

communicative  
innovative  
unique

dedicated  
collaborative  
excellent

active  
creative  
involved

talented  
high-performing  
promising

development-oriented  
dynamic  
unique

productive  
relevant  
stimulating

direct  
hands-on  
communicative

established  
independent  
methodical

constructive  
planning-focused  
interdisciplinary

future-oriented  
open  
inspiring

technology-focused  
systematic  
realistic

innovative  
interconnected  
practice-focused

partnership-oriented

communicative

innovative

unique

strategic  
integrated

intercultural  
international  
interactive

## We illuminate the smallest secrets

Night. Peak period at DELTA. Electrons accelerated to nearly the speed of light produce high-intensity X-rays:

Here, at the world's only electron storage ring located on a university campus, researchers shed light on the greatest secrets of nature – the tiniest constituents of matter, atoms, protein chains. Even first-semester students have the opportunity to clarify questions related to research and development. What's more: Students helped build the 115.2 meter long electron storage ring. We place great value on student participation. Who are we?

## We answer current educational questions

When pupils and teachers in Germany improve, Professor Nele McElvany is one of the first to know.

She heads IGLU, the German section of PIRLS (Progress in International Reading Literacy Study), and has also contributed to PISA, the study which has raised public awareness about educational research as a science. Our research provides highly regarded impetus for national and international youth, school and education policy. That is why we know first hand what equal opportunity – but without uniformity – means. Who are we?



Prof. McElvany, Educational Research

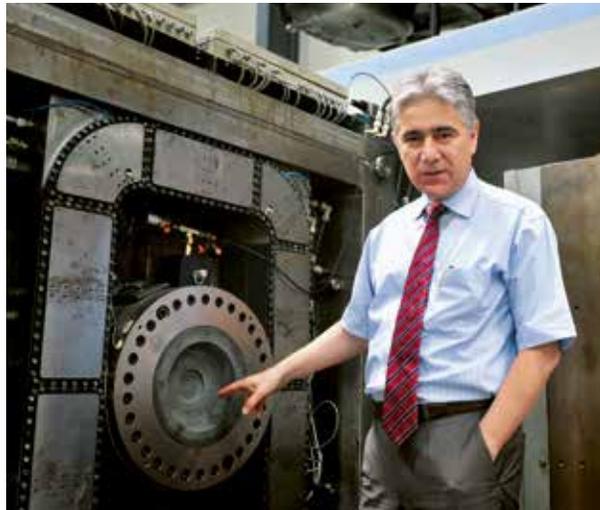


Campus City in Dortmund U

Prof. Tillmann, Materials Technology



Prof. Tekkaya, Forming Technology and Lightweight Construction



Prof. Steinbrecher, Institute of Journalism

## We study materials from the building component to the atom

New materials are important for solving questions of the future. They are needed for supplying energy, for mobility or medicine. Together with scientists of the

University Alliance Ruhr, Prof. Dirk Biermann, Prof. Wolfgang Tillmann and Prof. Erman Tekkaya carry out

research across the entire materials chain to find answers to these questions – an achievement we are proud of. Who are we?

## We develop new media formats

The studio spotlights bathe the set in green light.

‘Sound?’ ‘On!’ ‘Camera?’ ‘Running!’ Professor Michael Steinbrecher monitors the students in front of the

camera: They are filming their debut television show – under real conditions. Their television appearance is on the schedule of *nrvision*, a participatory TV channel funded by the state of North Rhine-Westphalia, which broadcasts statewide and via Internet. This is possible because we have TV professionals like Michael Steinbrecher as professors. Who are we?

We are TU Dortmund University with more than 33,400 students, 6,500 employees, among which are about 300 professors, and a broad range of subjects.

With the numerous researchers of our faculties, our institutes, as well as our national and international partners, we promote the advance of knowledge and work on the major questions of the future. In doing so, we are partly guided by pure curiosity and partly by the questions and challenges of our time. I cordially invite you to get to know our university better and hope you enjoy browsing this brochure.

Yours sincerely,



Prof. Manfred Bayer, President



We are  
TU Dortmund  
University

Almost 300 professors conduct  
**dedicated** |  
 research and teach at TU Dortmund  
**collaborative** | **excellent**

University. Their versatile commitment manifests itself in distinctions and prizes which are awarded to especially outstanding representatives.

