresented groups in teaching and research, among others. The consolidation of our universities through increased student and staff mobility will benefit us in sharing experiences and ideas across national and cultural borders.

Join us in this exciting process! In this first issue of our newsletter, we will give you a first insight into our **ChallengeEU** alliance member institutions. Future materials will report on our work, the challenges we pursued and achievements we shared.

We look forward to meeting you at one of the many upcoming activities and events by the Alliance and exchanging ideas with you! Together, we can shape an innovative and diverse, regionally driven Europe.



Designated Managing Director
ChallengeEU Alliance



Universities forming ChallengeEU alliance

Hochschule Offenburg



HSO is anchored in the trinational region of the Southern Upper Rhine, one of the most dynamic economic regions in Germany and Europe. The proximity to France and Switzerland is reflected in our broad scope of activities. We work closely with partner institutions from education, business, politics, culture and society, thereby enabling a secure and stable future perspective for our region in a united Europe.

HSO is characterized by a high level of application in research and teaching. We offer Bachelor and Master programmes in the areas of computer science, artificial intelligence and robotics, economics, life sciences, media, mechanical engineering, electrical engineering and information technologies, energy and environment.

As one of the strongest research universities in the state of Baden-Württemberg, HSO contributes to the processing and solution of urgent societal challenges. Applied research and development, innovation and technology transfer are among our key strategic tasks.

Together with partners from business, science and society, HSO is dedicated to current research questions in six main research areas: sustainable energy systems; innovative and sustainable product and process development; secure, autonomous and AI-based systems; media and communication; life science engineering and economics; trade and business processes.

HSO is a place of innovation, scientific and artistic work, a bridge builder between science, business and society with a global view and an innovative, respectful and constructive spirit.



- 1964: Founding Year
- 4 Departments
- Competences in Engineering, Media and Business
- 3.800 Students (400 International)
- 130 Professorships, 350 staff (academic/non academic)
- 25 Bachelor // 22 Master Programmes
- 90 Partner Universities
- 60.000 Population of Offenburg
- 6,1 Mio. Population of Southern Upper Rhine Region



60 YEARS OF COURAGE FOR THE FUTURE



“HSO is now an innovative university with a wide range of degree programs and an international network.”

Hochschule Offenburg started on **1 April 1964**, when **six lecturers** and **72 students** optimistically began convening in a former cigar factory for one semester each of mechanical engineering and communications engineering. Their courage paid off. **HSO** is now an innovative university with a wide range of degree programs and an international network. It is shaping the future of the Southern Upper Rhine region together with its stakeholder partners in business and society.

In its anniversary year 2024, **HSO** is even more closely connecting with the people of our region. On 15 June we invited them to our **Open Campus Day** with selected partner companies, presenting science and innovative products for people to touch and participate in. Following in the evening was a cheerful summer party, culminating in a unique performance by Thomas D, one of Germany's best-known rappers, accompanied by HSO students.

More on how we connect science and society can be experienced in **Offenburg's** city center from October to December this year: In a pop-up store called '**Zukunftswerkstatt**', we invite the public to take a look into the future together with our partners from industry.

At HSO, we are working today on solutions for tomorrow.

Further information on the anniversary year can be found here (in German)
[60 Jahre Hochschule Offenburg
\(hs-offenburg.de\)](https://60JahreHochschuleOffenburg.hs-offenburg.de)

pepperMINT foundation begins work



Technology is fascinating. From the energy transition and climate protection to automated production and the digital healthcare industry, anyone with a passion for technology and a sound education in engineering has excellent prospects to play a responsible role in shaping the sustainable growth of our economy.

Since this year, Hochschule Offenburg in a joint foundation with companies Badische Stahlwerke, Herrenknecht, Hobart, VEGA Grieshaber and Wittenstein has been promoting the younger generation's enthusiasm for technology.

pepperMINT is all about giving young people positive key experiences and encouraging an inventive spirit at an early age. Specific activities are offered for girls and young women. In addition, pepperMINT aims to expand cooperation between schools and the University with joint technology projects.

Find more (in German): [Stiftung.pepperMINT gegründet:](https://www.stiftung-peppermint.de)
[Hochschule Offenburg.\(hs-offenburg.de\)](https://www.hochschule-offenburg.de)

Move.mORe: A flagship cooperative project dedicated to sustainable mobility



Find out more about the move.mORe project here (in German)
[move.mORe: Hochschule Offenburg
\(hs-offenburg.de\)](https://www.hs-offenburg.de/move-mORe).

Hochschule Offenburg ranks as one of the leading universities of applied sciences in **Baden-Württemberg** in terms of research output. As a **UAS**, we are closely connected with partners from industry and civil society; together, we develop concrete solutions for the energy transition, addressing, for example, future mobility, industrial production and the healthcare system. With this strong engagement in transfer, HSO is playing a leading role in shaping the future of the **Southern Upper Rhine** economy and society at large.,

In the cooperative project **move.mORe**, **UAS Offenburg** and **Karlsruhe** are looking into how we can make sustainable mobility a reality in the region. The five-year project uses **research** and **technology** transfer to develop solutions for sustainable mobility of people and goods, as well as for the energy transition in the Upper Rhine region.

In the cooperative project **move.mORe**, **UAS Offenburg** and **Karlsruhe** are looking into how sustainable mobility can be established and further enhanced in the region. The five-year project applies research-based knowledge and technology transfer to develop solutions for the sustainable mobility of people and goods as well as for the **energy transition** in the Upper Rhine region. It also looks at how to adapt these solutions to each area. In implementing the project, special emphasis is placed on stakeholder participation and social dialog.

Universities forming ChallengeEU alliance

ECAM LaSalle



ECAM LaSalle was created in 1900 in response to the demand from industrialists. This non-profit engineering school was founded on a strong set of ethical and human values and is committed to training young engineers to shape the world of tomorrow.

With 2,000 students, the school focuses on a multidisciplinary approach to research and teaching. Recognized by the Government as a French « Grande Ecole » ; ECAM LaSalle is characterized by : a rigorous admission process ; academic excellence ; solid theoretical foundation along with concrete hands-on application ; strong links with industry and an outward-looking tradition, an international exposure.



From the training of students and general functioning of the campus to membership in dedicated ecosystems, the school has been committed for several years to an approach to sustainable development and social responsibility. Students are encouraged to measure the impacts of their decisions and activities on the environment.

In addition, ECAM LaSalle benefits from a rich associative life with more than 50 clubs (humanitarian, technical, cultural, sports...) who bring the Lyon campus to life every single day!



ECAM LaSalle Obtains DD&RS Label Renewal for Four Years



Obtaining this label underscores ECAM LaSalle's investment in multiple strategic sectors:

- Strategy and governance
- Research and innovation
- Teaching and research
- Campus environmental management
- Social benefit

ECAM LaSalle is proud to announce the renewal of its **DD&RS** (Sustainable Development and Social Responsibility) label for four years. This label, first obtained in 2021, confirms ECAM LaSalle's robust **commitment** to sustainable development and social responsibility.

The **DD&RS** label is delivered for adherence to strict guidelines used to evaluate higher-education establishments. The renewal of this label for four years is proof of the efforts of the **entire** ECAM LaSalle community – students, researchers, faculty, and staff – who work every day to apply the values of **sustainable development**.

Innovation and Entrepreneurship, Focus on 2024 Léonard Projects



Every year, fourth-year ECAM Arts et Métiers students participate in the "Léonard Project", that gives students a gateway to project management and entrepreneurship.

ENVIRONMENTALLY SUSTAINABLE AND SOCIALLY CONCIOUS INNOVATION

This project introduces students to **business creation**. Students puts themselves in the shoes of a start-up by creating a logo and designating a team leader to overcome challenges present in **project management** and **teamwork**: abilities that will later be useful in their future careers. Léonard Projects can go beyond the classroom walls – some students chose to further develop their concept and **launch a start-up** that can then join the [ECAM LaSalle TECH360 incubator](#)

Sample 2024 projects:

Innovative solution to precisely pulverise an environmentally friendly agricultural product; New eco-friendly shews with modulable and interchangeable soles; Smart glasses able to assist movement for people with vision impairments.

