



DAAD

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German Academic Exchange Service

10 YEARS

**CENTRES OF EXCELLENCE IN RESEARCH AND TEACHING
BEACONS OF FOREIGN CULTURAL, EDUCATIONAL AND SCIENTIFIC POLICY**

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- 4** Forewords
- 6** Beacons of foreign cultural, educational and scientific policy
- 9** Commitment to democracy, public law and human rights
German-Southeast Asian Center of Excellence for Public Policy and Good Governance (CPG),
Thailand
- 13** Research consortium for the oceans
Corporation Center of Excellence in Marine Sciences (CEMarin), Colombia
- 17** New horizons for mobile scientists
German-Russian Interdisciplinary Science Center (G-RISC), Russia
- 21** Excellent range of subjects
Heidelberg Center Latin America (HCLA), Chile
- 25** Networked research for peace
Instituto Colombo-Alemán para la Paz (CAPAZ), Colombia
- 29** International science collaborations ever more needed to tackle global problems



HEIKO MAAS FEDERAL FOREIGN MINISTER

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International cooperation between universities, science and research is playing an ever more important role. Germany is actively shaping this networking process and is committed to science and research based on excellence and freedom worldwide.

A key player and partner in the Federal Foreign Office's science diplomacy is the German Academic Exchange Service (DAAD). Its role in promoting international academic mobility is paramount. The DAAD supported more than 140,000 German and international students last year, in addition to researchers around the globe – making it the world's largest academic funding organisation.

Since 2009, the DAAD has been funding Centres of Excellence in Research and Teaching all around the world with support from the Federal Foreign Office. The aim of the centres is to highlight the strengths of German science and to promote international networking, particularly in the promotion of excellent young scientists and academics. In addition, these transnational projects in Colombia, Chile, Russia and Thailand aim to have an impact on civil society. Over the years,

all five centres have developed into beacons of scientific cooperation dealing with a wide range of topics such as marine sciences, rule of law, democracy, astronomy, geo- and environmental sciences, to name but a few.

This academic collaboration makes a meaningful contribution to the strengthening of international relations. It opens the way for scientific development and in parallel has a major impact on society.

With their different locations and thematic orientations, the centres work to achieve the Sustainable Development Goals. Their search for answers to questions central to our future allows for specific and targeted networking between Germany and its partner countries. In times of academic restriction and political differentiation, institutions such as the Centres of Excellence, create discursive space and connect societies.

I sincerely congratulate everyone involved in the success story of the Centres of Excellence on their 10th anniversary and look forward to seeing the centres going from strength to strength in the years to come.



PROF. DR MARGRET WINTERMANTEL PRESIDENT OF THE DAAD

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For ten years, the DAAD has been supporting the Centres of Excellence, funded by the German Federal Foreign Office. The aim of the Centres of Excellence programme is to showcase the strength of German science and research and to promote international networking, especially in teaching and support for young academics.

Finding answers to pressing future questions is the main focus of the Centres of Excellence, which establish expedient collaborations with German higher education institutions. Core areas are hence the identification of a common research interest between potential German and international partners, as well as aiming for sustainability of projects and enhancing international competitiveness.

The centres pursue to establish open structures and internationalisation of higher education institutions and facilitate international dialogue and mobility. In the Centres of Excellence, postgraduate schools and Master programmes are yet established. In-country and third-country scholarships, as well as scholarships for research and teaching exchanges are offered. In

their advisory role, the centres provide their expertise to other institutions of scientific collaboration and to the civil public. This kind of knowledge transfer is of high interest for the local as well as the global civil and scientific society.

The Centres of Excellence are successful examples of cooperation between higher education institutions in relevant research areas. They facilitate collaboration of German researchers and institutions with their international counterparts in the spirit of joint capacity building. Over the years, the centres have developed into beacons of scientific cooperation and showcases of German teaching and research.

The Centres of Excellence are brilliant examples of international scientific cooperation with an emphasis on teaching and research. This publication will therefore offer you a more detailed insight into our Centres of Excellence through the voices of their project managers and their alumni.

I wish you an interesting read.

BEACONS OF FOREIGN CULTURAL, EDUCATIONAL AND SCIENTIFIC POLICY

Five Centres of Excellence carry out top-level interdisciplinary research and train scientists for tomorrow in Chile, Colombia, Russia and Thailand, together with German partners, funded by the DAAD. Now it is time to prepare the way for sustainable independence.

Many applications were received and four concepts were chosen – innovative cooperation projects for academic competence centres in Chile, Colombia, Russia and Thailand. Ten years ago, in 2009, they began their work. A fifth centre was added in Colombia in October 2016. The centres are supported by the DAAD with funds from the German Federal Foreign Office.

The Centres of Excellence are committed to three tasks. One of these is interdisciplinary research. Teaching, training young academics to the highest standards and promoting their mobility are also of great importance – outstanding young scientists in the partner countries are networked with Germany at an early stage through joint research. The Centres of Excellence also impact civil society through consultancy and knowledge transfer in politics, society and business.

Successful science diplomacy

Over the past ten years, the centres have earned an outstanding reputation in their academic communities

and beyond. Evaluations have confirmed their achievements. “They show that the centres fulfil the high expectations that are placed upon them” is the current conclusion of DAAD Secretary General Dr Dorothea Rüländ. “They are impressive showcases of German science abroad and convincing players in science diplomacy.” Science diplomacy refers to improving international relations, building bridges between societies, developing common strategies to overcome global challenges, and gaining partners and friends abroad through science.

