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Constructor University

Annual Report 2024



Constructor University Statistics

OVERVIEW

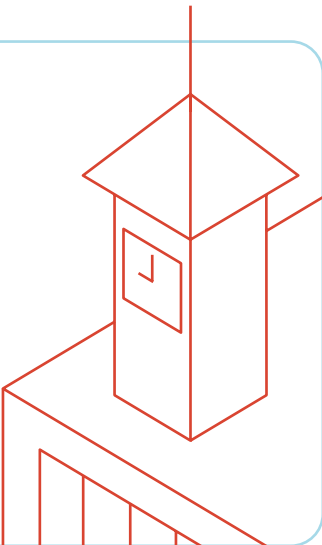
340,000 m²
Campus size

1,981
Students

93%
International students

119
Countries represented

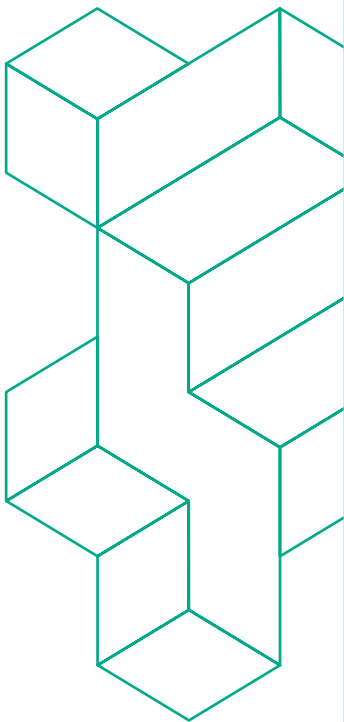
437
Employees



PROGRAMS OFFERED

23
Undergraduate

8
Graduate



RESEARCH DATA

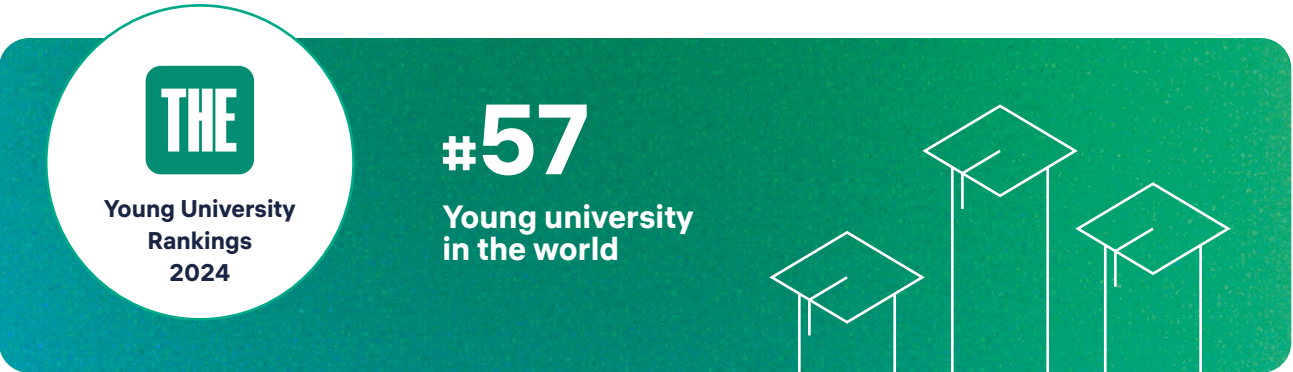
366 articles
Scholarly output (2024)

38.9%
of publications in Top 10% journals (2024)

64.5%
of international research collaborations (2024)

19,262
No. of citations in the past 5 years

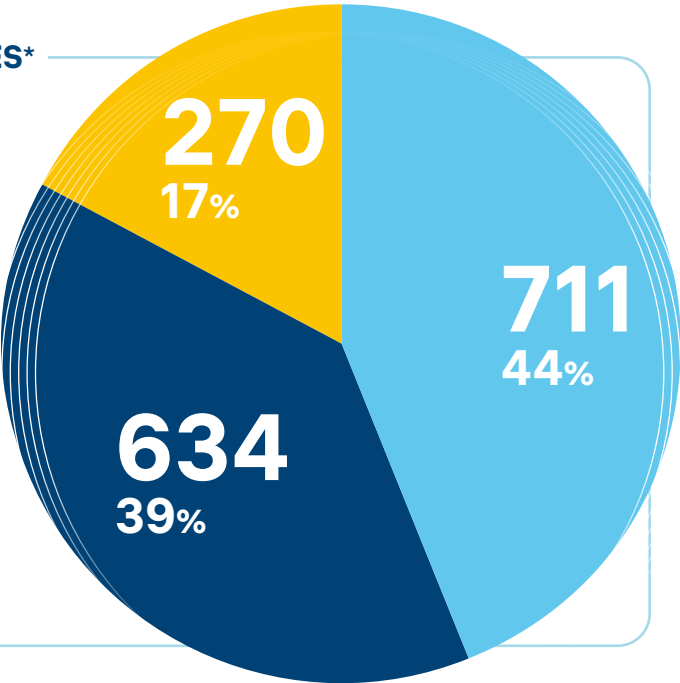
Ranking data



STUDENT SHARE BY FIELD OF STUDIES*

- School of Business, Social, and Decision Sciences
- School of Computer Science and Engineering
- School of Science

* Undergraduate only



Our Vision: Constructing the Future

Committed to social good as well as regional and global economic development, Constructor University delivers top-class educational and personal development opportunities to its students in a stimulating, secure, and highly diverse campus

environment, through cutting-edge technology, learner-centered pedagogy, and excellent research and innovation delivered by a distinguished research faculty in a financially sustainable manner.



Constructor University Annual Report

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1. Message from the Chancellor & the President

As we reflect on Constructor University's milestones in 2024, we are filled with pride for Constructor University's achievements. The past year has been one of remarkable growth, academic excellence, and strengthened global partnerships – all of which affirm our commitment to support Bremen development into a hub of innovation and research.

While we look toward the future with optimism, we acknowledge the challenges facing Germany and its academic landscape. Current geopolitical issues and intense global competition underscore

the need for strategic planning and innovation. At Constructor University, we are committed to shaping these crucial developments. With this report, we invite you to reflect with us on the strides we've made over the course of the past year and look ahead to the future!

In the THE World University Rankings, we maintained our standing as the best private university in Germany, placing in the 401-500 range out of 2,092 institutions worldwide. Our position in the THE Young University Rankings – 57th out of 673 – demonstrates our growing influence on the global academic stage. This level of excellence is also reflected in our research. In 2024, we produced 366 research publications, with 8% appearing in the top 1% of the most cited journals (Scopus, 2024). Notably, we also obtained funding for cutting-edge research infrastructure, including a high-resolution mass spectrometer that will support interdisciplinary research across our institution.

Our community continues to expand in both diversity and numbers. In 2024, we welcomed students from 119 countries, reinforcing our status as one of the most international universities in the world. With student applications doubling and enrollment increasing to 1,981, we are well on track to achieving our 2030 strategic goals. Our dynamic student body is not only receiving a world-class education – expanded recently by the addition of three new online Master's programs – but is also benefiting from enhanced Student Life initiatives, including the expansion of our Student Health Program.

Our commitment to fostering innovation was exemplified through impactful partnerships and entrepreneurial initiatives. In 2024, we established 68 new global partnerships and strengthened collaborations with leading companies such as JetBrains, BMW, EPAM, Thermo Fisher, and KPMG. We were also honored to host the THE Europe Universities Summit, where 345 participants from 50 countries convened on our campus to discuss the future of higher education and collaborative impact. In addition, the inaugural "Constructor Demo Day" provided a platform for 30 startup teams composed of

over 50 nationalities, reinforcing our dedication to the next generation of entrepreneurs.

As we celebrate these achievements, we also look to the future with renewed ambition. As an investment in the future, we are planning to establish a new Functional Intelligent Materials Center in Bremen – a high-cost initiative requiring strong support from industry and local authorities. Such an institution, with 300+ PhDs, 50+ Postdocs, and 50+ Principal Investigators, will create significant economic value for Bremen, Germany and the EU.

None of this would be possible without the collective dedication of our students, faculty, researchers, and partners. Together, we will continue to build bridges between academia, industry, and civil society, ensuring that Constructor University remains a beacon of progress and opportunity.

With our deepest gratitude and best wishes for the future,



Dr. Stanislav Protasov
President



Oznur Bell
Chancellor

2. Institutional Overview

2.1. History

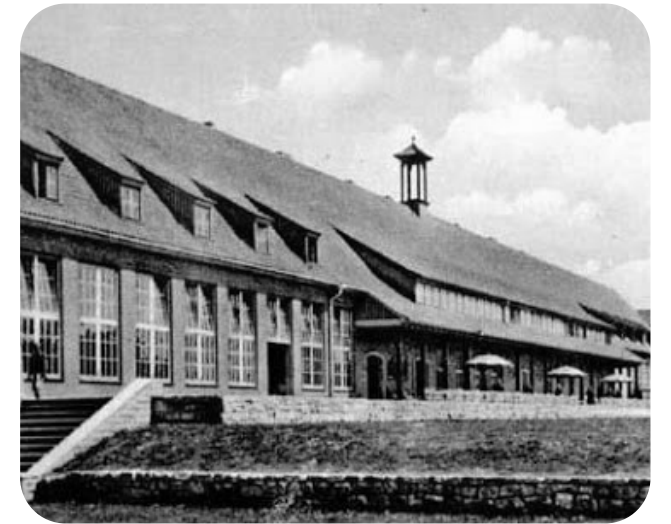


“GERMANY URGENTLY NEEDS UNIVERSITIES SUCH AS THE ONE BEING INAUGURATED IN BREMEN TODAY: THAT IS, INSTITUTIONS OF HIGHER LEARNING THAT ARE MODERN, PERFORMANCE-ORIENTED, INDEPENDENT OF THE REINS OF STATE BUREAUCRACIES, INTERDISCIPLINARY, AND, AT THE SAME TIME, INTERNATIONAL.”

Constructor University was founded and chartered in February 1999 by the Free Hanseatic City of Bremen with the support of Rice University in Houston, Texas, under the name International University Bremen (IUB). The founding concept behind the university was described by Helmut Schmidt in his speech at the university’s official opening in 2001:

Inaugural classes took place in September 2001 with 140 students from 48 different countries and 27 faculty members. The university’s opening represented an event of major international importance: IUB became the first private university to be accredited by the Wissenschaftsrat in Germany.

In November 2006 – in what was at the time the largest donation to a university ever made in Europe – the Jacobs Foundation invested €200 million in our institution. In 2007, the university accordingly changed its name to Jacobs University Bremen.



In 2022, the entrepreneur Dr. Serg Bell, founder of the Constructor Institute of Technology (CIT) in Schaffhausen in Switzerland, became the major shareholder. In November 2022, the university officially changed its name to Constructor University, in line with Dr. Bell’s Constructor Group brand ecosystem.