ECAM LaSalle Welcomes the Conférence des grandes écoles' Student Life Commission Seminar



This July, ECAM LaSalle had the honor of hosting the Conférence des grandes écoles (CGE) Student Life Commission Seminar. This event gathered Student Life Management from 65 grandes écoles in the fields of business, engineering, and other specialties.

This annual meeting **promotes exchanges on improving student life in higher education**. On the docket for the three-day program was a conference on Student Life Management organization; workshops; and breakout groups on combatting addiction problems, disabilities, and inclusion in higher education institutions..

ECAM LASALLE, YEAR-LONG ACTIVE PARTICIPATION IN THE CGE

At ECAM LaSalle, the Student Life Team participates in workgroups focusing on **disability, gender equality, social inclusion, student experience, risk prevention, associative life, and sports**. This year, workgroups dealt with current important topics such as: **radicalisation, sectarianism, and addiction in the student community** and organized **training on new practices for youth and synthetic drugs**. The exchanges from these workgroups were rich and allowed for the development of practical tools for student life managers to give concrete solutions and provide education adapted to the needs of the different institutions.

At a larger scale, the Conférence des grandes écoles' mission is to unite French grandes écoles around common interest projects to improve academic excellence and professional insertion.

Universities forming ChallengeEU alliance

FHNW University of Applied Sciences and Arts Northwestern Switzerland



FHNW is one of Switzerland's leading universities of applied sciences and arts, actively involved in teaching, research, continuing education and service provision – both innovative and practice-oriented. Its broad range of degree programmes, hands-on concept, innovative, application-oriented research and global network make FHNW a diversified and appealing educational institution, a sought-after partner to industry and an attractive employer in Northwestern Switzerland.

The nine schools of the FHNW cover a broad spectrum of subjects and enable diverse, interdisciplinary research. The skills of the lecturers and researchers, the excellent infrastructure and the regional, national and international network of the FHNW offer excellent conditions for addressing manifold issues from the worlds of science, business, politics, culture and society.

Facts & figures:

- 9 Schools: Applied Psychology – Architecture, Civil Engineering & Geomatics – Art & Design – Business – Education – Engineering – Life Sciences – Music – Social Work
- 34 bachelor's degree programs (4 in English), 20 master's degree programs (13 in English)
- 13'600 students
- manifold programs in continuing education
- 1'300 projects with industry or institutional partners contributing external funds of CHF 65 million p.a.
- 3'260 faculty and staff members
- public university, owned by the four operating cantons Aargau, Basel-Landschaft, Basel-Stadt and Solothurn
- 4 regional campuses, main locations of Basel, Brugg-Windisch, MuttENZ and Olten





In 2015, FHNW student Mirjam Affolter co-founded MyCamper, the sharing platform for motorhomes. A start-up based on the sharing economy? Doubts were immediately raised: it would never work.

When Mirjam Affolter (31) talks about her start-up as a guest at the FHNW School of Business today, she's sure to capture the attention of the students. This entrepreneur is one of us, many of them think. Mirjam also studied business administration at the FHNW. Even before completing her bachelor's degree, in 2015 at the age of 22 she co-founded MyCamper, now Switzerland's largest motorhome sharing platform.

«Founding my own company? No, that wasn't my dream.» She was simply open to new ideas and the opportunity arose, says Mirjam. She met Michele Matt by chance. It was he who came up with the idea of a sharing platform. Motorhomes are used on average two to three weeks a year and remain parked the rest of the time, still incurring costs. So why not rent out? «The sharing economy approach is sustainable. It made sense to me then and it still makes sense to this day.»

SHARING: DOES ANYONE NEED THAT?

But when the start-up MyCamper was born, there was more than just applause. Mirjam remembers well: «At the 2015 Swiss Caravan Salon in Bern, our first major appearance, we encountered a barrage of criticism. This idea would never work, they said. If you can afford a motorhome in Switzerland, you don't need to share it.»

Nine years later, it looks like this: the platform has 2,500 vehicles available for hire in Switzerland. «That's 2,500 people who really want to share. The sharing economy works perfectly with this volume. It doesn't need all 120,000 motorhomes registered in Switzerland for it to function.» However, people's thinking has changed, observes the native of Solothurn. The great trailblazer: Airbnb. «Property that you don't use can be a burden.» Watertight insurance provides the necessary protection for the contracting parties.



Mirjam Affolter, co-founder of MyCamper

«DO SOMETHING THAT'S MEANINGFUL TO YOU PERSONALLY. THAT WILL CARRY YOU.»

However, it soon became clear that the Swiss market was too small to operate the platform profitably in the long term. Even the multiple bookings during the coronavirus pandemic were not enough. MyCamper therefore planned to expand abroad at an early stage. Potential for new motorhome-sharing markets was identified in some northern European countries. While the implementation of this strategy took longer than envisaged, it was successful.

MyCamper's acquisition of Swedish platform Housecar in 2022 saw it become market leader in Sweden, Norway and Finland. The most recent country addition was Denmark in 2023. «It's working well,» Mirjam laughs. «We're now benefiting from our lessons learned. In Switzerland, it took three years to get the first 150 rental vehicles on the platform. In Denmark, we have over 100 after just one year.» More than 5,000 motorhomes can now be hired on MyCamper in Switzerland and Scandinavia.

STARTING A COMPANY WHILE STILL STUDYING?

Mirjam recently became a mother. «I still love working every day, but I also want to have time for my family.» Planning is everything, which is why the company set its course at an early stage. Mirjam relinquished her role as head of day-to-day business and now works part-time (60%) in the marketing department. «The job gives me the flexibility I need and I'm learning a lot of new things here too.»

Of the start-ups and spin-offs founded at Swiss universities and academic institutions, only 17% have women at the helm. What does Mirjam recommend to women? «My advice applies to both women and men. First: be open about your business ideas and make use of the feedback. Don't be afraid of people stealing your ideas. Do something that's meaningful to you personally. That will carry you.»

Artificial intelligence for more efficient airport security checks



State-of-the-art baggage x-rays use computed tomography and artificial intelligence to automatically detect prohibited items. This makes security checks more efficient, as liquids and laptops can be left in luggage.

Security is a top priority at airports. Passengers have to undergo a security check before boarding their plane, during which their bags are scanned using x-ray equipment. Security personnel examine the images to ensure there are no prohibited items such as knives, firearms or bombs. In future, they will be supported by artificial intelligence (AI). A team led by Yanik Sterchi and Adrian Schwaninger at the FHNW School of Applied Psychology is conducting research in collaboration with airports, security service providers and equipment manufacturers.

Sterchi explains: "For several years now, Automated Prohibited Item Detection Systems (APIDS) have been used to improve the efficiency of security checks on passenger baggage. As part of our applied research and development project, we're supporting the rollout in Switzerland. We're investigating how well APIDS work, how human-technology interaction is structured and how security personnel should be trained in the use of the new technology."

TECHNOLOGY TO SUPPORT PEOPLE

Security checks involve screening bags using x-rays of different wavelengths. X-rays penetrate the material to varying degrees depending on its density and its metallic or organic makeup. X-ray scanners automatically convert this density and material information into colour images so staff can better identify the different objects. Trained personnel use the shape and colour of the objects to identify prohibited items.



Yanik Sterchi, professor at the School of Applied Psychology, researches human-AI interaction, among other things.

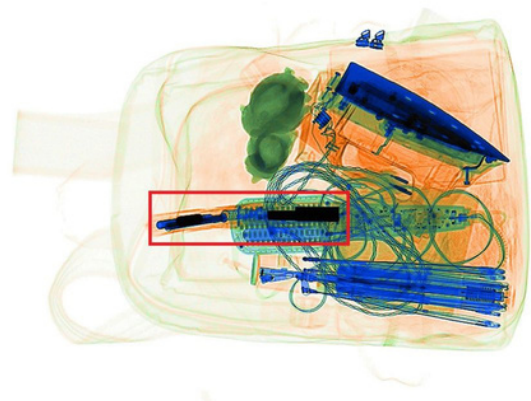
«TECHNOLOGY AND PEOPLE NEED TO BE DEVELOPED TOGETHER.»