Several colleagues have been awarded ERC grants or are spokespersons for a Collaborative Research Center. Other awards that have been presented include the Leibniz Prize, the Werner Heisenberg Medal, the Paul Ehrlich Prize, the Josef Rudinger Memorial Lecture Award, the Alfred Krupp Prize for Young Professors, the Adolf Grimme Prize, the Konrad Zuse Medal, the Communicator Award, the Liebig Commemorative Coin, the Heinz Maier-Leibnitz Prize, the Ars Legendi Prize, Architectural Prizes, the Yamada-Koga Prize, the Emil Kirschbaum Medal, the Order of Merit of the State of North Rhine-Westphalia and Federal Crosses of Merit.



Prof. Waldmann,  
 Chemical Biology,  
 Paul Karrer Medal



Prof. Wilkesmann,  
 Sociology of Work and Organization,  
 Heisenberg-Professorship



Prof. Albrecht  
 Experimental Physics,  
 Heisenberg-Professorship



Prof. Sadowski, Biochemical und Chemical Engineering, Leibniz Prize



## active | creative | involved

Around 6,600 new students enroll each year at TU Dortmund

University. They select both classic and innovative courses:

Around 80 bachelor and master degree programs are offered, including a broad-based teacher training program with around 30 courses of study. Sixty percent of the more than 33,400 students have opted for engineering and scientific disciplines. Forty percent are enrolled in cultural studies or social sciences programs.

In addition to their lectures and seminars, the students are engaged in a variety of initiatives and are active in more than 75 different university sports. There are also many cultural initiatives, such as the student orchestra or the university film club.

Under the direction of the chancellor, research and teaching are actively supported by a service-oriented administration, which sees itself as a service provider for all members of the university.



Around 2,000 academic staff members are employed at

## talented | high-performing | promising

TU Dortmund University. Their entry into the world of re-

search is supported on a high international level. Several

graduate school programs, including four Research

Training Groups of the German Research Foundation (DFG), contribute with their programs to around 290 doctoral degrees that are awarded each year at the university.

The wide range of graduate programs for early-career researchers are coordinated and expanded in the Graduate Center of TU Dortmund University. Within the Research Academy Ruhr these interdisciplinary offers are part of the network of the University Alliance Ruhr. The International Max Planck Research School in Chemical Biology and the Research Training Group MEDAS 21 provide interdisciplinary support for young scientists. Other springboards offering excellent perspectives for young researchers are the Collaborative Research Centers (CRCs), research units and priority programs of the German Research Foundation (DFG) as well as individual supervision of doctoral students in all faculties.

According to the assessment of the DFG, in the implementation of the 'Research-Oriented Standards on Gender Equality', TU Dortmund University has ranked in the top group since 2011.

Dr. Gersch,  
Chemistry and Chemical Biology

Prof. Fengler,  
Speaker of the research school  
MEDAS 21





Already in 1958 the Association of Friends (GdF) steadily sought to generate support for the construction of a technical university in Dortmund. Ten years later the first lecture was held at the 'University of Dortmund',

which as part of an education initiative became increasingly important for the structural transformation in the region. Meanwhile, during its history TU Dortmund University has developed a special profile: Uniquely structured faculties in the engineering and natural sciences and in social sciences and cultural studies work together here. The GdF has always been committed in its support of the university, and in particular promotes networking with the urban society. Today TU Dortmund University is not only the city's largest education and research institution, but is also one of its largest employers.

development-oriented |

dynamic | unique

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Prof. Schmeißer (†1981),  
Founding Rector

In four profile areas, research at TU Dortmund University is

**productive** |

visible both nationally and internationally.

**relevant** | **stimulating**

The area “Material, Production Technology and Logistics” is ranked at the top of research funding rankings. The

profile area “Chemical Biology, Drug Research and Process Engineering” focuses on the development of chemical, biotechnological or pharmaceutical products and processes. For this purpose, the RESOLV Cluster of Excellence investigates solvent-controlled processes on a molecular level. In the area “Data Analysis, Modeling and Simulation“ scientists in informatics, mathematics and statistics as well as engineering and economics work together to master huge amounts of data, for example in the Competence Center Machine Learning Rhine-Ruhr (ML2R). The empirical research and the developmental concepts of the fourth profile area “Education, School and Inclusion“ shape the current discourse on topics ranging from new school types up to and including PISA.