Today, the university is on track for phenomenal growth as we expand our global networks and industry connections, increase our student enrollment, and continue to forge new innovative methods in higher education.



2.2. Strategic Priorities

For the year under consideration, the university focused mainly on three main objectives, namely:

Expand our in-person and online technology-enriched educational programs to attract talented and motivated students;

Achieve global research excellence in selected areas;

Achieve financial sustainability to support accelerated development.



2.3. Ranking Performance

Student satisfaction and excellence in research and teaching continue to define Constructor University's performance in global rankings. According to the 2024 Times Higher Education (THE) rankings, Constructor University remains a leader in international diversity, ranking 3rd world-wide among universities with the highest share of international students. This also makes it the frontrunner university in terms of international students in Europe, highlighting its global appeal and multicultural community.

CU demonstrated remarkable progress in the THE Small University Rankings, advancing to the 24th position globally, up from 38th in 2023, further emphasizing its commitment to personalized education. In the 2024 THE World University Rankings, Constructor University secured a position in the 401-500 range (out of 2,092) and maintained its status as the best private university in Germany. Furthermore, it excelled in the 2024 THE Young University Rankings, achieving 57th place out of 673 universities, underlining its growing reputation and impact on the global stage.

3. Students

3.1. Enrollment & Student Demographics

At the beginning of the AY 2024/2025, Constructor University had a total enrollment of 1,981 students, 763 of whom were in their first year (reference date: November 1, 2024). Of all students, 60.5% identify as male and 39.1% as female. Distribution across the different degree levels is presented in the following table.

Distribution of students across different degree levels, Fall 2024. The number in parentheses shows the number of freshmen. Total numbers include MA IR students.

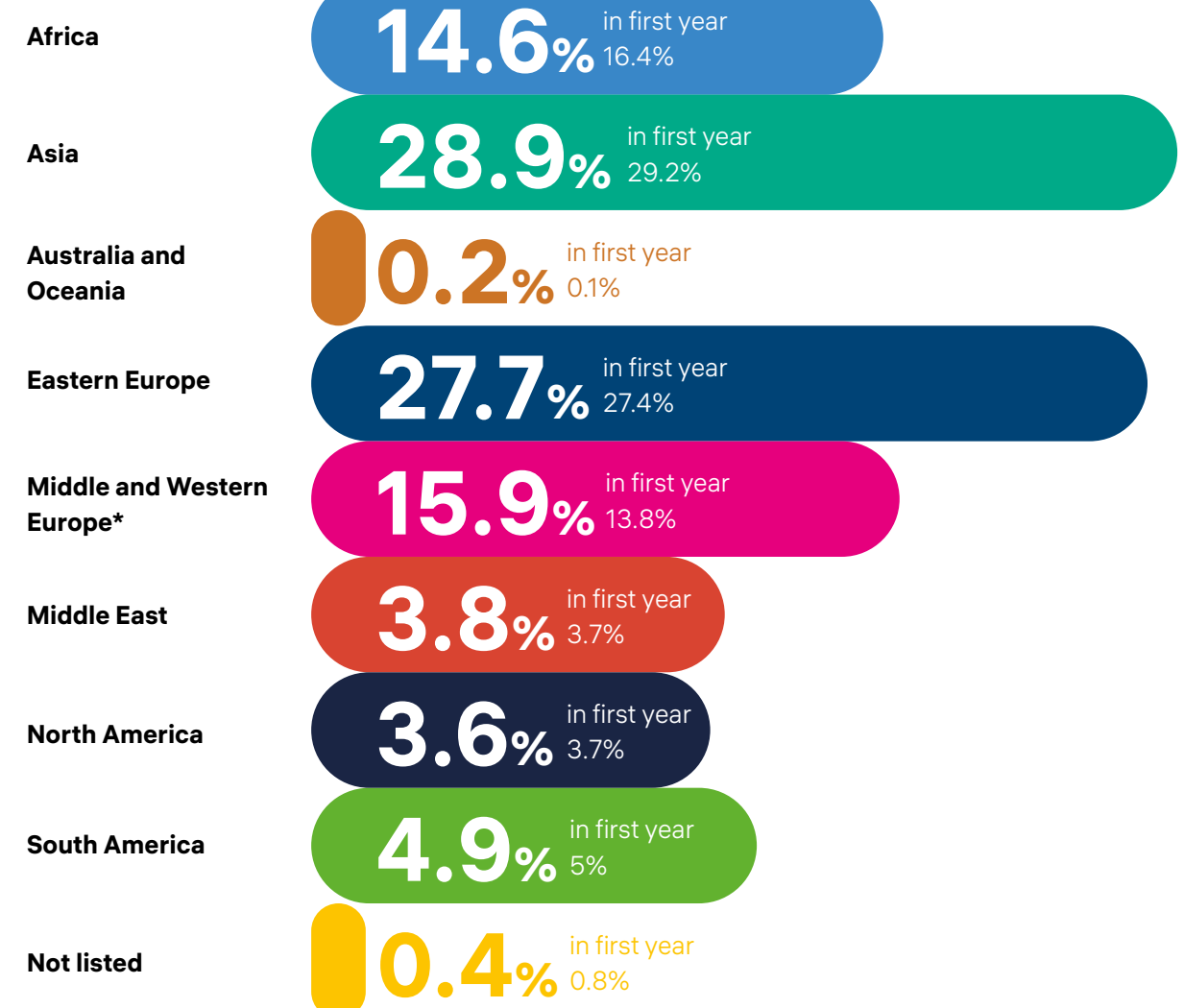


* MA International Relations (joint program with University of Bremen)

** 20 joined in Fall 2024; however, PhD students can join at any time

The student body represents 119 countries in total (compared to Fall 2023: 116). The regional distribution, as well as the specific number from Germany, is presented below.

Regional distribution among the student body; Fall 2024. The number in parentheses shows the regional distribution across first year students.



* incl. Germany 7.2% (1.2%)

ENROLLMENT NUMBERS BY BACHELOR'S PROGRAMS.

UNDERGRADUATE STUDENTS	NEW PROGRAM NAME	TOTAL ENROLLMENT, FALL 2024
TOTAL		1,442
BACHELOR OF ARTS		261
Global Economics & Management		81
Integrated Social Sciences	Society, Media & Politics	4
International Business Administration		109
International Business Administration (online)		6
International Relations: Politics & History		61
Psychology	Integrated Social and Cognitive Psychology (B.Sc.)	84
Double Major / Combined Major*		1
Exchange / Visiting Program		6
BACHELOR OF SCIENCE		1,181
Biochemistry & Cell Biology		99
Chemistry	Chemistry & Biotechnology	55
Computer Science & Software Engineering	Applied Computer Science	26
Computer Science		346
Earth and Environmental Sciences	Earth Sciences & Sustainable Management of Environmental Resources	24
Electrical and Computer Engineering		92
Industrial Engineering & Management		165
Integrated Social and Cognitive Psychology		102
Intelligent Mobile Systems	Robotics & Intelligent Systems	66
Mathematics	Mathematics, Modeling & Data Analytics	27
Management, Decisions & Data Analytics		13
Medicinal Chemistry & Chemical Biology		55
Physics	Physics & Data Science	37
Software, Data and Technology		53
Exchange/Visiting Program		21

ENROLLMENT NUMBERS BY MASTER'S PROGRAMS.

MASTER'S STUDENTS	TOTAL ENROLLMENT, FALL 2024
TOTAL	230
MASTER OF ARTS	40
International Relations: Global Governance and Social Theory	40
MASTER OF SCIENCE	190
Advanced Software Technology	59
Computer Science & Software Engineering	24
Data Engineering	18
Data Science for Society & Business	30
Data Science for Society & Business (online)	2
Psychology	1
Supply Chain Management	20
Exchange / Visiting Program	36

3.2. Student Life & Engagement

The goal of the Student Life and Support team is to facilitate and support students' growth, well-being, and the development of interpersonal, intercultural, and leadership competencies outside of the classroom. We want that together with their academic achievements, students leave the university with a strong set of skills to take into an increasingly globalized and diverse workforce. To

achieve this goal, we provide a range of learning opportunities and services for all students in our Constructor community.

Personal development is a core goal of our mission statement for education. The work of the Student Life and Support team plays a significant role in achieving this goal. In 2024, work began to formally integrate all student life activities within the educational framework outlined in our mission statement.

The following activities support students in their academic journey and help build a strong sense of belonging and community.



OUR APPROACH IS BASED ON STUDENT DEVELOPMENT THEORY AND RESEARCH, WHICH SUGGESTS A HIGH CORRELATION BETWEEN WELL-BEING AND SENSE OF BELONGING WITH ACADEMIC ATTAINMENT (ASTIN 1984).

Our approach to holistic education is structured into four key areas:

1. Training and Counseling

Providing intercultural and community standards training, personal counseling, conflict mediation, awareness campaigns, and health and wellness initiatives. By providing students with opportunities to learn about the practicalities of living in a diverse community, we enable them to benefit from the many opportunities this brings. They also develop skills to navigate the challenges associated with different approaches to working and living together. In 2024, intercultural training was provided to 398 incoming students and 347 students attending training on our campus community standard.

It is quite normal for students to experience many challenges living away from home and sometimes students need more support than a training course. We have a trained team of



psychological counsellors on campus, who provide individualized and group sessions to students experiencing a range of personal and psychological challenges. This provision can be of great benefit to students, who are able to make appointments relatively quickly and at no cost. In 2024, the counsellors conducted 1,007 sessions for students on campus. In addition, they ran awareness raising campaigns in the colleges on seasonal affective disorders and developing healthy relationships and setting boundaries. These sessions were attended by 180 students.

2. Peer Mentoring

Ensuring every new incoming student is paired with a mentor to help navigate our international and diverse campus environment. Our peer mentor program is a hugely successful program and continues to develop each year as our incoming student numbers grow. Each new student is paired with a senior student, who will accompany them throughout their first year on campus. They are available to support them with settling into a new environment setting up their living and working spaces, registering

for courses and showing them both the local neighborhoods and downtown Bremen. In addition, they support them to meet people and get acquainted with all the activities on campus, which also helps with their transition to a new environment. In 2024, 82 Peer Mentors supported 611 incoming students with their transition to university life.

3. Student Engagement and Leadership

Leading a club or a team of people to organize a large event requires a range of important skills. By providing opportunities to our students to be club and events leaders, we are enabling them to build their skill set for their future careers. All sectors of society and the workplace need strong leaders. Here at Constructor, we are committed to supporting students to develop their skills in leadership during their time here. By providing extensive training to student life assistants and peer mentors each year, our student leaders are equipped to run services to other students on campus, e.g., our college offices and events, our sports facilities and our entertainment venues. Furthermore, in 2024, we were able to design and deliver a bespoke club leadership training program to all club leaders, helping them to lead their clubs effectively and organize a range of events and activities. Offering leadership training for club and college leaders, peer mentors, and opportunities to organize and participate in events that enhance academic experience. In 2024, we provided 75 club leaders with leadership training to help them lead their clubs effectively and organize a range of events and activities.

