GOING GLOBAL

International study and research programmes at Saarland University
Editorial: President of Saarland University Volker Linneweber
‘I see us as the most international of Germany’s universities’
Interview with Vice-President Uwe Hartmann
Facts and figures
International study programmes
Studying en français: Integrated degree programmes
Saar-Lor-Lux: Studying physics in three countries
International courses of study and Erasmus-Mundus programmes
Master’s programmes taught in English
European law and European management at the Europa-Institut
International doctoral research programmes
Graduate School of Computer Science: Attracting students from around the world
Europicum: Visiting professors from Europe come to teach in Saarbrücken
Learning languages at Saarland University
An international network that grew from French roots
The University of the Greater Region: An international university alliance
European and global student exchange programmes
International research
Global networking typifies research at Saarland University
European Union funds research excellence in Saarbrücken
Humboldt prize winners at Saarland University
Other international institutions at Saarland University
Publishing information
Editorial team: Friederike Meyer zu Tittingdorf (Editor-in-chief), Claudia Ehrlich, Melanie Low, Thoreten Molt, Gerhild Sieber, with the assistance of Wolfgang Möller.
Photo and illustration credits: Shutterstock, Maksimovic & Partners (Titelbild), Luftbildcentrum (p. 4), Uwe Bellhäuser (p. 5, p. 35 Fotos Arzt, Zeller, p. 43), Iris Maurer (p. 6, p. 21 Fotos Ó Ciardha, Pekelder), Oliver Dietze (p. 13, p. 17, p. 19, p. 21 Fotos Kaya, Marzer, Rudiškiene, p. 28, p. 32, p. 36, p. 41) Shutterstock (p. 14, p. 15, p. 23), André Mailänder (p. 10), Japolia – Fotolia (p. 22), Mirren Augustin (p. 26/27), Steve Welter (p. 30), Rüdiger Koop (p. 31), photocase (p. 33), Jörg Pütz (p. 34 Foto Speicher), Manuela Meyer (p. 34 Foto Theobalt, p. 35 Foto Hein), Bernd Valeske/IZFP (p. 40), Michael Ehrhart (p. 44), all other material property of Saarland University Press and Public Relations Office, Saarland University Archive or the individuals depicted.
Address: Saarland University, Campus, 66123 Saarbrücken, Germany. Layout and typesetting: Maksimovic & Partners. Printed by: SDV, Saarwellingen, Germany. Advertising sales: Stephanie Becker.
Dear Reader,

Anyone strolling around the Saarland University campus will often hear students speaking French or English with one another. Other less common languages, such as Bulgarian or Korean, can also be heard. One in six students at Saarland University is an international student. Around 120 nations are represented on the university’s campuses in Saarbrücken and Homburg. Many of these bright young minds have been attracted by the university’s excellent reputation for research in informatics and computer science and its NanoBioMed research hub. Many other international students have come to Saarland to study in one of the numerous binational and trinational degree programmes. In Europe alone, Saarland University has cooperative agreements with 24 partner universities. This allows many of our students to spend time studying in another European country as part of the Erasmus programme (see page 26 for more details).

We also play host to numerous visiting scientists and scholars who spend anything from a few months to several years engaged in collaborative academic projects at Saarland University. Some of these visiting academics are at Saarland University because they have – after a rigorous selection procedure – received a research fellowship or award from the Alexander von Humboldt Foundation (see page 36). Others are here as a visiting professor within Saarland University’s Zertifikat Europaicum programme – a supplementary qualification for students that is unique in Germany (see page 20). The university also offers young research talent from Germany and abroad a variety of international graduate study and research programmes. The Saarbrücken Graduate School of Computer Science is funded as part of the national Excellence Initiative run by the German federal and state governments (see page 18).

Many of the academics and research scientists at Saarland University are globally networked. They are regular speakers at international conferences and interact closely with other experts in their fields (see page 29). Numerous prizes and awards have been bestowed on members of the academic staff at Saarland University for their international collaborative projects. The highly endowed European Research Council grants have also been awarded on numerous occasions to scientists from Saarland University and from the associated external research institutions (see page 33) located on campus. These awards have been a key factor in raising the international profile of the research being carried out at Saarland University.

One of the oldest institutions at Saarland University is the Europa-Institut, which not only laid the foundation for the university’s international outlook, but remains to this day a talent pool producing graduates highly sought after by European institutions. The most recent project, officially known as the ‘University of the Greater Region’, is an alliance of universities from the areas of Lorraine (France), Luxembourg, Wallonia (Belgium) and Rhineland Palatinate (Germany). The aim of the network is to make it easier to establish cross-border academic programmes so that inter-regional study and research becomes part of the day-to-day activities of students and staff at the participating institutions (see page 25). The university also operates a number of international service facilities, including the International Office, the Language Centre, and the Frankreichzentrum.

I hope that you enjoy discovering more about the European and international study and research programmes at Saarland University.

Volker Linneweber
President of Saarland University
I see us as the most international of Germany’s universities

Professor Uwe Hartmann, Vice-President of Saarland University, explains in the following interview how the university’s internationalization strategy aims to transform one of Germany’s most international universities into the country’s most international higher-education institution – and why that’s important.

Hartmann: Saarland University has always been an international institution, as a glance at its Franco-German roots will tell you. And, of course, geographically we are also more international than many other universities. With about 17 percent of our students currently from overseas, we have one of the highest proportions of international students among all German universities, in addition to the numerous international doctoral students and international research projects. We also rank very highly in terms of EU funding per professorship and in terms of the number of Erasmus cooperative programmes. These are all good indicators of our internationality, but our goal is to become even more international.

Hartmann: An internationally respected university automatically becomes a magnet for the region – one that helps to attract and retain qualified individuals and professionals. These are the people we need if Saarland is to prosper. Additionally, local students learn a great deal by being exposed to an international environment. They have the opportunity to measure themselves against the best foreign students, because only the best students travel abroad to study. Academic staff mobility and exchange programmes are other areas that we need to explore and develop.

The university has drafted an internationalization strategy to achieve these objectives. What does it say?

Hartmann: On the one hand, it is a kind of statement of intent in which Saarland University openly declares its commitment to its internationality, both past and future. But it also contains a concrete plan of action for how we want to go about achieving our goals. We want to establish a ‘welcoming culture’ on campus. But it has to be of practical value, by providing, for example, assistance to overseas students or visiting academics to help them find suitable accommodation for their stay in Saarland. Someone who has just arrived with all their luggage will be greeted at the Welcome Centre and will receive the support and assistance they need. Campus-based offices that assist with issues such as registering as a foreign visitor or dealing with health insurance questions can also help new arrivals to settle in smoothly. Any contracts and agreements to be signed will be provided in a variety of languages. In short, we want to provide our guests with a comprehensive support package that makes them feel welcome and gets them settled as soon as possible.

Hartmann: An internationally respected university automatically becomes a magnet for the region – one that helps to attract and retain qualified individuals and professionals. These are the people we need if Saarland is to prosper.

Hartmann: Why is that important?

Hartmann: A university needs a certain critical mass in order to function properly. We have a problem in Saarland that is only now gradually being recognized. In a few decades from now, only about 750,000 people will be living in Saarland. The automatic consequence for us will be a reduction in student numbers. So we need to become more attractive to overseas students if the university is to continue to prosper.

But a university doesn’t exist just for its own sake and the point of greater internationalization can’t simply be to make the university function properly. So what other benefits are there in being an internationally renowned university?

Hartmann: We now have at least one international officer in every faculty. They are responsible for determining the numbers of international students, visiting academics and international cooperative programs in their respective faculties. The international officers also report back to us with faculty-specific requests. This feedback is important for us as the central coordinating unit, as we are not always best placed to know what, say, an overseas informatics student needs most when studying at Saarland University. Information like this helps us decide whether it makes more sense to travel to an academic fair in India or to one in China? Our website is a particularly important source of information as prospective students or academics from China, India, America or the rest of the world obviously go there first to learn more about Saarland University. Our web team is currently expanding and improving the information available. Thirdly, we also plan to create incentives in the near future that will encourage members of our teaching and research staff to travel abroad. The problem at the moment is that anyone interested in spending time abroad needs to find someone who will take on their teaching responsibilities while they are away. Our idea is that if, for instance, a scientist wants to spend a year researching in the USA, he or she would issue a request enquiring whether a colleague at one of the partner institutions within the University of the Greater Region (UGR) is able to take on his or her teaching duties. It is an excellent model for staff mobility, as it encourages movement in two ways: The scientist can undertake research in the USA, while another UGR colleague moves for a short period to a partner university to provide the required academic teaching.

That sounds like a lot of work that will take time to complete. Where do you see Saarland University in ten to 15 years from now?

Hartmann: We now have at least one international officer in every faculty. They are responsible for determining the numbers of international students, visiting academics and international cooperative programs in their respective faculties. The international officers also report back to us with faculty-specific requests. This feedback is important for us as the central coordinating unit, as we are not always best placed to know what, say, an overseas informatics student needs most when studying at Saarland University. Information like this helps us decide whether it makes more sense to travel to an academic fair in India or to one in China? Our website is a particularly important source of information as prospective students or academics from China, India, America or the rest of the world obviously go there first to learn more about Saarland University. Our web team is currently expanding and improving the information available. Thirdly, we also plan to create incentives in the near future that will encourage members of our teaching and research staff to travel abroad. The problem at the moment is that anyone interested in spending time abroad needs to find someone who will take on their teaching responsibilities while they are away. Our idea is that if, for instance, a scientist wants to spend a year researching in the USA, he or she would issue a request enquiring whether a colleague at one of the partner institutions within the University of the Greater Region (UGR) is able to take on his or her teaching duties. It is an excellent model for staff mobility, as it encourages movement in two ways: The scientist can undertake research in the USA, while another UGR colleague moves for a short period to a partner university to provide the required academic teaching.

That sounds like a lot of work that will take time to complete. Where do you see Saarland University in ten to 15 years from now?
7th Framework Programme

Number of projects with Saarland University participation: 78
of which 24 as project coordinator

Overseas researchers 399
equivalent to 25 percent of all members of the academic staff

This has secured around €40 million in funding.

High proportion of international students

Overseas graduates in Saarland: 26.6 percent

International students in WS 2013/2014: 16.9 percent
from 122 countries

Cooperation partnerships around the world:

Saarland University has 554 teaching and research exchange programmes with universities in 52 countries

Exchange programmes:
All faculties at Saarland University offer a number of degree programmes with a core French focus. A particular feature of Saarland University is the broad range of cross-border academic programmes with French universities that lead to a double-degree qualification or even to a triple-degree qualification if a third foreign partner institution is involved. These degree programmes are conducted in close consultation with our French partner universities, particularly those in Metz, Nancy, Strasbourg, Paris, Lyon and Valenciennes. In these ‘integrated’ programmes, students spend a certain amount of time studying at the overseas partner university. The modules and taught courses offered by the cooperating universities are carefully coordinated to complement each other to create a coherent overall academic programme.

