



Selected Funding Instruments for the Life Sciences Industry

Beauftragt durch:

Ministerium für Wirtschaft,
Industrie, Klimaschutz und Energie
des Landes Nordrhein-Westfalen



Funding is made available to the life sciences sector from a diverse range of funding organizations (e.g. the European Commission, the German Federal Ministry of Education and Research (BMBF), and the German Federal Ministry for Economic Affairs and Climate Action (BMWK)), each with very different objectives. In addition to funding for international collaborations, there are also calls targeting small and medium-sized enterprises (SMEs), scientific institutions/universities, and university spin-offs.

This overview of selected funding instruments supports applicants in identifying the funding organizations – and their respective funding philosophies – that match their research projects best. A table also highlights the most relevant funding program deadlines (as of April 2023) and provides links to additional information.

A number of programs have a completely new format and design. On 9 September 2022, for example, Mona Neubaur, Minister for Economic Affairs, Industry, Climate Action and Energy of the State of North Rhine-Westphalia (NRW), launched the “Multi-Funds Programme ERDF/JTF North Rhine-Westphalia 2021–2027”, the new European regional funding program in NRW. The first calls for proposals and funding opportunities were published in November 2022.

The EU is also providing funding across borders, for example. The overview of funding programs provided in this brochure is by no means exhaustive, nor should it be seen as a replacement for a personal discussion with qualified and experienced experts working for an advisory service. It does, however, provide potential applicants with a very good overview of available funding programs, their deadlines, and the most relevant contact points where they can obtain further information.

This text was developed as part of a collaboration between ZENIT GmbH/NRW.Europa (<https://www.zenit.de/english/>) and BIO.NRW – The Home of Biotech, the network organization for biotechnology in the state of NRW (<https://bio.nrw.de/en/bio-nrw-2/>). BIO.NRW is funded by the German Ministry of Economic Affairs, Industry, Climate Action and Energy of the State of North Rhine-Westphalia (MWIKE).

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1. Financing life science innovations

Innovative projects are generally faced with the problem that technical and economic risks can only be accounted for to a limited extent, especially for small and medium-sized enterprises (SMEs). To help companies implement innovative projects despite this issue, public institutions offer a large number of funding and financing programs with different sociopolitical objectives. This includes support for the life sciences sector, which has rather special project requirements. Such funding instruments usually aim to promote the technical development of new products in a pre-competitive setting. Only a few programs are suitable for funding certifications, good manufacturing practice (GMP), or clinical studies. In addition, companies often receive less than 100 % of the requested funds, meaning that they always carry a residual financial risk. This is why companies must convincingly outline the total financing of the project as well as future marketing prospects when applying for funding. Funded projects should therefore always be embedded within the company's overall strategy. This particularly applies to projects with a long time frame from development to market launch, such as products requiring clinical studies for market approval.

Each program tends to focus on finding solutions to specific research policy questions in the field of life sciences that are important to the respective funding bodies, for example the German Federal Ministry of Education and Research (BMBF) or the European Commission. These political objectives are reflected in precise structural and content requirements for project applications, which are almost always formulated in a public call for proposal with deadlines for submission. There is also a range of programs that are not limited to particular technologies or research approaches, allowing companies and research institutions from all life science areas to apply (e.g. Central Innovation Programme for SMEs (ZIM), research for the benefit of SMEs, etc.).

Basic funding categories

Funding programs often have similar conditions. A distinction can be made between the following categories:

1. Grant programs
2. Development loan programs
3. General support programs
4. Equity or risk capital
5. Tax-incentivized innovation funding

Grant programs

Grant programs offer non-refundable funding for clearly defined funding objectives. Depending on the amount of funding provided, companies are typically required to make a financial contribution. With a few exceptions, innovation programs particularly aim to support the translation of companies' research and development projects into new products and processes that can be positioned on the market.

Development loan programs

German federal and/or EU-supported development loan programs enable companies to acquire funding for specific purposes (e.g. growth, innovation, start-up, environmental investments, etc.). These programs are generally subject to a house bank procedure, meaning that each company's respective bank evaluates the application and forwards it to a relevant loan institution (e.g. the NRW.BANK or the KfW Development Bank). These loans typically include favorable repayment terms and interest rates, and can be further supported by a public guarantee. Relevant programs for innovation projects include:

- NRW.BANK.Digitalisierung und Innovation (digitalization and innovation) (funding organization: NRW.BANK www.nrwbank.de/en/)
- ERP Digitalisation and Innovation Loan (funding organization: KfW www.kfw.de/kfw.de-2.html)
- Environment Innovation Programme of the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) (funding organization: KfW www.kfw.de/kfw.de-2.html)
- Landwirtschaftliche Rentenbank (funding organization: www.rentenbank.de/en) for projects in the field of agriculture

This is only a selection of relevant programs. In the field of environmental and energy-related projects, it is currently possible to receive repayment bonuses through KfW programs.