4. Residential Education Program

Our four residential colleges are also a place for students to take part in intentional learning programs aimed at social engagement and personal development. When students feel connected to their living environment, they experience greater emotional support, motivation, and engagement, which can translate into better academic performance. The residential college environment provides a space for students to meet other people, form social connections and also try activities which may be new to them. Through participation in these activities, they are able to grow in confidence, strengthen their ability to interact with different people and make lifelong friendships in the process. In 2024, the four colleges had 12,603 attendees across a range of community activities.

ACTIVITIES INCLUDE WELLNESS PROGRAMS, STRESS MANAGEMENT WORKSHOPS, STUDY SESSIONS, ARTS AND CRAFTS, AND CELEBRATING DIVERSE CULTURAL TRADITIONS SUCH AS HALLOWEEN, CHRISTMAS, DIWALI, LUNAR NEW YEAR, AND EID.



If students face challenges living in the colleges, there is a team in each college on hand to offer support, whether it be a roommate conflict, something needing repairing in their apartments, a health issue, feeling homesick or dealing with a relationship issue. Students can talk confidentially to their Residential Life Managers to help the issues become resolved. In 2024, staff responded to 1,604 support requests across all 4 colleges. In addition, staff were able to connect and offer support to 1,312 students during stressful times of the year, for example, during exam times, through their outreach activities in the college.

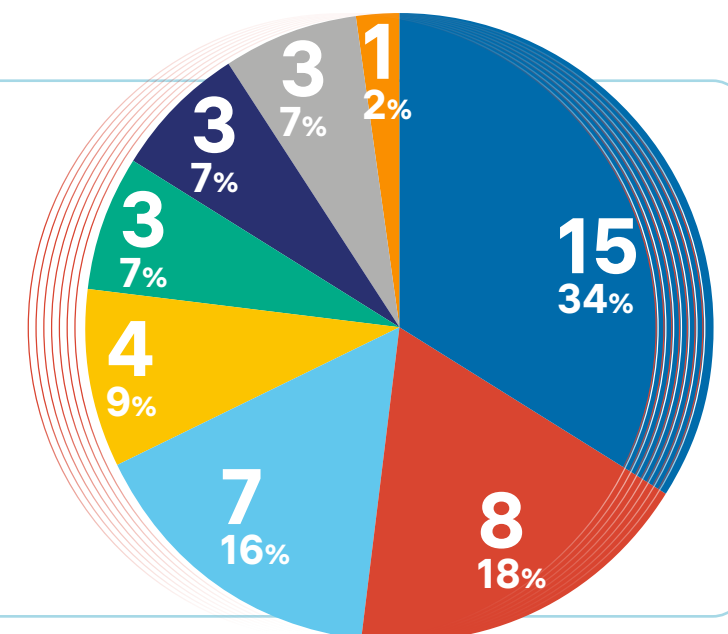
In 2024, we had 60 registered student-led clubs, which are part of our Constructor student community, encompassing artistic, sporty, social, academic, and entrepreneurial activities. They include such diverse activities as the concerts, dance shows, Bremen Model United Nations, the Google Developers, "Make a Wish"

by the Rotaract Club, and the "Global Review," a student newspaper. Some groups provide an opportunity to discuss and share information related to a specific major or academic discipline with the wider community, such as the Society of Natural Sciences, the Interdisciplinary Neuroscience Society, or the Investment Banking and Capital Markets Club. This not only enables CU to contribute to various initiatives in Bremen but also provides opportunities for cultural and linguistic integration for our students.

Running a club enables students to develop a range of skills to complement their academic learning. In 2024, we provided 75 club leaders with leadership training to help them lead their clubs effectively and organize a range of events and activities.

STUDENT CLUBS 2024

- Sports
- Academic & Development
- Arts
- Dance & Relaxation
- Culture
- Community & Outreach
- Tech
- Games



In the area of sports, we hosted a northern German universities basketball tournament and participated in the PCU Games, a European Uni sports tournament in Antwerp. Our rowing team competed in Amsterdam and the CU football team finished 9th in the local league.

Our four residential colleges are also a place for students to take part in intentional learning programs aimed at social engagement and personal development. A strong sense of belonging in a residential community can positively impact academic achievement. When students feel connected to their living environment, they experience greater emotional support, motivation, and engagement, which can translate into better academic performance. In 2024, the four colleges had 9,260 attendees across a range of community activities. These include wellness programs, stress management workshops, study sessions, arts and crafts, and celebrating diverse cultural traditions such as Halloween, Christmas, Diwali, Lunar New Year, and Eid.

Furthermore, residential staff responded to 806 requests for social welfare support, assisting students with housing concerns, relationship challenges, wellness issues, and more. This highlights the crucial role of the residential communities in fostering a supportive and inclusive environment that enhances student well-being and academic success.



INTRODUCTION OF THE STUDENT HEALTH PROGRAM

The Student Health Program was established in summer 2024 and is gaining recognition within the student body. As the program continues to develop, we are expanding our initiative to provide comprehensive health support tailored to students' needs.

To enhance accessibility to essential health-related information, we introduced the Student Health Info Hub – a dedicated online platform offering resources on the German healthcare system, welfare support, sexual health, nutrition, and other key health topics. This initiative aims to equip students with the knowledge and support necessary to make informed decisions about their well-being. The landing page has been visited approx. 1,000 times since its release.

In Fall 2024, the "Health Peer Mentor" stream was officially introduced as part of the existing Peer Mentor Program. It focuses on increasing awareness and knowledge of the German health-care system and sexual health among students. To ensure effective peer education, designated Health Peer Mentors receive specialized professional training, equipping them to promote these critical topics within the student community.

In addition, a range of activities were carried out with a strong emphasis on promoting health, academic development, and professional engagement among students. Comprehensive health and well-being services were provided, which included personalized counseling (150 students) in several key areas: diet and nutrition, sport and physical activity, healthy sleep practices, and

detoxification. These services aimed to support the overall wellness of the university community through informed guidance and preventive care.

In addition to health-related services, significant attention was devoted to academic mentorship. This included the active supervision of students' research work, ensuring both quality and relevance in their academic pursuits. Student internship management was also a major focus, involving the coordination and oversight of placements to ensure that students gained valuable, real-world experience in their respective fields.

Furthermore, lectures were delivered on timely and relevant topics such as physical activity and telemedicine. These sessions contributed to the academic curriculum and aimed to broaden students' understanding of health sciences and the evolving role of digital technology in health-care delivery.

In addition to peer mentoring, several health-focused initiatives were implemented, including a blood drive, a vaccination campaign, and various health promotion activities, such as breathing exercises, meditation, and yoga courses. These initiatives aimed to foster a culture of health and well-being among students while providing practical resources and support. In Fall 24 our Yoga course was attended by approx. 50 students who rated the course 5.75/6 (n=108). We had 30 registrations for the Pilates class and 15 participants for Breathing and Meditation's class.

In 2024, scientific research initiatives were launched focusing on several important areas

THE MAJORITY OF STUDENTS WHO ARE ATTENDING HEALTH PROMOTIONAL ACTIVITIES ARE LIVING ON CAMPUS, ONLY A SMALL NUMBER OF OFF CAMPUS STUDENTS ARE ATTENDING.



within the field of mental health and well-being. One study began exploring anxiety in professional tennis players, aiming to understand the psychological pressures associated with high-level competitive sport and their impact on performance and mental resilience. Another line of research was initiated on posttraumatic stress disorders (PTSD) in war veterans, with the goal of examining the long-term psychological consequences of combat and identifying effective strategies for support and treatment. Additionally, a study on the assessment of student well-being was undertaken to evaluate the various factors influencing mental, emotional, and social health among university students. These research projects reflect a growing commitment to addressing complex psychological issues through evidence-based investigation.

3.3. Student Accomplishments and Professional Development

Camila Velez Martinez received the 2024 DAAD award for academic excellence and social engagement. Alongside leading campus events and supporting peers as a residential assistant, she remains active in volunteer work in the Dominican Republic. Camila serves as a staff leader with Bright Leaders League, helping reduce educational inequality and training guides who support students applying to higher education programs. She continues to inspire others pursuing international education.

In 2024, PhD student **James Ziemah** completed his doctorate at Constructor University, supported by EU and Bremer Aufbau-Bank funding. Working with Professors Nikolai Kuhnert and Matthias S. Ullrich, Ziemah discovered that food waste from beer, coffee, and bean flour production has antibacterial properties useful for disinfectants. This led to the founding of the start-up "Waste to Disinfectant" with students Muhammad Murtaza Shah and Marzhan Akhmetkova. The team won the OnCampus round of the Hult Prize Challenge at Constructor University and has produced a prototype. They are now seeking investors and additional funding.

Kinlo Ephriam Tangiri, a final-year Computer Science student at Constructor University, received the 2024 Diana Award for his work on KET Academy – an e-learning platform offering resources and mentorship to high school students in Cameroon. Inspired by his own experience with displacement, Kinlo launched the platform three years ago to support youth in conflict-affected areas. He accepted the award in the UK in December 2024, calling it a meaningful recognition of his dedication and motivation to continue improving KET Academy.

3.4. Student Career Services

The Career Services Center (CSC) at Constructor University supports students and alumni through all stages of their career development, empowering them to become responsible leaders of tomorrow. CSC offers comprehensive services including individual career counseling, application support (CV and cover letter checks), and mock interviews. The internship program, along with professional skills seminars and workshops, enhance students' employability and prepare them for the modern labor market. Networking events with employers and on-campus recruiting further facilitates internship and employment opportunities.



KEY ACHIEVEMENT IN 2024:

- › JobTeaser & Career Knowledge Center: Opened an online job and career portal available to all students and alumni within the Constructor ecosystem.
- › Expanded Career Skills Portfolio: Increased number of online career seminars and workshops, with specialized courses for Master's and PhD students, totaling 2,803 participants. **Career Skills Workshops:** Achieved an average attendance rate of 64%, with a target of 70% (highest in the industry) for 2025. **Average satisfaction rate:** 86%.
- › Introduction of Shortlist.me: An interview training platform providing AI-generated feedback, launched in May 2024.

- › ConstructorConnect Platform: Introduced an AI-based student-alumni community platform integrated with LinkedIn, fostering career development and networking. Over 250 students and alumni joined the platform within the first month (December 2024).
- › Organized the Career Symposium on "AI in Recruiting," which was attended by over 100 students.
- › ERASMUS+ Internships: Achieved the highest number of students receiving ERASMUS+ funding for internships, with a total of 26 mobility internships.
- › Facilitated the Networking Event with over 100 students and 30 alumni during Homecoming, covering topics such as work-life balance, leadership skills, career pivots, and startups.
- › Online Careers Fair 2024: Hosted 535 students and 19 companies, with 275 one-on-one interviews conducted.