Saarland University currently participates in 29 international degree programmes, 20 of which lead to either a double-degree or triple-degree qualification. A total of eleven of these programmes are supported by the Franco-German University (Deutsch-Französische Hochschule DFH / Université franco-allemande UFA). Programmes are approved by DFH/UFA in recognition of the successful integration of the different higher-education systems and of the excellent supervision provided to participating students. Students on these programmes receive monthly mobility grants from the DFH/UFA while studying in the neighbouring country.

Law and the humanities

Students at the Centre Juridique Franco-Allemand (CJFA) at the Faculty of Law and Economics can study to gain the French Licence de Droit qualification, a Bachelor’s degree representing the first stage of legal training in France. The bilingual programme Droit offers basic academic training in both French and German law. The courses on French law at the CJFA are taught in French by French university teachers. During their third year, students take modules at the French partner university in Metz or Saarbrücken. Graduates from the programme also receive a binational certificate ‘Studies in German and French Law’.

The trilateral Integrated Programme in Comparative Law offers students the opportunity to study aspects of German, French and English law. The Master’s programme has been designed so that students can complete the course while also studying for their first-stage national law qualification. Students on the programme who are studying law in Saarbrücken would spend one semester (usually their fifth) at the University of Lille in France followed by two semesters at the University of Warwick in England. The final Master’s exam is conducted at the University of Lille, which is also the institution that awards the Master’s degree. Students in Saarbrücken receive their integrated Master’s qualification once they have successfully passed their first state-supervised examination in law (erstes juristisches Staatsexamen).

Franco-German Studies: Cross-Border Communication and Cooperation is offered as an international Bachelor’s or Master’s programme. The binational Bachelor’s programme teaches students from Saarland University and from the Université de Lorraine in Metz to understand and appraise intercultural concepts and activities and to implement what they learn in cross-border collaborative projects. The consecutive Master’s programme has a trinational format and is offered in partnership with the University of Luxembourg. The M.A. programme produces graduates specialized in the political, cultural and economic aspects of French-German relations.

The trinational Master’s programme Literature, Culture and Language History of German-Speaking Regions, which is jointly organized and run by Saarland University, the University of Metz and the University of Luxembourg, provides a unique opportunity for students to study German language and literature from their respective beginnings to the present day, with students choosing either to take a more research-driven approach or to focus on more applied areas of the subject.
The international m. a. in Musicology is the only Franco-German Master’s programme in musicology in Germany. The programme is based on the long-standing collaboration that exists between Saarland University and Université Paris-Sorbonne (University of Paris I), which is also unique in Germany. Students spend their first and third years studying in Saarbrücken; the second year is spent in Paris. The programme offers insights into the lives and mindsets of ancient societies, teaches students the techniques needed to examine and evaluate cultural artefacts, and sheds light on the historical and cultural history of these societies.

In conjunction with the Université de Lorraine, Saarland University also offers a bilingual teacher training degree programme in the subject areas history and geography. German and French students spend the first three semesters studying together in Metz, followed by three semesters of joint study in Saarbrücken. However, the programme does not lead to a joint qualification, as both German and French students continue studying for a further four semesters at their respective home institutions in order to obtain the relevant national teacher training qualification.

### Natural sciences and engineering sciences

In collaboration with the Université de Strasbourg, Saarland University offers a binational Bachelor’s degree programme in biology. Students spend three semesters at the partner university. Participants in the French-German Master’s programme Biology (international) spend the first year studying in Saarbrücken and the second in Strasbourg. The content of the Master’s programme spans the interface of medicine and the biosciences with the focus on molecular and pathophysiological aspects of human diseases. Students on the programme have the opportunity to become acquainted with the latest laboratory methods and analytical techniques.

Chemistry is another scientific discipline in which Saarland University cooperates with the Université de Strasbourg, with both binational French-German Bachelor’s and Master’s degree programmes offered. Students on the B. sc. programme spend the first two years studying at Saarland University acquiring a solid grounding in the core areas of chemistry as well as in macromolecular chemistry, mathematics and physics. The third year is spent in Strasbourg where students are introduced to polymer chemistry, materials chemistry and chemical engineering. In addition to the M. sc. awarded by Saarland University, students completing the Masters programme also receive a Diplôme d’ingénieur qualification from the Université de Strasbourg.

A binational Bachelor’s degree programme in physics is the result of academic cooperation between Saarland University, the University of Nancy and the University of Luxembourg. Students spend the first year in Nancy, switching to Luxembourg for year two and, finally, studying in Saarbrücken in their third and final year. The programme offers specially designed lecture courses on experimental physics and theoretical physics. The Master’s programme in physics is also a collaborative venture between these universities in the Saar-Lor-Lux region. Students on the Master’s programme select two of the three partner universities and spend one year studying at each; the focus in Luxembourg is on condensed matter physics. Students who graduate from the programme receive a Master’s degree jointly issued jointly by the universities at which the student studied.

### Studying physics in three countries

**Jean Baumgarten** (l.) and **Steffen Krieger** (r.) are using a scanning force microscope as part of their final-year thesis projects at Saarland University. They are pictured here examining how strongly bacteria adhere to a variety of surfaces, such as dental implants.

**Photo: Oliver Dietze.**

Both Steffen Krieger and Jean Baumgarten knew that they wanted to study ‘something to do with physics’. ‘I wanted to be able to use my language skills while at university,’ explains Krieger. The 22-year-old obtained his Abitur (German higher education entrance qualification) in Berlin where he took advanced courses in physics and French. He was attending an event run by the Institut français in Berlin that he came across the Saar-Lor-Lux programme. Things were similar for Jean Baumgarten. He learnt about the programme while attending an education fair in Strasbourg. Baumgarten is German but French should be fine,’ says Professor Christian Wagner who was able to use my language skills while at university,’ explains Krieger. The 22-year-old obtained his Abitur (German higher education entrance qualification) in Berlin where he took advanced courses in physics and French. He was attending an event run by the Institut français in Berlin that he came across the Saar-Lor-Lux programme. Things were similar for Jean Baumgarten. He learnt about the programme while attending an education fair in Strasbourg. Baumgarten is German but French should be fine,’ says Professor Christian Wagner who was attending an event run by the Institut français in Berlin that he came across the Saar-Lor-Lux programme. Things were similar for Jean Baumgarten. He learnt about the programme while attending an education fair in Strasbourg. Baumgarten is German but French should be fine,’ says Professor Christian Wagner who was attending an event run by the Institut français in Berlin that he came across the Saar-Lor-Lux programme. Things were similar for Jean Baumgarten. He learnt about the programme while attending an education fair in Strasbourg. Baumgarten is German but French should be fine,’ says Professor Christian Wagner who was attending an event run by the Institut français in Berlin that he came across the Saar-Lor-Lux programme. Things were similar for Jean Baumgarten. He learnt about the programme while attending an education fair in Strasbourg. Baumgarten is German but French should be fine,’ says Professor Christian Wagner who was attending an event run by the Institut français in Berlin that he came across the Saar-Lor-Lux programme. Things were similar for Jean Baumgarten. He learnt about the programme while attending an education fair in Strasbourg. Baumgarten is German but French should be fine,’ said Wagner. ‘Students are also required to complete a Bachelor’s thesis at the end of their final year. This involves them tackling a relevant scientific topic in a specified period of time.’

The programme teaches students not only the fundamental laws and principles of physics, but also encourages them to become more independent and self-reliant. ‘Anyone who has studied in three countries and speaks at least two languages has excellent career prospects,’ says Wagner. Most of the graduates from the programme are currently working in international companies or institutions, such as the European Patent Office. What the future holds for Krieger and Baumgarten is still uncertain. Their focus now is on completing their final-year thesis projects. After that, they both want to build on their physics degree by studying for a Master’s programme – whether they will stay on at Saarland University or choose to move abroad again is something they still have to decide.

**More information is available at: http://si.physik.uni-saarland.de/**
Learning for a globalized world

2. Erasmus Mundus Master’s programmes

Scholarships for post-graduate academic programmes supported through the EU’s Erasmus Mundus scheme are highly sought after. The aim is to encourage high achieving students from around the world to study for a Master’s degree in Europe. Since 2011, students from Europe have also been eligible to apply for an Erasmus Mundus mobility scholarship. Successful candidates are not required to pay the tuition fees normally charged for Master’s courses. Saarland University offers two Erasmus Mundus Master’s programmes in which students can choose where they want to study from the group of participating international partner institutions.

The postgraduate degree programme AMASe – Advanced Materials at Saarland University (EUSMAT). In 2009, AMASe was the only engineering programme chosen by the German Academic Exchange Service (DAAD) as one of the top ten universities.

In addition to the Erasmus Mundus programme, Saarland University participates in a number of other cooperative international degree programmes in the fields of engineering and computer science.

Making university teaching in materials science and materials engineering more international is a major objective of the European School of Materials (EUSMAT), which is based at Saarland University. EUSMAT cooperates not only with partner institutions in the Saar-Lor-Lux region and in Europe, but also with selected institutions in the USA, India, Korea and Latin America. EUSMAT coordinates Saarland University’s four international programmes in the field of materials science and mechanical engineering, including the Master’s programme AMASE (see left column), the Bachelor’s and Master’s EUSMAT programmes (see page 12) and the Bachelor’s degree course in Materials Science and Mechanical Engineering (ATLANTIS). Students on the ATLANTIS programme study at Saarland University and at one of twenty five other European universities.

In the second year, students receive a European/US double Bachelor of Science degree in materials science and mechanical engineering. International students are closely supervised by the EUSMAT team and receive support and assistance with practical and administrative issues. The programme also includes intercultural training and language courses.

Identifying new internet security problems or cyber-attack scenarios and defending against them requires experts who understand the complex structures underlying the security technology used in global computer networks. In response to this need, the EIT ICT Labs consortium at the European Institute for Innovation and Technology (EIT) established the Master’s degree programme Security and Privacy. Saarland University is one of the partner institutions involved in the EIT ICT Labs programme. Students spend the first year either at the Technical University of Berlin (TU Berlin) or at the University of Trento in Italy. The second year is spent studying at Saarland University or at one of five other European universities, with each university offering courses in a particular field of specialization. At Saarland University, the area of specialization is Information Security and Privacy. Graduates from the EIT ICT Labs Master’s programme receive a double degree from the two universities at which they studied.

3. Other international academic programmes

In addition to the Erasmus Mundus programmes, Saarland University participates in a number of other cooperative international degree programmes in the fields of engineering and computer science.

