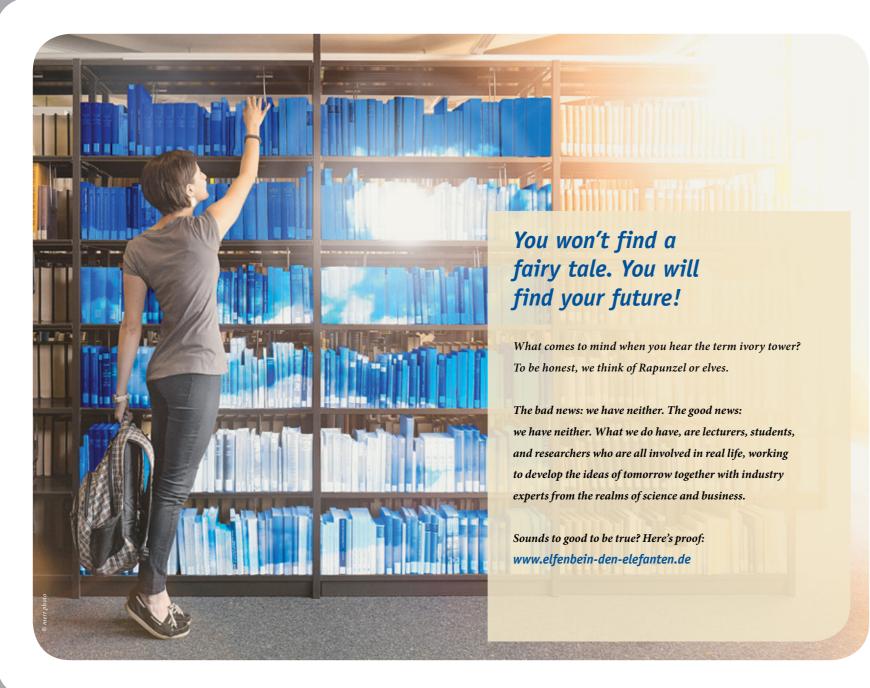


UNIVERSITÄT
DUISBURG
ESSEN

Open-Minded



Open-Minded	4	Partners and Networks	24
We like when people turn our heads.		We set high standards.	
Because we think in terms of possibilities		Preferably as a team.	
instead of limitations.		Culture and Living	30
Research and Teaching	8	We set the rhythm together.	
We like to get to the bottom of things.		And hit the right notes for everyone.	
Especially in research and teaching.			



We. Together.

We admit, the Ruhr metropolis is not New York City. But it's pretty close. Walking across the two campuses of the University of Duisburg-Essen (UDE), you meet scientists and students from all over the world. You find yourself in a big melting pot, the melting pot UDE.

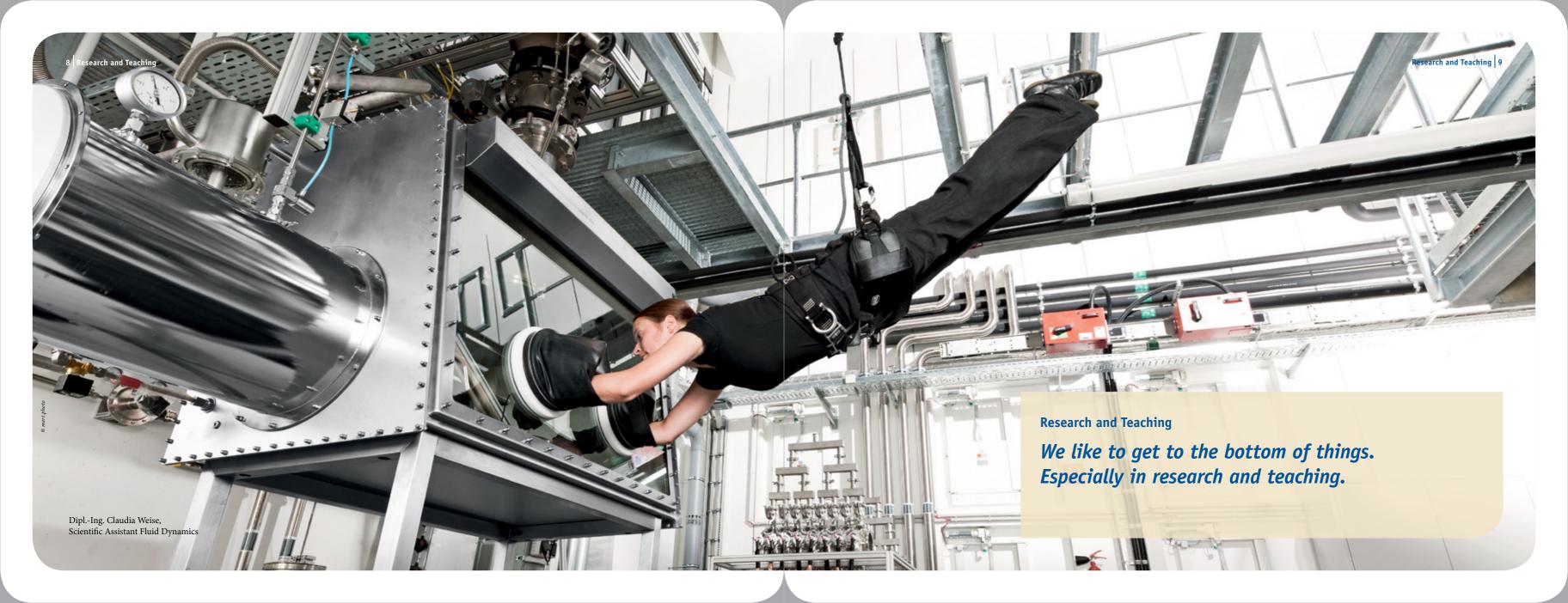
We explicitly promote exchange – of knowledge, of perspectives, of talents. We maintain partnerships with many Universities – from China to Brunei to Peru. And we promote mobility within Europe – for example in cooperation with our over 200 *ERASMUS* partner universities in almost 30 countries.