From an organizational perspective, Career Services continues to work closely with the Alumni Office to enhance cross-functional support between the two offices. The CSC remains committed to equipping students with essential professional skills, expanding career opportunities, and strengthening connections with employers and alumni.



3.5. Entrepreneurship

THE CONSTRUCTOR ENTREPRENEURSHIP & INNOVATION CENTER, LAUNCHED IN SEPTEMBER 2023, IS CONSTRUCTING THE FUTURE ONE STARTUP AT A TIME. AS PART OF CONSTRUCTOR UNIVERSITY, THE CENTER IS DEDICATED TO FOSTERING ENTREPRENEURIAL GROWTH AND INNOVATION BY SUPPORTING DIVERSE AND INTERNATIONAL FOUNDERS WITH THE SKILLS THEY NEED TO SUCCEED AS ENTREPRENEURS.

ACHIEVEMENTS AND HIGHLIGHTS FROM 2024:

The Center achieved several significant milestones:

- › **Global & Local Engagement:** The Center strengthened cross-disciplinary innovation through partnerships with institutions such as UPenn and Hult, alongside collaborations with Starthaus, START Global, and the

BRIDGE association of Bremen universities. The program attracted a diverse cohort of Constructor University students and global participants, significantly broadening its impact.

- › **Student Success:** Because of the Center, Constructor University was recognized as

the best for its on-campus startup program by Hult. Two teams reached the Hult Prize semi-finals, with one advancing to the global finals, competing for a \$1,000,000 prize. Additionally, two teams were ranked among the top 50 in the Google Solution Challenge.

- › **Community Initiatives:** The Center partnered with Startup Migrants on a program for migrant business founders, expanding its inclusivity. Alumni engagement was enhanced through the CUFA Board leadership workshop on tech transfer and the Alumni Homecoming entrepreneurship community workshop run by Ali Alam.

- › **Prestigious Recognition:** The Center is part of the award-winning EXIST Lighthouse Startup Factory North Germany initiative, positioning Constructor University as a key player in Germany's entrepreneurial ecosystem.

- › **The Center** – along with Constructor Capital – organized the first Demo Day for its incubation program in September 2024. Demo Day was the pinnacle of a rigorous 2024 edition of the Constructor Accelerator Program and competition, which featured over 50 countries and a cohort of 30 teams, who spent eight weeks developing their impact-focused ideas.

THE CENTER – ALONG WITH CONSTRUCTOR CAPITAL – ORGANIZED THE FIRST DEMO DAY FOR ITS INCUBATION PROGRAM IN SEPTEMBER 2024.



The Center plans to expand global collaborations, develop advanced prototyping and co-working spaces, and introduce new initiatives to scale mentorship programs and increase investment opportunities for startups. This includes the launch of an accelerator program for early-stage global startups and a new incubation program offering a specialization in innovation for master's students, allowing them to earn credits while building startups. In addition, among other community-driven projects, a community engagement platform is being established to strengthen connections and build a supportive network.

3.6. Scholarships

In 2024, we had 69 students in various scholarship programs, through the support of foundations, external donors, and cooperations. One of our most significant collaborations is with the European Investment Fund (EIF), which has expanded financing opportunities for students. This partnership not only reduces the risk of loan defaults but also enhances accessibility, ensuring that financial limitations do not stand in the way of academic ambition.

Other places were funded by the following social/study program-related initiatives:

- › SOS-Kinderdörfer weltweit – this contract offers the possibility for Global Scholarship Program stipend-holders to study at Constructor University Bremen. A new contract was signed in 2023 for 5 years (on average 7 BA students in the current academic year on campus).
- › Talent scholarship for a student in Afghanistan (online study program)
- › Mathematics talents – Cooperation with the Sparkasse Bremen-Scholarship for the bachelor's student study program in Mathematics Modeling and Data Analytics – 6 students in the program (this program runs until 2030).
- › The Wolfgang Ritter Foundation awarded seven scholarships for international PhD students at CU in 2024, based on their academic performance and financial need
- › STEM (MINT) scholarship
- › 2 Constructor University Foundation of America (CUFA) scholarships awarded in 2024 (Claus Halle scholarship and Ronny Wells scholarship)
- › Young talents from Ukraine – 10 scholarships in the program for Ukrainian young talents – external donor
- › 2 Alumni scholarships awarded in 2024.
- › Turkish students affected by earthquake – 2 external scholarships (program extension planned for Fall 2025 intakes)

Roche Germany continued its successful Cooperative Study Program with CU Data Engineering master's students in 2024. The program includes a three-month internship at Roche in Penzberg, mentoring by company representatives throughout the entire study period, and a master's thesis in cooperation with the company.

4. Academic programs

4.1. International Foundation Year

THE INTERNATIONAL FOUNDATION YEAR (IFY) IS A PRE-DEGREE ACADEMIC PREPARATORY PROGRAM, ENABLING YOUNG STUDENTS FROM ALL OVER THE WORLD TO ENHANCE THEIR ENGLISH LANGUAGE CAPABILITIES AND DEVELOP STUDY SKILLS APPROPRIATE TO A HIGHER EDUCATION ENVIRONMENT.

In addition, it gives them the chance to acclimatize themselves to living and studying in another country, where the cultural context may be quite different from their own.

The IFY program offers two pathways for international student success, i.e., the Qualification pathway and the Orientation pathway. As its name suggests, the former qualifies international students from various academic backgrounds to study at our university in Bremen, Germany, while the latter provides undecided students an opportunity to change their school of studies (School of science, School of Computer Science & Engineering, School of Business, Social & Decision Sciences) after the first semester, to support them in choosing the right study program and prepare them accordingly. This latter pathway is guided by a career development course that includes psychometric testing, speaking to industry professionals, and developing career skills, which can support them in making a more appropriate choice of major before entering the programs.

IFY ACHIEVEMENTS IN 2024:

- › The IFY program continued to grow – increasing its total student number from 51 last year to 97 enrollments in the academic year 2024/25.
- › 80% of IFY students went on to succeed in enrolling in one of Constructor University's bachelor's programs in Fall 2024.
- › The IFY program introduced specialized Academic English Language courses to strengthen students' English abilities.

PBS ACHIEVEMENTS IN 2024:

- › The PBS program successfully launched in Spring semester with 8 students.
- › 7 out of the 8 PBS students continued to their individual bachelor's programs at Constructor University and successfully enrolled in Fall 2024.
- › The program enabled these students to transfer up to 10ECTS to their first year.
- › The PBS program continues to grow and plans to enroll 30 students for Spring 2025.

Furthermore, the Pre-Bachelor Semester (PBS) program, launched in Spring 2024, introduced a new gateway to Constructor University. This program offers students the opportunity to start their academic journey at Constructor University in the Spring semester, instead of waiting for the Fall semester supporting them to make the right choice of major before entering their bachelor's programs.

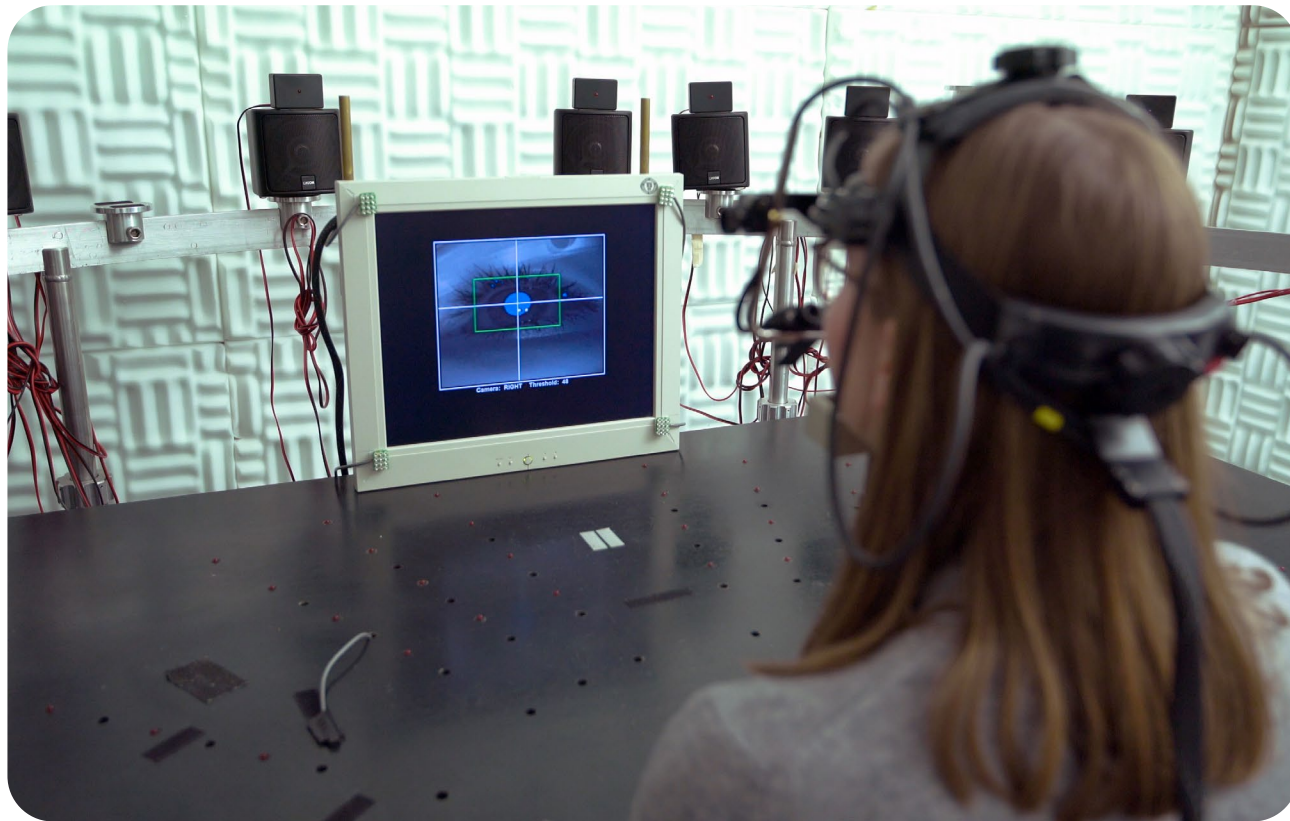


4.2. Undergraduate Programs

OUR PROGRAMS EXTEND FROM NATURAL AND LIFE SCIENCES, ACROSS COMPUTER SCIENCE AND ELECTRICAL ENGINEERING, TO BUSINESS, SOCIAL, AND DECISION SCIENCES.

Small classes and hands-on teaching are the key to CU's success in involving students in research. Our students learn from the start that curiosity leads to the creation of knowledge, and many of them benefit from scientific publications developed during their undergraduate studies at Constructor University.