Security personnel have been supported by technology that detects explosives for many years. Explosives detection systems (EDS) detect explosives based on their density and material in x-ray images, which works very reliably, especially where computed tomography (CT) is involved. APIDS, on the other hand, are based on deep neural networks. In addition to the material, they use other information to identify prohibited items, such as their shape. Modern x-ray machines combine the three technologies – CT, EDS and APIDS – in one device. Schwaninger explains: «Combining these technologies allows security checks to be more efficient by eliminating the need to unpack liquids and laptops.»

TESTS WITH PROPRIETARY AI

Working alongside researchers from the Zurich University of Applied Sciences (ZHAW), the project team developed their own APIDS algorithms for their experiments. They trained them with hundreds of thousands of images so that the AI can learn what a suspect object looks like from different angles in a wide range of luggage products. The researchers then challenged their algorithms in a simulator with multiple sets of 10,000 or so x-ray images of items of luggage. Sterchi: «The recognition rate of AI is influenced by various factors. The x-ray machine and the direction of exposure play an important role, as do the position and material of the prohibited items and the degree to which they are covered by other items.»

APIDS manufacturers have confirmed to the researchers that these factors are also relevant for their own algorithms. In this respect, the researchers' AI was comparable to professional applications. As Sterchi says: «We now have a better understanding of how APIDS algorithms can be improved and what to consider when testing the quality of these AI algorithms.»



HOW DOES THE HUMAN-TECHNOLOGY INTERACTION WORK?

The research team and industry partners were particularly interested in the interaction between humans and AI. To this end, they conducted various studies on simulators involving airport security personnel. In one of these, the AI marked suspicious items in the x-ray image with a red frame. «By using AI, security personnel were able to detect prohibited items faster and with greater accuracy,» says Schwaninger. «As expected, this positive effect only applies to prohibited items on which the AI has been trained. In our current studies, these have been knives, firearms and sharp tools.»

Bachelor's student provides a technological boost



A newly system developed by Mechatronics Trinationl graduate Ramon Sieber (25) calculates, in real time, the most efficient way to operate boats running to a scheduled timetable. Theoretical savings potential on Swiss lakes: one million litres of diesel per year.

A boat trip on a lake is wonderfully relaxing. The flip side: passenger shipping generates emissions and, according to the Federal Office of Transport, accounts for 7% of all greenhouse gas emissions from public transport. It ranks third behind buses and the railways.

New propulsion technologies are on the way, but Dr sc. ETH Nikolas Schaal says action needs to be taken now, especially with regard to vessels already in existence. Schaal is Digitisation project manager at Shiptec AG, the largest commercial shipyard in Switzerland. «Passenger boats have a service life of 50 years or more. The popular steamships have plied the lakes for over 100 years. However, changing the engines is often neither economically nor technically feasible. Practicable and affordable solutions for more sustainable operations are needed.»

BACHELOR'S GRADUATE COMES UP WITH A NEW SOLUTION

FHNW graduate Ramon Sieber studied Mechatronics Trinationl at the FHNW School of Engineering in Muttensz. «The mechatronics degree is at the interface of mechanical engineering, computer science and electrical engineering,» explains the native of Graubünden. "The three disciplines merge on a ship. I was captivated by that right from the start." During his bachelor's thesis on behalf of Shiptec AG, he created a fuel-saving system based on what he had learned.



Ramon Sieber, Mechatronics Trinationl graduate

«DO SOMETHING THAT'S MEANINGFUL TO YOU PERSONALLY. THAT WILL CARRY YOU.»

Sieber's approach: fuel consumption depends heavily on the way the skipper operates the vessel.

EcoLog records all the relevant data and stores it in the cloud. It includes fuel consumption, acceleration, the temperature of ship components, the rudder position, the vessel's position, the number of people on board and the weather.

EcoPilot uses a complex algorithm to calculate the most efficient way of operating the vessel and displays it to the skipper. EcoPilot also uses artificial intelligence to make predictions, including expected passenger numbers. Sieber: «On a Whit Sunday in sunny weather, a boat needs more time for embarking and disembarking than on a rainy Monday morning with few passengers. EcoPilot ensures that the vessel always approaches the landing stages at the right time.»



SAVINGS POTENTIAL: ONE MILLION LITRES OF DIESEL PER YEAR

The result after 20-day trials on Lakes Walen and Lucerne was impressive: «The potential to reduce fuel consumption is 12.3% or more. Using both systems on all 148 of Switzerland's licensed passenger boats could save around one million litres of diesel annually. That's my contribution to combating global warming,» says Sieber.

The two systems, EcoLog and EcoPilot, have already been successfully launched on the market. Lake Walen's entire passenger boat fleet is equipped with EcoLog and EcoPilot.

Shiptec AG's Schaal comments that the technology is already in use internationally and is always forward-looking. It can even be used for electric propulsion, where it helps make most efficient use of the limited battery capacity.

Universities forming ChallengeEU alliance

LATVIA UNIVERSITY OF LIFE SCIENCES AND TECHNOLOGIES



Latvia University of Life Sciences and Technologies (LBTU) is a multidisciplinary scientific university offering more than 50 study programs in biosciences, engineering, and social sciences at all higher education levels – bachelor's, master's, and doctoral levels. The university's activities in both higher education and research are linked to the innovative and sustainable use of natural resources, which, in the context of growing climate change, has become the core of the university's identity.

LBTU scientists conduct research and create innovations to ensure that people live better, healthier, and longer lives. The knowledge gained through research is passed on to new specialists who choose to study at the university.



LBTU offers a wide range of study opportunities, including unique study programs in the country such as landscape architecture and planning, woodworking, agriculture, machine design and manufacturing, forestry, veterinary medicine, food science, environmental engineering, as well as universal fields like information technology, economics, social sciences, agricultural engineering, construction, business management, human resource management, and others.

The university's graduates have very high employment rates, with more than 90% of students securing competitive salaries and job positions.

LBTU is located in Jelgava, with its main residence being the historic Jelgava Palace, the largest Baroque palace in the Baltic States. The Jelgava Palace houses the university administration and several LBTU faculties.

FROM JULY 1 - THE NEW MANAGEMENT TEAM STARTS THE WORK OF LATVIA UNIVERSITY OF LIFE SCIENCES AND TECHNOLOGIES



The new rector of the university, professor Irina Arhipova, started her work on July 1. Rector Irina Arhipova's management team includes the vice-rector of sciences, professor Gatis Vītols, the vice-rector of studies, professor Ilze Beitāne and the vice-rector of finance, professor Linards Sisenis. All vice-rectors have long-term work experience at the university and are its graduates, starting a career in the academic environment after the end of their studies.

New bachelor's study program "Biosystems machinery and technologies"



Following the trends of the modern labor market, this year the current range of LBTU study programs has been expanded by implementing a new academic bachelor's study program "Biosystems machinery and technologies", which is also implemented in english. In this study year, the first group of students were also admitted, who will start their studies already in September.

In general, LBTU offers wide study opportunities, including study programs that are unique in the country - landscape architecture, woodworking, agriculture, design and crafts, machine design and production, forestry, veterinary medicine, food science, environmental engineering, as well as in universal fields such as: information technology, economics, catering and hotel business, social sciences, applied energy, agricultural engineering, land surveying and surveying, business, construction, human resource management, project management, nutrition and others.

Employment of LBTU graduates



Employment of LBTU graduates is not only one of the highest compared to graduates of other higher education institutions, but also successfully competes with other scientific universities. Therefore, LBTU can be proud of the highest employment rates both in the group of graduates of basic studies or bachelor's programs, and in the group of graduates of higher level or master's programs.