Prof. Prediger,  
Mathematics



Prof. Linser,  
Chemistry

Prof. Morik,  
Computer Science





TU Dortmund University is a 'presence' uni-  
**direct | hands-on |**  
 versity, in which e-learning meaningfully sup-  
**communicative**

plements the classes. It offers a wide range of different teaching formats – including large lectures, interactive seminars and practical lab experiments as well as individual lessons in music.

The Teacher Training Center (DoKoLL) coordinates teacher training at TU Dortmund University, whereas the Center for Higher Education is responsible for the areas of Continuing Education, Teaching and Faculty Development, Foreign Languages, Statistical Consulting and Analysis as well as Disability and University Studies (DoBuS). Already more than 40 years ago, DoBuS pioneered the motto 'A University for All' and in 2016 received an award from Zero Project in recognition of its work for inclusion.

TU Dortmund University places a special focus on the transition from school to university, for example through the SchülerUni, which offers courses and events for school students, the university's open house days, talent scouting or the Dortmunder Zentrum Studienstart, a center for beginning students. A variety of preparatory courses and close contact to teachers and schools help make the introductory phase of university studies a success. Taking advantage of these and other initiatives offered at the university, about 4,400 students complete their degrees at TU Dortmund University every year.





The natural and methodological science faculties at  
**established | independent |**

TU Dortmund University have an outstanding reputation.  
**methodical**

The Faculty of Physics offers the innovative study program Medical Physics. With its popular science

lectures 'Between Breakfast and Borussia', the faculty has sparked growing interest in topics of modern physics. The profile of the Faculty of Chemistry and Chemical Biology is characterized by its close cooperation with the Max Planck Institute of Molecular Physiology on the campus. Both collaborate in the field of drug discovery.



Prof. Ickstadt, Faculty of Statistics



Didactics – a special field of expertise of the Faculty of Mathematics

The Faculty of Statistics is unique in Germany and particularly strong in the interaction with the life sciences, economics and technology.

The Faculty of Mathematics collaborates very successfully with engineering faculties and has developed mathematics education into a special area of expertise. Dortmund's Faculty of Computer Science is one of the largest in Germany. Many of its graduates have established their own companies in the adjacent technology park.



Prof. Hanada, Architecture

The engineering faculties at TU Dortmund University offer a full

## constructive | planning-focused |

spectrum: The Faculty of Mechanical Engineering is nationally

## interdisciplinary

and internationally one of the leading faculties in production

technology and logistics. The Faculty of Biochemical and Chem-

ical Engineering is the largest in Europe; here the innovative degree program Bioengineering was developed. Electromobility, energy storage and intelligent networks are popular research fields of the Faculty of Electrical Engineering and Information Technology.

The Faculty of Architecture and Civil Engineering is developing new approaches to the holistic planning and construction of buildings. Furthermore, the Faculty of Spatial Planning, established by the university more than 50 years ago, was the first to offer an independent study program for spatial planners. As a consequence of the international planning program SPRING, Dortmund graduates can be found in all continents of the world.



Prof. Schwegelshohn, Distributed Systems

Seminar for Art and Art Studies



Prof. Ritterfeld,  
Rehabilitation Sciences



Prof. Crone,  
Philosophy



Prof. Liening,  
Entrepreneurship School

Social sciences and cultural studies at TU Dortmund  
**future-oriented** |  
 University are collaboration-oriented and embedded in  
**open** | **inspiring**

various academic networks. In the Faculty of Business and Economics, the spectrum ranges from entrepreneurship research, controlling and marketing to health policy and economic policy. The Faculty of Cultural Studies promotes campus-wide dialogue with interdisciplinary course programs and offers Germany's only program in science journalism, which also includes an integrated traineeship in this field.

The Faculty of Educational Sciences and Psychology is known throughout Germany for its school research. The Faculty of Rehabilitation Sciences seeks to investigate what support is necessary for people with special needs in their everyday lives. It is the largest independent university institution with this profile in Europe.