After the successful revision of our 16 campus-based bachelor's programs in 2022 and 2023, and the launch of the Applied Computer Science online pilot program, 2024 marked CU's large-scale entry into online education. Five new online programs have been developed and successfully accredited by the ZfU (Central Office for Distance Learning). With the launch of our online bachelor's programs in International Business Administration and Industrial Engineering and Management, we opened first-class undergraduate education to students who cannot come to campus routinely. Both programs allow switching to their campus-based sister programs, meaning that late-arriving or deferred students can also study seamlessly. While the majority of our online students currently aim to come to campus ultimately, a wider roll-out for students studying fully online is envisaged for 2025.



The core of our educational concept for undergraduates is the 4C curriculum (Choice – Core – Career – Constructor), developed in 2023, which allows students to switch their major within the first year of their studies without any delay, as well as allows them to pursue a minor in another field of interest – this is Choice. In their second year, students dive deeper into subject-specific CORE modules. The third year allows for more individual development in the CAREER modules. Here, students choose their specialization modules, while mandatory internships or the development of startups equips them practically with work and entrepreneurial skills.

The transversal CONSTRUCTOR TRACK builds the fourth pillar of the curriculum. It provides

an intellectual toolkit for lifelong learning and encourages the use of diverse methodologies to approach cross-disciplinary problems. In 2024, we started to develop all CT offers in a fully asynchronous online format that allows all our students irrespective of their study mode to have the same experience.

Furthermore, late in 2024, CU announced a partnership with Nexford University. Nexford University, based in the US, is a leading expert in online education and this partnership is meant to further enhance CU's commitment to leading in online education.

4.3. Master's Programs

IN 2024, WE WERE ABLE TO SIGNIFICANTLY EXPAND OUR MASTER'S PROGRAM PORTFOLIO. THREE NEW ONLINE MASTER'S PROGRAMS WERE DEVELOPED, ACCREDITED BY THE ZFU (CENTRAL OFFICE FOR DISTANCE LEARNING). THESE WERE: DATA ENGINEERING AND TECHNOLOGIES (DET), DATA SCIENCE FOR SOCIETY AND BUSINESS (DSSB ONLINE), AND SUPPLY CHAIN MANAGEMENT (SCM ONLINE).

The educational concept of our online programs applies proven and effective teaching and learning modalities that engage distance learners and support a vibrant learning community. This means that students participate in online courses with predominantly asynchronous lectures and learning activities that are complemented by synchronous tutorials and hands-on sessions.

Students are guided and supported by faculty as well as experienced tutors and lecturers to transfer acquired knowledge into practice. The hands-on elements include dedicated collaboration with other students using tools and concepts that enable distributed work from different places and different time-zones, including remote access to physical devices and set-ups.

The new online program Data Engineering and Technologies aims to provide an in-depth understanding of the essential aspects of data-based decision-making and the skills re-

quired to apply and implement these powerful methods in a successful and responsible manner. It combines the big data aspects of "Data Analytics" and "Data Science" with the technological challenges of data acquisition, curation, and management via databases and warehouses, big data pipelines, and cloud computing.

The aim of the Data Science for Society and Business (DSSB) (online) MSc program is two-fold. On the one hand, it aims to use rapidly growing digital data resources and new computational tools and methods to describe, model, predict, and potentially solve pressing business, ecological, economic, organizational, political, or other social problems and significant trends like innovation diffusion, migration flows, susceptibility to infections, sustainable growth, political mobilization, and the likes. On the other hand, the program addresses the rising demand for social data science expertise and critical skills in new industries (i.e., social media, start-ups), in established sectors (i.e., production, civil and private services), public administration (i.e., health, security), and academia (all sciences).



to teach modern leadership and management competencies with a strong emphasis on data analytics and engineering. This includes the analysis of data-driven business processes, the ability and the readiness to recognize the potential for change, the initiation of change processes and the successful design of those change processes.

Overall, the new online Master's programs complement our well-established campus-based master's portfolio which includes Supply Chain Management (SCM), Data Engineering (DE), Computer Science and Software Engineering (CSSE), Advanced Software Technology (AST), and Data Science for Society and Business (DSSB) and also enable first-class and hands-on education for people who are tied to one location or working already.

The online Supply Chain Management program aims to provide an in-depth understanding of the essential aspects in designing, maintaining and analyzing supply chains as well as teach the skills necessary to apply methods and tools to successfully and responsibly work on and in supply chains/networks. The program seeks to expand the participants' competencies and capabilities to be prepared for all upcoming tasks and developments within increasingly digitalized supply chains. The curriculum aims

2024 also laid the groundwork for two new research-driven graduate programs in the fields of Quantitative Life Sciences and Advanced Materials respectively. After passing several internal quality checks and iterations, both programs seem likely to be launched in Fall 2025.

All in all, the expansion of our master's portfolio further strengthens the education pathway from Bachelor to PhD.



4.4. PhD Programs

Alongside professors and postdoctoral fellows, Constructor University's PhD students play a vital part in defining Constructor University as a research institution.

Constructor University offers PhDs in the natural sciences, mathematics, computer science and engineering, as well as in the social sciences. Admission to PhD studies is highly selective, attracting scholarship-holders from many governmental agencies such as the China Scholarship Council (CSC), industry-funded scholarship-holders, and DAAD-funded students from all over the world.

Through independent scientific work, PhD students acquire a wide range of skills and

knowledge, including knowledge beyond the specialist subject they are working on. Interdisciplinarity is a key element of research at Constructor University, and PhD students are closely supervised by research group leaders.

In the Fall 2024 semester, 216 PhD students from 48 countries were enrolled at Constructor University, thus making up approximately 8.6% of the overall student body. The distribution of PhD students among the three schools is as follows: School of Business, Social, and Decision Sciences 113 PhD students (of whom 77 are enrolled in the Bremen International School for Social Sciences), School of Computer Science and Engineering 42 PhD students, and School of Science 61 PhD students.

Lastly, under the HORIZON-MSCA-DN-2024 call, Constructor University submitted a joint proposal with several partners aimed at establishing a double degree PhD program.

5. Research

5.1. Research Highlights

Last year marked another year of strong research output for Constructor University. Our faculty produced more than 380 publications, mostly in top 25% journals (65%). In fact, almost 10% of these publications could be placed in the top 1% most frequently cited journals, which is way above the German (4.4%) and the global level (3%). We can only present a small selection here.



SCHOOL OF SCIENCE:

A team including Professor Boran Kartal succeeded in solving a mystery of marine ecology. In their work – published in Nature (<https://doi.org/10.1038/s41586-024-07495-w>) – they discovered that a largely neglected group of bacteria plays a significant role in marine nitrogen fixation. Their finding is crucial for better

understanding the “marine carbon pump” in oligotrophic (nutrient-poor) ocean regions.

Professor Mathias Winterhalter and his team have developed a new, top-down approach to produce hetero-nanopores in a fast, easily adaptable fashion and at a high level of accu-

racy. Their work, which makes contributions to biophysics, biotechnology, and nanotechnology, was published in Nature Nanotechnology (<https://doi.org/10.1038/s41565-024-01721-2>).

Our early career researchers in the School of Science also excel. Assistant Professor Katrin Rosenthal and her co-workers’ metadata catalogue for enzymology and biocatalysis research provides a revolutionary approach to

presenting experimental data in a FAIR (findable, accessible, interoperable, and reusable) way. The catalogue integrates and standardizes several information sources, including a wide range of (meta-)data, using clearly defined categories. This approach establishes the basis for further development, research, and global cooperations. It comes as no surprise that it merited a publication in Nature Catalysis (<https://doi.org/10.1038/s41929-024-01261-x>).



SCHOOL OF COMPUTER SCIENCE AND ENGINEERING:

The StyleFeatureEditor was developed by Professor Dmitry Vetrov and his team. Based on deep-learning approaches, this method not only allows for the reconstruction of finer image details but also ensures their preservation during editing. In contrast to other image editing methods, StyleFeatureEditor does not capitulate when presented with out-of-domain images and works at high speed. The method was introduced at the prestigious IEEE/CVF Conference on Computer Vision and Pattern Recognition (DOI: 10.1109/CVPR52733.2024.00892).

MmWave channels are crucial for high-speed wireless communications, however they are subject to aging, which reduces efficacy and speed. Professor Giuseppe Abreu and his team tackle this problem and propose a new method based on Bayesian Bilinear Inference that may significantly improve high-speed wireless communications. Their approach may decrease channel aging speed, while allowing better symbol tracking and data detection. The proposal and first simulation results were worth several publications in IEEE Transactions on Wireless Communications (DOI: 10.1109/TWC.2024.3379122; DOI: 10.1109/TWC.2024.3352975).



SCHOOL OF BUSINESS, SOCIAL, AND DECISION SCIENCES:

Children trust a robot over a human in a selective trust task. This is one of the key findings published by Professor Arvid Kappas and his team in *Computers in Human Behavior* (<https://doi.org/10.1016/j.chb.2024.108229>). While shocking at first glance, children still differentiate very well between humans and robots as social agents.

It is well-known that few things make Germans emotional. Cars are definitely one of them. In their work published in *Energy Economics* (<https://doi.org/10.1016/j.eneco.2024.107333>), Professor Colin Vance and his collaborators show why government subsidies have only limited effects on the successful transition to electric vehicles.

Professor Hendro Wicaksono is similarly investigating the transition to emission-free mobility. Based on simulation models for the Indonesian market, he and his researchers found that abolishing vehicle tax and providing more charging stations would be the most important factors in boosting electric vehicle sales. While these are only a few examples, they illustrate the breadth of Constructor University research and underline the impact of our small campus on global research.



5.2. Research Funding

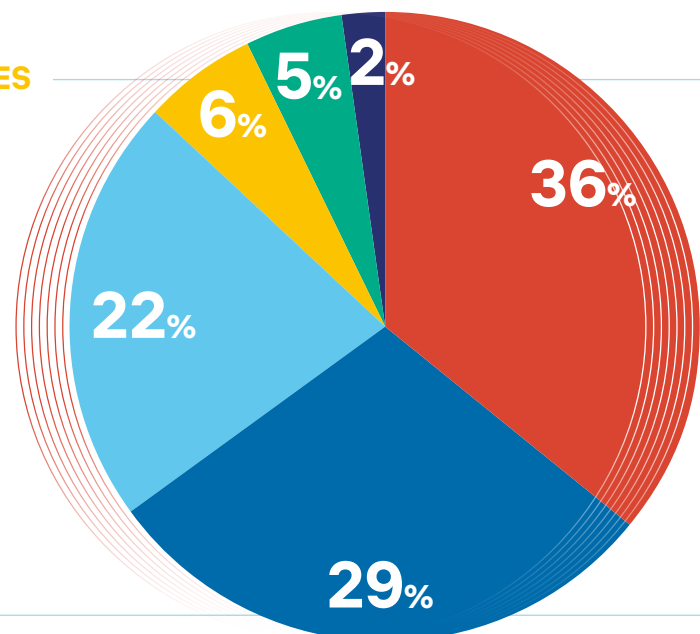
Research funding opportunities are shaped by political priorities, which are undergoing significant changes. Additionally, both federal and local budgets are being restructured with tighter constraints. That being said, 2024 has brought stronger results than 2023, demonstrating our growing competitiveness and resilience in securing external grants.