Just like the region, our university is dynamic, ambitious, and ever changing. In more and more areas, we are counted among the strongest research universities in Germany. Because research and teaching are closely intertwined, our students gain access to new scientific discoveries without delay.

Our university is in a strong position that we plan to develop further in the future. We want to promote the diverse potentials gathered here even better and more effectively. That way everybody profits – science, economy and society.







Research and Teaching: Our starting lineup

Soccer, some say, is the religion of the Ruhr metropolis. Even so, it is purely coincidental that our starting lineup is also made up of eleven stars with various talents. In eleven departments, we bring people into play that are very different in character, field of expertise, and background. This interplay and cooperation is what develops creativity and strong dynamics.

The 11 faculties of the UDE:

- Humanities
- Social Sciences
- Educational Sciences
- Economics and Business Administration
- Mercator School of Management
- Mathematics
- Physics
- Chemistry
- Biology
- Engineering
- Medicine

www.uni-due.de/en/faculties.php

Science: The brightest minds

Maybe not all roads lead to Duisburg-Essen. But many do.

The UDE attracts inventors and technicians, number jugglers and word artists.

We research and teach to develop sustainable designs and solutions for our ever-changing society. We can access a vast pool of knowledge from our eleven departments to find solutions for questions like: What would a sustainable energy supply look like? How does globalization affect our lives? What can we do to better diagnose and heal diseases with new methods and drugs? Which new opportunities for industry and everyday life do new materials provide? Which ways lead to a successful education system that is internationally competitive?

The UDE offers an environment for established as well as aspiring scientists that allows for personal development and progress. In research associations and various projects of the German Research Foundation (DFG), the Federal Ministry of Education and Research (BMBF) and the EU, we practice excellent fundamental as well as applied research. We think

in terms of teamwork, but also create freedom. Because outstanding results are often also based on the accomplishments of single scientists.

But most importantly, research at the UDE does not happen in a vacuum. We deliberately interlock research and teaching as closely as we can. Scientists at the University of Duisburg-Essen share their insights and results immediately with the students. In this way, we build a giant internal web of scientific knowledge that everyone can and should log into.

We want to provide incentives for the brightest minds to take the path to Duisburg-Essen. Today and in the future.

Research: Promoting young academics

On the way to the top: In past years, we have continually improved our research results, and now belong to the group of universities with the strongest research profiles in Germany.

We especially count on young academics. The chance of getting a junior professorship is great for hopeful talents at UDE. Since 2008 our young scientists have also drawn attention in *Emmy Noether-Research Groups*, and furthermore have won several *Heinz Maier-Leibnitz Prizes*.

Talents, of course, need role models. Someone like Prof. Dr. Marc Levine, who came to Duisburg-Essen in 2009 as one of the first four *Alexander von Humboldt-Professors*. Or like the UDE-scientists that have been awarded a European Research Council Grant (ERC-Grant) by the *European Research Council*. Or like our dedicated scientists who are members of the review boards of the German Research Foundation (DFG).

Together we have increased our disbursed third-party funds by over 50% to about 110 million euros since 2007. In this way, we have gained ten points in the DFG-research ranking. We are proud of our accomplishments. But not nearly satisfied.

www.uni-due.de/en/research



University of Duisburg-Essen.

