

European and International Cooperation



EUROPEAN AND INTERNATIONAL COOPERATION

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Presidency of the EU Council – for a modern, sustainable and resilient Europe

Germany is well aware of the expectations that go along with the EU Council Presidency. When it took over the task in the second half of 2020, the agenda included a multiannual budget plan for the EU – and with it the negotiation of new programmes worth billions for research, education and innovation. In 2020, the DLR Projektträger assisted the federal government, and specifically the Federal Ministry of Education and Research, for the fourth time in achieving its presidential goals – and that under very special conditions.

The rapid development of the Covid-19 vaccine has demonstrated that excellent science, international research and the resulting innovations are the key to overcoming global crises. Even before the Corona pandemic, the German EU Council Presidency had set out to further strengthen research, education and innovation in Europe in 2020. However, from spring onwards, additional and extremely challenging tasks became imminent: pandemic containment, vaccine development, economic reconstruction and preparedness against future threats. The fact that in the six months of the Presidency, it was possible to realign European cooperation in research, education and innovation and simultaneously adopt European solutions in and out of the crisis was a big achievement. We at DLR-PT have been able to make a variety of contributions to this on behalf of the BMBF – above all in the field of *European and International Cooperation*, but also in health research, as the *Coordination Office of the Intergovernmental Panel on Climate Change* or in education for sustainable development.

A reliable partner in a special Presidency

Due to the Covid-19 pandemic, the DLR-PT staff had to completely redesign scheduled major conferences, negotiations in Brussels or meetings in Germany under great time pressure and switch

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EU Council building in Brussels: Germany held the Presidency in the second half of 2020.

to hybrid or completely virtual formats. One such example was the meeting of European research ministers planned at Hotel Petersberg near Bonn in July 2020, which ultimately took place as a virtual event from a studio that was set up specially for the Council Presidency at BMBF's Berlin premises. As an innovative element, this was the first time that live polls were conducted using a voting tool at ministerial meetings. We developed similar solutions for Director-General level meetings in the field of education and committee meetings on research and innovation.

Due to the pandemic, our staff had to develop new conceptual elements for events, such as virtual ceremonies or hybrid forms of discussion. In addition, there were specific hygiene concepts that we implemented in cooperation with experts and responsible authorities. We also performed our usual tasks in concept development, organisation and implementation of events – from technology to press relations. The professional organisation and execution of events was handled by the *competence centre Public Relations* of DLR-PT in close coordination with DLR-PT divisions.

At the end of the German Presidency, important negotiations – on the *Multiannual Financial Framework (MFF)* of the EU as well as on the major European research, education and innovation programmes – were successfully concluded: *Erasmus+* and the new framework programme for research and innovation *Horizon Europe* (2021–2027) could start as planned in 2021. On behalf of the BMBF, we brought together the positions from all member states and the European Commission during the negotiations. Our experts contributed to the process with their know-how – from funding management to budget planning.

New impulses for vocational education and training and freedom of research

One of the political priorities that Germany set during its Council Presidency was digital education across all phases of life, especially in vocational education and training. The informal meeting of education ministers on 16th and 17th September 2020 in Osnabrück was a milestone here. DLR-PT prepared the content for the meeting and organised it as a face-to-face event under strict hygiene rules. The meeting paved the way for the *Osnabrück Declaration on Vocational Education and Training*. On 30th November, DLR-PT arranged a virtual ceremony where the EU member states adopted the declaration. This laid a new basis for vocational education and training cooperation in Europe: the declaration strengthens vocational education and training systems, for example through greater policy support for stays abroad of trainees.

Freedom of research was also one of the focus points of the Council Presidency because science is increasingly under pressure of scientific scepticism and disinformation. On 20th October 2020, we organised a ministerial conference for the BMBF and accompanied the process towards the *Bonn Declaration on Freedom of Scientific Research* which was adopted by the EU member states and is supported by important international partners.



european and international cooperation Promoting research and innovation across borders

How do we want to live in the future? How can we stop climate change? How can renewable energies be used to meet the world's energy needs? And how can states cooperate across borders to manage global crises better? The current Covid-19 pandemic is a particularly impressive example of the fact that the great challenges of our times can only be overcome by working together across countries.

In the field of *European and International Cooperation*, the DLR Projektträger supports cross-border cooperation to connect research, education and innovation on a global level and thus generate added value. We advise our clients (federal and state governments as well as other players from politics, science and education) and develop analyses and strategies for them to cooperate with partner countries and regions worldwide. To this end, our experts use various instruments and procedures – for example, we execute participation formats, organise strategic processes on transformative megatrends (such as energy transition, digitalisation, new normal) or forecast future developments using foresight strategies. We also develop and implement numerous targeted funding programmes for clients such as the Federal Ministry of Education and Research (BMBF).