This year, we successfully obtained funding from prestigious sources, including the German Research Foundation (DFG), the European Union, federal funding (Bundesmittel), and various foundations. Notably, 2024 also marked our highest number of ERC grant applications in recent years, reflecting our researchers' ambition and the university's commitment to excellence.

Below we highlight three key projects that received funding this year, showcasing the university's growing impact on global research and development. These grants support projects across various disciplines, from advanced technology and logistics to global sustainability.

THIRD-PARTY FUNDING SOURCES IN RESEARCH IN 2024

- European Union
- German Research Foundation (DFG)
- Federal (Bundesmittel)
- Private industry
- Foundations
- Others



ERASMUS+ GRANT FOR GREEN DEAL INITIATIVE

Constructor University has received the prestigious Erasmus+ grant to lead the Green Deal for Central Asian Universities (GDCAU) initiative. The project brings together 13 universities from Germany, Slovakia, Austria, and five Central Asian countries to promote sustainable development aligned with the European Green Deal.

GDCAU aims to build university capacity for green transformation, train environmental specialists, foster university-business cooperation, and strengthen inter-university collaboration. A major outcome will

be the creation of the Green Deal Center for Evidence-based Education, Research, Innovation, and Public Outreach, along with satellite centers at partner institutions.

Activities will include joint curriculum development, mobility programs, and knowledge-sharing to support the shift toward greener energy solutions. Constructor University is proud to lead this EU – Central Asia partnership for a more sustainable future.

DFG FUNDING FOR AI-POWERED LOGISTICS

Managing customer requirements in logistics is growing increasingly complex due to diverse formats, frequent updates, and large volumes of data. A new research project at Constructor University, led by Professor Dr. Yilmaz Uygun and funded by the German Research Foundation (DFG), addresses this challenge using Large Language Models (LLMs).

Logistics requirements – covering transport, packaging, storage, and delivery – often lack standardized documentation and

can span thousands of pages. Suppliers must frequently adapt, making implementation difficult.

The two-year project aims to harness AI-powered LLMs to automate documentation, streamline requirements management, and anticipate future changes. This approach is expected to enhance communication between suppliers and carriers and enable more autonomous, accurate logistics processes.

HYPRMESH PROJECT TO STRENGTHEN 5G NETWORK FOR EMERGENCY SERVICES

Reliable data flow is essential for keeping emergency services running, especially in crisis situations. The HyprMesh project, a collaboration between Constructor University and TU Chemnitz, aims to boost 5G network resilience by developing a secure contingency mesh network. Funded by Germany's KoPa_45 initiative, the project officially began with the signing of a consortium agreement.

"The goal is to establish a mesh network that strengthens 5G connectivity and minimizes failure risks," said Professor Giuseppe Thadeu Freitas de Abreu of Constructor Univer-

sity. By leveraging interconnected devices, HyprMesh offers a cost-effective alternative to traditional contingency infrastructure, supporting smart mobility and critical services.

The project brings together government bodies, academia, and industry partners, and has been approved by Germany's Federal Agency for Public Safety Digital Radio and the Federal Office for Information Security. It launched with an online meeting in August 2024, followed by an in-person session to outline next steps, with further strategy discussions scheduled for November.

PHOTOCAM PHOTOSYNTHETIC ANTENNAS IN A COMPUTATIONAL MICROSCOPE

Training a new generation of computational scientists – Photosynthesis transforms sunlight into chemical energy, and understanding its light-harvesting mechanisms is key to advancing solar technologies and crop productivity. This Doctoral Network project

trains researchers to model these processes using computational methods across biology, chemistry, physics, and computer science.

AMAZON-GEOTRACES-2

The Amazon-GEOTRACES-2 project investigates how trace metals, dissolved organic matter (DOM), and particles interact in the Amazon estuary and plume. It focuses on

understanding their roles in controlling trace metal and DOM fluxes into the Atlantic Ocean during the low-discharge period.

DATA-DRIVEN DEVELOPMENT OF AN ENZYME CASCADE FOR THE SYNTHESIS OF CYCLIC DINUCLEOTIDES

This project aims to optimize complex enzyme cascades for synthesizing pharmaceutically relevant molecules using a data-driven approach that integrates modeling, simulation, and experiments. Focusing on the seven-step synthesis of 2'3'-cGAMP – a promising vac-

cine and cancer therapy adjuvant – the project will explore enzyme substrate scopes, design cross-reactive cascades, and apply machine learning to enhance reaction performance.

5.3. Academic and Research Facilities

The academic and research facilities at Constructor University continue to provide a dynamic and innovative environment for students, faculty, and researchers. CU maintains a range of well-equipped laboratories that support research across various disciplines, including chemistry, the life sciences, electrical engineering, computer science, and environmental studies.



A KEY DEVELOPMENT THIS YEAR WAS THE APPROVAL OF A SUBSTANTIAL GRANT FOR THE ACQUISITION OF A HIGH-RESOLUTION CHROMATOGRAPHY-COUPLED ION MOBILITY ELECTROSPRAY IONIZATION MASS SPECTROMETER.



A key development this year was the approval of a substantial grant for the acquisition of a high-resolution chromatography-coupled ion mobility electrospray ionization mass spectrometer. This state-of-the-art instrument will serve approximately 40 researchers from twelve research groups within the School of Science, fostering the exchange of expertise in experimental and analytical sciences and enabling the continuation and expansion of scientific collaborations.

In addition, the experimental sciences welcomed Prof. Dr. Torsten John, who assumed the Professorship in Physical Chemistry. Professor John has successfully established his laboratory, which included procuring cutting-edge equipment, reorganizing the laboratory spaces, and targeted renovations to enhance research capabilities.

The School of Computer Science & Engineering similarly enjoyed significant advancements through its collaboration with the software company JetBrains. A key outcome of this partnership was the loan of a set of advanced robotic systems, enriching the educational programs at CU – particularly the Software, Data, and Technology (BSc) and Robotics and Intelligent Systems (BSc) programs. This initiative provides students with hands-on experience using cutting-edge technology and lays the foundation for further program development, ensuring that our educational offerings remain innovative and effective.

These investments and collaborations underscore Constructor University's dedication to fostering excellence in research and education, ensuring that our academic and research facilities continue to support pioneering scientific inquiry and interdisciplinary cooperation.



5.4. Academic Events

In 2024, Constructor University hosted a series of events that reinforced its role as a hub for innovation, education, and entrepreneurship. From global conferences and startup showcases to STEM initiatives and thought-provoking webinars, CU brought together experts, students, and industry leaders to foster collaboration and drive meaningful change. These events not only strengthened partnerships but also provided a platform for groundbreaking ideas and knowledge exchange. We review some key events of the year below.

THE EUROPE UNIVERSITIES SUMMIT

Constructor University hosted the 2024 Times Higher Education (THE) Europe Universities Summit, drawing 345 participants from 50 countries to explore global higher education partnerships. Held on April 23 – 24, the event focused on collaboration between universities, industry, and civil society. President Dr. Stas Protasov and THE Editor John Gill stressed the role of partnerships in driving societal impact.

Keynote speaker Professor Thomas Auf der Heyde highlighted universities' economic and

political significance. Discussions addressed science accessibility, Europe's startup gap, and faculty exchanges – especially important amid global tensions, as noted by Prof. Dr. Werner Nau.

Additional topics included university rankings, emerging tech, and developments in European higher education. Notable speakers such as Dr. Serg Bell, Nobel Laureate Prof. Konstantin Novoselov, and leaders from international institutions reinforced the summit's global importance.

DEMO DAY

Constructor University held its first Demo Day on September 12, showcasing its goal to become a global hub for impactful startups. The event concluded the Constructor Accelerator Program, which hosted 30 teams from over 50 countries for eight weeks.

Chairman Serg Bell highlighted the focus on deep-tech and software innovations, predicting strong future growth. Matthias Winter of Constructor Capital reaffirmed the university's dedication to entrepreneurship.

Twelve startups competed for \$100,000 in funding. Winners included Ludenso (Norway) and LingoQuesto (Colombia), with Porte (Kazakhstan) and Chiral Nano (Switzerland) earning scholarships to top entrepreneurial programs.

Due to its success, Demo Day will be held biannually in Bremen, supporting startups through Constructor Tech's research and innovation network.



DYNAMIC DAYS EUROPE

Constructor University hosted 518 participants for the 44th Dynamic Days Europe conference – its first time in Bremen. The event included lectures and sessions on dynamical systems, covering topics from neuroscience to climate science.

Highlights included a talk by Fields Medalist Prof. Martin Hairer on particle motion in fluids,

and presentations by alumni Profs. Vlad Vicol and Christian Kühn. Prof. Thomas Jung gave a public lecture on climate change's local effects.

Half the attendees were early-career researchers supported by the Wilhelm and Else Heraeus Foundation. Additional sponsors included the DFG, Wolfgang Ritter Foundation, Springer, AIP Publishing, and Cambridge University Press.

CELEBRATING STEM WITH MINT-TAG AND MINTERNATIONAL

Constructor University hosted MINT-Tag, a day dedicated to inspiring future scientists through hands-on STEM activities like game theory, voice-controlled microbits, and food chemistry.

Interest in MINTernational has grown steadily since its launch in 2023, with participation increasing by 50% last year. Organized with MIT undergraduates, the program offers students a certificate of achievement and school-approved participation.

INNOVATIVE UNIVERSITIES WEBINAR SERIES

In 2024, the Innovative Universities Global Webinar Series, which began in late 2023 and is moderated by Professor Isak Frumin and Dara Melnyk, has continued successfully, fostering a strong community of higher education innovators. So far, the webinar has hosted speakers from institutions such as Arizona State University, Asian University for Women, African Leadership University, and Anadolu University, with a total of 27 speakers since the series launched in Fall 2023.

A reflection on the series was published in University World News at the beginning of Fall 2024 and the webinar's YouTube recordings continue to see steady growth in viewership. Additionally, a recent article on the Asian University for Women (AUW) was published in the University World News column.

6. Faculty and Staff

6.1. Changes in Faculty

The academic hiring initiative which started in 2023 continued with growing momentum in 2024. We successfully recruited several new colleagues from various fields and backgrounds that will significantly enhance the diversity and expertise of our faculty.



SCHOOL OF BUSINESS, SOCIAL, AND DECISION SCIENCES:



› **Dr. Lennart Ante**, Assistant Professor of Entrepreneurial Finance, specializing in blockchain technology, cryptocurrencies, and digital assets. Dr. Ante received his doctorate at Hamburg University and co-founded several ventures before joining CU.