Cooperation between equals

“Even the basic concept and thus the type of cooperation within the Centres of Excellence is extraordinary”, explains Dr Anette Pieper, Director of the Projects Department at the DAAD. “German universities not only cooperate with institutions abroad, but together with their local colleagues, they also establish a scientific centre financed through German funds.” In each of these transnational projects, one university has taken the lead – also as applicant – for the German side. German scientists work intensively and on an equal basis with partner institutions in the respective countries in order to achieve long-term effects there.

Variety and an interdisciplinary approach are principles of the programme, says Anette Pieper. “Through the variety of academic disciplines, the projects increase

COUNTRIES



TOTAL FUNDING



2009 - 2019
€ 13,3 million

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IMPACT

EXPERTISE
RESEARCH
EXCELLENT TRAINING OF YOUNG ACADEMICS
SCIENCE DIPLOMACY

MOBILITY
CONTRIBUTION TO SDGS

INTERNATIONALISATION

IMPACT ON CIVIL SOCIETY
COSMOPOLITAN UNIVERSITIES
CONNECTION TO GERMANY

the visibility of the German research institutions by displaying their scope.” The focus is on the natural sciences and socio-political issues. The subjects of the international work include physics, mathematics, computer science, law, social sciences and marine sciences, among others. “This thematic variety also highlights the special approach of the programme.” The Centres of Excellence have proven their worth as they are led and fostered by renowned scientists who have succeeded in establishing an outstanding reputation for the centres and developing international networks. All this is only possible because both the directors and their employees are deeply committed to increasing the impact of the centres in society through contacts in the partner country or region. Daily commitment also plays an important role in supporting doctoral students on their first trips abroad.

Sustainability of the achievements

The great challenges of the start-up period have been mastered. The teams have been established, the foundations and structures have been laid, and the coordination processes have been put into place. Curricula for new degree courses and doctoral programmes have been developed, project-related stays abroad have

been made possible and outstanding research environments have been created.

The four Centres of Excellence that have been participating since 2009 are now entering the third and final round of funding, from January 2020 to mid-2024. “Now that they have proven themselves, it’s a matter of sustainability – whether they can maintain their work even without the previous funding”, says Dr Stephan Geifes, Head of Transnational Education and Cooperation Programmes at the DAAD.

For this reason, the final round of funding will be degressive. “The centres will receive less funding from the DAAD – adjusted for their respective needs – so that they can find new financial resources and gradually gain independence.”

Certainly they will change due to new donors and new cooperation projects. “But that’s also what it’s all about – keeping them alive, keeping them active”, emphasises Anette Pieper. “Our goal was to facilitate the establishment and development of Centres of Excellence. Now they should continue to develop while perpetuating their achievements.”



COMMITMENT TO DEMOCRACY, PUBLIC LAW AND HUMAN RIGHTS



GERMAN-SOUTHEAST ASIAN CENTER OF EXCELLENCE FOR PUBLIC POLICY AND GOOD GOVERNANCE (CPG), THAILAND



CPG in Thailand is an independent research institute and think tank providing consultancy and advisory services on issues in the intersecting field of law and politics including democracy, rule of law and human rights as well as international relations and geopolitics. At the same time it serves as a 'German' centre contributing to strengthening the visibility of German science and German science diplomacy in Thailand, Southeast Asia and beyond.



CPG Alumni Seminar “Experiencing Germany: Culture, Law and Politics from Thai - German Perspectives”, 2019: Dr Pananya Larbprasertporn, lecturer at the Faculty of Law and alumnus of Göttingen University (left); H.E. Kasit Piromya, former Minister of Foreign Affairs and Ambassador to Germany.

The challenge was enormous – to establish a German centre in Bangkok inspired by German concepts of constitutional law and to support stable, constitutional governance in the countries of Southeast Asia in the long term. The centre is meant to offer both academic training and consultancy in the areas of public law, democracy, and human rights. “It was and remains a balancing act, but we’ve succeeded in implementing the concept”, says Professor Dr Ingwer Ebsen, project director at Goethe University Frankfurt.

CPG was founded in 2009 as a joint, affiliated institute by four law faculties: Thammasat University Bangkok, Goethe University Frankfurt am Main, the University



CPG Annual Conference 2010, from left: H.E. Peerapan Saleerattawiphack, Minister of Justice of the Kingdom of Thailand; Dr Kittisak Prokati, Faculty of Law, Thammasat University, CPG Supervisory Board Member; Dr Dorothea Rüländ, DAAD General Secretary.

of Münster and the University of Passau. “This way, we’ve established a unique research, competence and information centre in the region that always integrates current topics”, explains Ebsen. “The academics interpret political events in Thailand and the region and make an important contribution to German and international diplomacy at the centre.”

Big impact on the region

CPG organises around three dozen academic events every year, including conferences and workshops, spring, summer and winter academies, and trainings for students and various professional groups. With its activities, CPG contributes to research, academic

discourses and the professionalisation of practitioners in the region and beyond.