With our services, we inform interested parties about the opportunities for international cooperation and facilitate access to EU and The declaration stands for a central concern of the Council Presidency: strengthening the *Europe*an Research Area (*ERA*). On 1st December, EU member states agreed on measures that will bring a new dynamic to European research cooperation. DLR-PT supported the entire process in terms of content and organisation. This includes the pan-European implementation of citizen science projects with the pilot project initiated by the DLR-PT *Plastic Pirates – go Europe!* and a pioneering research and innovation initiative on green hydrogen. With the new funding programme *Innovation Union Europe*, the BMBF is now providing 40 million euros to give researchers better access to the ERA. Having already accompanied the planning and coordination of the programme, we are now also responsible for its implementation. We also supported the preparation of new European research and innovation partnerships at continental and national levels, for example in the health sector with the preparation of the *EU-Africa Global Health Partnership*, the *European Partnership on Personalised Medicine* and the *Innovative Health Initiative*.

The BMBF is using the new momentum in European research and innovation cooperation as an opportunity to launch a campaign that establishes the ERA as a brand for value-driven and excellent research and innovation. As DLR-PT, we steer the campaign and contribute to designing its content with our ideas.

Broad expertise for a wide range of topics

The federal government entrusted us with a broad array of tasks of the Council Presidency: in the area of health, for example, we assisted with the preparation and execution of the conference *Europe*: *Unite against Cancer*, which advised on collective ways to strengthen cancer research in Europe. The *European Forum on Science & Education for Sustainability* developed concrete proposals on how to shape an innovative and sustainable Europe through research and education – by activities such as the workshop on *Education for Sustainable Development*, which was largely designed by the *Education, Gender* division. At the *Marie Skłodowska-Curie Actions 2020 – Achieving more together* conference, more than 500 participants laid the foundations for more mobility of researchers in Europe. And the *JPI Climate Scoping Forum Symposium* identified new research priorities to be jointly promoted for a climate neutral Europe by 2050 under the motto *Providing knowledge for a climate neutral and resilient Europe*.



Empty conference halls at the Bundestag were an unusual sight for an EU Council Presidency.

Goals achieved and new tasks

Concluding difficult negotiations, dealing with the pandemic and the multitude of new political initiatives for a stronger Europe – the German Presidency of the EU Council in 2020 was particularly demanding. We have been able to make an important contribution towards setting the course for a more sustainable and resilient Europe, especially by strengthening research, education and innovation. The fact that DLR-PT was once again able to contribute to this as a partner of the BMBF was our highlight of 2020. We will now do everything we can to fill the new initiatives with life.

international programmes for universities, research institutions and companies. These services include information services and events so that German stakeholders can network with partners worldwide. We operate the *EU office* of the BMBF as the central point of contact for everything related to *Horizon Europe* and the *Office of the German Network of National Contact Points*. As the International Office, the *EUREKA Office* and the *COST Coordination Office*, we develop and implement targeted funding measures for our clients and provide customised advice on the opportunities of global networking and on bilateral and multilateral funding opportunities to those interested in funding. As part of the *International Service Facility* framework contract, we carry out measures for the European Commission to further internationalise research and innovation.

Our experts help to assert German and European interests in international networks and organisations by advising clients on these occasions, accompanying them in meetings or representing them. We are also involved in European and international educational cooperation (for example *Erasmus*+ or *Vocational Training Exports*) and implement campaigns that promote Germany as a research location internationally.

Evaluations in international cooperation: knowing what works, how and where

What impact do funding measures have in the complex world of international cooperation? What works under which conditions and what does not? DLR-PT gets to the bottom of these and other questions. After all, in order to successfully implement international research, education and innovation policy, the impact of political decisions, programmes and instruments must be continuously reviewed and adapted.

Evaluations mainly serve three purposes: retrospective efficiency review (ex-post), forward-looking control and planning (ex-ante), and understanding situations, processes and structures (process evaluation).

For evaluations in the field of international cooperation, we at DLR-PT combine extensive international experience with broad methodological expertise – for example, qualitative methods such as interviews, focus group discussions, online surveys or the quantitative analysis of statistical data. Methodological expertise is brought to bear across divisions, especially in the cooperation with our *Analysis and Evaluation* competence centre. We are also increasingly using foresight analyses – systematic derivation of plausible future scenarios – to support the conception and planning of new policy measures or funding programmes.