Universities forming ChallengeEU alliance

Mid Sweden University



Mittuniversitetet
MID SWEDEN UNIVERSITY



Mid Sweden University is a place with a lot of energy and warmth where people can meet, be inspired, and think in new ways. Our campuses are situated in Sundsvall and Östersund, in the geographical middle of Sweden, and offer a wide variety of programmes, courses, and research.

MIUN is one of the leading HEIs in Sweden in terms of distance and online education, and our research is cutting edge in a number of areas. Extensive external relations help us stay dedicated and innovative. Our close cooperation with trade, industry and organizations provides our students with education that has a connection to working life. It also generates regional development.

The multidisciplinary dimension in our research is developed so that knowledge and experiences from different fields of science strengthen our ability to contribute to sustainable societal development.

At the very heart of our vision and strategy stands internationalisation and the sustainable development of industry and society in northern Sweden. In the Jämtland region, where Östersund is located, our cutting-edge research and test environments in sports and outdoor activities offer fantastic opportunities for big brands and successful elite athletes.



In Västernorrland, where Sundsvall is located, the research on finding new ways of using cellulose bres is of major importance for the development of the region.

The university was established in 1993, and was given university status in 2005, though the academic history goes back to the late 1600s.

Statistics

2 – Faculties

60 – Fields of study (10 in English)

24 000 (8000) – Students (200 international)

1143 – PhD students

1300 – Employees (including 635 academics)

99 000 – Population of Sundsvall

65 000 – Population of Östersund

MID SWEDEN UNIVERSITY EXCELS IN ACCESSIBILITY TEST



"It is clear that the work with accessibility is a continuous process that requires constant attention"

Mid Sweden University has recently received top marks in a comprehensive accessibility test conducted by Webperf. The test, which examined the accessibility of academic organizations and innovation environments in Sweden, showed that Mid Sweden University's website, miun.se, passed without remark.

This places Mid Sweden University in an exclusive group together with Luleå University of Technology and Green Innovation Park, which also met all requirements for accessibility.

The results from the test, which was conducted during the summer, underline Mid Sweden University's commitment to creating an inclusive and accessible digital environment for all users. This is an important step in ensuring that higher education and research are open and accessible to all, regardless of functional ability.

"It is clear that the work with accessibility is a continuous process that requires constant attention. It is also something that everyone in the organisation needs to think about and work with," says Bengt Nilsson, web coordinator at Mid Sweden University.

Student wellbeing and influence project extended



The former president of the Student Union, Emanuel Magnusson, is the project leader

Mid Sweden University works actively to be a higher education institution that puts students at the center, which is why the project on student social activities and influence has now been extended for another six months. Specifically, it is about getting students to be attracted to our campuses, and partly about getting the students who study at Mid Sweden University to enjoy themselves even more and want to stay after completing their education.

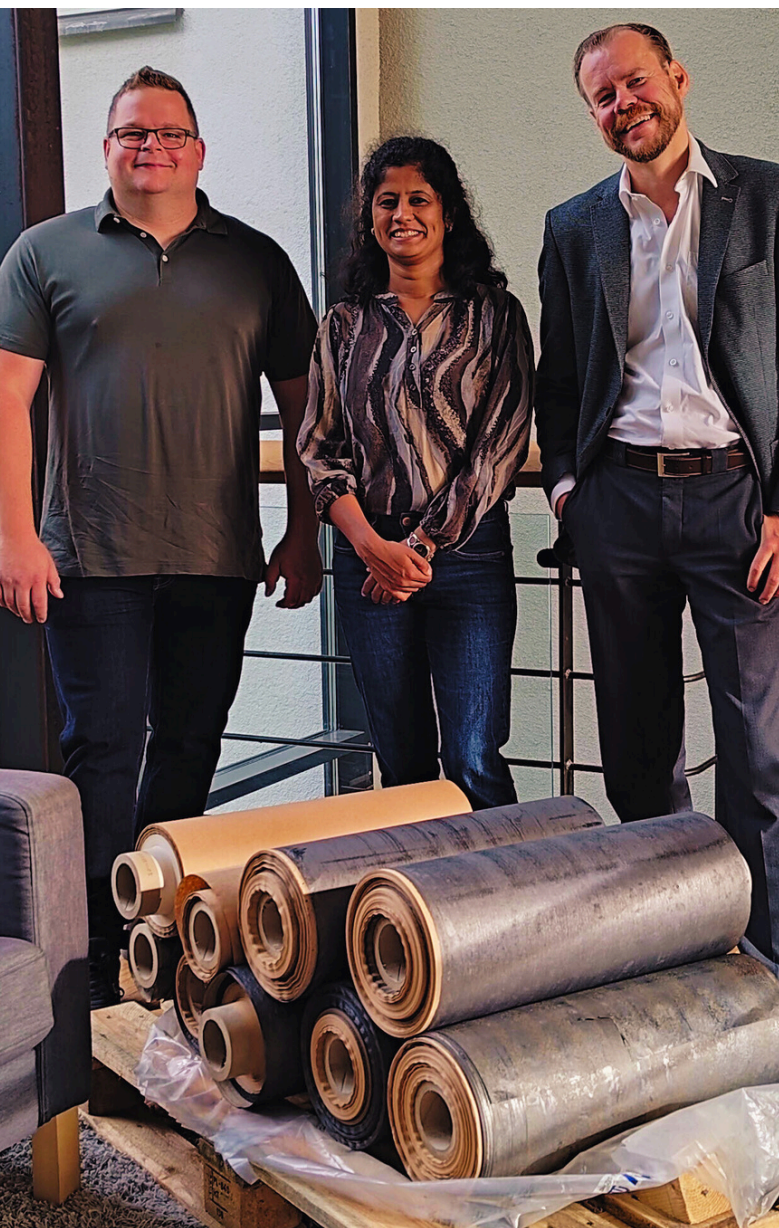
By identifying good examples and working methods and doing different kinds of targeted activities, the goal is for Mid Sweden University to stand out nationally, says Emanuel Magnusson.

"The first part of the project was completed in the spring, and some of the concrete views that emerged are about culture, treatment and identity linked to being a student and employee at Miun. It is also about strengthening the student unions and thus also contributing to a vibrant campus.

The project has had two different focus areas, one is the student welfare area, which includes initiatives for physical and mental health, advice and support in issues in the social area, reception activities such as the placement of housing and working life contacts, On the other hand, student influence, which is about ensuring that students have the opportunity to influence their education in various ways.

"The continued work this autumn will revolve around organizing and testing different ideas in both Sundsvall and Östersund. There is a great deal of interest in these issues, both internally and externally, and collaborating on this to strengthen our common region is very important," he says.

New testbed enables the next step in green battery research



Nicklas Blomquist, Manisha Phadatare, and Magnus Hummelgård have researched and developed the graphene composite used in the testbed that will now serve as the foundation for continued research on more environmentally friendly batteries.

Research on graphene composites in batteries is taking a big step forward. Researchers at Mid Sweden University, together with the companies UMV Coating Systems and Mondi Dynäs, have developed a test bed that makes it possible to go from lab research to the development of demos and pilot production.

"Thanks to the testbed, we can produce enough material to make full-scale demonstrators and thus take the next step in the development and research of batteries based on the environmentally sustainable materials graphene and cellulose," says Nicklas Blomquist, project manager, researcher and associate senior lecturer at Mid Sweden University. In materials research, there are many steps to take between the tests made in a lab by researchers to applying the research results into a large-scale production of products for a market. This testbed is a necessary bridge between materials research on graphene and cellulose and research on application level for batteries.

"Now we can investigate the material at the application level and see what it can deliver in the battery research that is ongoing at Mid Sweden University, and also see if it is suitable for other products," says Nicklas Blomquist.