“Among the academies and capacity building activities this year, we provided training for judges and police officers in handling cases of child abuse”, explains CPG Director Henning Glaser. CPG also offers legal training for judges, young lawyers and other professionals as well as support for ASEAN parliamentarians in drafting laws. Generally, activities at the centre not only require legal knowledge, but also political expertise and sensitivity in dealing with controversial issues, emphasises Glaser. He is in regular contact with European and Asian diplomats as well as with Thai governmental agencies and politicians, and NGOs. This commitment is having an ever-greater impact. “We might be able to improve laws or their implementation and contribute to raising awareness for democracy and human rights in society, politics and professional circles.”

‘German’ centre at Thammasat University Faculty of Law

“CPG is part of the law faculty at Thammasat University where our work is well received and supported not only by Thai professors, who are actively involved, but beyond”, reports Glaser. He considers the connection to Thammasat University to be of central importance. “It’s Thailand’s most important law school, whose students later assume central positions in the legal and political system.” However, CPG’s network extends far beyond to academic institutions not only across Asia but also in Europe, America and Australia.

At CPG, Thai students learn German, attend events on German-related topics and establish contacts to Germany. The intensive alumni work keeps them in



German-Southeast Asian Center of Excellence for Public Policy and Good Governance (CPG)

www.cpg-online.de

Consortium

Goethe University Frankfurt, University of Münster, Thammasat University

Location

Bangkok (Thailand), Frankfurt and Münster (Germany)

Main goals

- Comprehensive legal education for students and young lawyers
- Professional training
- Research on public law and governance in Asia and beyond
- Regular publications in several channels
- Consultancy on matters of law, politics, and legal and political reform
- Providing fora for cooperation and exchange
- Facilitating and supporting academic exchange
- Disseminating knowledge on German education, language, law and culture

Faculties

Good Governance, Constitutional Law, Public Policy

touch with the centre. “Apart from teaching and research, CPG is active as a ‘German’ centre. We provide student and career counselling, arrange contacts to

German professors, support delegations and offer information events on important political, historical and cultural German topics”, explains Glaser. In this way, it is possible to sustain interest in Germany against the current trend in Thailand, where more and more students are mainly interested in the USA or China. Numbers of language students at CPG, however, remain high, with 350 enrolments for 12 subject-specific German courses in 2019.

Foundation as a basis for future work

To ensure that CPG can continue to operate in the region, the “Asian Governance Foundation” (AFG) was established in 2017 as a foundation under Thai law. This allows the centre to raise third-party funds and receive financial support from local and international donors already. “Despite the great challenges, CPG is on the right track”, sums up Ebsen. “The task is now to maintain the services and training opportunities as well as the acceptance that the centre has gained in the region.”

INTERVIEW

Dr Warawit Kanithasen, Senior Research Fellow at CPG; former Thai Ambassador to Egypt and Romania

How do you assess CPG?

It’s the best think tank not only in Thailand but in all of Southeast Asia. Every year over 100 professors and lecturers from all over the world come to discuss constitutional law, human rights or global and regional politics – that alone speaks for itself.

What is your vision for CPG?

An administrative institute of higher education or even an elite educational institution for the management class, such as the Ecole Nationale d’Administration in France, would be desirable. This is, of course, at best a dream for the future. In order for democracy and the rule of law to become established in Thailand and the region today, academics, judges, civil servants, police officers and students should continue to be trained by CPG and its German partner universities.

RESEARCH CONSORTIUM FOR THE OCEANS



CORPORATION CENTER OF EXCELLENCE IN MARINE SCIENCES (CEMARIN), COLOMBIA

The oceans are increasingly affected by human activities, and the livelihoods of coastal communities, animals and plants are threatened. CEMarin deals with the underlying causes through interdisciplinary research and teaching.



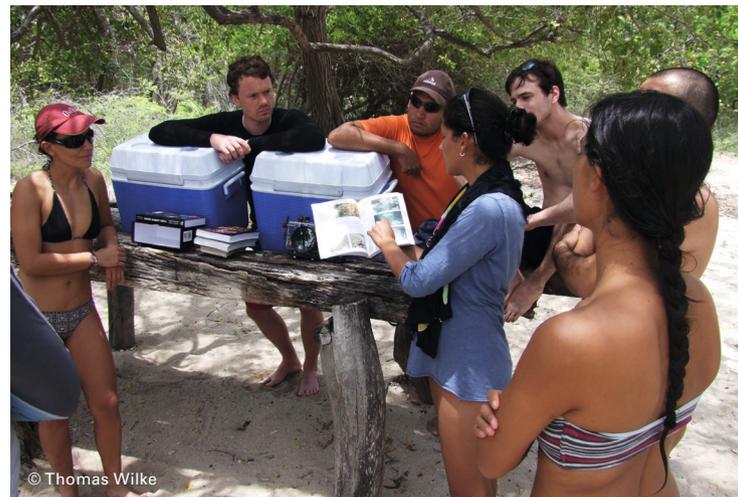


Ocean 2100 – a unique marine laboratory at the University of Giessen.

Large-scale coral decline, also caused by climate change, is being researched at CEMarin. Another topic is microplastics, which have become a serious problem for the oceans. The scientists can conduct their research in a geographically favourable location – Colombia borders on the Caribbean Sea and the Pacific. Their research topics are of worldwide interest.