Prof. Dr. phil. nat. Shirley Knauer Centre for Medical Biotechnology (ZMB)

12 Research and Teaching

Select

Around the globe countless new universities are founded every day. But only a select few manage to be listed in the renowned

Times Higher Education ranking of the best universities under 50 years old. UDE was one of only four German universities included in this ranking in 2013. It is now one of the "rising stars" counted among the top 100 of the world.

Visibility

One nanometer measures the billionth part of one millimeter. The area of the research building, "NanoEnergieTechnikZentrum, NETZ" measures at 3,900 m². Here, researchers from science and industry jointly produce tiny nanoparticles, analyze them, and develop direct applications in energy management.

Choice

On the ballot, you can usually choose from among 20 parties. At our university, you can choose from about 200 degrees, which all represent one thing: competence.



Main research areas: Lucky number five

Broad base, strong peaks: The University of Duisburg-Essen has developed five interdisciplinary research clusters, in which our scientists accomplish outstanding work.

Nanosciences

Since 2005, the Center for Nanointegration Duisburg-Essen (CENIDE) has coordinated the research and teaching activities of our university that explore the nanodimension, in the natural sciences and engineering as well as in medicine. One focus is the field of "NanoEnergy", centered at the unique new research building NanoEnergieTechnikZentrum, NETZ.

Interdisciplinary research is not just a term, but is filled with life in research centers (SFB) and priority programs, BMBF-, Ziel2-, and EU-projects.

www.uni-due.de/cenide

Biomedical Sciences

Here we bring together basic research in the natural sciences and engineering with research at the university hospital. This main research area is comprised of the *Center for Medical Biotechnology (ZMB)* and the *Erwin L. Hahn Institute for Magnetic Resonance Imaging*.

The *Center for Medical Biotechnology* aims to shed light on the molecular mechanisms of diseases and use the findings to develop new medical procedures and drugs. Numerous workgroups of the ZMB combine basic and applied biomedical sciences.

The Erwin L. Hahn Institute for Magnetic Resonance Imaging is dedicated to the advancement of magnetic resonance imaging (MRI) for both cognitive neuroscience and medical diagnosis and treatment. Located on the grounds of the UNESCO World Cultural Heritage Zollverein, the centerpiece of the institute is a state-of-the-art 7 Tesla whole-body MRI.

www.uni-due.de/zmb www.hahn-institute.de



Urban Systems

Sustainable concepts for the future of cities – our departments of engineering, economics, humanities, and natural and social sciences are working towards this goal. Several research groups find ideal working conditions in the Ruhr metropolis, the largest network of cities in Germany. The Center for Logistics and Traffic (ZLV) and the Center for Water and Environmental Research (ZWU) are two research institutes that connect a variety of scientists and allow for an interdisciplinary research environment outside of department boundaries.

www.uni-due.de/zlv www.uni-due.de/zwu

Transformation of Contemporary Societies

When social processes counteract the workings of established social institutions, we call these phenomena the dissolution of borders. We can observe this dissolution of borders in many modern societies today. The object of the focal research area The Centre for Empirial Research in Education (ZeB) aims is accordingly to research new forms of the building of order in the context of a border-less world. At the Käte Hamburger Kolleg/Center for Global Cooperation Research (GCR21), a team of brilliant scientists analyzes the possibilities of global cooperation. Interdisciplinary, practice-related, and applica-

tion-based. The world-class experts of IN-EAST, the largest university institute of modern East Asian studies in Germany, address societal, political, and economic questions regarding East Asia with a focus on Japan and China.

www.gcr21.org/en/ www.uni-due.de/in-east

Empirical Research in Education

Providing teachers with improved methods to give better support to their students. This main research area aims to develop a progressive education system. The Centre for Teacher Training (ZLB) plays a central role. Here, the development and adaptation of the relevant guidelines for teacher training of the UDE takes place. Furthermore, the center designs instruments for quality development and quality assurance in teacher training.

to achieve an interdisciplinary cooperation between Education and Research, Psychology, Teaching Methodology and the faculties.

www.uni-due.de/zeb/Home.shtml www.zlb.uni-due.de





University hospital: Medical lighthouse

A valuable advantage of location: The strong ties between the Arithmetic, gender differences, and scientific digital comuniversity and the university hospital. 27 clinics and 20 institutes make the hospital a big player in the Ruhr metropolis. In its interdisciplinary research areas of genetic medicine, Duisburg-Essen: immunology, and infectiology, and with a focus on three main areas of research, namely cardiovascular system, oncology, and transplantation, the university hospital sets standards.