In 2020, we evaluated the international activities of political foundations in Germany: the Japan and Brazil programmes of the Konrad Adenauer Foundation (KAS) (photo: the KAS and DLR-PT as guests of the European Union delegation in Brasília) and the Zimbabwe project of the Friedrich Naumann Foundation for Freedom. A whole set of methods was used – from the analysis of relevant documents and interviews with programme managers to discussions and workshops with local political and social actors.

Depending on the country, the evaluation focus was on different topics such as foreign, security, economic and energy policy, human and civil rights as well as the environment and the development of young politicians. Our international expertise played a significant role in each case. We have also supplemented the evaluations with elements of organisational consulting. The results of these evaluations include, on the one hand, a retrospective analysis of the impact generated by on-ground work and, on the other, concrete recommendations for further work in the partner country.



Research infrastructures: networking globally, pooling resources

Be it climate protection, energy supply, health or food safety: to ensure and increase the quality of life worldwide, there is a need for research into all major challenges of our times. New solutions need to be developed, researched and practically implemented so that we can live safer, more sustainable and healthier lives in the future. Scientists worldwide work together using research infrastructures such as particle accelerators, large lasers, databases or university laboratories because global issues can only be solved together.

As a service contractor of the European Commission (International Service Facility), we are pushing forward cooperation between research infrastructures from Europe and Latin America. We organise and moderate dialogues between stakeholders from Europe and Latin America such as the European Commission, research ministries, funding organisations and scientific institutions, thus facilitating access to excellent research infrastructures in both regions. This exchange of information has facilitated the mutual use of sophisticated equipment, databases and networks and led to joint innovative research approaches.



Cooperation between Europe and Latin America has particularly advanced in the field of biomedicine: *Instruct-ERIC* is a pan-European biomedical research infrastructure consisting of 15 member states and 11 centres, providing cutting-edge technology to academics for their research. Together with Latin American partners such as the Center for Structural Biology of MERCOSUR, researchers investigate the structure of proteins and thus make important contributions to basic medical research and biotechnology. The results are later used in a variety of ways, for example in the development of vaccines and medicines.

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In Asia, we also organised a platform for the European Commission, on which major research infrastructures in the EU and the Association of South-East Asian Nations (ASEAN) can coordinate and cooperate. In this context, we at DLR-PT combine our expertise in the European Roadmap for Research Infrastructures (ESFRI) and ASEAN research cooperation. An important partner in this is the ASEAN Network for Microbial Utilization, which brings together the South-East Asian regions with exceptionally high biodiversity and promotes the sustainable use of the natural resources available there.

Personalised medicine: customised treatments

What if every sick person was given treatment tailored specifically for them? In fact, this is already the case today with personalised cancer therapies. The aspiration and challenge of health research is now to establish this individualised treatment approach, which is based on genetic and biomedical factors as well as a person's lifestyle and environmental factors, in other important disease areas – across Germany, Europe and beyond. This is because one thing is clear: so-called "personalised medicine" (PM) helps improve diagnosis and treatment and develop new prevention strategies.

PM is a multidisciplinary approach that collects and synthesises expertise and data from different disciplines. DLR-PT's *Health* and *International and European Coopera-tion* divisions oversee this topic at the national, European and international level. For example, the *Health* division has been heading the secretariat for the International Consortium for Personalised Medicine (ICPerMed), which is funded by the EU Commission, on behalf of the BMBF since the end of 2016. To advance research, funding and implementation of PM in health systems, ministries and other national and regional research funders from more than 30 countries such as Europe, Brazil, Canada and Israel have joined forces here.

Some of our divisions are currently participating in two EU-funded projects with China and Latin America, which contribute to the internationalisation of ICPerMed. The aim of these projects is to identify the most important actors in the regions and to create a common understanding of PM. As the next step, we intend to win other countries, regions or institutions as members for ICPerMed.



More information: www.icpermed.eu www.sino-eu-permed.eu www.eulac-permed.eu

Smart cities: improving the quality of life with digital technologies



The future belongs to smart cities, which use digital technologies to network all areas of urban life such as living, working, mobility, environment and administration. This is how smart cities can increase the quality of life in cities and make the personal lives of residents easier. The first smart city approaches were implemented primarily in non-European countries such as Singapore, Japan, South Korea or the Emirate of Abu Dhabi. Thanks to EU funding, however, smart approaches have long since been initiated in Europe, for example in Eindhoven, Copenhagen, Stockholm and Vienna. German cities are also increasingly catching up and are networking with each other as well as internationally.