Emphasis on strong cooperation

CEMarin was founded in Santa Marta in 2009 and has been headquartered in Bogotá since 2015. The cooperation is based on long-standing academic relations between Germany and Colombia. The German coordinator Professor Dr Tom Wilke visited Colombia for the first time 15 years ago. He is familiar with the local situation. “Despite major difficulties in politics



Course work in Tayrona National Park.

and education policy, there are very good universities, outstanding scientists and highly motivated students. What is lacking are sufficient funding and more research collaboration.”

For this reason, the German-Colombian Centre of Excellence is focusing on a concept of strong cooperation. “Today, around 100 scientists from different disciplines are working at CEMarin”, explains Marcela Sánchez Vargas, administrative director at CEMarin. “Because the marine sciences are very complex, we also work with many experienced researchers from different institutes.”

The founding members of CEMarin are five universities in Bogotá, Medellín and Cali and Justus Liebig University Giessen. The Leibniz Centre for Tropical Marine



Research in Bremen is another cooperation partner on the German side. Research is conducted in the disciplines of marine biology, chemistry, geography, oceanography, engineering, social sciences, economics and environmental law.

Simulation in Giessen marine laboratory

With the “Ocean 2100” global change simulation project, the University of Giessen is contributing a unique marine laboratory to the cooperation: 30 aquariums with 500 to 1,000 litres of water, completely regulated and controlled by computer. “In the test tanks, we simulate the warming of the oceans as is projected for the end of the century but in time lapse”, explains Wilke. “Over a period of ten years, we want to conduct tests on stony corals to predict what could happen to the reefs in the wake of climate change.” The scientific data from the long-term experiment will be available to the Intergovernmental Panel on Climate Change.

The “Ocean 2100” project makes up a significant part of the joint research and teaching activities of the institutions in Colombia and Germany. One focus is on the training of doctoral students and postdocs.

“The interdisciplinary approach requires doctoral students to rethink”, says project manager and biologist Wilke. “They have to understand the perspectives and issues of the other disciplines and work closely with them.” However, this provides young scientists with an excellent basis for future careers in an interdisciplinary research field.

Attractive, multifaceted network

“Because marine sciences are very expensive, the network around CEMarin is one of the most important



Corporation Center of Excellence in Marine Sciences (CEMarin)

www.cemarin.org/en

Consortium leaders

Justus Liebig University Giessen
Universidad de Los Andes, Universidad Nacional de Colombia, Universidad de Bogotá Jorge Tadeo Lozano, Universidad de Antioquia, Universidad del Valle

Locations

Bogotá, Medellín, Cali (Colombia), Giessen (Germany)

Mission

CEMarin is an international, non-profit organisation, founded by Colombian and German universities in 2009. It aims at answering fundamental environmental and socio-economical questions related to marine ecosystems in Latin America. It integrates interdisciplinary marine research with innovative postgraduate training and international networking across disciplines in the natural and social sciences.

Faculties

Marine Biology, Oceanography, Marine Chemistry, Marine Engineering, Coastal Zone Management, Socio-Economy

achievements of the start-up period”, summarises Sánchez Vargas. For research cooperation to develop, the structures created must be attractive to all participants.



Fieldwork in Tayrona National Park.

A central problem of the first few years was solved in 2015. CEMarin had no legal status of its own and could neither raise funds nor manage them directly. Therefore, a foundation was created in accordance with Colombian law. “The Corporación CEMarin is a milestone for the institutional sustainability of the centre because it can now independently apply for funding”, says Wilke.

Currently, one third of the budget is provided by the DAAD. Added to this are membership fees from associated institutions, funding from the Colombian National Science Foundation and various German donors such as the Stolzenberg Foundation.

Wilke is convinced that the concept and structure of the German-Colombian Centre of Excellence are fit for the future. CEMarin has quickly established itself as

one of the most visible programmes of academic and scientific cooperation between Colombia and Germany in South America and offers considerable advantages to both sides. “CEMarin enables German institutions to conduct research in key marine ecosystems. The Colombian partners benefit from German research infrastructures and methodological innovations.”

INTERVIEW

Catarina Martins, doctoral student in Animal Ecology and Systematics

How are you connected to CEMarin?

I have a doctoral scholarship from CEMarin and am conducting research at Ocean 2100 in Giessen.

What research questions are you focusing on?

Ocean 2100 investigates the impact of climate change on coral reefs. Specifically, I’m examining how corals react to ocean acidification, which is caused by the increasing levels of carbon dioxide in seawater. This also involves exploring the relationship between different flow velocities.

What aspects of CEMarin are important to you?

I think climate change is an alarming issue. For this reason, it’s important to me that these research projects are not just of academic interest but also relevant to the environment and especially to coral reefs, which I find fascinating.

NEW HORIZONS FOR MOBILE SCIENTISTS



GERMAN-RUSSIAN INTERDISCIPLINARY SCIENCE CENTER (G-RISC), RUSSIA

G-RISC networks outstanding research groups in Germany and Russia in the field of natural sciences. The aim is to give advanced students and scientists the opportunity to gain interdisciplinary and international experience through short but intense and efficient research stays in the partner country.