CHALLENGE TO GET THE RIGHT CONSISTENCY

For him and his research colleagues, the big challenge has been to develop a water-based graphene composite with a consistency that can be coated on paper in a thick layer to obtain an electrically conductive layer with the right structure. At the same time, there has been a search for just the right kind of paper with enough wet-strength and that does not wrinkle while applying the slurry of graphene composite, which was found together with the paper company Mondi Dynäs. In the meantime, UMV Coating Systems has developed and adapted its coating process in several stages to enable the large-scale coating on the paper.

And now there is a test bed that is capable of coating graphene composites with the right properties on paper with a width of up to 600 mm, at speeds between 30 and 300 meters per minute.

CAPABLE OF LARGE-SCALE PRODUCTION

"Our goal has always been that the research results should be able to be used on a large scale, and this testbed enables innovations based on graphene composites to also be suitable for large-scale production. This opens up for several different types of applications, such as batteries, contact surfaces for electronics and perhaps even antibacterial packaging, since graphene itself has proven to be antibacterial," says Nicklas Blomquist.

The project has been funded by the innovation program SIO Grafen and the project partners UMV Coating systems and Mondi Dynäs. SIO Grafen's mission is to work for graphene, and other so-called 2D materials, with properties that contribute to a more environmentally friendly energy production, energy storage and more sustainable materials, to be developed and used on an industrial scale. SIO Grafen is funded by Vinnova, the Swedish Energy Agency and Formas.

Universities forming ChallengeEU alliance

South East European University



UNIVERSITETI I EVROPËS JUGLINDORE
УНИВЕРЗИТЕТ НА ЈУГОИСТОЧНА ЕВРОПА
SOUTH EAST EUROPEAN UNIVERSITY

In the heart of North Macedonia, South East European University (SEEU) stands as a luminous beacon of academic innovation and opportunity. SEEU is a unique institution, a private, public, not-for-profit higher education establishment, specializing in socio-economic sciences and contemporary technologies. One distinguishing feature of SEEU is its commitment to offering study programs in three languages. This inclusive approach underscores SEEU's global outlook, creating an environment where students can learn and communicate in a way that suits their preferences and diverse backgrounds.

SEEU comprises six dynamic faculties:

- Faculty of Business and Economics
- Faculty of Law
- Faculty of Languages, Cultures and Communication
- Faculty of Contemporary Social Sciences
- Faculty of Contemporary Sciences and Technologies
- Faculty of Health Sciences

Complementing these faculties, SEEU also hosts a Doctoral School, a testament to its unwavering commitment to advanced research and scholarly pursuits.

The university's mission extends to active cooperation, not only with universities within the Republic of North Macedonia but also with international institutions. This commitment to international partnerships underscores SEEU's global outlook and its dedication to offering a diverse and enriching academic environment.



With two distinctive campuses in Tetovo and Skopje, SEEU offers a dynamic and all-encompassing educational journey. SEEU's dedication to educational excellence transcends boundaries. The university continuously refines its programs, ensuring a contemporary standard of education.



SEEU Open Day



UNIVERSITETI I EVROPËS JUGLINDORE
УНИВЕРЗИТЕТ НА ЈУГОИСТОЧНА ЕВРОПА
SOUTH EAST EUROPEAN UNIVERSITY



South East European University (SEEU) annually hosts its traditional **"Open Day"** event, welcoming high school graduates from North Macedonia. This event, organized with significant support from the SEEU Student Parliament and Association, provides an opportunity for prospective students to explore the university's offerings. Attendees receive direct information about SEEU's academic programs, study requirements, scholarship opportunities, and new study programs through presentations delivered by the university's faculties.

One of the event's highlights for this year was the **"Best Business Plan"** competition, where high school students showcased their entrepreneurial skills by preparing and presenting real business plans. This competition allowed participants to demonstrate their creativity, strategic thinking, and understanding of business principles in a practical setting.

Rector **Akad. Prof. Dr Abdylmenaf Bexheti** addressed the attendees, reaffirming SEEU's commitment to providing a **multilingual education environment**. He highlighted that SEEU maintains a stable student body with a strong multi-ethnic composition. At SEEU, **70%** of students study in the Albanian language, **20%** in English, and **10%** in Macedonian. Akad. Bexheti also emphasized the growing trend of students opting to study in English, reflecting SEEU's dedication to internationalization and the increasing importance of English in higher education.

The Rector also announced the **launch** of SEEU's seventh faculty, the **Faculty of Technical Sciences**, set to begin in the upcoming academic year. This new faculty underscores the university's commitment to expanding its academic offerings and adapting to the evolving demands of the job market.

The **Student Parliament** played a crucial role in communicating these new developments, effectively engaging with prospective students by speaking their language and addressing their concerns.

SEEU MAINTAINS A STABLE STUDENT BODY WITH A STRONG MULTI-ETHNIC COMPOSITION

The "Open Day" event was not only informative but also entertaining. The "**Labinot and Lulesa Band**" provided musical entertainment, creating a lively atmosphere for the attendees. The SEEU Sports Department organized **various sports** activities, encouraging participation and fostering a sense of community among the students. Additionally, the SEEU Student Parliament and Association, in collaboration with the "**Max van der Stoel**" Library, organized free **drawing** and **painting** activities, allowing students to express their creativity and engage in hands-on artistic endeavors.

Overall, SEEU's "**Open Day**" successfully showcased the university's vibrant academic community, diverse program offerings, and commitment to fostering an inclusive and engaging environment for all students. The event not only informed prospective students about their educational opportunities at SEEU but also provided a glimpse into the dynamic campus life that awaits them.



Panel discussion on the transformation of society and hackathon for social innovation according to the youth perspective



During May 2024, the Faculty of Contemporary Social Sciences, in collaboration with the Max van der Stoel Institute, hosted a significant event focusing on the theme: "How to Transform Our Society? Perspectives from Academia, Civil Society, and Public Institutions." The event aimed to explore the multifaceted concept of societal transformation, emphasizing the importance of collaboration across various sectors, including policymakers, the private sector, civil society, media, academia, and youth.

Rector **Acad. Prof. Dr. Abdylmenaf Bexheti**, in his opening remarks, highlighted the complexity of societal transformation and stressed that good governance requires a comprehensive commitment from all societal stakeholders. He pointed out that the inclusion of younger generations is essential for effective transformation, as they represent the future of society.

The event was moderated by Fortesa Asani, a researcher at the Max van der Stoel Institute and lecturer at the Faculty of Contemporary Social Sciences. In her introductory speech, the dean of the Faculty, Prof. Dr. Merita Zulfu Alili, presented the faculty's study programs to the graduates and attendees, showcasing the academic opportunities available.

The event featured two panel discussions. The first panel, titled "Good Governance for Better Living Standards," focused on the importance of governance in improving the quality of life for citizens. The second panel, "The Role and Voice of Young People in Creating Social Changes," emphasized the critical role that youth play in driving societal change.



A highlight of the event was the Hackathon for Social Change, which centered on the theme: "Youth-led Innovation: **Exploring Creative Solutions** for Addressing Local Challenges." The hackathon provided a platform for young participants to present **innovative solutions** to local problems. The competition saw enthusiastic participation, with three teams emerging as winners. The first place was awarded to the Gymnasium "Zef Lush Marku," the second place to the Medical School "Nikolla Shtejn" from Tetovo, and the third place to the Medical School "Pançe Karagjovov" from Skopje.

This event not only facilitated discussions on important societal issues but also empowered young people to take an active role in creating solutions for the challenges facing their communities. By **bringing together** voices from **academia**, civil **society**, and public **institutions**, the festival successfully highlighted the importance of a collaborative approach to societal transformation.