The Faculty of Human Sciences and Theology stands for the interdisciplinary collaboration of political science, philosophy and theology. The Faculty of Arts and Sports Sciences also trains art teachers, and music is also offered as a major in the course program for prospective secondary school teachers. TU Dortmund University is one of the few universities in Germany to offer course programs for prospective teachers of all school types.

The Faculty of Social Sciences comprises sociology and other fields of social science, such as the long-established Social Research Center (sfs), which deals with questions of the working world and organizational change.

Strong institutional networks in the natural sciences

**technology-focused** |

and engineering profile areas contribute significantly to

**systematic** | **realistic**

the research achievements of TU Dortmund University.

One Max Planck institute, two Fraunhofer institutes, two

Leibniz institutes and the Federal Institute for Occupational Safety and Health (BAuA) are located in close proximity to the campus.

The Max Planck Institute of Molecular Physiology is devoted to systems biology. The Fraunhofer Institute for Material Flow and Logistics, the institute responsible for the EffizienzCluster LogistikRuhr, is a landmark of logistics research in Germany. The Fraunhofer Institute for Software and Systems Engineering develops concepts for complex IT systems with long-term stability. The main focus of the Leibniz Institute for Analytical Sciences (ISAS) is on application-oriented basic research in the field of physical-chemical analysis.

The Leibniz Research Centre for Working Environment and Human Factors (IfADo) investigates the potential and risks of modern work based on insights from the behavioral and life sciences, whereas BAuA explores issues of safety and health at work.

Three other institutes are affiliated with the university: the Institute of Gerontology, the Research Institute for Technology and Disability, and the German Institute for Civic Art. Together with the University of Applied Sciences and Arts and TU Dortmund University, most institutes are members of windo e.V., an association of science institutions in Dortmund.

Brain wave measurement, IfADo





Aerial photograph 2020

Europe's largest technology park adjacent to a university

**innovative** |

campus is the best proof of the timeliness and relevance

**interconnected** | **practice-focused**

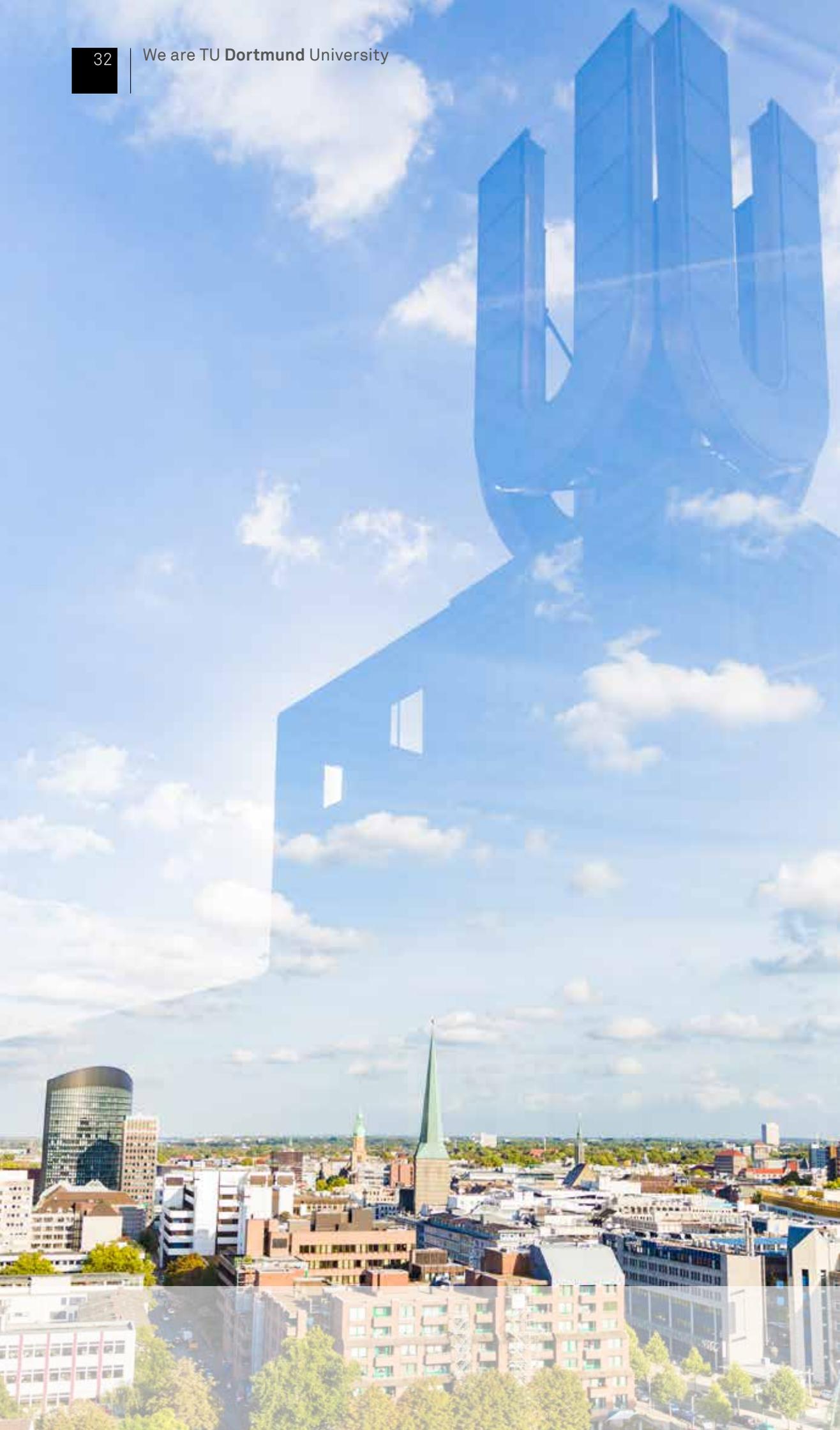
of research and teaching at TU Dortmund University.