G-RISC
German-Russian
Interdisciplinary
Science Center



G-RISC

German-Russian
Interdisciplinary
Science Center

German-Russian Interdisciplinary Science Center (G-RISC)

www.g-risc.org

Consortium leaders

Freie Universität Berlin
St Petersburg University

Locations

St Petersburg (Russia), Berlin (Germany)

Mission

- Creation of stable science platforms in physics and geophysics, physical chemistry, and mathematics including interdisciplinary work for tackling current problems in nanoscience, intermolecular interactions, waves in geophysics, and control of wave patterns
- Creation of stimulating educational programmes by exchanging professors and students
- Exploring new avenues of teaching by using electronic media
- Holding conferences and workshops in Russia and in Germany for enhancing interdisciplinary and international research environments
- Establishing criteria of excellence for research and education in order to attract only the best researchers and students in the fields covered by G-RISC

Faculties

Physics, Physical Chemistry, Mathematics, Geophysics

When it was founded in 2009, the German-Russian Interdisciplinary Science Center could build on almost 40 years of cooperation between the Freie Universität Berlin and St Petersburg State University as well as other Russian-German collaborations. Since 2012, both universities have also been connected by a strategic partnership. “This was an outstanding basis for our complex programme”, says Professor Dr Eckart Rühl, the German coordinator of G-RISC at FU Berlin. He heads G-RISC together with chemistry professor Alina Manshina from St Petersburg University.

Platform for more than 440 research groups

The German-Russian Centre of Excellence promotes interdisciplinary research in natural sciences. It sees itself as a multidisciplinary platform for research and teaching and bundles the competence of around 440 research groups from 130 institutions. “G-RISC is a virtual centre”, explains Rühl. It networks scientists and enables them to spend time in the partner country where they can perform cutting-edge research on interdisciplinary topics. Furthermore, conferences and workshops are organised.

In addition, academics with experience in interdisciplinary teaching are exchanged between Russia and Germany. “This is an important part of the cooperation, but only accounts for five percent of our networking activities”, says Rühl. “The focus is on promoting the mobility of young researchers.”

Long-standing partnership

The young researchers generally receive scholarships for one-month research stays in the partner country. Calls for proposals take place twice a year. The administrative hurdles are low. G-RISC is exceptional in its



The Steering Committee of G-RISC.

uncomplicated, fast form of funding, emphasises the project coordinator. “There is no comparable funding scheme in Germany.”

Standards and requirements, however, are high. Only bi-national and interdisciplinary projects are funded. The decisive factor is that the research partners from Russia and Germany face novel interdisciplinary research projects.

So far, G-RISC has awarded scholarships for numerous research institutions based at 50 locations in Germany and 20 in Russia, respectively. In 2018 alone, 86 young scientists were supported in 82 projects.

“The aim of the calls for proposals is to find excellent young researchers for developing their skills further”, Rühl explains the specific approach of G-RISC. They should discover new horizons and pursue research goals that they would not be able to achieve without their stays abroad.

The professor of physical chemistry attaches great importance to the fact that G-RISC trains young scientists in interdisciplinary work and enables them to gain international experience. The funded researchers are highly motivated. “The fact that they usually only have one month to work ensures that they pursue their research in a very concentrated way.” Follow-up



Russian-German Young Scientist Award

projects are possible and allow for long-term collaborations between the partner groups.

Many valuable research results

One indicator of the academic success is the number of peer-reviewed publications in international scientific journals – more than 200 articles have been published in the first nine project years. “With little money, G-RISC achieves a high level of visibility and has helped to produce many excellent research results”, summarises the project coordinator.

So far, the majority of the funded young scientists, doctoral students, and postdocs have come from Russia. Young researchers from Germany need to be made more aware of the benefits of the programme. “We need to continue to develop what outstanding opportunities arise from doing research with partners in Russia”, says Rühl. A research stay is more than worthwhile because of the excellent level of education, high scientific standards in the natural sciences, and modern equipment in the partner groups in the Russian Federation.

Cooperation with companies is also part of the funding of G-RISC. Associated work within the Russian-German Laboratory at the synchrotron radiation facility BESSY II is funded by the German Federal Ministry of Education and Research (BMBF). For the final round of DAAD funding, from January 2020 to July 2024, the two partner universities in Berlin and St Petersburg intend to contribute funding of their own to G-RISC.

INTERVIEW

Dr Anna Makarova, TU Dresden; Senior Scientist at the Russian-German Laboratory BESSY II, Helmholtz Centre Berlin

When were you sponsored by G-RISC?

For the first time in 2010 during my studies, shortly after G-RISC was established. I later received two scholarships during my doctoral studies. I was working in a joint research project between St Petersburg University and TU Dresden at the Berlin electron storage ring BESSY II.

What role did the funding play in your career?

My work in the research group of Professor Clemens Laubschat at TU Dresden began with the G-RISC scholarships. I was then re-invited to participate in research projects funded by the German Research Foundation. Today I am a post-doc at FU Berlin, and previously I was a staff member at TU Dresden. I have recently been supervising young scientists who were funded by G-RISC.

EXCELLENT RANGE OF SUBJECTS



HEIDELBERG CENTER LATIN AMERICA (HCLA), CHILE

Since 2009, HCLA has been extended into a Centre of Excellence in Research and Teaching with four new scientific fields: Astronomy, Geo- & Environmental Sciences, Medical Informatics and Medical Physics. The internationally oriented range of graduate programmes offered in these areas also aims at students from other Latin American countries.