Many specialists of the university hospital work together in the West German Tumor Center (WTZ). Built in 1967, the WTZ is one of the top ten oncological centers in Germany. The new age of German genome research also began in Essen. Starting in 2012, our specialists in human genetics have been pursuing the question of how genes can be programed within cells as part of the German Epigenome Programme (DEEP). The university hospital in Essen, together with Saarbrücken, is one of the two locations where DNA methylation cards are made.

www.uniklinikum-essen.de

Central scientific institutes: Progress ahead

munication – these are just three topic areas our scientists explore in the central scientific institutes at the University of

CCSS - Center for Computational Sciences and Simulation

The CCSS is a platform for interdisciplinary activity groups in the areas of computer based sciences and arithmetic, comprised of mathematicians, engineers, and natural scientists. At the CCSS, they are able to work with the supercomputer CrayXT6m.

■ EKfG – Essen College of Gender Studies

The *EKfG* carries out research on gender relationships in institutions and organizations, in education and media, and in history and politics. The goal is to gain concrete knowledge for real life applications.

■ IEM – Institute for Experimental Mathematics

The IEM enables mathematicians, communication engineers, and computer specialists to work together under one roof.

Their main goal is to explore the interplay between mathematics and communication engineering.

paluno – The Ruhr Institute for Software Technology

Basic as well as applied research and bilateral cooperation with the industry are combined within paluno. Here computer scientists and software developers in research and service projects develop projections that transform complex software systems from theory into practice with partners in all of Europe

• KWI - Institute for Advanced Study in the Humanities

The Institute for Advanced Study in the Humanities (KWI) is an interdisciplinary and inter-university research college of UDE as well as the Ruhr University Bochum and the TU Dortmund. The task of the KWI is to promote cultural research, international exchange, and intercultural dialogue. Multidisciplinary and practice oriented, the scientists work on questions of modern culture, for example the relationship between culture and industry, or the societal responsibilities of science.



18 Research and Teaching

Associated Institutes: Please connect

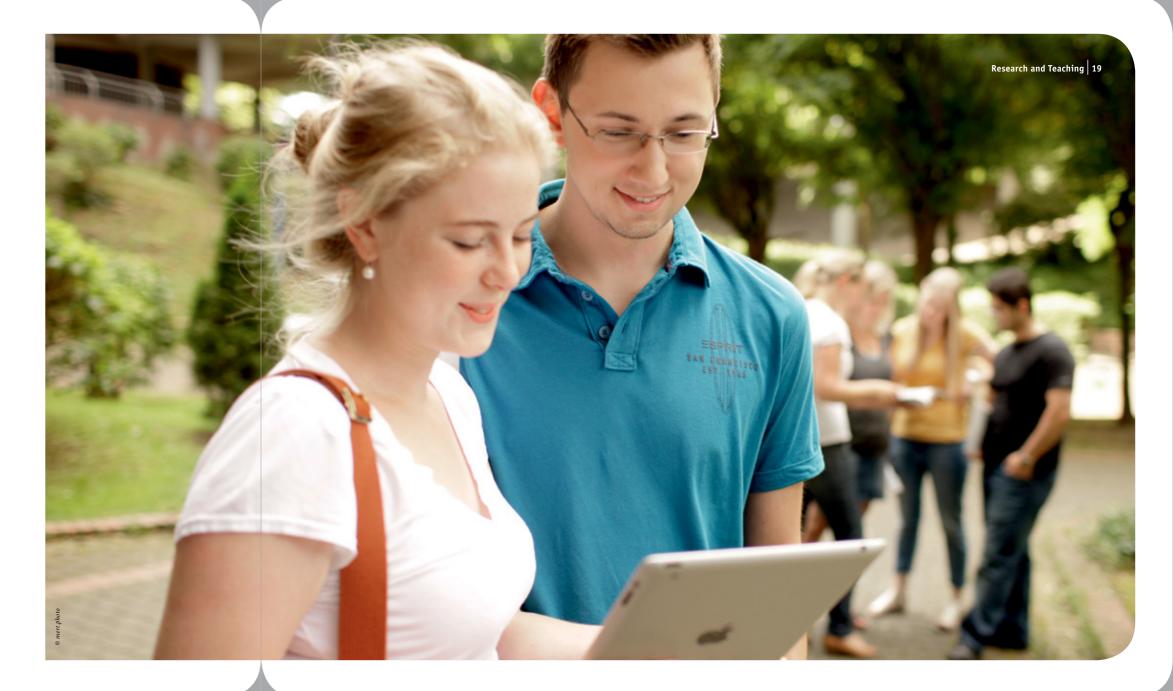
Broaden your scientific perspective: A total of 12 associated institutes of the University of Duisburg-Essen are important connections to industry.