› **Dr. Marina Christodoulou**, Lecturer in Philosophy, specializing in post-Kantian continental philosophy, ontology, philosophy of psychiatry, psychoanalytic theory, women's and gender studies, philosophy and literature, aesthetics of philosophical writing and style, philology and philosophy, film and philosophy, and ancient philosophy. Dr. Christodoulou received her doctorate jointly from the University of Klagenfurt (AUS) and the University of Toulouse (FR).



- › **Dr. Fabian Dehos**, Assistant Professor of Economics, with a focus on applied economics, particularly health, labor, and family economics. Dr. Dehos received his doctorate from Ruhr Uni Bochum and held several postdoctoral positions before joining CU.



- › **Dr. Mahdi Homayouni**, Senior University Lecturer in Industrial Engineering and Management, specialist in transportation. Dr. Homayouni received his PhD from Universiti Putra Malaysia and joined CU from the University of Porto.



- › **Dr. Dora Simunovic**, Lecturer in Psychology. Dr. Simunovic is a graduate of BIGSSS, the Bremen International Graduate School of Social Sciences, a joint graduate school of CU and Bremen University.



SCHOOL OF SCIENCE:



- › **Dr. Maheshi Danthurebandara**, Distinguished Lecturer in Sustainable Management, specializing in fields including the circular economy, sustainable development, and carbon footprint, joins CU from University of Peradeniya, Sri Lanka. She holds a joint Ph.D. in Engineering Science and Applied Economics from the University of Hasselt and KU Leuven, Belgium.



- › **Dr. Torsten John**, Assistant Professor of Physical Chemistry. Dr. John works at the interface of biophysical and computational chemistry to gain a deeper understanding of biomolecular systems. He holds a Ph.D. degree from the University of Leipzig and held postdoctoral positions at MIT and the MPI for Polymer Research in Mainz before joining CU.



- › **Dr. Ilya Pozdnyakov**, Lecturer in Biochemistry and Cell Biology, is a specialist in ion transport in microbes. Dr. Pozdnyakov holds a Ph.D. from the Institute of Cytology RAS, St. Petersburg, Russia and joins CU from GEOMAR Helmholtz Centre for Ocean Research Kiel.



SCHOOL OF COMPUTER SCIENCE AND ENGINEERING:



- › **Alexander Shabalin**, Lecturer in Data Science, joined CU from Moscow University and researches LLMs and methods for adapting diffusion models to textual data.



- › **Dr. Samaneh Rashidibajgan**, Lecturer in Computer Science, specializing in cybersecurity. Dr. Rashidibajgan holds a doctoral degree from Münster University.



- › **Dr. Joaquin Aguado**, Distinguished Lecturer in Computer Science, a specialist in synchronous programming, semantics, and concurrence. Dr. Aguado received his doctorate from the University of Sheffield and joins us now from Bamberg University.



- › **Dr. Nikolai Leopold**, Assistant Professor of Applied Mathematics, specializing in mathematical physics. Dr. Leopold received his doctorate from Ludwig Maximilian University of Munich, and held several postdoctoral positions before joining CU.

Additionally, four new Adjunct Professors were hired to contribute to research and teaching: **Dr. Dennis Krämer**, **Dr. Wolfgang Tittel**, **Dr. Alexander Tormasov**, and **Dr. Ivan Yamshchikov**.

Several researchers were also promoted in 2024, a fact that underlines our faculty's outstanding work and CU's commitment to them.

- › The Distinguished Lecturers **Dr. Keivan Mallahi-Karai** and **Dr. Omid Fatahi Valilai** were appointed as Assistant Professors.
- › **Dr. Francesco Maurelli** and **Dr. Hendro Wicaksono** were both promoted from Assistant to Associate Professors. Both were able to show that they have become fully established researchers in their respective fields of research.
- › Lastly, **Dr. Andreas Seebeck** was promoted to Full Professor, which is testimony to his exceptionally steep career path.



Finally, some important changes in the Academic Leadership took place in 2024.

In February, **Prof. Dr. Susanne Illenberger** was appointed as the Dean of the School of Science and Graduate Studies. She follows **Prof. Dr. Werner Nau**, who has been serving as Interim Provost since 2023. **Prof. Dr. Illenberger** joined the University in 2007 as University Lecturer and became a Distinguished Lecturer in 2023. In 2019, she was awarded the title Professor. Her goal for her 5-year term is to launch two research-oriented master's programs and to establish structured graduate education at the Ph.D. level, supporting the further development of the School of Science towards digitization and big data analysis in the Natural and Life Sciences.



In September 2024, **Prof. Dr. Adalbert Wilhelm** took office as the Interim Dean of the School of Business, Social, and Decision Sciences and Online Studies. **Prof. Dr. Wilhelm** joined the University in 2001. He envisions that the programs for the school – especially the online programs – will focus on topics positioned at the interface of science, technology, management and society, reflecting particularly on the cultural and human impact of artificial intelligence.

Prof. Dr. Wilhelm follows **Prof. Dr. Arvid Kappas**, who stepped back from his position as Dean after ten years in summer 2024 to reprioritize his research. Both **Prof. Dr. Illenberger** and **Prof. Dr. Wilhelm** are very familiar with the university and highly enthusiastic about shaping the future of CU.

6.2. Staff Profile

CU's team consists of 450 enthusiastic men and women working on our campus in Bremen. They belong either to our faculty organization

or to the departments that provide business solutions. Reflecting our international student body and orientation, Constructor University's staff is also very diverse – with origins in more than 100 countries both in and outside Europe. CU is probably the most international employer in the greater region and beyond. The average age of employees is quite low, with half of the team aged between 30 and 44.

NATIONALITY	QII 2024
ACADEMIC STAFF	50.5%
Africa	1.7%
Asia	25.0%
Europe, excluding Germany	17.7%
Germany	52.2%
North & South America	3.0%
Oceania	0.4%
ADMIN	49.5%
Africa	4.0%
Asia	11.0%
Europe, excluding Germany	17.6%
Germany	56.4%
North & South America	10.6%
Oceania	0.4%
GRAND TOTAL	100.0%

As we continue to grow, we are focused on developing the organization and creating attractive career opportunities. In 2024, we began implementing a comprehensive assessment of working conditions, starting with a review of salaries and benefits across the organization. This includes monitoring salaries with regard to potential gender gaps, accompanied by further measures under our gender equality plan.

7. Partnerships and Collaborations

7.1. International Collaborations

The International Outreach division pursues international partnerships to strengthen CU's academic and scientific activities, enhance its international brand recognition, contribute to student recruitment, and diversify and grow its income streams. During the year under review, the division was strengthened through the establishment of a department of International Partnerships, now including the International Programs Office.

Also in 2024, the division promoted CU to embassies, government agencies, universities, and potential students and their parents in Azerbaijan, Kazakhstan, Saudi Arabia, UAE, and Qatar.

These efforts resulted in 21 new inter-university agreements. The university enrolled its first eight students in the new Pre-Bachelor Semester program, which was specifically designed for potential students from countries (largely in the Southern Hemisphere) whose academic years are 6 months offset from that at CU. By the end of 2024, 38 students had been admitted to the PBS program which began in January 2025 – a growth of over 400%.

A major success was achieved in securing the placement at CU of 23 mid-career academics and other professionals from Kazakhstan as part of the Kazakh government-sponsored Bolashak program. These Bolashak interns spend one year at CU, where they participate in a professional development program that includes various custom-made training modules and specific regular courses in CU including visits to relevant industrial companies. In addition, the Bolashak interns are embedded in a CU research group where they learn new techniques and broaden their professional networks.



By the end of 2024, agreement was also reached with the Department of Higher Education and Training of South Africa for the placement of five successive cohorts of 30 bachelor's, 30 master's, and 20 doctoral students annually, beginning in Fall 2025. This project – named Project Funda after the Zulu word for “knowledge” brings with it significant long-

term financial contributions, and through the annual enrollment of 20 doctoral students, also supports CU's research ambitions.

The university's first dual degree was established with the Eastern Mediterranean University, enabling students to transfer to CU on completion of their bachelor's program at

**ADDITIONALLY, WE
ESTABLISHED OUR FIRST
PARTNERSHIP WITH AN
IRISH UNIVERSITY, THE
UNIVERSITY OF GALWAY.**

EMU, and graduate with a cognate bachelor's from CU after just one year of study. Another first is the establishment of a new short-term visiting student partnership established with Hofstra University. Here, CU has established a program focused on health systems management incorporating meetings with sectoral stakeholders, as well as some cultural activities. Twelve students and three faculty members will participate in the inaugural program in early 2025. Such programs help diversify CU's income streams and is an opportunity to convey a favorable impression to visiting students, eventually attracting them for master's or doctoral studies. Additionally, we established our first partnership with an Irish university, the University of Galway.

In 2024, CU hosted 31 exchange and visiting students, sent 15 students on semester-abroad programs, and supported 26 students in off-campus internships through Erasmus funds. In addition, an Erasmus staff exchange resulted in a new staff and student mobility partnership with the University of Cagliari.

Lastly, to support our ambitious international outreach agenda, we initiated numerous new partnership agreements with universities in all major geographic regions in support of this initiative.

7.2. Industry Partnerships

Companies of all sizes, from small and medium enterprises to multinational corporations, continue to collaborate with Constructor University's interdisciplinary teams. These partnerships support tailored projects, applied research, and meaningful knowledge transfer, reinforcing the university's role in advancing innovation and real-world impact.

In 2024, Constructor University welcomed Dr. Ivan Lukovnikov as the new Vice President of Business Development and Research and Transfer, strengthening its team with industry-experienced leadership to drive deeper collaboration and strategic growth.

Throughout the year, the university reestablished connections with leading international companies with offices in Bremen, including KPMG and Thermo Fisher Scientific. New relationships were also forged, such as with Saudi Aramco, where several education-focused initiatives are currently under discussion.

Despite experiencing financial difficulties, Barry Callebaut continued its collaboration with Constructor University and reported the highest level of satisfaction with the outcomes of joint research activities. The university also explored new opportunities with a diverse set of international companies, including Airbus, Bruker, Profine Group, and Prime Mundus.

A key highlight of the year was the successful hackathon held with BMW, which showcased the strong capabilities of CU students and the university's value as a partner in cutting-edge innovation.

Looking ahead to 2025, Constructor University will continue to deepen its engagement with the Bremen business community while expanding its international collaborations. These efforts will enhance research excellence and career opportunities for students and faculty, further solidifying the university's role as a global hub for research and education.

7.3. Alumni Engagement

The Constructor Alumni community is committed to building a strong, interconnected network that embodies the core values of CU while serving as a global ambassador for our ecosystem. Following the university's rebranding in 2023, our strategic focus in 2024 was to strengthen

alumni engagement across all institutions within the Constructor ecosystem under the unified banner of "Constructor Alumni." To enhance connectivity and efficiency, the Alumni Office adopted Salesforce as a central database and communications platform. Additionally, we expanded and updated the Alumni section of the university website, ensuring better visibility of the services available to both alumni and students. From an organizational perspective, the Alumni Office and Career Services Office came together once again as a single department, allowing improved cross-functional support between the two offices.