UNIVERSITÄT
HEIDELBERG
HEIDELBERG CENTER
PARA AMÉRICA LATINA

CENTRO DE EXCELENCIA EN INVESTIGACIÓN Y DOCENCIA



CENTRO DE EXCELENCIA EN INVESTIGACIÓN Y DOCENCIA

UNIVERSITÄT
HEIDELBERG
HEIDELBERG CENTER
PARA AMÉRICA LATINA

Centre of Excellence in Research and Teaching at the Heidelberg Center for Latin America (HCLA)

www.heidelberg-center.uni-hd.de/english/index.html

Consortium partners

Heidelberg University

Pontificia Universidad Católica de Chile, Universidad de Chile

Locations

Santiago (Chile), Heidelberg (Germany)

Mission

- Increase the visibility of Heidelberg University in Latin America
- Attract promising students, young researchers and senior scientists to participate in the study programmes offered in Santiago and in Heidelberg
- Contribute to capacity building in selected areas of specific relevance for the Chilean and other Latin American societies
- Develop joint research projects with partner institutions in Chile and other Latin American countries
- Contribute to the internationalisation of Heidelberg University and its partners

Faculties

Astronomy, Geo- and Environmental Sciences, Medical Informatics, Medical Physics

From the beginning of the project it was clear that long-term cooperation could only succeed if both partners benefit from it and meet at eye level. “Neither a one-sided brain drain from Latin America nor a project motivated solely by developmental ethics would promise much success”, says Dr Joachim Gerke, project manager at Heidelberg University.

A central aim in those disciplines for which high-quality academic training opportunities were lacking in Latin America was to establish a corresponding range of degree and further education courses. Initially, Chilean academics were invited to Heidelberg for their doctorates and further training in order to acquire the necessary expertise for establishing new departments at their universities in Chile.

Better care thanks to telemedicine

When the application was submitted in 2009, the subjects of medical informatics and medical physics had not yet been established in Chile. The Universidad de Chile now has a Center for Medical Informatics and Telemedicine (CIMT) and a Center for Health Information Systems (CENS), in which four other Chilean universities are involved. Scientists from other Latin American countries are also invited to participate. “This way we’re expanding the research network and strengthening cooperation”, explains Dr Walter Eckel, director of HCLA.

In the future, information systems in clinics will help to digitise medical records. In addition, thanks to the “video consultation hour” made possible by telemedicine, people in rural areas can also receive medical care. There is a shortage of doctors.



Teachers from the networks of astronomy teachers from Chile and Germany visit the Operations Support Facility (OSF) of the ALMA Observatory.

The Universidad Católica founded a Department of Medical Physics in which five medical physicists teach and research forms of radiation therapy – three of them had previously received their doctorates from Heidelberg University. “In radiation therapy in particular, HCLA relies on the expertise of the German Cancer Research Centre (DKFZ), one of the world’s leading research centres”, says Eckel.

Students from other Latin American countries are also increasingly taking part in the courses. In the flagship programme, an LLM in International Law, which was established in 2004, fifty percent of the students now come from neighbouring countries, the USA and Eu-



Lessons at HCLA.

rope. The Centre of Excellence expects similar numbers in its programmes for the future.

Impulses for teacher training

Outstanding research is also taking place in astronomy. “Astronomy is a very prestigious field in Chile. Scientists from all over the world use the observatories there”, reports Gerke. The world’s largest and best observatories are located in the Atacama Desert. Eight joint doctoral projects in astronomy have been completed in recent years. Teacher training has also developed well. “With the help of the House of Astronomy (HdA) in Heidelberg, which has many years of experience in the production of teaching materials,

Chilean primary and secondary school teachers are receiving further training”, says Eckel. The teaching materials are translated into Spanish. All participants in the teacher-training course work as multipliers and pass their knowledge on to colleagues – with growing enthusiasm.

Alumni as best ambassadors

Alongside the teachers, it is above all the alumni of all disciplines who take their multiplier role seriously. “In the geosciences and environmental sciences, they negotiated cooperation agreements with several NGOs”, reports Eckel. They have organised joint seminars and provided internships. “Our alumni are our best ambassadors”, says Gerke. The growing number of students confirms this.

In the long term, the Centre of Excellence should be able to cover a larger part of its budget through tuition fees. For this reason, we also advertise our studies in neighbouring countries – summer schools, for instance, where participants earn credits that count towards a subsequent Master’s degree.

Thanks to the Centre of Excellence, bi-national doctoral programmes with joint or double degrees have been established. Students wishing to obtain a double degree must spend at least one year at the respective partner university – the Universidad Católica or Heidelberg University. The Faculty of Physics is currently working on a double degree Master’s programme in Physics, which will offer specialisations in both medical physics and astrophysics for students of both universities.

HCLA director Eckel is satisfied. “It’s nice to see how the degree programmes are developing and how scientists from both sides of the Atlantic come together to form research groups of equals and initiate highly interesting projects.” A good basis for the coming development phase.

INTERVIEW

Tomás Usón Pizarro, Alumnus of the Centre of Excellence Chile

How are you connected to HCLA?

I was sponsored from 2012-2014 in the interdisciplinary Master’s programme “Governance of Risk and Resources”.

What did you experience during the time you were sponsored?

I wrote my Master’s thesis on water scarcity and the resulting conflicts between industry and small farmers in Chile. The Master’s programme offered a multi-disciplinary perspective on the topic and provided a good basis for academic work. Through cooperation with other departments I was able to build up a good network.

What are you doing now?