TechnologieZentrumDortmund (TZDO), the nucleus of the technology park, focuses on seven fields of technology: micro-/nanotechnology, IT, electronics, logistics, production technology, biomedicine and environmental technology. More than 300 established and innovative spin-off companies with more than 10,000 employees benefit from the dense infrastructure and the synergy of industry and science.

The dialogue between the university and industry has created numerous spin-offs and networks. Already in 2012 support for start-ups was anchored at TU Dortmund University with the founding initiative "tu>start-up".

In 2017, the Center for Entrepreneurship & Transfer (CET) was launched as a central institution for the promotion of start-ups and technology and knowledge transfer. And since 2019 TU Dortmund University is "Excellence Start-up Center.NRW".

With the Deutschlandstipendium, TU Dortmund University has also created an attractive grant program for companies to support outstanding students in their region. Companies can thus make contact early on to potential specialist employees.



Welcome event for first-semester students in the stadium of the SIGNAL IDUNA PARK

Seven universities and some twenty research  
**partnership-oriented** |  
 institutions have made Dortmund into a major science  
**strategic** | **integrated**

location. The Masterplan Science Dortmund, adopted

in 2013 and evaluated in 2018, strengthens this profile

and the international competitiveness of the science location Dortmund. For the outstanding communication of this project, TU Dortmund University and the Dortmund University of Applied Sciences and Arts were awarded the University Communications Prize 2015 by the German Rectors' Conference and the publisher Die ZEIT together with the Robert Bosch Foundation. The city surprises foreign students and researchers with its many aspects: intercultural diversity and green recreation areas, thrilling sporting events and a rich cultural offering – all that is Dortmund. For the European Capital of Culture RUHR.2010, the Dortmunder U opened as a center for art and creativity. Since then TU Dortmund University has been showing changing exhibitions of science and art at 'Campus City'.

The University Alliance Ruhr (UA Ruhr) of TU Dortmund University, Ruhr-Universität Bochum and the University of Duisburg-Essen strengthens the achievements of all three partners in the region and expands the shared focus of research and teaching. An example of this is the UA Ruhr Research Cluster RESOLV (Ruhr Explores Solvation), which is funded within the framework of the German federal government's Excellence Initiative.