UNIVERSITETI I EVROPËS JUGLINDORE
УНИВЕРЗИТЕТ НА ЈУГОИСТОЧНА ЕВРОПА
SOUTH EAST EUROPEAN UNIVERSITY

The eighth exhibition of architecture and design students was opened



UNIVERSITETI I EVROPËS JUGLINDORE
УНИВЕРЗИТЕТ НА ЈУГОИСТОЧНА ЕВРОПА
SOUTH EAST EUROPEAN UNIVERSITY



During June, 2024, South East European University (SEEU) held its eighth exhibition showcasing the professional achievements of Architecture and Design students. The event provided an opportunity for students, academic staff, and families to witness the creativity and skill of these students. The exhibition was inaugurated by **SEEU Rector, Acad. Prof. Dr. Abdylmenaf Bexheti**, who praised the students' professional maturity and the complexity of their work.

He highlighted the significance of the Faculty of Technical Sciences, which was established with great effort, and announced that starting next year, Architecture and Design students would have access to a specialized laboratory to further enhance their projects. The exhibition featured works from students across all years of study, from the second to the eighth semester.





Universities forming ChallengeEU alliance

Universidade Europeia de Lisboa



Universidade Europeia

Universidade Europeia, IADE and IPAM, institutions of higher education in Portugal, stand out for their capacity for innovation and for their different academic model based on experiential teaching that combines human knowledge and the most advanced technology.

With more than 250 international agreements and 500 company partnerships, the group presents more than 80 different programs divided between undergraduate, master's, PHD and Executive Education Programs. There are more than 60 nationalities present in the 4 campuses.

Universidade Europeia aims prepare its students to become the global professionals of the future, with all the necessary skills to achieve professional success anywhere in the world. It's a reference in such diverse areas as **Management, Tourism, Hospitality, Law, Psychology, Human Resources, and Sports.**



Design schools in Europe and integrates institutions of international reference such as CUMULUS (International Association of Universities and Colleges of Art, Design and Media), EDCOM (European Institute for Commercial Communications Education), and UNIDCOM/IADE, a research unit accredited and funded by the Foundation for Science and Technology. At IADE students can find areas connected to the creation world, such as Design, Communication, Marketing & Advertising, Photography, Computer Engineering and Technologies.

IPAM, located in Lisbon and Porto, was the first Marketing School in Portugal and has trained thousands of students in more than 35 years of existence. The teaching model combines theory and practice, taught by faculty with business experience and real-world challenges which are posed to students by companies. At the end of their journey, students are true Marketing Managers.





Europa Education announces significant expansion of its educational project in Portugal

The new facilities are part of the Oriente Green Campus, managed by Norfin SGOIC and owned by a real estate fund on behalf of Orion Capital Managers, with which a long-term contract has been signed.

The new campus has 17,000m² of space for classrooms, laboratories, a cafeteria, a library, social areas, study and simulation areas. Thanks to its innovative environment, it will provide students with an ecosystem of knowledge and creativity that will promote experiential learning through the use of the latest technologies applied to education.

The project to expand and reorganize Europa Education's campuses in Portugal stems from the Group's commitment to academic excellence and its students. New facilities are being incorporated which, together with the existing ones, will strengthen the presence of Europa Education's institutions in Lisbon and facilitate the full implementation of the unique and differentiated Academic Model that characterizes the educational Group.

"This new space is more than just a state-of-the-art, modern and avant-garde infrastructure; it is the materialization of a qualitative leap in the field of innovation, quality and dynamism in the teaching and learning experience that the institutions offer students. The building will be a key element in driving not only the project in Portugal, but also the development of higher education as a whole," said Carlos Bertrán, the Group's general manager in Portugal.

For his part, Henrique Rodrigues da Silva, COO of the Norfin Group, says: "We are very pleased to have an educational establishment with an international dimension, as is the case with the Europa Education group."

In the same vein, Gauthier Renaud, Partner at Orion Capital Managers, which represents the shareholder of the Multiusos Oriente Fund, owner of the Oriente Green Campus, explains: "The Fund is thrilled to welcome Europa Education's new university campus to the Oriente Green Campus."

The new campus, combined with the unique and distinctive academic model of Europa Education institutions, means a major step forward in higher education in Portugal, offering an innovative, high-level educational project in line with international best practice.

The current campuses of Quinta do Bom Nome, Lissolis and Santos, in Lisbon, and IPAM in Porto, will be joined by the Oriente Green Campus, also in Lisbon.



UNIVERSIDADE EUROPEIA RECEIVES TOP RATING FROM A3ES



The result is the fruit of continuous work over the last few years and reflects the quality mission in all areas of Universidade Europeia, which culminates in an evaluation process that is also very rigorous and demanding.

The external evaluation highlights the Universidade Europeia's "educational offer [which] is very much in line with the institutional value of innovation, especially with regard to the experiential learning model and the investment in distance education". The CAE was "impressed by the emphasis placed on the educational experience of students, as well as evidence of excellence in certain areas."

The reaccreditation for the maximum period and without conditions by A3ES highlights the active contribution that Universidade Europeia has been making to society over the last 10 years, fulfilling its role in teaching, research and the transmission of knowledge with high quality standards.

This evaluation is a historic result for Universidade Europeia. In the context of a university with only 10 years of existence, as such, this milestone is an achievement for everyone and reflects the quality of our path, highlighting the exceptional performance of everyone involved in the Universidade Europeia's mission," says the rector, Hélia Gonçalves Pereira, adding that " Universidade Europeia 's academic model is a crucial element in the success of our project".

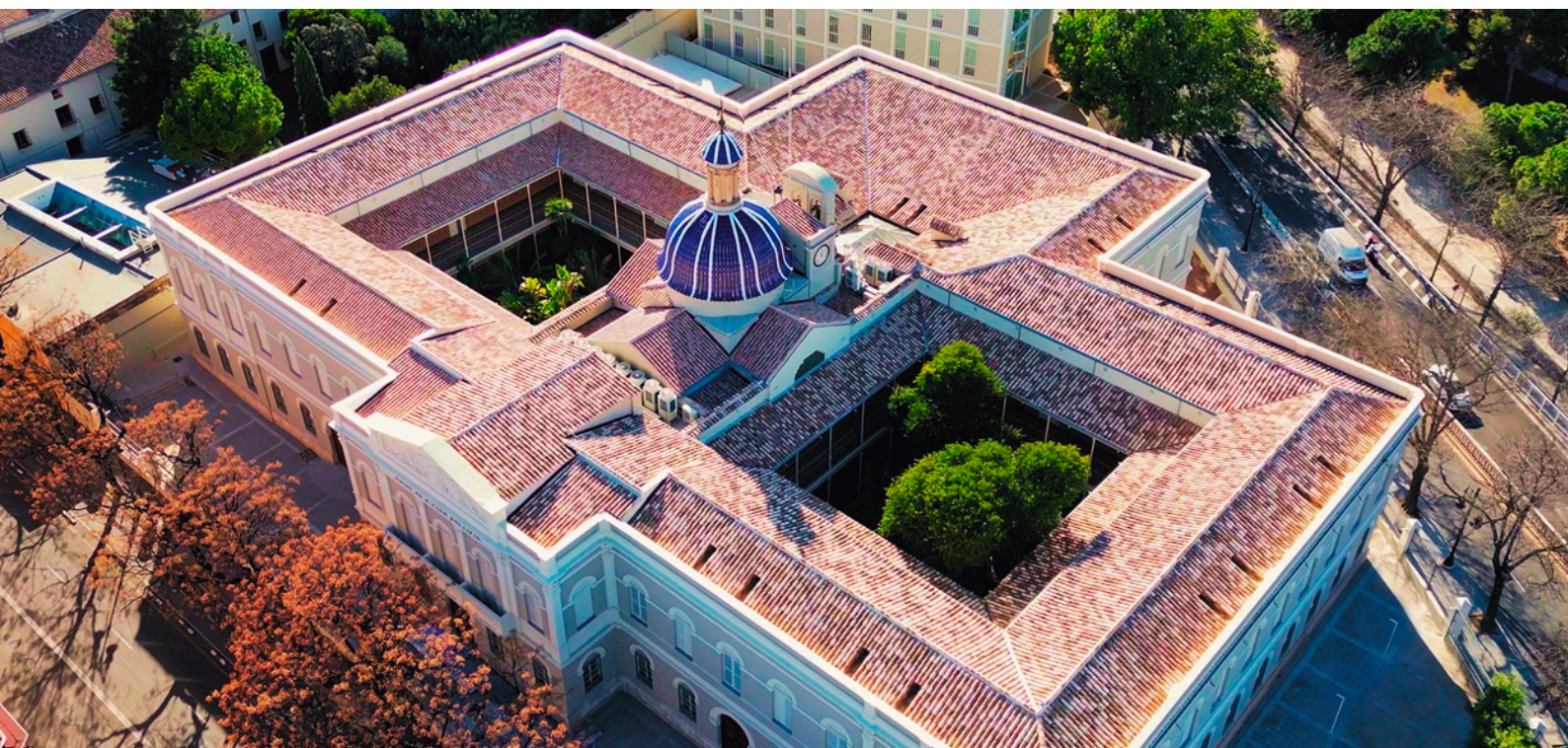
This evaluation confirms that, despite the enormous challenges facing education, we are certainly on the right track."