It is worth looking outside Europe to be part of the latest technological developments. As DLR-PT, we have therefore cross-divisionally designed a measure on behalf of the BMBF to promote research projects of German institutions with partners in Singapore to jointly develop smart urban mobility in the city state with 5.7 million inhabitants and in German metropolitan regions. Innovative German-Singaporean alliances, each with one science and one business partner ("2+2 projects"), are advancing a socially responsible and climate-friendly transformation of urban transport and mobility systems through this project funding. Funding is available for projects that model emissions, use sensor technologies to optimise traffic and evaluate the sustainability of smart mobility concepts. This funding measure is already the third initiative between Germany and Singapore in the field of research cooperation and supplements the funding measures supervised by DLR-PT as part of the BMBF's Sustainable Urban Mobility research agenda.

For urban areas, becoming smart cities is primarily about strengthening their ability to act as political and planning institutions, supporting democratic decision-making pro-



cesses through participation and shaping transformation processes in a sustainable way. We at DLR-PT are already contributing to the last point in particular with concrete measures such as the research programme *Social-Ecological Research*, which we manage on behalf of the BMBF.

Western Balkans: driving change together

The Western Balkans are an important part of Europe and have the potential for becoming an emerging economic partner for Germany and the European Union. The focus of the cooperation is on bringing the region closer to the EU with a view to EU accession, intensifying regional cooperation and supporting reconciliation and networking among each other in order to stabilise the region.

In 2020, cooperation with the Western Balkan countries was a main topic of DLR-PT's *European and International Cooperation* division. This cooperation resulted in the first national funding of joint projects between universities, research institutions and business partners, which we implemented on behalf of the BMBF. The research and development projects on innovative products and processes primarily support young scientists in the region. For example, young scientists from Serbia, together with their German partners, are researching ways to sustainably and cost-effectively produce drinking water from polluted water. With our work, we are making a crucial contribution towards enabling the European Commission to work even more closely with the Western Balkan countries on research topics in order to make them fit for EU accession. For example, under the European Commission's International Service Facility contract, we host ministerial meetings annually and working meetings monthly between the EU and the Western Balkan countries and advise the Commission on the way forward based on progress reports. Together with the representatives of civil society, academia, the private sector and local governments, we are also developing four future scenarios ("strategic foresight") for the region for 2035. The study serves as a basis for reorienting the research and innovation sector in the Western Balkans and initiating meaningful investments. As part of another study, we are analysing, for example, how and where research results are generated and how they can be put into practice. On this basis, we advise the countries to design their research and innovation policies more effectively

and achieve their strategic research goals ("smart specialisation strategies").



Contracting bodies: European and International Cooperation

Federal Ministry of Education and Research

International Office

EU Office of the BMBF

EUREKA/COST Office of the BMBF

International cooperation in vocational education and training

Comprehensive measures of the federal government's strategy for the internationalisation of education, science and research

National Contact Point for international researcher mobility

Green Talents competition

ESFRI Support Office/large-scale equipment for basic research in the natural sciences

Organisation Office of the Sino-German Innovation Platform

Certification Office for R&D tax incentives

Federal Ministry for Economic Affairs and Energy

National Contact Point for small and medium-sized enterprises (SMEs)

European Commission

Service Facility in Support of the Strategic Development of International Cooperation in Research and Innovation

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German Association for Supply Chain Management, Procurement and Logistics

Integration of the contact point on Innovative Public Procurement into the NCP advisory system (KOINNO)

Ministry of Science, Research and the Arts, Baden-Wuerttemberg

Evaluation of ECORDA data with respect to the research landscape in Baden-Wuerttemberg

Commission of Experts for Research and Innovation - EFI

Comparison of the innovation systems in China and Germany

German Society for International Cooperation (GIZ)

European support mechanism for regional integration of the ASEAN union of states (E-READI)

Prognos AG

Evaluation of the EFRE programme (European Funds for Regional Development) in North Rhine-Westphalia

ZENIT GmbH

Synergies.NRW

Konrad Adenauer Foundation e.V.

Evaluation of the Brazil country programme

Evaluation of the Japan country programme

Friedrich Naumann Foundation for Freedom

Evaluation of the Zimbabwe country programme

Funding

European Commission

ERA.Net RUS plus	S4D4C
NCP_WIDE.NET	Net4MobilityPlus
RICH-2	ERA Learn
SiS.net3	LEAP4FNSSA
StR-ESFRI2	NCP Academy
LEAP AGRI	INNOWWIDE
CEBRABIC	EULAC-PerMed
NearUS	EURAXESS TOP IV
GENDERACTION	Access2EIC
EU-CELAC ResInfra	SINO-EU-PerMed
MSCA DE 2020	Bridge2HE
LEAP-RE	

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