International courses, exchange and research

**intercultural** |

projects promote intercultural skills in a global

**international** |

society. The International Meeting Center IBZ

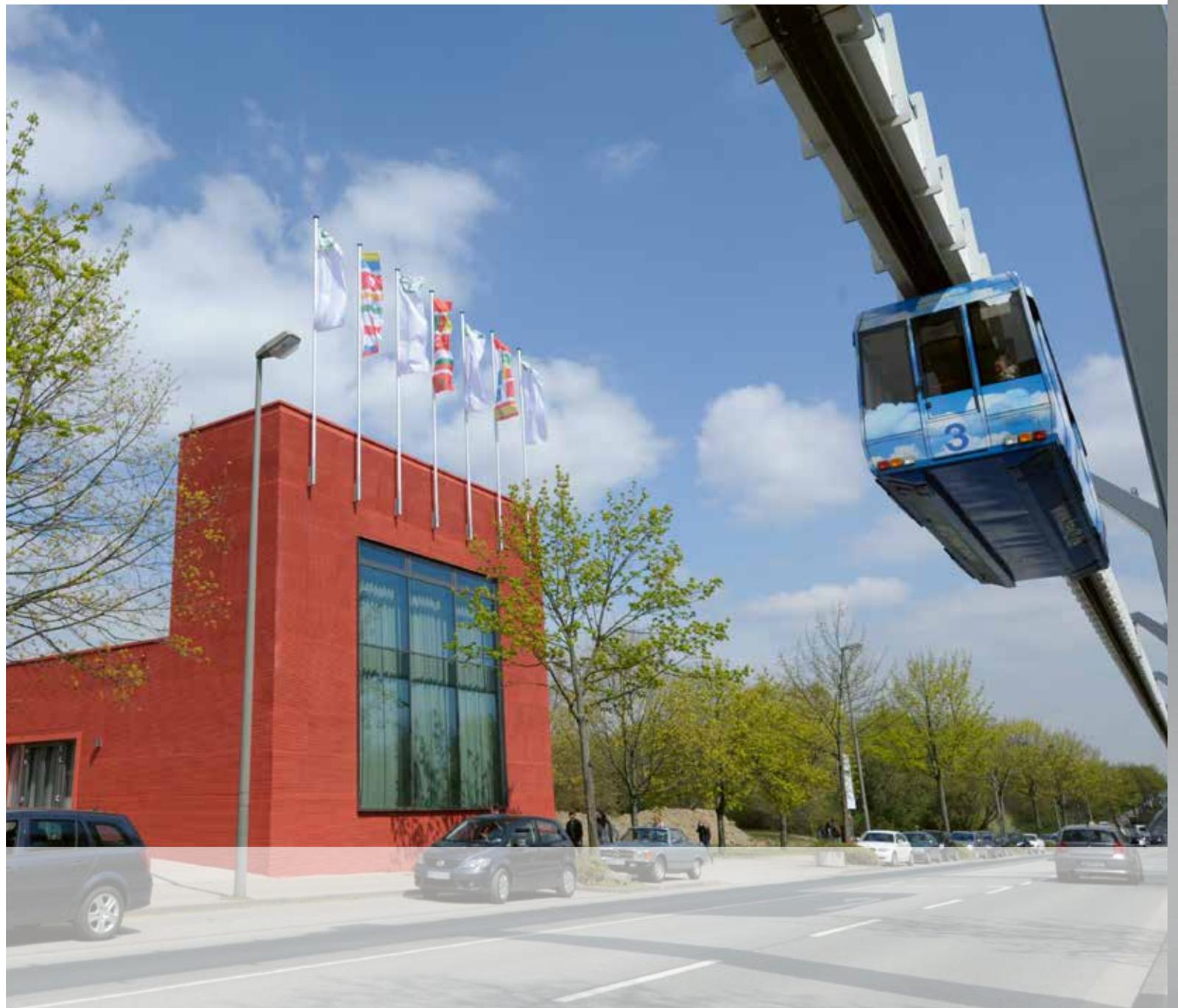
**interactive**

is a central forum for dialogue on the

campus to facilitate contacts between students

from all over the world as well as with companies that are active worldwide. Events with a global perspective such as the International Career Fair or the International Summer Program (ISP) show how people from different cultures learn from each other and together with each other.

The contact to North America is particularly fostered, for example with the liaison office of the University Alliance Ruhr (UA Ruhr) in New York coordinated by TU Dortmund University. There is another UA Ruhr liaison office in Moscow. Many collaborations and international projects of the faculties and scientists fill these contacts with life.



International Meeting Center IBZ

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