The institutional evaluation, carried out by A3ES every six years, is an instrument for the continuous improvement of the national higher education system, covering all the various institutions (public and private, polytechnic and university). The process began with the self-evaluation report, followed by a visit from the External Evaluation Commission (CAE) in November 2023. Institutional evaluation, provided for in the Legal Framework for the Evaluation of Higher Education, is designed to assess each institution in the various aspects in which it carries out its activity: educational, scientific and cultural projects; the solidity of the training offer; the integration of students in the teaching, research and knowledge transfer processes; the promotion of scientific research; the degree of external cooperation and internationalization; and resource management.



Universities forming ChallengeEU alliance

Universidad Europea de Valencia



UNIVERSIDAD EUROPEA DE VALENCIA (UEV) was founded in 2012 on the Mediterranean Coast of Spain and welcomes a population of 5000 students, out of which 60% are international students. They come from more than 80 different nationalities, making UEV the most international university of the region. UEV offers its academic excellence across several campuses in the very centre of the city of Valencia but also in our recently opened campus in Alicante.

Universidad Europea de Valencia offers a wide academic offer: Vocational Training Cycles, Degrees and Double Degrees, (9 of them in English), Masters and Postgraduate Degrees of specialisation in different areas of knowledge such as Health, Legal studies, Business, Communication, Science, Engineering and Design and PhD programmes.

Considered one of the most outstanding private universities in the country for its great commitment to innovation, the methodology based on experiential learning allows students to study and, simultaneously, become familiar with their profession through real cases, connecting them with the professional world, training with an eminently practical model and high academic quality. Its unique academic model combines a data driven approach, with a one world perspective (SDGs), simulated environments and a multidisciplinary philosophy. It is also important to mention an employability rate of 90% during the first year after our students graduation.

Students can carry out international stays with the Bilateral mobility programmes in North America, Australia, United Kingdom, Latin America and Asia; and mobility programmes in the European Union within the Erasmus+ framework, helping them to have a more global vision of the career and profession, and to develop skills that are highly valued by companies, such as the mastery of other languages or the adaptation to multicultural environments.

In addition, Campus Life is a necessary element for the comprehensive training of all students. With more than 20 student clubs, students can develop in different areas, such as the Entrepreneurship Club, Sports Club, Debate Club, Dental Club, or promote projects with the Robotics Club, among many others. Campus life also offers a broad and varied list of online training courses to improve our students skills during their studies.

UEV's Academic Orientation and Inclusion Unit is also available for all students in need of academic counselling when facing challenges during their studies. The Unit is connected with all Faculties to guarantee the follow up and success of each and every student.

In a region with more than 5.000.000 inhabitants, UEV is aiming to have an impact on all communities inside and outside its premises and thanks to Challenge.eu Alliance, UEV will be able to connect European cities and regions through the development of different research projects, online courses and initiatives supported by the 9 partners, leading to a multiplying effect for all the actions designed by each Challenge.eu University.

Universidad Europea is recognised as a good place to work by Great Place to Work™



Universidad Europea has been recognised as a great place to work, according to the results of the Great Place to Work™ survey. This prestigious recognition underlines the quality of the working environment at one of Spain's leading universities, which has already been mentioned in international rankings such as FORBES, QS Stars, The World University Rankings and the prestigious Shanghai ranking.

With almost 30 years of experience and an educational impact on more than 100,000 people around the world, Universidad Europea has become the first Spanish higher education institution to obtain the Great Place to Work™ certification. This certification, issued by a global benchmark in Human Resources research and management consultancy, evaluates each year the best places to work through a rigorous process of analysis and certification.

Find out more:
<https://greatplacetowork.es/universidad-europea/>

The survey of Universidad Europea employees focused on measuring key factors such as credibility, respect, fairness and camaraderie. The results have been remarkably positive, highlighting a strong sense of pride and belonging among employees. According to the data, 77% of participants consider the European University to be a great place to work, while 83% are proud to say that they work at the institution.

In addition, 84% of employees say they feel welcome when joining the university, and 80% highlight collaboration between colleagues as one of the organisation's main values. These results reinforce Universidad Europea's corporate culture, which is based on unity, camaraderie and respect for the individuality of each member of its community.

Thanks to these results, Universidad Europea has obtained certification in all its institutions in Spain, consolidating its position as an employer of reference in the education sector.



UNIVERSIDAD EUROPEA EXPANDS ITS PRESENCE IN VALENCIA WITH THE NEW TURIA CAMPUS IN THE HEART OF THE CITY



The European University has taken a significant step forward in its commitment to quality education and the preservation of historical heritage with the inauguration of the new Turia Campus in Valencia, which will welcome students from September. This campus is located in the heart of the city, in the former asylum of San Juan Bautista, a historic building and architectural jewel that has been carefully restored by the prestigious Valencian architect Ramón Esteve.

The Turia Campus is an impressive blend of tradition and modernity, reinforcing the connection between the European University and the local environment. This new space not only symbolises the institution's commitment to the preservation of the historical heritage, but also positions itself as an epicentre of knowledge and creativity for future professionals.

With the opening of the Turia Campus, the European University reinforces its position as an educational reference in the Valencian Community. This new campus, which will accommodate more than 3,500 students in areas such as Social Sciences and STEAM, joins the university's existing campuses in Madrid, the Canary Islands, Valencia and Alicante.

The European University stands out for its innovative and avant-garde approach, applying experiential learning in all areas of knowledge. It also maintains a close relationship with society and the business world, collaborating actively through internship agreements and the development of real projects. This connection with the business environment translates into a high employability rate for its graduates, which exceeds 93%.

The Turia Campus is presented as one of the most modern and innovative at national level, offering its students a complete and dynamic learning experience in a unique and emblematic environment.

Universidad Europea now in Alicante with an innovative approach to its undergraduate and postgraduate degrees in the health field



The Universidad Europea de Valencia has taken a decisive step in its expansion with the opening of its new campus in Alicante during the last academic year. This campus, the first of a private nature in the city, has been conceived as a benchmark in training in the field of health, consolidating Alicante as a pole of attraction and generation of talent both nationally and internationally.

The implementation of the campus has been carried out in several phases, with a comprehensive renovation of the facilities to bring them into line with the most advanced European standards in higher education. This effort, framed in a strategic alliance with the FUNDESEM Business School, has allowed both institutions to share a space in the emblematic FUNDESEM building, although with different academic projects.

The Alicante campus focuses its educational offer on degrees in the field of health, with special emphasis on Nursing, Physiotherapy, Dentistry and Psychology, the latter being taught in Spanish and English. These disciplines are taught from an innovative approach based on experiential learning, where students participate in practical activities from the first year. An example of this methodology is the creation of a simulated hospital and a dental clinic, which will not only serve as training spaces, but also as services open to the Alicante community.