Making university teaching in materials science and materials engineering more international is a major objective of the European School of Materials (EUSMAT), which is based at Saarland University. EUSMAT cooperates not only with partner institutions in the Saar-Lor-Lux region and in Europe, but also with selected institutions in the USA, India, Korea and Latin America. EUSMAT coordinates Saarland University’s four international programmes in the field of materials science and mechanical engineering, including the Master’s programme AMASE (see left column), the Bachelor’s and Master’s EUSMAT programmes (see page 12) and the Bachelor’s degree course in Materials Science and Mechanical Engineering (ATLANTIS). Students on the ATLANTIS programme study at Saarland University and at one of twenty five other European universities.

In the second year, students receive a European/US double Bachelor of Science degree in materials science and mechanical engineering. International students are closely supervised by the EUSMAT team and receive support and assistance with practical and administrative issues. The programme also includes intercultural training and language courses.

Identifying new internet security problems or cyber-attack scenarios and defending against them requires experts who understand the complex structures underlying the security technology used in global computer networks. In response to this need, the EIT ICT Labs consortium at the European Institute for Innovation and Technology (EIT) established the Master’s degree programme Security and Privacy. Saarland University is one of the partner institutions involved in the EIT ICT Labs programme. Students spend the first year either at the Technical University of Berlin (TU Berlin) or at the University of Trento in Italy. The second year is spent studying at Saarland University or at one of five other European universities, with each university offering courses in a particular field of specialization. At Saarland University, the area of specialization is Information Security and Privacy. Graduates from the EIT ICT Labs Master’s programme receive a double degree from the two universities at which they studied.

4. Master’s degree programmes at Saarland University that are taught in English

In addition to the international academic programmes in which students spend part of their time studying abroad, Saarland University also offers Master’s degree programmes that are taught on campus and predominantly in English. Three of these English-language study programmes are in informatics and related fields, while two are post-graduate programmes run by the university’s Europa-Institut.

Saarland University is an internationally respected centre of research in computer science and is one of the top universities in Germany in the field of informatics. It is the only university in Germany to have both a Cluster of Excellence and a Graduate School in the field of computer science. Students on the Master’s programme Informatics have the opportunity to gain insight into the work of a very wide range of different research groups based not only at the university itself, but also at the two Max Planck Institutes and the German Research Center for Artificial Intelligence (DFKI), all of which are located on campus. The Saarbrücken Graduate School of Computer Science supports postgraduate students undertaking doctoral research in the field of informatics (see page 18).

Students on the Master’s programme Bioinformatics learn to develop algorithms and software that can be used to simulate biochemical processes and to analyse data relating to molecular biological systems. The biologists, medical scientists, pharmacologists and computer scientists working at the internationally respected Center for Bioinformatics (cbi) on the Saarbrücken campus collaborate closely with one another to develop new drugs and to improve and enhance the diagnosis and therapy of diseases.

The Master’s programme Computer and Communications Engineering is run jointly by the Department of Computer Science and the Department of Mechatronics. The programme aims to give students a comprehensive understanding of the modern technologies deployed in today’s mobile communications systems. The range of topics covered includes circuit design, antenna engineering, signal processing, optimizing digital transmissions, processing spoken signals and designing multimodal user interfaces. Research projects carried out jointly by Saarland University and major research companies provide opportunities for students to gain valuable insight into industrial processes while still studying at university.

The interdisciplinary M.Sc. programme in Visual Computing teaches students the fundamental principles, processes and applications of computer-assisted processing of visual information. Students become acquainted with the theory and practice of image analysis and pattern recognition. They learn how static and animated images are generated and processed so that they are the best possible representation of reality. The programme is a joint undertaking between the university departments of informatics and computer science, mathematics and mechatronics, and the medical technology division at the Fraunhofer Institute for Biomedical Engineering and the Max Planck Institute for Informatics. The programme also maintains close cooperative ties with the Intel Visual Computing Institute, which is also located on the Saarbrücken campus.

The Europa-Institut at Saarland University offers two European Master’s programmes: European and International Law and the M.A. programme European Management (see page 16).
The Europa-Institut: Training international legal and business experts for tomorrow's world

The Europa-Institut has been a symbol of the central role that Europe has played in the development of Saarland University. It was founded in 1951 as the ‘crown of the university’ only three years after the university itself had been established. The international Master’s programmes ‘European and International Law’ and ‘European Management’, which are run by the Faculty of Law and Economics, provide outstanding preparation for graduates looking to pursue careers in European and international institutions, organizations and companies.

Eleni Papaioannou is another graduate who has no regrets about the time she spent in Saarland’s capital. In 2012, the young Greek successfully completed the European Management programme, which is an MBA programme designed for graduates with several years of relevant career experience. ‘In my previous job, I realised that technical knowledge alone was not going to be enough to take me forward in my career,’ explains Papaioannou, who studied informatics in Greece. ‘The conversion Master’s programme at the Europa-Institut provided me with the business and economic basics that I had been missing,’ Papaioannou now works for Fresenius Medical Care in Bad Homburg, where she is able to put both her technical and business knowledge to good use. ‘Things couldn’t have been better at the Europa-Institut,’ recalls Papaioannou.

‘Only 30 percent of our students are from Germany; the majority come from China, India or Eastern Europe,’ explains Mathilde Müller-Bulabois, who manages the MBA programme at the European Institute for Advanced Behavioural Management, which is part of the Europa-Institut. The one-year MBA programme costs €12,000 for full-time students; for students studying part-time or studying as working professionals, the fees are €14,500. The curriculum offers courses in such fields as law and politics in Europe, management accounting, marketing, and international finance. The language of instruction is English. Students who successfully complete the programme are awarded the title ‘Master of Business Administration’.

The MBA programme has a strong practical focus. Working in international teams, students have to analyse and solve case study assignments. ‘In addition to the professors from Saarbrücken, most of whom have already completed their first degree in law, the one-year programme costs €5000 and graduates who complete the course are awarded an I.L.M. degree (‘Master of Laws’). The I.L.M. programme enjoys an excellent international reputation and has been classified by the Stifterverband – a key funding organization within the German higher education landscape – as a model academic programme in the field of European studies. In addition to professorial staff from Saarbrücken and highly respected visiting academics, the programme is taught by high-ranking EU officials from a number of European Union institutions as well as by leading figures from the legal, administrative and business sectors.

Modules are taught in English and German and some of the courses are held abroad. ‘We try and structure the programme to be as practically relevant as possible,’ explains Marc Bienert, Deputy Head of the Law Section.

The excellent reputation that teaching and research at Saarland University enjoys within the European Union is evidenced by the funding provided by the EU Commission for a Jean Monnet Chair in European Law and European Integration. The award, which was made to Professor Thomas Giegerich, Director of the Europa-Institut, enables the university to extend the range of topics in European law.

International Research Training Groups provide opportunities for graduate researchers to pursue research projects with other groups working in Germany and abroad. These doctoral training strategies are funded by the German Research Foundation (DFG) for a set period of time and combine excellent research opportunities with a structured international doctoral training strategy. There are currently three international DFG Research Training Groups at Saarland University. The doctoral training programme includes a six-month period abroad conducting research at one of the partner universities.

Cultural diversity in Europe and North American societies, particularly in border regions, is the focus of an International Research Training Group (IRTG) involving the Professors of Romance Cultural Studies and Intercultural Communications (Prof. Lüsebrink: Junior-Prof. Vatter), North American Literary and Cultural Studies (Prof. Fellner), and Geography (Prof. Dörrenbächer) at Saarland University. Together with the University of Trier and the Université de Montréal in Canada, the research conducted within the IRTG concerns how the mediation of cultural diversity in North America and Europe has changed since the end of the 19th century. The central interest are the transformational processes that affect day-to-day realities and discourses in multicultural spaces, such as the political and media landscapes. These questions are being addressed through interdisciplinary cooperation between academics and researchers in the humanities and the social sciences.

The malfunctioning of membrane proteins and the diseases they trigger are at the core of the German-Canadian International Research Training Group in which the Department of Medical Biochemistry and Molecular Biology at Saarland University is collaborating with the Technical University of Kaiserslautern and the University of Alberta in Canada. The research involves the study of selected membrane proteins whose malfunctioning can result in serious diseases in humans. This type of protein malfunction can lead to Alzheimer’s disease, cancer, cardiac and circulatory insufficiency or autoimmune diseases or can have a dramatic effect on the developmental and adaptive processes of cells. (IRTG: ”1830: Complex Membrane Proteins in Cellular Development and Disease"
2. Graduate schools

Whereas Research Training Groups follow a clearly defined and focused research programme for a set period of time, DFG-funded graduate schools are permanent institutions. The aim of a graduate school is to support one or more key research areas at a university while offering doctoral students from around the world an ideal environment in which to conduct research within a broad scientific field. Graduate schools have a high proportion of young and aspiring international researchers.

The Saarbrücken Graduate School of Computer Science at the Department of Computer Science was established in 2007 through the Excellence Initiative run by the German federal and state governments. Around 175 doctoral candidates are currently being supervised by some 75 professors and other academics. Each doctoral student also receives support from an academic mentor. Particularly talented students can begin studying for a doctoral degree at the Saarbrücken Graduate School of Computer Science immediately after completing their Bachelor’s degree and they receive a monthly scholarship of € 800 during the preparatory phase. Another feature of the Graduate School is that during the preparatory phase for a set period of time, students have the opportunity to gain valuable insight into the wide range of research projects being pursued at Saarland University and the associated research institutes on campus. Doctoral research students can choose from 75 different research groups and have the option of actively working in several groups rather than just one. In addition to the Department of Computer at Saarland University, other institutions involved with the Saarbrücken Graduate School of Computer Science are the two Max Planck Institutes for Informatics and for Software Systems, the German Research Center for Artificial Intelligence and the Institute Visual Computing Institute.

The European Graduate School DocMASE provides financial support to international doctoral students pursuing research work in materials science and materials engineering. Students on the programme study at the Department of Materials Science and Engineering and spend at least half a year carrying out research work at one of the partner universities in Spain, France or Sweden. The DocMASE programme is funded by the European Union. The doctoral students in Saarbrücken receive support and assistance from the European School for Materials Research at Saarland University (EUSMAT). EUSMAT provides guidance on study-related issues, helps with visa requirements and with finding accommodation, and runs intercultural training schemes. EUSMAT also coordinates Saarland University’s four international programmes in the field of materials science and materials engineering (see page 14).

GradUS, the graduate support scheme at Saarland University, has, in conjunction with the International Office, established the GradUS International initiative as a drop-in and advisory centre for international doctoral research students studying at Saarland University. In addition to a range of introductory talks and presentations, GradUS International offers workshops in English to help students acquire key skills such as project management, academic writing or presentations. Also on offer are the ‘Meet & Greet’ interdisciplinary cultural events at which international doctoral students from all faculties can get to know each other and take part in organized group excursions or events.