Our associated institutes not only benefit from a close relationship to regional partners but also from the excellent infrastructure at the university. Here, we practice valuable matching research and practice our varied know-how.

The Associated Institutes of the University:

- DTNW German textile research center north-west (In cooperation with the Hochschule Niederrhein, University of Applied Sciences)
 www.dtnw.de
- DST Development center for ship technology and transport systems
 www.dst-org.de
- IUTA Institute of energy and environmental technology www.iuta.de
- IMST Institute of mobile and satellite communication technology www.imst.de

- IWW Water center www.iww-online.de
- KI Ruhr Confucius Institute Metropolis Ruhr www.uni-due.de/konfuzius-institut
- RISP Rhine-Ruhr institute for social research and political consulting www.risp-duisburg.de
- Salomon Ludwig Steinheim institute for German-Jewish history
 www.steinheim-institut.de
- ZBT Center for fuel cell technology www.zbt-duisburg.de
- ZfTI Center for Studies on Turkey and Integration www.zfti.de



Our region is full of talents. We want to embrace every one of them. At the University of Duisburg-Essen, young people can choose from an extraordinarily wide variety of about 200 Bachelor and Master Degree programs and become engineers, doctors, computer scientists, economists, or social scientists, to name only a few of the possibilities.

Even at a very young age, we feed the hunger for knowledge. The University of Duisburg-Essen is one of the largest centers for teacher training in North Rhine Westphalia, and sends highly qualified teachers to our schools. Our university offers training for all school forms: for elementary schools, all secondary schools, and vocational colleges. We have transformed the teacher trainings into the Bachelor- and Master system, and thus have made them more efficient, practical, and transparent.

"Students first" – our motto is more than just a claim. To prove it, we have created a full time vice-rectorate for teaching and learning. In fact, UDE is one of the few universities in Germany which has already implemented this.

This concept bears fruit: For the first time in its history, about 40,000 students are enrolled at the University of Duisburg-Essen. And we want to provide the best possible start for their working career to every single one of them. Therefore, we will continue to improve our already impressive student mentoring system, step by step into the future. The Federal Ministry of Education and Research (BMBF) supports our plan. UDE received a 22 million euro grant in the first round of the BMBF's program for more quality in teaching, the second highest grant from over 111 universities.

Now and in the future: The path to success leads the students of our university down many individual routes. Today, many students already have the possibility for a better compatibility of family and student life by studying part-time, while students training to be teachers profit from a new time-slot model that helps to eliminate overlapping between lectures and seminars.

Multifaceted

Home for the University of Duisburg-Essen is the state of North Rhine Westphalia. Our students come from all over the world. On both campuses, inquisitive people from

over 130 countries

come together.





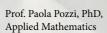
International

Duisburg-Essen is our home. More than 16,000 kilometers separate us from Griffith University in Brisbane, our most eastern of almost 100 partner universities. Our most western partner university is 7,800 kilometers away in Bellingham, WA, on the US west coast.