Key Statistics:

The Class of 2024 comprised over 400 graduates, representing 80 countries, with the three most popular academic programs being:



**COMPUTER
SCIENCE**



**INDUSTRIAL
ENGINEERING &
MANAGEMENT**



**BIOCHEMISTRY
AND CELL
BIOLOGY**

SELECTED SUCCESS STORIES IN 2024

Here are some success stories chosen from the past year that celebrate the achievements of our alumni community:

- ▶ The Alumni Office, in partnership with the Alumni Association and the Constructor University Foundation of America, launched its first fundraising campaign. Contributions totaled over €15,000, with all funds going directly to support students either via scholarships or through helping to offset student events and projects that enhance student experiences.
- ▶ Tomas Zangen (BA 2023) and his start-up LingoQuesto won the top prize at the inaugural Constructor Entrepreneurship & Innovation Center Incubator Program, securing €100,000 in funding.
- ▶ Joanna Nelson (BA 2013) released her debut feature film, “Hambre,” which looks at the emigration and humanitarian crisis in Venezuela. It has been screened at film festivals across Europe and the Americas.
- ▶ Bonaventure F.P. Dossou (MS 2022) re-released his first book in 2024, Outshining the Odds, which chronicles his humble beginnings in Benin (west Africa), stops in Russia and Germany, and Ph.D studies in Canada.

The 2024 graduation ceremony featured the return of a campus tradition. All graduates were given a stone, which symbolized the journey they took to reach graduation and the path they will forge in the future. The stone was then placed in a sundial in the campus center. This tradition – started by the pioneer class of 2004 and halted during the Covid-19 pandemic – connects alumni across the generations.





The highlight of our year was the annual Alumni Homecoming, themed "Keep on Rocking!" The 2024 celebration was of particular significance as we celebrated the 20th reunion of the class of 2004 – the first graduating class from the university. Over 100 participants – connecting the different eras of IUB, Jacobs, and Constructor – returned to campus to rekindle friendships and make new ones, while sharing wisdom with students.



8. Community Engagement and Outreach

8.1. Community Impact

At Constructor University, impact engagement is central to our mission as an international institution committed to positive societal change. We collaborate with communities in Bremen and northern Germany to build connections, share expertise, and address local and global challenges.

One example is our partnership with Bremen's Senatskanzlei through the StudyFriends program, where students support projects with children and high schools in exchange for campus housing.

Community engagement is also driven through the Language and Community Center (LCC), which organizes STEM (MINT) initiatives and the Community Impact Project (CIP). These programs offer free educational opportunities for local students and enable CU students to apply their knowledge to real-world issues through their coursework.

2024 STEM highlights include: the Bremer MINT-Tag (part of the Bremer MINTforum), with lectures, workshops, Q&A sessions, and campus tours for Bremen school classes; participating in MINT-EC Network Events for schools with senior high school students with an outstanding school profile in mathematics, science and technology; contributing to meerMINT activities and workshops in collaboration with the University of Bremen, Universum, Phänomenta Bremerhaven, and M2C Hochschule Bremen; and hosting MINTernational Workshops for local young people jointly with students from the Massachusetts Institute of Technology (MIT).

With the community impact project initiative, CU students in their fifth semester engage in major-related projects for the benefit of the community and positive change. With their international and strong academic background, CU students support NGOs, local initiatives, museums, schools, businesses, and startup companies by applying their knowledge and taking on social responsibility for the greater good of the Bremen region.

2024 CIP highlights include: Connecting Constructor University students with schools in our

region to offer our students' expertise in their respective study fields, their digital knowledge, and their diverse backgrounds to bring new skills to high school students and help them develop ideas regarding their future options; Urban Pergola, working with a Bremerhaven startup committed to urban greening and automated growing of plants on and between building roofs; Fashion Particle, an initiative developing standards for sustainable textiles for the fashion industry; and Hood Training, where students help integrate youths from less advantaged socioeconomic backgrounds through sports programs and other activities. By February 2024, these initiatives had worked with over 1,000 students in 45 projects, as well as 55 regional and 15 international partners. They also organized over 30 public events, attracted positive coverage in over 60 local and national news reports, and collected approximately €1,000,000 in third-party funds supporting some of the projects.

Public engagement with research at Constructor University (CU) grew significantly in 2024, reinforcing its role in connecting researchers with society. Over 25 projects involved more than 100 researchers and reached over 2,000 people through events, exhibitions, and festivals, in collaboration with partners like the House of Science Bremen and the Network for Science Communication. These initiatives enabled researchers to share discoveries and discuss the broader impact of their work.

Beyond outreach, CU researchers embraced co-creation, working with the public to gen-

erate new knowledge and solutions. Notable projects include Team Baby, an app supporting expectant parents, and Mindable, which helps manage panic disorders – both showcasing how collaborative research can deliver real-world health benefits. To support such efforts, CU's Public Engagement (PE) Unit offered training to help researchers communicate science and design participatory projects.

In 2024, the PE Unit also became the official host of the Jugend forscht regional competition in Bremen-Nord, deepening CU's community ties and commitment to nurturing young scientific talent. In partnership with KUKA Assembly & Test, CU will host the 2025 event on campus, connecting school students directly with university research and fostering engagement across all educational levels.



8.2. Talent School

Constructor University and Constructor Talent School engaged over 600 young learners worldwide in diverse academic programs, including in-person and online summer camps, courses, and competitions. Aimed at high school students aged 16 – 19, these programs fostered academic exploration and cultural exchange. From late June to early August, three 12-day summer camps took place at the Bremen campus, introducing 49 students to Natural Sciences, Computer Science, and Economics and Finance. The camps combined rigorous academics with excursions to Bremen, Hamburg, and local attractions, offering students a chance to explore Germany.

In April, the online Algorithm and Code Training School (ACTS), supported by JetBrains Foundation, hosted 101 students from 15 countries, many of them top Olympiad winners. In August, an onsite camp in Romania welcomed 45 students for advanced algorithm training and competitions. Later, 17 participants excelled at the International Olympiad in Informatics, winning multiple medals and honors.



Building on ACTS's success, the Digital Azerbaijan Talent School launched in partnership with the Innovation and Digital Development Agency. From 3,000 applicants, over 200 students joined in-person and online programs focusing on Advanced Computer Science Skills and Girls for IT.

Additionally, the online Mathematical Foundation of Computer Science program introduced Python, mathematical reasoning, and basic algorithms to 94 students, with 25 earning certificates after four months.

**CONSTRUCTOR UNIVERSITY
AND CONSTRUCTOR TALENT
SCHOOL ENGAGED OVER 600
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9. Campus Overview

- Administration
- Research & Teaching
- Public Spaces
- Residence

Constructor University's green, tree-shaded campus covers an area of 34 hectares. The architecture combines modern designs with gabled brick structures built in the last century.

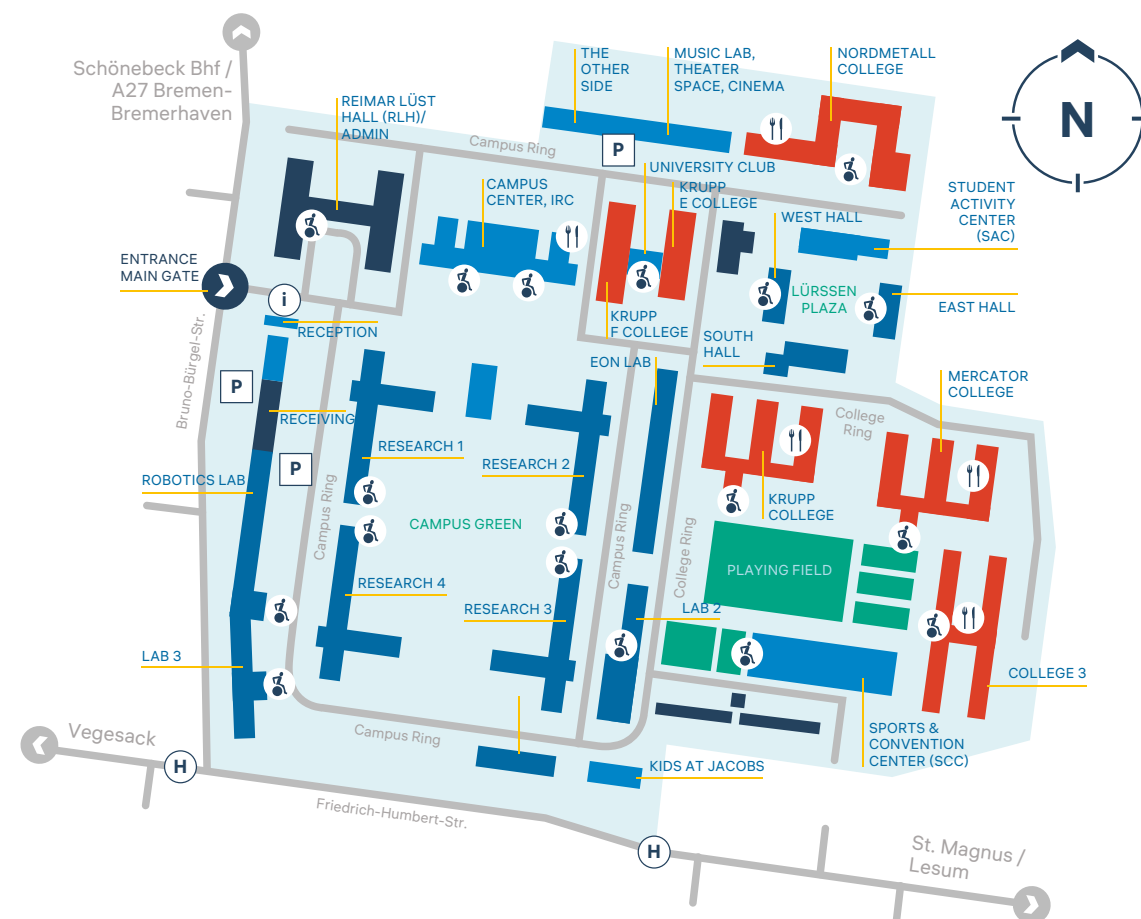
The campus includes state-of-the-art teaching and research buildings, administrative offices,

residential facilities, and public spaces. Students can stay fit and creative with vibrant arts facilities like TheaterSpace and MusicLab, both student- and staff-led initiatives. The Sports and Convention Center features multi-purpose halls, a fitness center, a rowing tank, and various outdoor courts. The library, part of the Information Resource Center, is located in the Campus Center, which was renovated in 2022 to create new spaces.

As our university grows, CU has partnered with the architecture firm "Hilmes Lamprecht" to

elaborate a development plan for the coming decade. This masterplan – finalized and approved in 2023 – includes a vision of how the grounds will be developed and expanded over the next ten years.

In December 2024, the Housing Office finalized a partnership with eRezLife, a comprehensive housing and residence life software system that will allow us to improve the student experience at the university.



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