The International Max Planck Research School for Computer Science (IMPRS-CS) provides particularly talented German and international students with a first-rate environment in which to undertake doctoral research. Working together with the Saarbrücken Graduate School of Computer Science, IMPRS-CS provides a fully funded programme that supports graduates with a Master’s degree in informatics or an equivalent qualification while they pursue doctoral research work. The programme is run jointly by the Max Planck Institute for Informatics, the Max Planck Institute for Software Systems and the Department of Computer Science at Saarland University – three of Europe’s leading institutions in the field of informatics and computer science.

http://www.imprs-cs.de/de/index.html

International Study Programmes

Doctoral student from Syria teaches computers to learn from their users

Saarland University attracts students and researchers from around the world. Around 1700 people from 31 countries are studying and researching in the field of informatics alone. One of them is Syrian-born student Hazem Torfah. He is currently studying for a doctoral degree and is developing a method with which computers will in future be able to learn to adapt themselves to their users.

Before he began studying in Saarbrücken, Hazem Torfah already had links with Saarland. Torfah was born in the Syrian capital Damascus but spent time as a young child in Homburg where his parents were undertaking specialist medical training. While in Saarland he attended the first year of primary school before returning to Syria at the age of seven. In 2006, Hazem Torfah decided to return to Saarland to study. ‘I made a conscious decision to study computer science at Saarland University,’ recalls Torfah. ‘I took a look at a couple of universities in Germany before making my decision. Others on the list were the Technical University of Munich and the University of Karlsruhe. His decision to come to Saarbrücken was based on the quality of the research work being carried out there. After completing the Bachelor’s degree after six semesters of study, he went north to Linköping in Sweden to study for a further six months as part of the European Erasmus programme.

Returning to Saarland, Torfah’s excellent academic grades allowed him to immediately join the doctoral study programme at the Saarbrücken Graduate School of Computer Science. Hundreds of candidates from around the world apply each semester for one of the 30 places available. ‘The opportunity to actively work in more than one research group as part of one’s doctoral studies is one of the features of the programme at the Saarbrücken Graduate School that distinguishes it from doctoral programmes at other universities in Germany,’ says Torfah. The computer science graduate appreciates the excellent student-staff ratio at Saarbrücken. ‘Students always have someone they can contact if they have questions or if problems arise.’

Hazem Torfah chose to carry out his research in the group led by Professor Bernd Finkbeiner. Scientists in the group are studying ways of analysing reactive systems. ‘Reactive systems are systems that communicate continuously with their environment and respond to it; satellites are a good example. Torfah is currently working on the next generation of these systems, which will not simply perceive the environment, but will also be able to learn from it as well. ‘The idea is that a computer will be able to independently develop a given algorithm based on its interaction with the user,’ explains Torfah, who speaks Arabic, German, English and even a little Swedish. The method could be used in future in driver assistance systems.

In this scenario, the system would automatically generate suggestions in difficult situations such as attempting to overtake in dense traffic. ‘The driver would specify an initial set of conditions containing all relevant safety settings,’ explains Torfah, who speaks Arabic, German, English and even a little Swedish. The method could be used in future in driver assistance systems. In this scenario, the system would automatically generate suggestions in difficult situations such as attempting to overtake in dense traffic. ‘The driver would specify an initial set of conditions containing all relevant safety settings,’ explains Torfah, who speaks Arabic, German, English and even a little Swedish. The method could be used in future in driver assistance systems.
Finland, Turkey, Ireland, Hungary, Lithuania, the Netherlands – academics from each of these six European countries have held the Europacum visiting professorship at Saarland University. And the seventh visiting professorship has already been awarded: From winter semester 2014/2015, a professor from Greece will be teaching for a year in Saarbrücken. The visiting professors come from a broad range of academic disciplines and teach courses on topics of current interest from the perspective of their home country.

Henri Vogt from Finland held the first Europacum visiting professorship in the winter semester of 2008/2009. Vogt is a political scientist and Director of the Network for European Studies at the University of Helsinki. During the year that he was a guest at Saarland University, Vogt provided students with an opportunity to become acquainted with social, political and historical aspects of Finland. Henri Vogt also offered courses on the identity and cultural history of northern Europe. His research work is primarily concerned with processes of democratization in eastern Europe, the conditions of European integration and EU foreign policy in a globalized world.

Nevzat Kaya’s intention was to use his visiting professorship to teach students in Saarbrücken about Turkey. Kaya, who is a scholar in the fields of cultural science and German language and literature at Ege University in İzmir, spent twelve years of his childhood in Germany. In addition to teaching German studies, he also teaches journalism as well as working in the Department of Film and in the Centre for Women’s Studies. ‘During my time in Saarbrücken I would like to show the significant developments that Turkey made in the 20th century,’ said Kaya at the beginning of his visiting professorship. For two semesters the guest scholar teaches at Saarland University. Students have the opportunity to become acquainted with the perspectives that characterize European diversity. The visiting professorship is part of Saarland University’s Zertifikat Europacum programme – a supplementary qualification that enables students to incorporate a specialist European dimension to their academic studies.

The Europacum visiting professorship was established in 2008. Every year since then, Saarland University has invited a professor from a different European country. For two semesters the guest scholar teaches at Saarland University. Students have the opportunity to become acquainted with the different perspectives that characterize European diversity. The visiting professorship is part of Saarland University’s Zertifikat Europacum programme – a supplementary qualification that enables students to incorporate a specialist European dimension to their academic studies.

The Europacum visiting professorship was established in 2008. Every year since then, Saarland University has invited a professor from a different European country. For two semesters the guest scholar teaches at Saarland University. Students have the opportunity to become acquainted with the different perspectives that characterize European diversity. The visiting professorship is part of Saarland University’s Zertifikat Europacum programme – a supplementary qualification that enables students to incorporate a specialist European dimension to their academic studies.

Irish literature and history were the subjects taught by Eamonn Ó Ciardha from Ireland. The professor of Irish history, language and literature teaches at the University of Ulster in Northern Ireland. That there are borders within Europe that influence the lives of the people living near them is something he experiences every day. As I work in the United Kingdom, I’m paid in British pounds. But my expenses are in euros, as I live across the border in the independent Republic of Ireland, he explained as he came to Saarbrücken in 2010. Students in Saarbrücken were able to learn more about the problems affecting Ireland and the role of Europe during the year that Eamonn Ó Ciardha spent in Saarbrücken. The courses taught in history ranged from the Reformation through to developments in the 19th and 20th centuries, including the Good Friday Agreement between the Irish and British governments that was signed in April 1998.

Students also had the opportunity to become acquainted with the works of Irish authors writing in English as well as in Gaelic. The works examined included the ancient myths and stories that are similar to Germanic heroic sagas, but also covered contemporary literature as Ireland is regarded as a treasure trove for literary scholars.

The history and culture of Hungary was the focus of the courses taught by Ibolya Murber during her visiting professorship. The work of the historian from the University of West Hungary in the autumn of 2016. She also teaches at the University of Vienna, is primarily concerned with international relations between Hungary, Austria and Europe. Not only did Ibolya Murber introduce students at Saarland University to aspects of Hungarian literature, she also gave them an overview of Hungarian history ranging from the Habsburg monarchy to the Communist takeover and finally the fall of the Iron Curtain. One of the topics covered was the anti-Semitism that surfaced in Hungary after World War 1. She explained the connections between the Third Reich, anti-Semitism, Hungary’s pro-German foreign policy and fascist tendencies in Hungary – and how this era continues to influence political life in Hungary.

In 2012, the Europacum visiting professorship went north again being awarded to the Lithuanian cultural scientist Rūta Eidukevičienė who studied history, German language and culture and literature studies. My aim in Saarbrücken is to provide students with an interdisciplinary approach to the literature, culture and history of my homeland that is informed through a cultural studies perspective. I want to arouse their curiosity about Lithuania, she explained at the time. The courses she gave covered key historical events of her Baltic homeland, which gained independence in 1990 and has been a member of the EU since 2004. Rūta Eidukevičienė is a close observer of Lithuania’s changing national consciousness – from the Soviet period to a Lithuanian and European identity. The process of transformation in economics and politics and in culture and society was demonstrated to students using literary texts and other media, including film material.

Is there a recipe for ensuring the success of the European Union? That was one of the questions that Jacco Pekelder from the Netherlands discussed with students during his time at Saarland University. The historian from University of Utrecht teaches and does research into the history of international relations, a topic that has fascinated him throughout his academic life. In 2013, Pekelder published a book on German-Dutch relations entitled ‘New Neighbours’. The courses he taught covered such topics as the Cold War, the different ways in which the Nazi period has been dealt with in the Netherlands and in Germany, terrorism and anti-terror policies. Pekelder is convinced that: ‘Political violence and the way in which a society deals with it illustrates how seriously that society takes the rules of the democratic game.’ The arguments he brings forward for Europe are rather down-to-earth and unemotional. One of his conclusions can be summed up as follows: ‘The European Union doesn’t have to be a marriage of love, why can’t it be a marriage of convenience?’

To learn more about the Europacum visiting professorship, go to: www.uni-saarland.de/labs/ihk/europacum

At a glance: The visiting professorship is a central component of the Zertifikat Europacum – a supplementary qualification that students of all disciplines at Saarland University can work towards and that helps to prepare them for the European career market. Students can study fundamental economic and legal aspects of Europe, but can also broaden their geographical, scientific and historical knowledge of the various cultural regions within Europe. Over 40 courses are offered each semester. Students can take between one and six semesters to complete the Europacum qualification. This flexibility means that international students who are only studying at Saarland University for a few semesters also have the opportunity to acquire the Europacum qualification.
Learning languages at Saarland University

With tutors from 28 different countries, the Language Centre is one of the most international institutions at the university. Some 450 courses covering 22 languages are offered each year to all members of the university as well as to non-enrolled students (Gasthörer). The courses are open to anyone who enjoys learning languages or who wants to take a language course to acquire credits for his or her programme of study. The languages offered range from A for Arabic to T for Turkish. Peter Tischer, Head of the Language Centre, explains one of the key ideas behind the institutions’ teaching philosophy: Learning languages and becoming acquainted with foreign cultures are core experiences for each of us – and the benefits often remain with us throughout our lives. Most of the course participants are students who want to acquire academic credits towards their study programme or to improve their proficiency in a foreign language for their subsequent career.

Much of the teaching material is developed by the Language Centre itself. Tischer emphasizes that new teaching methods and instructional models are constantly being tested and improved at the Language Centre.

In addition to general language courses, specialist courses are also available, such as English for natural scientists or French for medical students. Nine of the languages taught are certified in accordance with the uniceur® guidelines on foreign language teaching, as accredited by the German Working Group of Language Centres in Tertiary Education. The national certificate of proficiency for Greek, Italian and Spanish can also be obtained directly at the Language Centre.