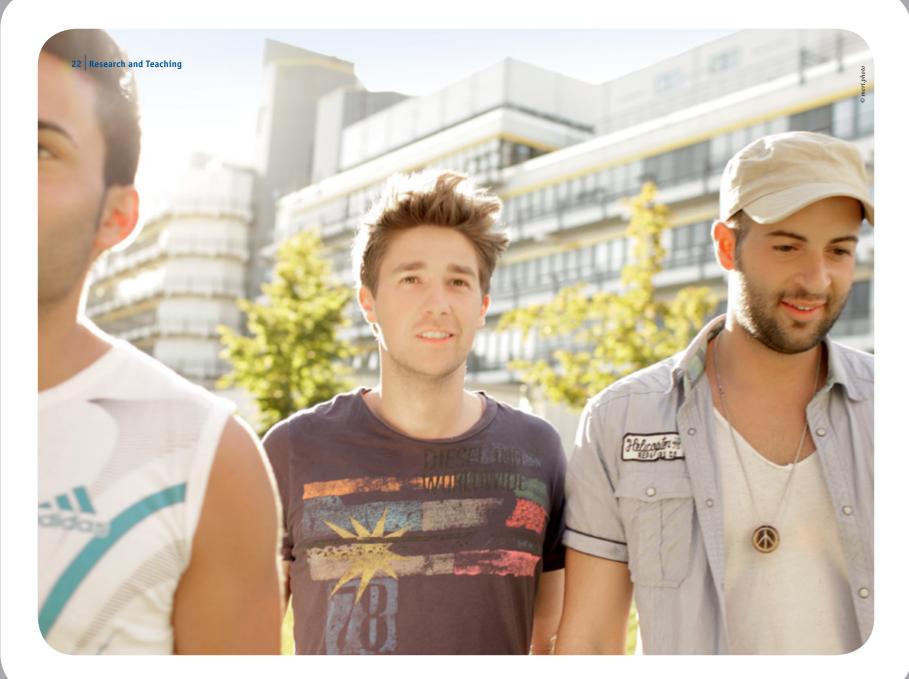
Educational

North Rhine Westphalia has over

two million pupils, but only five large centers for teacher training, providing education for teachers of all school forms. Our university is one of these centers.







Mentors: Leading the way

Creating equal opportunities in education – this cannot be achieved without effort. This is why we have developed a large mentoring system for our university. And every department has their own custom made mentoring program.

It is the job of our mentors to support, accompany, and inspire their mentees. This form of professional yet personal support in most cases increases scholarly performance and decreases failure and drop out rates.

Advancement through education: Opening doors

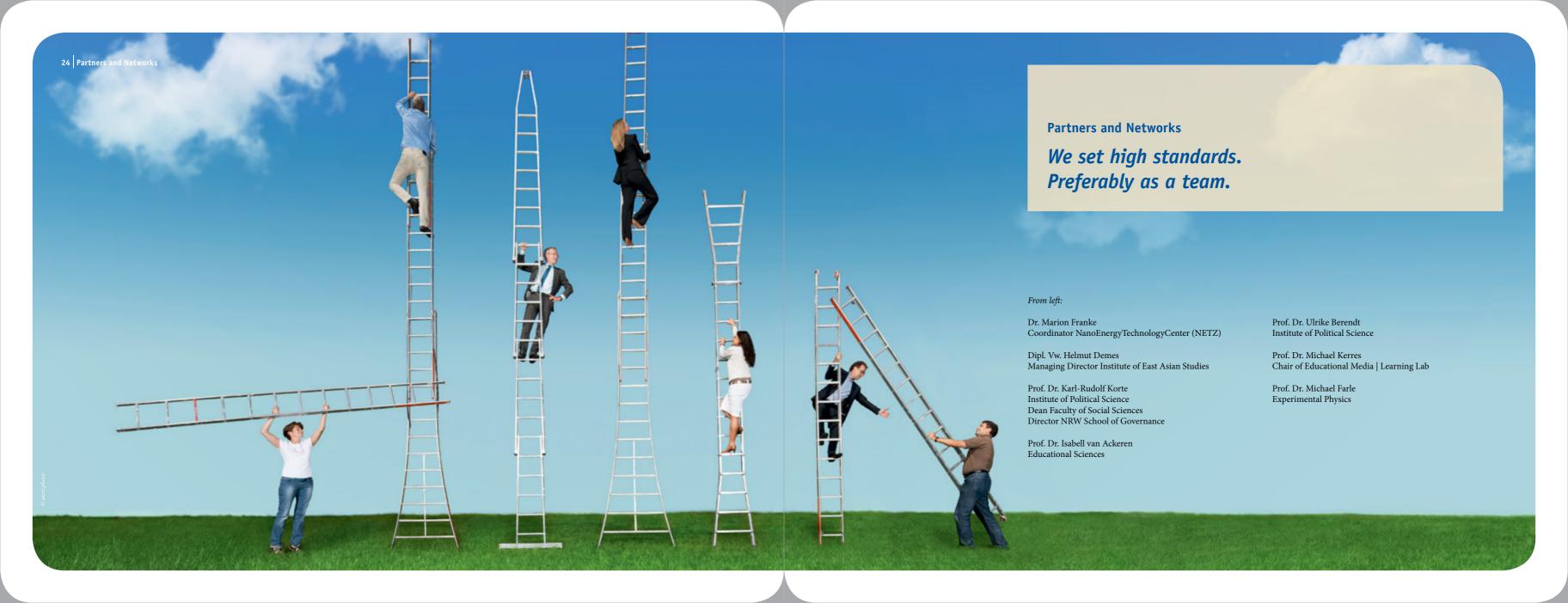
Let actions follow words – we passionately take this principle to heart. Especially when it comes to recognizing talents, supporting hidden abilities and potentials, and fighting for more equality in education. Here are two of several programs we implement:

The project *Chance hoch 2* is a pilot program in Germany. It aims to minimize the various roadblocks between graduating from high school and attending a university for young people from families without academic backgrounds. It motivates, accompanies, and supports teenagers from the 9th and 10th grade on their way to a high school diploma and further on to a successful Bachelor degree. Concepts for ensuring a smooth transition from high school to university and involving the families are key to this process.