I’m currently working on my doctorate in European Ethnology at Humboldt University in Berlin. In my doctoral dissertation, I examine how cities in the Andes recover after extreme climatic events such as floods.

NETWORKED RESEARCH FOR PEACE



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INSTITUTO COLOMBO-ALEMÁN PARA LA PAZ (CAPAZ), COLOMBIA

The German-Colombian Peace Institute promotes the exchange of knowledge and experience in peace work by establishing networks between universities, research centres, civil organisations and government institutions. Research results on topics such as coming to terms with the past and conflict prevention have a direct impact on civil society.



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Participants in the CAPAZ Winter School 2018.

For about 50 years civil war raged in Colombia between left-wing guerrilla groups and the Colombian military. When the armed conflict ended in 2016/17, the Instituto CAPAZ, the youngest of the five DAAD-funded Centres of Excellence, began its work. “We’ve established the first bi-national institute to provide scientific support for the peace process in Latin America”, says institute director Professor Dr Stefan Peters. With this unique selling point, the Instituto CAPAZ has successfully positioned itself in the Colombian academic landscape. As a research, study and advisory institution, it provides expertise on central issues of peace studies, historical research, conflict prevention and the shaping of a post-conflict society.

Close to daily life

The focus of all projects is on the region. “Research in the ivory tower doesn’t work. We have to focus on application”, says Peters. That is why the institute

works with stakeholders in civil society, regional and national government as well as the transitional justice institutions that are involved in the peace process. One example is the Truth Commission. Its task is to come to terms with Colombia’s warring past and uncover human rights violations. A transitional justice system ensures that those responsible are prosecuted. “Peace and security after a violent conflict can only be achieved in the long term if the crimes are brought to light. That’s why the transitional justice that we support is so important”, Peters stresses. “Together with the judges and truth commissioners, we learn from the experiences of other countries. This promotes quality transitional justice and its acceptance.”

The institute also advises communities on how to deal with the many traumatised people. Professionals in the fields of medicine and psychology work together with

local health institutions. “Doctors often still use conventional methods to treat people affected, especially in rural areas. This means ‘many pharmaceuticals, little therapy’. We help shift their approach through further training,” reports Peters.

High demand for political education

Further training is also the keyword in political education. With this new focus, the institute aims to promote processes both inside and outside schools. In addition to the topic of civil war, the following questions are addressed: “How does political participation work? What does the judiciary do? What are my rights?” In workshops with stakeholders from politics and education as well as multipliers from the media and society, the researchers develop suitable further education programmes. Thomas Krüger, President of the German Federal Agency for Civic Education (bpb), is also involved. Together, participants discuss which approaches from Germany could work in Colombia and how they might need to be adapted. One promising idea is to prepare the bpb series of publications for Colombia, too. This would allow the distribution of easily accessible and comprehensible information material, aimed mainly at the rural population.

Teachers are an important group in conflict prevention as many pupils are likely to have been personally affected. This is why the Centre of Excellence develops methods and materials to sensitise teachers to topics such as sexual violence in armed conflicts.

Space for controversial dialogue

The Instituto CAPAZ and civil society both benefit from this partnership. “We apply our results and communicate them to society while our scientists gain



Instituto Colombo-Alemán para la Paz (CAPAZ) German-Colombian Peace Institute

www.instituto-capaz.org

Consortium leaders

Justus-Liebig-University Giessen
Universidad Nacional de Colombia

Location

Bogotá (Colombia)

Mission

- Academic work on the Colombian peace process and the transition towards a post-conflict society
- Promoting high-quality research and teaching on transitional justice and human rights, peacebuilding, and conflict as well as territorial reconfigurations
- Consolidating bi-national research networks in peace and conflict studies
- Enabling knowledge transfer
- Consultancy on policy-making

Faculties

Peace Studies
Interdisciplinary (Law, Social Sciences, Cultural Studies, Psychology etc.)

important insights from the population. The institute offers discussions and training courses, which are in high demand, especially outside the larger cities where

there are few such events. In this way, we can make our modest contribution to stabilising the peace”, Peters hopes.

From time to time, the scientists encounter scepticism. The topic is polarising. Such controversies are likely to occur often, according to the institute’s director. It is important to offer space for dialogue. “One of the greatest successes of our work is that people who usually don’t talk to each other come together in a room, discuss viewpoints and sometimes even find solutions.”

In the coming round of funding, the Instituto CAPAZ intends to consolidate and expand the ongoing projects. There are also plans for innovations in political education, and in winter semester 2019/20, German and Colombian students will attend their first course together via e-learning.



Joint work in the workshop “Territorial Peace”.

INTERVIEW

Maria Paula Cobo Arango, Subdirector Nacional, Special Jurisdiction for Peace

How are you connected to CAPAZ?

In April 2019, the Special Jurisdiction for Peace (JEP) signed a memorandum of understanding with CAPAZ and the Latin-American Center of Criminal Law and Procedure Law Studies. This document formalises an alliance between these institutions aimed at promoting exchange and dialogue on transitional justice and peace, providing technical assistance for pedagogy and outreach, and strengthening JEP’s regional work.

Which projects do/did you manage together?

Thanks to CAPAZ support, JEP officials received training from Professor Kai Ambos in international criminal law. We’re now planning to coordinate with regional universities to encourage civil organisations to present reports to JEP. Workshops and training to strengthen JEP’s institutional capacity and the development of expert opinions on specific areas of interest are also in planning.