At a glance:

Around 300 prospective students from 60 different nations take part each year at the Studienkolleg. Up to 120 international students complete their final exams each semester.

Each year, about 1000 international students take part in the pre-semester or in-semester German language courses offered by the Studienkolleg. Some 450 courses in 22 languages are offered annually at the Language Centre. Seventy-five tutors from 28 countries teach about 5000 students each year.

Whether it’s German or another language, Saarland University offers students numerous opportunities to improve their language skills. The Studienkolleg runs German courses for international students and a further 22 languages are offered at the university’s Language Centre. With students from so many different countries taking language courses, the two institutions also provide an excellent opportunity for cultural exchange.

With tutors from 28 different countries, the Language Centre is one of the most international institutions at the university. Some 450 courses covering 22 languages are offered each year to all members of the university as well as to non-enrolled students (Gasthörer). The courses are open to anyone who enjoys learning languages or who wants to take a language course to acquire credits for his or her programme of study. The languages offered range from A for Arabic to T for Turkish. Peter Tischer, Head of the Language Centre, explains one of the key ideas behind the institution: Learning languages and becoming acquainted with foreign cultures are core experiences for each of us – and the benefits often remain with us throughout our lives. Most of the course participants are students who want to acquire academic credits towards their study programme or to improve their proficiency in a foreign language for their subsequent career.

Much of the teaching material is developed by the Language Centre itself. Tischer emphasizes that new teaching methods and instructional models are constantly being tested and improved at the Language Centre.

In addition to general language courses, specialist courses are also available, such as English for natural scientists or French for medical students. Nine of the languages taught are certified in accordance with the uniceur® guidelines on foreign language teaching, as accredited by the German Working Group of Language Centres in Tertiary Education. The national certificate of proficiency for Greek, Italian and Spanish can also be obtained directly at the Language Centre.

At a glance:

Around 300 prospective students from 60 different nations take part each year at the Studienkolleg. Up to 120 international students complete their final exams each semester.

Each year, about 1000 international students take part in the pre-semester or in-semester German language courses offered by the Studienkolleg. Some 450 courses in 22 languages are offered annually at the Language Centre. Seventy-five tutors from 28 countries teach about 5000 students each year.

Whether it’s German or another language, Saarland University offers students numerous opportunities to improve their language skills. The Studienkolleg runs German courses for international students and a further 22 languages are offered at the university’s Language Centre. With students from so many different countries taking language courses, the two institutions also provide an excellent opportunity for cultural exchange.

With tutors from 28 different countries, the Language Centre is one of the most international institutions at the university. Some 450 courses covering 22 languages are offered each year to all members of the university as well as to non-enrolled students (Gasthörer). The courses are open to anyone who enjoys learning languages or who wants to take a language course to acquire credits for his or her programme of study. The languages offered range from A for Arabic to T for Turkish. Peter Tischer, Head of the Language Centre, explains one of the key ideas behind the institution: Learning languages and becoming acquainted with foreign cultures are core experiences for each of us – and the benefits often remain with us throughout our lives. Most of the course participants are students who want to acquire academic credits towards their study programme or to improve their proficiency in a foreign language for their subsequent career.

Much of the teaching material is developed by the Language Centre itself. Tischer emphasizes that new teaching methods and instructional models are constantly being tested and improved at the Language Centre.

In addition to general language courses, specialist courses are also available, such as English for natural scientists or French for medical students. Nine of the languages taught are certified in accordance with the uniceur® guidelines on foreign language teaching, as accredited by the German Working Group of Language Centres in Tertiary Education. The national certificate of proficiency for Greek, Italian and Spanish can also be obtained directly at the Language Centre.
From French beginnings to the ‘University of the Greater Region’

A brief historical sketch

WOLFGANG MÜLLER

‘Founding a new university means embracing a new idea and a new goal. Our aim is to shape this university to become an instrument of a true European spirit – a place where professors and students speaking different languages will come together. This was how the first rector of Saarland University, the French physicist Jean Barriol, expressed his vision for the new university in his introduction to the very first course catalogue.

The university was established in 1948 with the support of the French government and the University of Nancy at a time when Saarland was partially autonomous yet economically linked to France. The initial steps were taken in 1946 with the introduction of clinical training courses for medical students in Homburg. These were followed in 1947 by the opening of the Centre Universitaire d’Études Supérieures de Hombourg and finally, in 1948, by the decision to transform the Homburg institute into a fully-fledged university for Saarland. According to its ‘birth certificate’, the new university was to have ‘international appeal’ and ‘European character’ and to be a ‘bridge between France and Germany’.

Saarland University was originally a bilingual institution and accepted its first students in Homburg and in Saarbrücken in November 1948. A mere one month later, the university played host to its first eminent guest, the French foreign minister and pioneer of the European integration movement Robert Schuman. The young academics studied in German, French and occasionally in English in accordance with two parallel sets of German and French study regulations. Diverse international links in both academic teaching and research and international contacts among the students were characteristic of these early years.

In the autumn of 1950, the well-known French scholar of German language and literature, Joseph-François Angelloz, who had taken over as university rector, proclaimed in his inaugural speech: ‘Europe! That is the word that we choose for the university, which now made the transition from a French university to a German university governed by the laws of Saarland.

From the 1970s onwards, Saarland University developed numerous academic cooperative agreements, initially these were primarily with French institutions. It was University President Paul Müller (1979 and 1983) and his successors who began the process of establishing agreements and partnerships with universities on all continents. The Eastern European partnerships with the universities of Sofia (1980), Tbilisi and Warsaw (both 1983) were important bridges to countries behind the Iron Curtain. Since 1982, the Faculty of Law and Economics has maintained close connections with Keio University in Japan. The signing of the Charte de Coopération Universitaire Luxembourg Sarre Lorraine (Charter of Cooperation between Institutions of Higher Education in Luxembourg, Saarland and Lorraine) in Pont-à-Mousson on 25 October 1984, opened up new opportunities for interregional cooperation conducted in the spirit of cultural fellowship between universities in Saarland, Rhineland Palatinate, Lorraine, Luxembourg and Belgium. The resulting network has led to the formation of today’s ‘University of the Greater Region’, which seeks to establish an association of universities that has international resonance through the creation of an ‘integrated area for higher education, research and innovation’.

more than eleven million people live in the area referred to as the ‘Greater Region’ that covers Saarland, Rhineland Palatinate, Luxembourg, Lorraine (France) and Wallonia (Belgium). More than 120,000 young people are currently studying at a university in this part of Europe. It is this special location at the heart of Europe that characterizes the ‘University of the Greater Region’ (Unigr). The Unigr is a flourishing academic network in which Saarland University is closely allied with the universities of Liege, Luxembourg, Lorraine, Kaiserslautern and Trier.

Over the last few years, the Unigr has developed into a unique university alliance that allows students to study and conduct research beyond national borders. A lecture in Saarbrücken, a seminar in Metz or an international meeting on the campus of the University of Luxembourg – nowhere else in Europe can students take courses and classes at six different universities at the same time. The opportunity to undertake this sort of cross-border study enables students to acquire important intercultural skills almost without effort as well as giving them the opportunity to become acquainted with other academic cultures. To help students travel between campuses during the semester, Unigr awards travel allowances covering travel throughout most of the ‘Greater Region’. Additionally, all enrolled students can eat at the Mensa refectories at the other campuses at student rates.

But not only students benefit from the Unigr. Academics, particularly those working in the biomedical field, materials science and in border studies, want to strengthen their networks and work together to encourage and promote joint research work in their respective areas. Over the last few years this has led to the formation of a number of cross-border academic networks. For instance, materials scientists from Saarbrücken, Luxembourg and Liege are collaborating closely within the intermat research cluster. Researchers from Saarbrücken, Kaiserslautern and Nancy are working within the Greater Region Magnetism Network to understand magnetic phenomena and how they can be used for industrial purposes. Another example of cross-border collaboration is the ‘Cartilage Network’ in which medical scientists and biologists are developing new therapies for those suffering from osteoarthritis. Workshops are also regularly held at which established and young researchers from the region can meet up to share ideas and swap notes. Doctoral training programmes are also benefiting from this type of cross-border networking. For example, the École Doctorale Transfrontalière LOGOS provides a platform to encourage cooperation and interaction between research groups and doctoral research students in the humanities and social sciences.

The Unigr was established in 2008 and has been operating a central coordinating office in Saarbrücken since April 2013. Issues concerning the Unigr alliance are dealt with by the Director and the Programme Coordinator. Each of the participating universities also has Unigr contacts who provide support for and promote the cross-border projects and who act as contacts for students and participating academics.
Cooperation agreements within the European Union

At present, Saarland University has cooperation agreements with 240 partner universities in 28 countries in Europe. Neighbouring France is top of the list, as Saarland University has cooperation agreements with 41 French partner universities.

The European Erasmus programme enables students to spend one or two semesters studying at a European partner university. Students on the Erasmus programme are not required to pay tuition fees. Each year, around 200 students from Saarland University use this opportunity to study abroad, and about 300 students from other European countries come to study at Saarland University through the Erasmus mobility programme.

Exchange students receive a mobility grant of €180 a month during their study-abroad period. Recognition of academic credits earned at the partner university is done in consultation with the relevant examination offices. The Erasmus programme also provides supplementary funding for short-term work placements in other European countries. Erasmus also offers opportunities for university academic and administrative staff to spend short periods teaching or training at an academic institution in one of the other participating countries in Europe.

Global change

Saarland University maintains excellent teaching and research networks with universities around the world. The university currently has more than 550 cooperative partnerships in 52 countries. As a result of this network, students and academics enjoy organizational and, in some cases, financial support when planning a period of study or research at a partner institution.

Cooperation agreements with non-European universities

Saarland University also has a large number of academic cooperation agreements with universities outside Europe. Students at Saarland University can apply to study abroad at any one of 46 partner universities from Australia to the USA. Outgoing students will not be required to pay the tuition fees at the overseas host institution, which in some countries are extremely high. As Saarland University is also a partner institution within the network of Canadian universities in Quebec, a further 18 predominantly French-speaking universities are available as host institutions.

Besides the general cooperation agreements open to all students, Saarland University currently maintains another 30 subject-specific partnership agreements that enable students from the relevant disciplines to study tuition-free at the partner universities.

Funding for academic staff and graduate students from all academic disciplines at Saarland University is available through the DAAD’s Ostpartnerschaften (Eastern European Partnerships) programme. Travel costs are covered by the German side, while accommodation costs are borne by the overseas partner.