ProSALAMANDER is a program for foreign academics that is designed to help with the recognition of the foreign degree in Germany or to gain a German degree on the basis of individual qualifications. Also, the program helps to facilitate access to the job market on a level that represents individual qualification.

Chance hoch 2 and PROSALAMANDER are funded by Stiftung Mercator, one of the largest private foundations in Germany.

www.uni-due.de/chancehoch2 www.prosalamander.de/en



Achieving greatness together – This idea moves us forward. The University of Duisburg-Essen counts on regional, national, and international partnerships. In this way we

want to develop new opportunities for research and teaching, and also improve the transfer of knowledge to the economy and politics.

That amazing things can happen when we focus our



Student project: Formula Student

energy is shown by the example of the *E-Team*, one of numerous student projects at the University of Duisburg-Essen participating in the Formula Student. In November of 2010, a total of 50 students from different departments such as mechanical engineering, electrical engineering, naval architecture, and industrial engineering, started working together and were able to get funding amounting to 125,000 euros from sponsors. They constructed a unique electric race car for an international student competition that they now race on international racetracks. This is just one more example to prove that teamwork works when everybody works towards a shared goal. It also shows how clever sustainability and entrepreneurship can go hand in hand.

UA-Ruhr: The giant in the region

Overcoming boundaries, bringing talents together: By creating the University Alliance Metropolis Ruhr (UA-Ruhr), we have significantly strengthened the Ruhr metropolis' potential as a place of education. We have created a giant that is really powerful, but agile.



The alliance was born in 2007. Since then, the University of Duisburg-Essen has pulled together with both the Ruhr University Bochum and TU Dortmund University. Our guiding theme is that of "coopertition", a mixture of cooperation and competition applied to research, teaching, and administration. Take, for example, our joint research teams in engineering, with scientists from all three universities. We have also intensified the cooperation of individual chairs and amplified our international research contacts with help from our international offices in New York, Moscow, and Rio de Janeiro/São Paulo.

The greatest achievement of all: The creation of a unified academic space. Our students can take courses and use many of the facilities at all three universities and become part of

an academic community of more than 100,000 students.

This benefits many of our researchers and students.

www.uaruhr.de

All of this makes

us strong.

The three

big universities

of the Ruhr

working to-

gether side

can help. care of it.

ambitious young people like a magnet because we create reasonable conditions that account for the diverging life situations of our students.

- You want more flexibility in your learning methods? Our E-Learning-platforms
- You seek competent care for your child? The parent service bureau (ESB) takes
- You want to travel from Essen to Duisburg? Our shuttle bus takes you there.

We understand that a pleasant and stimulating work environment is more than just the icing on the cake. It is the preis not a coincidence. We draw requisite for top performance.

> This is why we are also very concerned with providing financial aid for our students. For example, we are already able to provide UDE-scholarships for over 350 students – a number that has put us ahead nationwide. International companies and medium-sized and family businesses from our region help us with this.

> A win-win-win situation for university, students, and sponsors. The situation is comfortable, but can still be improved. We are working on it.

www.uni-due.de/de/marketing/deutschlandstipendium



Bame-changing

In Hogwarts, the school of Harry Potter and his

friends, dementors sometimes create chaos.

At our university, every department has many

mentors who support their students individually

and inspire them to explore their hidden abilities.

Prof. Dr. Hemmo Meyer Faculty of Biology





Welcome to our region

Open-mindedness, lots of resourcefulness, and a big portion of curiosity. Those are the things the people here are known for. And that is also what the University of Duisburg-Essen stands for.

Whether it is being the host of a show on the Campus-Radio, or participating as a member of the Initiative for Sustainability. If you like to be on stage the university orchestra might be stands for.

We want to be an inclusive university with open doors for everybody. That is why we have opened our information centers: the *Blue House* in the middle of Duisburg and the *BildungsPunkt* in the city center of Essen.

Our motto: We don't wait around for the people to come to us but approach them ourselves – with lots of good learning opportunities up our sleeves.

University life: In the middle of things

We love to provide our students with knowledge and skills for their future work and life. Even better is when they bring their own passions to the table and engage in their favorite activities.