How does JEP profit from the cooperation with CAPAZ?

The alliance with CAPAZ contributes to invigorating processes with civil organisations in the regions and their participation in the Integrated System of Truth, Justice, Reparation and Non-Repetition. It also enables JEP to exchange experiences and information with experts on relevant topics that support the achievement of its mission.



INTERNATIONAL SCIENCE COLLABORATIONS EVER MORE NEEDED TO TACKLE GLOBAL PROBLEMS

DR TIM FLINK

Tim Flink is a postdoctoral researcher and lecturer based at Humboldt-Universität zu Berlin and the German Centre for Higher Education and Science Studies. His work focuses on international science policy-making, diplomacy and scientific collaborations.

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Globalisation and science are not only causes to each other, but both also cut through most aspects of human civilization. Almost all of our personal circumstances are unambiguously interwoven with global developments, while they also interrelate with science – its scrutiny, theories, methods, findings and technological advance that concurrently decrease and increase uncertainties.

Despite a small era of global euphoria from the 1990s until the first millennium years, political systems have hardly overcome their predominantly national orientation. But neither can nation states keep up with the international collaborative patterns of science, let alone with new knowledge and technological advance as its main products, nor with the intrusiveness of pressing international and often global problems, such as the earth's lethal warming, the extinction of ecosystems, nutrition and health problems, armed conflicts, and a long list of further dismal prospects.

Can international science function as Ersatz-Diplomacy?

Against this background, actors in politics and science have increasingly become aware that an internationally oriented science system bears the potential to provide the most suitable answers to the question of how to solve such complex and border-crossing problems. This awareness is expressed in recent and current discourses, such as in the eight Millennium Development Goals (2000-2015) and their succeeding 17 Sustainable Development Goals (2015-2030). More explicitly, it is enunciated in discourses on “grand/societal challenges”, on “responsible research and innovation” and the most recent ones pertaining to “mission-oriented” and “transformative” research and innovation. Next to their discursive proliferation in almost all nation states, these concepts have become strong lubricants of the European Union's Research Framework Programmes that – in times of the European integration crises – can no longer only resort to the hitherto dominant justifier



of global market competitiveness. Moreover, political actors increasingly regard international scientific collaborations as a form of ersatz-diplomacy – often called “science diplomacy” – that foreign offices can revert to, in particular when interstate relations are rife with tensions: If scientists are politically supported to engage in international collaborations and competitions notwithstanding nationality or provenance – so goes the conviction – this would foster interstate relations in general.

Don't overburden the Centres of Excellence

These social expectations are – almost perfectly – mirrored in the German Academic Exchange Service's line-up of international Centres of Excellence. Their

primary goals include the tackling of societally relevant issues (good governance, the rule of law, peace and conflict, marine ecosystems and resources etc.) and boosting capacities of participating institutions in primarily developing and threshold countries. By supporting committed students, young and established researchers, fundraisers, current and future decision-makers as well as the institutions' management staff, the centres should also empower the civil societies they are situated in and seize greater international visibility to attract further funding. Not least, as it stands in their name, the centres are expected to strive for and produce excellent research output on their own to better integrate their participating researchers into the invisible colleges of global science.

While discourses about the SDGs, science diplomacy and grand challenges have inflated exuberant talks and lofty promises, one must acknowledge that the Centres of Excellence have actually become a palpable reality, stupendous resources have been invested for an entire decade, impressive and variegated output has been produced and the centres have been greatly supported by committed staff and a growing network of academics and political decision-makers as well as by their political shareholders, all of which should be given credit.

With respect to their future, however, a pivotal question is how the centres will cope with a plethora of expectations. Asked the impossible, they should do no less than build a coherent initiative together but also develop individual profiles and unique selling points, they should seize self-governing capacities but remain responsive to the polymorphic demands of their shareholders, and they should develop international visibility

whilst serving the local communities they are embedded in. Not least they should be first off the mark to respond to rapidly changing situations in their countries: by providing advice, easing conflicts and acting as science-diplomatic mediators. Needless to say, these activities can feed back into the centres' research activities. Moreover, the Centres of 'Excellence', as it stands in their name, should autonomously produce results that are of high scientific relevance for a global research community and of societal relevance, in their case for local communities.

These expectations, in their immense number, do not only seem overburdening – some are also inherently contradictory. For they portray an obsolete critique that science would have capitalised on its privileges to be rather a self-referential than a societally oriented undertaking. Ergo, politics as the rightful custodian of society would have to demand greater social commitment from scientific researchers, incentivise academics according to strategic goals and control their outputs via

strong evaluation regimes. Likely consequence: 'Good riddance creativity!' – apart from the fact that such images do not live up to past and current development of academic research at all, which has mostly been rooted in and oriented towards societies.

"Excellence" favours self-mobilisation over external determination

Without challenging that academic activities can and sometimes need to be co-defined by non-scientific actors, the Centres of Excellence should be seen as "protected spaces" (according to Arie Rip) in their very communities as well as by policymakers. They should be shielded from particularistic and quickly changing interests in politics and rather favour variability and serendipity over the logics of selective planning. Resorting to the centres' theme once more, we should acknowledge that the concept of "excellence" in academia does not mainly bear on the idea of stratification by (external) selection but essentially on self-mobilisation.

FURTHER READING

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