Students can also receive funding through the Ostpartnerschaften programme. For example, students can receive funding for language courses in Sofia, Warsaw, Prague and Rostov-on-Don. Each of the partner universities in Bulgaria, Poland, Russia and the Czech Republic offer two places per year to students from Saarland University. In addition, the DAAD programme ‘Go East’ provides exchange students with travel grants to enable them to attend language courses or to spend a semester studying in countries in eastern and southeastern Europe. The funding is commonly subject-linked and enables the student to attend a language course followed by a semester of study at the partner university.
Global networking typifies research at Saarland University

The key questions of science and academic scholarship are being addressed in universities and research institutions all around the world. The leading experts in a particular field attend international conferences to share their knowledge and to exchange ideas. Researchers from Saarbrücken and Homburg are frequently involved as organizers or keynote speakers at these high-level international meetings. Quite a few academics at Saarland University are members of the editorial boards of international journals or have been elected to membership of learned societies and academic associations overseas. Numerous prizes and awards have also been bestowed on members of the academic staff at Saarland University for their international collaborative projects. The scope of this global networking is described below.

But a number of academics working in other disciplines at Saarland University have also established outstanding international reputations. In the field of materials science and materials engineering, for example, Professor Frank Mücklich is frequently the Scientific Chair at international symposia in Europe and in the USA. In 2013, he was responsible for the scientific programme at Euromat, the largest and most important European conference on materials research, which was held in Seville, Spain. He was also the first overseas scientist to be elected as a Fellow Member of the US Alpha Sigma Mu Society. His election to the society reflected not only his scientific achievements in the field, but also his international involvement in encouraging young academic research talent in the European School for Materials Research at Saarland University (see p. 18). His colleague Wulf Possart recently became the first German scientist to receive the respected French research prize Prix Dedale, which was awarded for his fundamental research in the field of adhesives.

One of the greatest academic honours for any mathematician is to be given the opportunity to talk to the world’s mathematical elite. This honour was recently bestowed on Roland Speicher, Professor of Mathematics at Saarland University, who was invited to speak at the International Congress of Mathematicians (ICM) in Seoul, Korea. At the preceding ICM in Hyderabad, another Saarbrücken mathematician, Frank-Olaf Schreyer, was also given the honour of being an invited speaker. Researchers from Saarbrücken have also achieved international recognition in the natural and life sciences. The following examples are drawn from work done in the field of medicine. Dr. Felix Mahfoud received the award for the best publication of the year 2012 in the field of high blood pressure research at the Annual Meeting of the American Heart Association. The young investigator works at the Department of Internal Medicine under the supervision of Professor Michael Böhm, the internationally respected heart specialist. His colleague at the medical faculty in Homburg, Michael Pfreundschuh, is a world-renowned specialist in cancer research who maintains a number of institutional-level collaborations with leading cancer research centres around the world.

The international IT industry also maintains close contacts to those who want to speak at one of the leading international conferences in computer science must go through a strict selection procedure. Chosen speakers have to be recognized as outstanding experts in their research field and must have contributed significant research results that are regarded as seminal in the field. Computer scientists from Saarbrücken are highly respected in this regard. Philipp Slusallek, Professor of Computer Graphics at Saarland University, is a case in point. Every year, Slusallek and his team attend the world’s largest conference on computer graphics Siggraph, which is held both in the USA and in Asia. The Saarbrücken expert for information security, Michael Backes is also a regular participant at the key international conferences on privacy and data security. In 2013, he organized the scientific programme for the top-ranked IEEE Symposium on Security & Privacy.

Professors and young investigators from Saarbrücken are frequently honoured at such conferences, with awards ranging from the best scientific paper to highly prestigious research prizes. In 2014, for example, computer scientist Andreas Zeller was awarded the prize for the most influential paper of the last ten years at the International Conference on Software Engineering (ICSE 2014). Young research scientist Tobias Ritschel received the Young Researcher Award at Eurographics 2014, the most important European conference for computer graphics, as the jury felt his work had made a decisive contribution to the field. The Saarbrücken computer scientists Professors Reinhard Wilhelm, Andreas Zeller, Gerhard Weikum and Kurt Mehlhorn have also been elected as Fellows of the US-based Association for Computing Machinery (ACM), a very prestigious honour awarded to only a few non-US scientists. The international IT industry also maintains close contacts to computer science in Saarbrücken. The US company Google has also awarded several highly endowed research prizes to informatics professors in Saarbrücken, such as Andreas Zeller, Gerhard Weikum and Dietrich Klakow. The chip giant Intel opened the Intel Visual Computing Institute on the Saarland University campus in 2009. And Microsoft also funds a number of projects and invites professors to the USA as visiting researchers.
Many of the academics working at Saarland University maintain close bilateral contacts with research colleagues overseas. The type of collaboration undertaken ranges from doctoral student exchanges and joint publications to entire cross-border research projects. A number of professors at Saarland University have received honorary doctoral degrees from overseas partner universities in recognition of their work in this area. Professor of Law Michael Martinek has had this honour bestowed on him by universities in Poland, Romania, France and China. Members of the professorial staff at Saarland University regularly invite overseas academics to Saarbrücken and Homburg for extended periods of research, many of which are funded by the Alexander von Humboldt Foundation. This allows academics at Saarland University to experience the benefits of global networking without having to leave campus. Many professors, such as Claus Jacob, regularly supervise overseas doctoral students. The Professor of Biorganic Chemistry at Saarland University acts as research adviser to young researchers from India, Pakistan and Yemen. Many international conferences and academic meetings are held in Saarbrücken and Homburg each year and attract hundreds of participants and speakers from around the world. For instance, the pharmaceutical conference Biological Barriers now regularly has more than 200 international researchers in attendance. Professor of British Literary and Cultural Studies Joachim Frank organized a well-attended international conference on the topic of James Bond and on Charles Dickens in the 200th anniversary year of Dickens’ birth. The annual meeting of the German Society for General and Comparative Literary Studies (DGAVL) regularly organized by Professor Christiane Sölle-Gresser also attracts guest scholars from Taiwan, Canada, Greece and Turkey to Saarbrücken. In many cases, what were initially small-scale contacts between academics with a common interest have developed over time into fully fledged global research networks. For a medium-sized German university, Saarland University is integrated within a remarkably large and valuable international network of academic contacts and partnerships.

In the period 2007 to 2013, Saarland University was involved in a total of 78 prestigious international research projects that were funded by the European Union as part of the Seventh Framework Programme for Research and Technological Development. Twenty-four of these projects were coordinated by researchers at Saarland University.

The total funding that the university was able to attract in the Seventh Framework Programme was of the order of €40 million, which corresponds to an average funding level of more than €500,000 per project. Spread across all professorial staff at Saarland University, this is a equivalent to annual third-party funding of €12,000 per professor from the EU Framework Programme.

Most of the funded projects were in the fields of medicine and the life sciences (Faculty 3), followed by mathematics and informatics (Faculty 6). In third place were the Departments of Chemistry, Pharmaceutical Science, Biosciences, and Materials Science (Faculty 8).

Saarland University, the University Teaching Hospital and a number of associated research institutes have established a key research field at the interface of medicine, the biosciences and informatics. One of the best known European research projects in this area is p-medicine, which is coordinated by the paediatric oncologist Professor Norbert Graf. The project has received more than €13 million in funding from the European Union. One Japanese and 13 European partners active in the fields of medicine, research, information technology and law are working together to develop innovative IT structures designed to improve medical data networking. From 2015, the p-medicine project will continue in the form of a new European project entitled start – Study, Trial and Research Centre. The aim of this computer-assisted study and research centre for clinical trials is to help to improve the treatment of cancer patients. At the heart of the project is a European database that links clinical trials for cancer treatment with patient medical data. Clinicians at the University Teaching Hospital are working together with bioinformaticians at Saarland University to develop an innovative data management system. The ultimate aim is to be able to offer individually tailored therapies to cancer patients. Every case of cancer is unique. If we can link clinical data with the results of molecular genetic analyses of a tumour, we will be able to identify the therapy with the greatest chance of healing a particular patient,’ explains Norbert Graf, who also heads the start project.

In Saarland, this key research area is pooling the expertise available in the fields of medicine, bioinformatics, data security and data management and the cryogenic methods used at the Fraunhofer Institute for Biomedical Engineering (IBMT) in whose bioarchive the biological specimens are stored. Another partner involved in the project is the German Research Center for Artificial Intelligence (DFKI).

A further project being carried out within this key research area is the Notox project in which scientists from Saarland University and the German Research Center for Artificial Intelligence are studying how cosmetic products can be tested without conducting animal experiments. This involves both in vitro and computer-based simulations of the processes that occur when toxic substances penetrate human tissue. ‘We want to develop computer models that can predict the long-term effects of toxins on the human body based only on a few highly specific experiments,’ explains Elmar Heinzle. Heinzle, who is Professor of Biochemical Engineering at Saarland University, is coordinating the eleven research teams involved in this European project. Notox has received over €5 million in funding, coming in equal part from the European Commission and from Cosmetics Europe, a trade association representing the European cosmetics industry. Also involved in the Notox project is Jörn Walter, Professor of Genomics and Epigenetics at Saarland University, who studies changes in the genetic material of cells when cells are exposed to toxic substances.

Jörn Walter also coordinates the German Epigenome Programme (DEEP), in which a consortium of 21 research groups from across Germany is working to map 70 epigenomes of selected human cell types. The Federal Ministry of Education and Research (BMBF) has provided a total of €6 million in project funding. DEEP is Germany’s contribution to the globally coordinated International Human Epigenome Consortium (IHEC). Knowledge about the epigenetic marks carried by genes will provide completely new insight into cell-specific programmes. The German teams are analysing in particular those cells that play a role in obesity, inflammatory bowel disease and arthritis.
Research networks in the Greater Region

In the RFB Solar project, researchers in the groups led by Professor Rolf Hempelmann at Saarland University and Professor Alain Walcarius from the Université de Lorraine are working together with local companies to develop what are known as redox-flow batteries for electric vehicles. These battery systems are able to act as efficient interim stores of solar energy and can be used to recharge the lithium ion batteries in electric vehicles with electricity from a renewable power source. The European Union is providing €560,000 to support this cooperative research project for a period of three years.

The Initiative Precise is a German-French network lead managed by Saarland University. Professor of Manufacturing Technology Dirk Bähre and his team at Saarland University are working with research institutes and companies in the region to improve the process of electrochemical machining. Electrochemical machining is a technology that allows high-precision custom-made parts to be fabricated from a single piece of a hard, strong metal without requiring the application of force. The technique allows components such as engine parts, components for aircraft engines, and medical implants to be manufactured economically, but can also be used to produce the blades used in the heads of electric shavers. The project is being supported by the EU through a grant worth €1.3 million.

Cross-border networking between universities in the Greater Region and between universities and businesses is supported by the European Union through its Interreg Projects. The networks consist of research groups working together to strengthen technology transfer and to facilitate the commercial and industrial application of results from fundamental research. The projects within the Interreg programme are integrated into the higher education alliance known as the ‘University of the Greater Region’ – a network of universities established to promote cross-border cooperation in research and teaching (see p. 25).