Noelia Rodríguez, director of the campus, stresses that the academic model of the Universidad Europea is distinguished by its transdisciplinary and collaborative approach. 'Our students learn to work in teams from day one, facing real situations like those they will encounter in their future professional lives,' says Rodríguez. This methodology, which integrates technology and innovation, prepares students not only in technical skills, but also in attitudinal and critical thinking skills, essential in today's healthcare world.



The Universidad Europea campus also connects closely with the local environment through its participation in the Alicante Health Cluster, a network that promotes cooperation between institutions, companies and research centres in the health sector in the province. This cluster promotes knowledge transfer and innovation, with the aim of improving the quality of life of patients and promoting clinical and basic research.

With a clear focus on consolidating its presence in the health area, the European University is committed to continue growing hand in hand with the province of Alicante, adapting to its needs and aspirations. 'We want to be another resource for the city and leave a positive mark on health training,' concludes Rodríguez, who sees enormous potential in this project to attract talent and reinforce Alicante's position as a global educational and health benchmark.





Universities forming ChallengeEU alliance

University of Warmia and Mazury in Olsztyn

Nestled in the heart of the enchanting city of Olsztyn, the University of Warmia and Mazury (UWM) stands as a beacon of academic excellence and opportunity. With a sprawling campus that rivals the beauty of its natural surroundings, UWM is proud to be the largest university in Northeastern Poland.

UWM is renowned for its exceptional commitment to a wide range of academic disciplines, with specializations that span agricultural, biology, geoenvironmental, humanities, veterinary, medical sciences.



UNIVERSITY
OF WARMIA AND MAZURY
IN OLSZTYN





Our programs are designed to foster holistic development, nurturing a thriving academic community and opening doors to diverse fields of expertise. Our commitment to this vision is reflected in the outstanding academic, sports, and cultural infrastructure we provide. Students and faculty alike have access to research facilities, sports complexes, and a vibrant cultural scene.

This rich tapestry of resources allows individuals to explore their passions, refine their skills, and lay the foundation for a successful future.

At UWM, we understand that the journey of higher education is more than just earning a degree; it's about growth, self-discovery, and building a foundation for a fulfilling life.



UNIVERSITY
OF WARMIA AND MAZURY
IN OLSZTYN

UWM Researchers to Help Eliminate Concrete Deserts



Urban planners will no longer have to guess where to place blue-green infrastructure in cities, thanks to satellite data. Dr. Anna Kowalczyk and Dr. Szymon Czyża from the Faculty of Geoengineering at UWM have developed a method for **optimizing the location** of such infrastructure. Blue-green infrastructure includes retention ponds, basins, reservoirs, bioretention or infiltration ditches, rain gardens, green bus stops, roofs, facades, permeable surfaces, structural substrates, green areas, wetlands, and more. While these elements are not new, their significance in urban planning has grown considerably.

RETAINING WATER IN THE CITY

So, why has blue-green infrastructure become so crucial in urban planning? "Because it retains rainwater in the area where it falls, protecting against flooding and flash floods. It supports and alleviates the traditional stormwater drainage system and enables rainwater to be reused, for example, in watering greenery. In turn, greenery dampens noise, captures air pollutants, attracts insects and birds, cools the air, and has a calming effect on people. Blue-green infrastructure combines utility with ecology, and fortunately, it is becoming more prevalent in cities," explains Dr. Anna Kowalczyk.

However, to be effective, **blue-green infrastructure** must be **strategically located**. In modern cities, every development must comply with planning documents, meet design specifications, and adhere to technical and environmental standards.

WHAT DOES THE METHOD INVOLVE?

"Satellites orbit above us every day, capturing vast amounts of data about the Earth, including data from the US Landsat 8 satellite. These satellite images are made publicly available free of charge and are a valuable resource for both public administration and the private sector.

The challenge lies in extracting the most relevant data and finding practical applications for it. By using appropriate tools and parameters, we can identify sites suitable for blue-green infrastructure. Each site must meet certain technical and environmental standards and have a social justification," explains Dr. Szymon Czyża.

MAPPING URBAN HEAT ISLANDS

Dr. Kowalczyk and Dr. Czyża didn't stop at identifying optimal locations for blue-green infrastructure. They also used thermal imaging to map urban heat islands, analyzing satellite images of Olsztyn taken during the summer months of 2021-2022. The results were as expected: the hottest areas were those with the least vegetation, primarily in the city center.

"Our goal is not just to show where it's hot—that's something everyone can feel. By overlaying a demographic map that shows population density and age distribution, we can identify where green infrastructure is most needed. It's most crucial in areas with young children and the elderly. Now, when planning or redesigning cities, we consider the needs of specific groups of residents rather than hypothetical ones," says Dr. Anna Kowalczyk.

A TOOL FOR URBAN DEVELOPMENT

The method developed by Dr. Kowalczyk and Dr. Czyża is universal. While it was tested in Olsztyn, it can be applied to other cities with the right data. It's an excellent tool for planners, urban developers, and officials responsible for infrastructure and urban development.

Are officials in Olsztyn already aware of this tool?

"Not yet, as we are preparing another scientific article for publication. Only after it's printed will we reveal the details," the scientists say.

Two years ago, Dr. Kowalczyk and Dr. Czyża developed a tool to assist Polish investors in deciding where to build photovoltaic farms. They demonstrated that in Poland, an investor should consider as many as 17 factors when selecting an optimal location for a photovoltaic farm.



UNIVERSITY
OF WARMIA AND MAZURY
IN OLSZTYN

Kortosfera Sums Up First Year



Kortosfera, the Center for the Popularization of Science and Innovation at the University of Warmia and Mazury in Olsztyn, is celebrating its first anniversary. Since its opening, over 70,000 people have visited this unique university-affiliated center. Kortosfera aims to popularize science and hosts events like the Olsztyn Days of Science and Art and is also home to the local branch of the Great Orchestra of Christmas Charity.

The center offers a variety of attractions spread across five levels. These include an interactive permanent exhibition with over 140 exhibits in five thematic categories, specialist laboratories equipped for advanced scientific research, a state-of-the-art microscopy workshop, and dedicated rooms for live science demonstrations

As the only university-affiliated science center in Poland, Kortosfera has quickly established itself as a significant cultural and educational hub in the region. Its primary mission is to make science accessible and engaging for people of all ages, encouraging public interest in scientific research and innovation.

Kortosfera also plays a crucial role in facilitating dialogue between the scientific community, non-governmental organizations, and local residents. The center serves as a platform for interdisciplinary projects, encouraging collaboration and the exchange of ideas between different sectors.

This approach not only enhances public understanding of science but also promotes the application of scientific knowledge to address local and global challenges.

CAMPUS BEACH TO UNDERGO MODERNIZATION



After the modernization, the UWM beach will feature:

- Food Truck Zone: A space for mobile catering surrounded by picnic tables and areas for dining.
- Yoga Zone: A designated area for yoga, tai chi, and other disciplines that promote physical and spiritual well-being.
- Event Space: A permanent venue for summer events, which are increasingly being held on the beach.
- Fire Pit Clearing: A spot where you can barbecue alone or with friends.
- Catering Zone: Located near the fire pit, this area will be ideal for enjoying grilled delicacies.

The modernization of the university beach at Kortowo (UWM Campus) is set to begin, with exciting new features planned, including spaces for **food trucks**, **small eateries**, and **designated relaxation areas** with **hammocks** and **deckchairs**. Additionally, there will be areas for **greenery** and **artistic installations**.

Once modernized, Kortowo Beach will become a prime spot for relaxing with friends or unwinding in a hammock. Planning for the project has been ongoing for some time. A year ago, after listening to **feedback from students** and the **broader academic community**, the UWM authorities decided that Kortowo Beach needed modernization.

"We established a collaboration with Joanna Majewska, a graduate in landscape architecture from UWM's Faculty of Agriculture and Forestry, who prepared the design documentation for the beach's modernization," says Bogusław Stec, M.Sc., UWM Chancellor.

The final design is the product of extensive discussions and a collaborative exchange of ideas. The academic community emphasized the importance of integrating green spaces and architecture that complements the campus's character.