Whether it is being the host of a show on the Campus-Radio, or participating as a member of the Initiative for Sustainability. If you like to be on stage the university orchestra might be just the thing for you. Here you can play music alongside passionate lay- and professional musicians. And the doors of the university choir are also always open to interested singers. The University of Duisburg-Essen offers activities for everybody.

www.uni-due.de/uniorchester

You can take our word for it. Get in shape in over 100 different sports classes. Surfing on Lake Baldeney, canoeing down the Rhine, dancing Zumba, playing Lacrosse or simply Frisbee – working out also keeps the mind active.

www.uni-due.de/hochschulsport

Esteemed guests: Food for thought

Cosmopolitanism and vision – two attributes that we identify with. These are two of the attributes we look for also in our Mercator professors.



professorship reminds us of the legacy of Gerhard Mercator, the famous cartographer and scholar from the 16th century. The professorship is awarded every winter semester. The first guest lecturer in 1997 was former Secretary of State Hans-Dietrich Genscher, followed by Dr. Richard von Weizsäcker and Alice Schwarzer, amongs others. Every year our esteemed guests give inspiration and food for thought to young and old, academics and non-academics.



Every year the Scientist in Residence shares findings from his or her remarkable work with the public at the University of Duisburg-Essen. The local bank Sparkasse Essen has supported these guest lecturers since 1998. Since then, renowned scientists from all over the world have come to our university for public lectures and an exchange of ideas.

For a long time, the University of Duisburg-Essen was the only one in Germany that provided an academic stage for modern authors. Martin Walser was the first to visit in 1975, followed by names like Cees Nooteboom, Rolf Hochhuth, and Robert Gernhardt. Nowadays, the Poet in Residence is a regular at the UDE.

Metropolis Ruhr: Lively and alive

For visitors, it becomes immediately apparent that the myth of the region between Essen and Duisburg being gray and dull is just that: a myth. In reality, the modern day Ruhr area is a metropolis with a surprising amount of green. And blue. And lots of space.

It offers idyllic meadows on the Rhine and banks of the Ruhr that meander through the cities. One highlight is Lake Baldeney 20th century. with its surprising beauty. The park Landschaftspark Nord is closed down steel works turned into a tantalizing arts and amusement park.

The times where the sky turned dark from the smog of the coal mines and coking plants are long gone. Just compare the blue skies over Duisburg and Essen with old pictures in the Ruhr Museum.

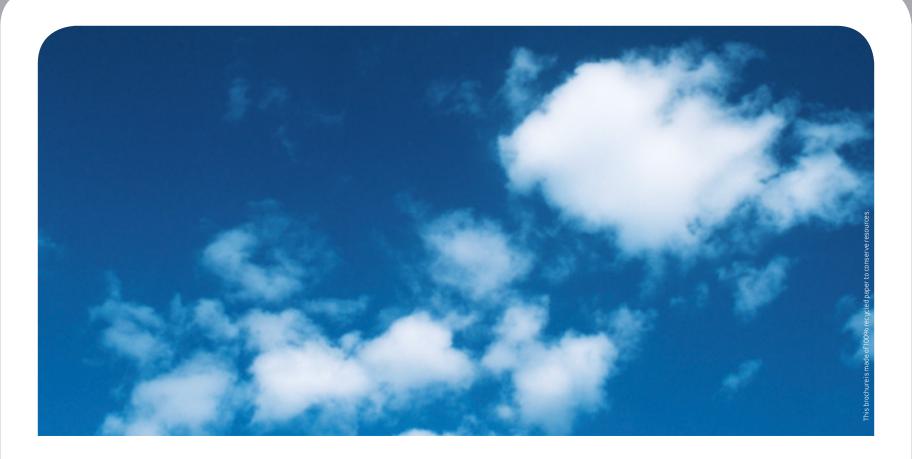
The Ruhr Museum is located on the grounds of the UNESCO world heritage site Zeche Zollverein, an impressive industrial monument and tourist magnet. Close-by is the Red Dot Design Museum, which presents the largest collection of contemporary designs. Only a few kilometers further south stands the important Museum Folkwang for classical and modern art.

Right in the heart of the Essen city center, the proud *Lichtburg*, Germany's oldest cinema, draws in film lovers. In Duisburg, the opera Deutsche Oper am Rhein is a special treat for music enthusiasts, while the vibrant night life in the harbor area Innenhafen attracts night owls. Visitors can also take a stroll through the sculpture garden of the Lembruck museum, which is home to modern art with a focus on sculptures from the

Cultural highlights and creative chaos, green jewels and gleaming steel, Currywurst and Kebab - nowhere else is cultural diversity more exciting and enjoyable. We at the University of Duisburg-Essen – with the support of our committed partners and sponsors - want to make sure it stays that way.

Culture and Living 35





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