Some of the Interreg projects in which researchers from the Saarland University are currently involved are listed below:

The Greater Region Magnetism Network (GRMN) – a collaborative initiative involving research groups from Saarland University and the Universities of Kaiserslautern and Lorraine. The groups are researching magnetic phenomena and developing novel applications such as intelligent sensors that can be used in traffic management and safety systems, in medical diagnostics or in components in the field of electrical, instrumentation and control systems. The network is coordinated by Uwe Hartmann, Professor of Experimental Physics at Saarland University. Total funding of €1.8 million has been made available; with around €900,000 in funding coming from the EU.

Each year the European Research Council (ERC) awards a number of very lucrative research prizes. The highest award, the ERC Synergy Grant has been bestowed on only a few European research teams. One such team is an association of four Saarbrücken-based computer scientists: Michael Backes, Professor at Saarland University and Head of the Center for IT-Security, Privacy and Accountability (CISPA), talks here about the award.

Backes: What makes this such a huge challenge?

Backes: The internet was originally set up as a network for a few million users. Today, however, it has become a global multimedia platform. This platform is currently used by billions of users, by the entertainment industry and by businesses, as well as for political and educational purposes. But the original structure of the internet was never designed to deal with this sort of rapid growth. The internet has been overwhelmed by its own success and is currently transforming into a behemoth that, potentially, could undermine the fundamental values of our democracies. Our personal privacy, data security and such fundamental principles as freedom of information and freedom of expressions are all at risk.
European Union funds research excellence in Saarbrücken

ERC Starting Grants are awarded to outstanding up-and-coming researchers. Research leaders in Europe with an established record of excellence can apply for funding via the ERC Advanced Grant programme. Seven scientists at Saarland University have already received ERC funding.

Probability and communication networks

Mathematician Roland Speicher is an expert in the field of free probability theory. He examines fundamental mathematical principles that are of significance for modern communication networks. One of the questions he is addressing is how data transmission in wireless computer networks functions and how it can be improved. A better understanding of the mathematical rules underlying information exchange could establish the basis for more efficient networks. In 2013, Speicher was awarded an ERC Advanced Grant worth €2.2 million.

Reconstructing filmed objects in the blink of an eye

Humans are able to register their surroundings in a fraction of a second and can interpret movements at lightning speed. If computers are to have this capability, the fundamental principles of image recognition and computer graphics will have to be reassessed and new algorithms designed and developed. Christian Theobalt is currently working on creating the foundations for dynamic 3D scene reconstruction. The aim is to capture in detail characteristics such as geometry, motion and surface texture in complex real scenes. To support his research work at the Max Planck Institute for Informatics he received an ERC Starting Grant worth €1.48 million in 2013.

Materials research scientist Eduard Arzt develops three-dimensional structures and surfaces whose functions can be turned on and off through external stimuli. ‘Geckos can move on smooth, rough, or soft surfaces and can even move upside down. Our research work is aimed at understanding a new generation of synthetic ‘gecko’ structures. We want to be able to switch adhesion on and off by changing the temperature, or by using electric fields or other external influences,’ explains Eduard Arzt, Professor of New Materials at Saarland University and Chairman of the Leibniz Institute for New Materials (INM). In 2013, he was awarded an ERC Advanced Grant worth around €2.5 million.

Materials that stick like gecko feet

Measurements made using the world’s largest particle accelerator, customer information on the internet, gene sequences in biology and medicine – vast quantities of data are currently being generated in both the research and business sectors. The volumes of data being produced are so great that they can no longer be evaluated manually. Professor of Computer Science Matthias Hein plans to develop new mathematical methods that can be used to automatically identify and evaluate patterns in complex datasets. In 2012, he was awarded funding in the form of an ERC Starting Grant worth €1.27 million.

Analysing huge datasets

Pharmaceutical scientist Andriy Luzhetskyy is studying the healing power of active agents found in nature. The aim is to identify novel drugs that can, for instance, be used as antibiotics. His work is focused on the group of bacteria known as actinobacteria that are a notable source of many biologically active substances. To support this work Luzhetskyy received an ERC Starting Grant of €1.5 million in 2012. The young investigator heads a group at the Helmholtz Institute for Pharmaceutical Research Saarland (HI-Pharm), which cooperates very closely with Saarland University.

More privacy for mobile data

Data security and modern cryptographic methods lie at the heart of the research work being conducted by Michael Backes. One of the issues being addressed is how novel cryptographic protocols and methods of proof can be used to make the internet and mobile data communication more secure. In 2009, the computer scientist was awarded an ERC Starting Grant worth over €1 million. In 2013, Backes and several of his colleagues received the prestigious ERC Synergy Grant (see p. 33).
Belgian Filip Lievens is a professor at the Department of Personnel Management and Work and Organizational Psychology at Ghent University. He is an expert in the development of reliable and fair tests for large groups of job applicants and is currently visiting a number of German universities for research purposes, including a three-month stay at Saarland University. This has been made possible by the award of a Friedrich Wilhelm Bessel Research Prize from the Alexander von Humboldt Foundation. The prize, which is worth €45,000, is awarded to highly respected overseas scholars and scientists. The prize was established to enable recipients to fund a collaborative project with research colleagues in Germany for a period of up to one year. Lievens has enjoyed a long-standing research partnership with Cornelius König, Professor of Work and Organizational Psychology at Saarland University. König successfully nominated his Belgian colleague last year for the highly respected award. ‘The prize is a milestone in our collaboration, which we can now take forward to a new level,’ enthuses König. ‘The areas that we work in are ideally suited to each other, and we get on well together, too,’ agrees Lievens. Lievens plans to spend his research sabbatical in Germany optimizing the ‘situational judgement tests’ (SJTs) that he has developed and that are designed to enable large groups of job applicants to be tested with respect to their social competence. ‘Applicants taking these interactive tests are confronted with descriptions of workplace related scenarios, which typically have a social element to them, and must then select an answer from a number of suggested responses,’ explains Lievens. Management psychologist Lievens developed the SJTs as part of the admissions procedure for studying medicine, for which there are several thousands of applicants each year. He found that SJTs were more meaningful than the traditional admissions tests that test purely cognitive skills and do not adequately take account of an applicant’s personality and social competence. ‘SJTs are evidence-based, that is, they are underpinned by solid research results,’ says Lieven. ‘They can predict whether an applicant is suitable for a particular position, and SJTs are also reliable and fair and therefore do not lead to any one particular group of applicants being treated preferentially.’ In the case of people applying to study medicine, Lieven discovered that the results of the test were able to reliably predict the professional performance of medical practitioners some nine years after taking the test.

On the basis of these research results, other countries have now begun to develop similar tests to supplement the cognitive testing used in selection procedures. A large number of consultancies now also include this type of test in their portfolio. Lieven and König see themselves as independent and impartial. ‘We are not consultants and we provide support to both sides – companies and applicants,’ says Cornelius König. As part of their current research activities, the two psychologists plan to continue developing the tests with the specific aim of identifying the best team players from any large group of applicants. The methodology they develop will be tested on students at Saarland University.

On the basis of these research results, other countries have now begun to develop similar tests to supplement the cognitive testing used in selection procedures. A large number of consultancies now also include this type of test in their portfolio. Lieven and König see themselves as independent and impartial. ‘We are not consultants and we provide support to both sides – companies and applicants,’ says Cornelius König. As part of their current research activities, the two psychologists plan to continue developing the tests with the specific aim of identifying the best team players from any large group of applicants. The methodology they develop will be tested on students at Saarland University.
Research institutes associated with Saarland University draw academics from around the world

Max Planck Institute for Software Systems (MPI-SWS)

The Max Planck Institute for Software Systems, which has a scientific staff of about 90, carries out world-class basic research in areas concerning the design, analysis, modelling, implementation and evaluation of software. The scientific staff working at MPI-SWS, which was established in 2004, conduct independent blue-sky research aimed at creating new knowledge, while seeking to promote international cooperation and nurturing young research talent through scientific publications and the distribution of prototype software.

Max Planck Institute for Informatics (MPI-IM)

Established in 1990, MPI-I conducts cutting-edge research into one of the most challenging topics in the field of computer science: The scientific staff at MPI-I are not only laying the foundations for future developments, but also transferring the results of their research directly into practice. By entrusting talented young scientists with ambitious and challenging research assignments, MPI-I is training the next generation of intellectual leaders. In addition to improving existing algorithms, the goal of the around 270 scientists working at MPI-I is to inject new ideas into computational processes.

German Research Center for Artificial Intelligence (DFKI)

The DFKI was established in 1988. It comprises 14 research departments and research groups, 10 competence centres and six living labs that are working to develop product functions, prototypes and patentable solutions in the field of information and communications technology. At present, more than 400 researchers, 500 graduate students and the institute’s administrative staff are contributing to around 300 research projects. Over the years, more than 60 members of staff have been gained professorial appointments at universities in Germany and abroad.

Schloss Dagstuhl – Leibniz-Center for Informatics

Schloss Dagstuhl Leibniz Center for Informatics (1.21) in northern Saarland is a non-profit institute within the Leibniz Association. Since 2006, 1.21 has been funded jointly by the federal and regional governments. The Scientific Director at 1.21 was for many years Reinhard Wilhelm, Professor of Informatics at Saarland University, and it was under his leadership that 1.21 became established as an internationally respected conference centre in the field of computer science. In 2014, Wilhelm was succeeded by Professor Raimund Scidel, who holds the Chair in Theoretical Informatics at Saarland University. Each year around 2600 scientists from academia and industry spend time at Schloss Dagstuhl. The welcoming and relaxed atmosphere at 1.21 is particularly valued by visiting scientists, who come from all around the world to explore cutting-edge topics in informatics. Schloss Dagstuhl has been ranked ‘Best place in the world’ by both junior researchers and world-class experts in informatics.

Helmholtz Institute for Pharmaceutical Research, Saarland (HIPS)

HIPS is a branch of the Helmholtz Center For Infection Research (HZI) in Braunschweig and was established jointly with Saarland University in 2004 in order to close a gap in the German pharmaceutical and drug research landscape. Scientists at HIPS are seeking to identify sources of new pharmaceutically active agents to counter widespread infectious diseases, and to determine how these substances can be optimized for human use and how they can be transported through the body to the target area. A staff of about 150 work under the supervision of three professors and three junior research group leaders using the latest techniques and methods in pharmaceutical science.

Fraunhofer Institute for Biomedical Engineering (IBMT)

Of the 60 Fraunhofer institutes presently in existence, the Fraunhofer Institute for Biomedical Engineering is the only one that focuses on medical technology, with work concentrated primarily on developing medical devices and related technologies. The key areas covered by the approximately 300 people working at IBMT concern applications in medical diagnostics, therapy and therapy control and biotechnology as well as related topics in the industrial sector. In addition to the traditional sectors of biomedical engineering and medical technology, IBMT, which was founded in 1967, also works in the emerging fields of stem cell research and autonomous deep-sea systems.

Leibniz Institute for New Materials (INM)

Chemists, physicists, biologists materials scientists and engineers work together at INM to research and develop new materials. Their work is focused on answering three main questions: what are new material properties, how do we examine and study them, and how can they be used in future for both industrial and non-industrial applications. Research work at INM is split among three main fields: nanocomposite technology, interface materials and bio-interfaces. The Institute collaborates with other national and international research institutions and companies. INM is a member institute within the Leibniz Association and currently has a workforce of around 395.
Fraunhofer Institute for Non-Destructive Testing (IZFP)

The Fraunhofer Institute IZFP is a research institute that deals with the physical methods of non-destructive testing (NDT) and develops methods, procedures and systems for use in material characterization and component testing. Working in partnership with industrial companies, IZFP analyses production workflows and processes, assesses operational risks, develops market-compatible test equipment and test systems and facilitates their quality insured industrial application. Founded in 1972, IZFP was, with the exception of the university, the first research institute to be established under public law in Saarland. Today, IZFP has a workforce of 205.

Steinbeis Research Center: Saarland Material Engineering Center (MECS)

The objective of the work being carried out at MECS is to transfer the results and methodologies that have arisen from fundamental research in materials science to applications in the materials technology and engineering sectors. Since 2009, scientists at MECS have been learning to decipher the structure of a material at all relevant scales from the micron and nanoscales down to the atomic scale, with the aim of shedding light on how these structures arose and what consequences they have for the material’s properties. The MECS service portfolio ranges from individual services (fabrication, preparation, measuring and testing, expert evaluation, advisory and consulting work, feasibility studies) to industrial research projects and long-term collaborative research programmes.

Center for Mechatronics and Automation Technology (ZeMA)

The main focus at ZeMA is on providing application-driven engineering research and development services in collaboration with industrial partners. ZeMA pursues a positive and innovative approach in its three main areas of expertise: actuators and sensors; production processes and production process automation; and assembly processes and assembly process automation. Engineering research groups from Saarland University and from Saarland University of Applied Sciences (HTW) have been working together at ZeMA, which was established in 2009. They are supported by two endowed professorships at each of the universities.

Korea Institute of Science and Technology Europe (KIST)

The Korea Institute of Science and Technology (KIST Europe) located on Saarland University campus aims to bring together scientists from Korea and Europe and to assist Korean companies in exploring the European market. Founded in 1995, the Korea Institute is an overseas branch of KIST Seoul. Its workforce of around 70 is predominantly involved in conducting fundamental research in various fields of biotechnology. Like the Fraunhofer Institutes, the Korea Institute is interested in acquiring third-party funding and in carrying out collaborative projects with industrial partners.

IZFP is another research institute located on the Saarland University campus.

Many of the scientists at Saarland University and the on-campus research institutes cooperate closely with industrial partners.
Other institutions at a glance

Frankreichzentrum

The Frankreichzentrum at Saarland University was founded in 1996 and is one of six similar institutions in Germany. As the platform for all university activities relating to France, the work of the Frankreichzentrum is broad in scope, ranging from the organization of German-French academic colloquia, joint lecture series, cultural events and book publications to encouraging and promoting cooperative cross-border research and networking and exchange opportunities for doctoral students and undergraduates. The Frankreichzentrum also supports the bi- and tri-national degree programmes at Saarland University and is also integrated into the ‘University of the Greater Region’ network.

The Frankreichzentrum in Saarbrücken is an interdisciplinary institution. The eight professors and their deputies in the steering committee are drawn from all of the university’s faculties. Since January 2013, the Director of the Frankreichzentrum has been Professor Claudia Polzin-Haumann.

One of the concepts of the Frankreichzentrum is to establish intercultural exchange as a regular part of students’ academic study. A case in point is the Franco-German graduate project with the Université Paris-Sorbonne. Master students and doctoral students from both universities come together alternately in Paris and Saarbrücken to discuss academic topics of interest from an international and comparative perspective. The Frankreichzentrum also offers opportunities for students to experience international cultural exchange outside of the normal academic curriculum, such as at the Franco-German Summer University that runs in the twin cities of Nantes and Saarbrücken. Since 2013, the summer University was run for the first time as a tri-national project in Tbilisi in Georgia. Since Saarland University was founded its contacts with the Sorbonne have grown significantly. In April 2013 the two universities signed an agreement of cooperation aimed at extending the collaborative partnership between Saarland University and the Centre Franco-Allemand de Lorraine that was (CFALOR), which was established in 2012. The talks are moderated dialogues between a French and a German academic on a topic of current relevance.

German-French Placements Office

The Placements Office at the Frankreichzentrum provides assistance to students who wish to undertake a work placement or internship in France or the broader Saar-Lor-Lux region. The Placements Office cooperates with more than 80 institutions that offer work placements and internships. One of the primary destinations is Nantes, which has an exchange programme with its twin town Saarbrücken. Application training seminars are offered to help students prepare for a work placement in France or in the wider Saar-Lor-Lux region — and are also available to French-speaking students who are keen to secure a placement or internship within the German job market. The Placements Office is also responsible for managing scholarships awarded by the German-French Youth Organization (teww/ota) or the European Erasmus programme.

Eurice (European Research and Project Office)

Eurice GmbH (European Research and Project Office) provides advisory and support services to help initiate and implement international cooperative projects involving Saarland University. A team of project managers, translators, media designers and communications and marketing experts provide essential project-related services that include producing project reports, compiling costing statements, and ensuring information flow between project partners. Eurice staff are also involved in organising joint meetings and workshops. Additional roles include providing information to the public about research projects by, for example, producing videos or by organized events. Eurice also provides training courses where researchers become acquainted with fundamental aspects of research funding at the EU level as well as learning practical skills such as drafting a proposal for a research project or how to manage a project effectively.

The Eurice office is currently managing 70 EU research projects, making Saarland University one of the best networked institutions within the European higher education and research landscape.

International Office (IO) and Guidance Centre for International Students (ZiS)

Whether research scientist or student, the first port of call for an overseas guest arriving at the campus in Saarbrücken is the International Office (io) and its affiliated Guidance Centre for International Students (zis).

The International Office is the contact point for faculties and departments and for university management on all international matters. The International Office provides support for higher education partnerships with universities around the world and coordinates international exchange programmes such as Erasmus. The io assists both outgoing students (from Saarland University who wish to spend time studying abroad) and incoming students (international students coming to Saarbrücken to study). It also supports the university’s internationalization process and coordinates international marketing activities by attending higher education fairs and managing the io’s online presence in relevant web information portals.

The Guidance Centre for International Students (zis), which is part of the International Office, is a meeting place for students from around the world. It helps incoming international students become acquainted with the university, student life and the surrounding area. Incoming students can take part in guided tours of the campus or go on day trips to places of interest including destinations in France, Luxembourg and Belgium. zis also organises a very varied programme of events that include visits to the theatre, concerts or to the cinema. The zis buddy programme ‘you & me’ is a peer mentoring programme in which student volunteers from Saarland University help incoming international students to become acquainted with day-to-day life on campus. zis also organizes national cultural evenings in the student halls of residence, as well as an international Stammtisch — a regular informal get-together for international and German students, and cultural and culinary focus days.

Other institutions at a glance

MELANIE LÖW
The Centre Juridique Franco-Allemand (CJFA) at Saarland University was established in 1955 and is the only university institution outside of France that is entitled to bestow a French law degree. Together with the Université de Lorraine, the CJFA awards a double-degree certificate in the French law programme Droit. Students can therefore study German and French law at the same time and are awarded both the German first state-supervised examination (Staatsexamen) in law and the French Bachelor’s degree qualification (Licence de droit). Since the winter semester of 2012/2013, students on the binational degree programme can receive financial support from the Franco-German University (DFH/UFA).

The CJFA is unique in Europe in that it is the only academic institution at which two delegated French professors hold French academic chairs established outside France. Other external French university professors and academics also come to Saarbrücken to teach at the CJFA.

Graduates from the double degree programme work as lawyers in international companies or provide legal advice to both German and French clients. Alumni from the CJFA also include diplomats, EU officials and staff at the Council of Europe. One of the benefits of the French law programme Droit is that graduates are equally at home with German and French law and are well versed in both legal systems. More than 1600 German-French legal professionals have begun their careers at the CJFA. Each year 80 students, French and German in equal number, join the programme.

Collegium Europaeum Universitatis Saraviensis (CEUS)

CEUS (Collegium Europaeum Universitatis Saraviensis) is an interdisciplinary platform that forms part of the university’s ‘Europe’ core strategic area. It pools and networks the university’s Europe-related activities by initiating interdisciplinary research projects and teaching initiatives on the subject of Europe and by disseminating the results to the broader public. In addition, CEUS provides support to academics wishing to conduct research on a European topic, assists with applications for third-party funding and coordinates activities aimed at encouraging and supporting young graduate researchers.

CEUS is jointly supported by the departments within the Faculty of History and Civilization Studies (Humanities I), the Faculty of Languages, Literature and Cultural Studies (Humanities II), the Faculty of Law and Economics, and the Faculty of Social and Applied Human Sciences (Humanities III). CEUS was established with the aim of strengthening the work of the university in its core strategic area ‘Europe’ and of demonstrating to a wider public the European expertise to be found in Saarland and the broader Saar-Lor-Lux region. CEUS is an interdisciplinary unit that works closely with other universities and research institutions. It is managed by a multidisciplinary Board of Directors.

The Saarland Centre for Studies in European History (ZHEUS)

ZHEUS is an academic facility that coordinates studies in European history at Saarland University and provides support services for collaborative research projects. In addition, ZHEUS organizes specialist academic conferences and discussion meetings. The centre was established by the Faculty of Humanities I (the Faculty of History and Civilization Studies). ZHEUS was established with the aim of strengthening the work of the university in its core strategic area ‘Europe’ and of demonstrating to a wider public the European expertise to be found in Saarland and the broader Saar-Lor-Lux region. ZHEUS is an interdisciplinary unit that works closely with other universities and research institutions. It is managed by a multidisciplinary Board of Directors.

Atelier Europa

Europe is a defining feature of Saarland University. Atelier Europa has set itself the objective of injecting life into this core strategic area by encouraging students to become inspired by the European idea. The Atelier Europa initiative was launched in 2008 and has since its inception organized numerous events each semester. One of the most important events it organizes is the annual ‘Europe Day’ (Europa-Tag), which it ran for the first time in 2009 and which each year focuses on a different European issue.