General support programs

A variety of programs support SMEs, for example in the form of advisory programs (e.g. go-inno/go-digital) or technology transfer instruments that are often available to companies free of charge. Structures are also in place to promote communication and exchange or to support export activities.

SME status as defined by the EU

Some programs require companies to meet the European Commission's definition of an SME. The criteria for this definition are as follows:

Size of company	No. of employees (annual work unit)	Annual turn-over		Balance sheet total
medium-sized enterprise	<250	≤ € 50 million	or	≤ € 43 million
small enterprise	<50	≤ € 10 million		≤ € 10 million
microenterprise	<10	≤ € 2 million		≤ € 2 million

Furthermore, the legal form and partnership relationship of the company should be carefully examined. In case of doubt, an external evaluation should be conducted before submitting an application to verify that all criteria have been met. More information is available here:

https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en

Equity or risk capital

Relatively high levels of funding are often required in the life sciences sector due to the cost of research and development as well as the financing of costly certifications, clinical studies, and market launch. This is one of the reasons why many smaller companies and start-ups seek out investors, business angels, or other capital providers. A number of mechanisms have been established to facilitate such contact at state (NRW), national, and EU level, for example through the provision of equity capital or the establishment of various support structures (e.g. BIO.NRW Business Angel Network and the win NRW.BANK Business Angels Initiative).

Tax-incentivized innovation funding

The German Research Allowance Act (FZuIG), which provides for a tax allowance to help promote research and development, entered into force on 1 January 2020. This tax-incentivized funding of research and development thus represents an additional instrument of innovation funding in Germany.

2. Working with funding programs

The overview presented here should provide small and medium-sized enterprises (SMEs) as well as research institutions with an initial insight into potential options to support their innovation projects. Numerous funding products are available, each based on the separate objectives of the funding organizations. These objectives include:

- to support closer collaboration within the European Union
- to strengthen industry competitiveness through new innovations
- to tap into future growth markets
- to pursue labour market policy objectives
- to mitigate the risks of new product developments for SMEs
- to achieve environmental objectives and energy policy goals
- to improve the transfer between science and the economy
- to promote start-ups

The funding organizations, the state of North-Rhine Westphalia (NRW), the Federal Republic of Germany, and the EU each pursue different economic policy and sociopolitical goals, with project applications being evaluated on this basis. Applicants should therefore carefully assess the various funding objectives to ensure their applications are tailored accordingly.

Due to changing framework criteria (sociopolitical goals, budget, etc.), funding programs only run for limited periods. This overview therefore outlines the underlying program requirements without making reference to any specific calls for proposals. Many calls that are focused on very specific topics are not outlined in detail here. This overview serves to provide inspiration and act as a starting point for individual research activities and discussions with independent advisory services.

Evaluation of project ideas

Many companies are not familiar with funding programs, which is why they should carefully examine the pros and cons of making an application. Applications should focus on the company's market strategy. In general, companies are not legally entitled to funding. This means that funding resources should not appear in business plan calculations, for example. Furthermore, applying for funding and the subsequent accounting and reporting this involves can be very time-consuming for companies. In particular, smaller

companies often only have limited additional capacities for research and development. Careful consideration must therefore be given to whether an application is worthwhile.

NRW.Europa provides advice and offers a neutral first assessment of project ideas. An initial assessment is possible free of charge either during a meeting or through a submitted project outline. Additional free services include:

- Review of applications before submission
- International technology transfer
- Support in establishing (international) consortia

NRW.Europa hotline

ZENIT GmbH

André Küsters

andre.kuesters@zenit.de

Tel: +49 208 30004-76

Benno Weißner

benno.weissner@zenit.de

+49 208 3004-59

NRW.Europa Hotline

NRW.BANK – EU Funding/Foreign Trade and Investment Promotion Department

Tel: +49 211 91741-4000

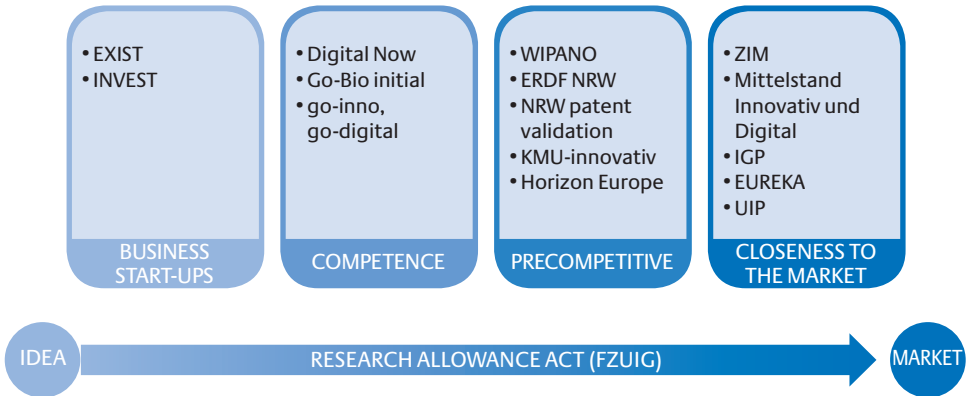
<https://nrweuropa.de/en>

Note:

A selection of programs is presented in the following section, with this overview merely serving to provide initial information. In addition, descriptions have been deliberately generalized, since specific program requirements are subject to change. Certain research policy calls for proposals, as issued by the German Federal Ministry of Education and Research and the German Federal Ministry for Economic Affairs and Climate Action for example, which are dedicated to specialist topics (e.g. systems biology, industrial biotechnology, etc.) are not explicitly mentioned. The information given here is based on official references of the project management organizations and funding bodies and their respective information pages as of 28 June 2023. In some cases, entire text passages have been lifted from the respective sources. To improve readability, these passages are not identified as such in the text.

3. Funding programs and deadlines

3.1 Road map: Funding options to help transfer research ideas to the market



Source: From the idea to market success, brochure by BMWK: March 2021

3.2 Overview of funding programs and deadlines

Program	Objective/deadline	Website
EU funding		
Horizon Europe	<p>3 pillars</p> <ul style="list-style-type: none"> – Excellent Science – Innovative Europe – Global Challenges and European Industrial Competitiveness <p>Ongoing calls for 2021–2027 available on the Funding and Tenders portal</p>	<p>https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/programmes/horizon</p> <p>https://www.eubuero.de/en/index.html</p> <p>https://www.nksgesundheit.de/en/index.html</p> <p>https://www.nks-bio-umw.de/home</p>
EIC European Innovation Council	<p>Part of the Innovative Europe pillar within Horizon Europe – more targeted support of innovations at EU level; funding instruments open to all fields and also support interdisciplinary ideas</p> <ul style="list-style-type: none"> – EIC Pathfinder – EIC Transition – EIC Accelerator – EIC Prizes 	<p>https://www.eubuero.de/en/index.html</p> <p>www.nks-eic-accelerator.de</p>
Partnerships	<p>Topic-related, joint calls of the research management institutions of EU member states for coordinated research funding</p>	<p>www.era-learn.eu</p>
Innovative Health Initiative (IHI)	<p>PPP (successor to IMI), stay informed of its current status</p>	<p>www.ih.europa.eu</p>
EUREKA	<p>EUREKA network, includes Eurostars program for international calls; open to all fields for SMEs; no information currently available about the follow-on program, but set to be continued</p>	<p>www.eurostars.dlr.de</p>

Program	Objective/deadline	Website
EIT European Institute of Innovation and Technology	Part of the Innovative Europe pillar within Horizon Europe. As an umbrella organization, the EIT promotes Knowledge and Innovation Communities (KICs). – EIT Health	https://eithealth.eu/
German Federal Government funding		
BMBF		
KMU-innovativ	Rolling submissions; evaluation rounds on 15 April and 15 October each year	https://www.bmbf.de/bmbf/de/forschung/zukunftsstrategie/zukunftsstrategie_node.html www.kmu-innovativ.de
GO-BIO initial	The aim is to advance research outcomes of early research ideas in life sciences, which have a clear potential for innovation, to a level where they become eligible for other more established programs, such as VIP+, EXIST Transfer of Research, KMU-innovativ, and GO-Bio; project outlines can be submitted once a year (deadline 15 February)	https://www.go-bio.de/gobio/en/go-bio/go-bio-initial/go-bio-initial.html
BMWK		
ZIM Central Innovation Programme for SMEs	No topic restrictions; rolling submissions	/www.zim.de/ZIM/Navigation/DE/Meta/Englisch/englisch.html
EXIST	No topic restrictions, start-ups from science; EXIST Business Start-up Grant EXIST Transfer of Research EXIST-Women	www.exist.de/EXIST/Navigation/EN/Home/home.html

Program	Objective/deadline	Website
WIPANO Knowledge and technology transfer via patents and standards	Patent funding for universities, SMEs, and inventors	www.innovation-beratung-foerderung.de
go-inno/go-digital	No topic restrictions; innovation vouchers for SMEs; advice from authorized consulting firms	www.innovation-beratung-foerderung.de
BMUV		
Environmental Innovation Programme (UIP)	Funding of innovative technologies to relieve stress on the environment	www.umweltinnovationsprogramm.de
Research Allowance Act (FZuIG)		
Research Allowance Act (FZuIG)	Tax-incentivized funding of innovations	https://www.bundesfinanzministerium.de/Web/EN/Home/home.html
Funding through the state of North-Rhine Westphalia (NRW)		
ERDF/JTF program NRW 2021-2027 “Zukunft machen – Transformation gestalten” (building tomorrow – shaping the transformation)	NRW patent validation Innovation competition GreenEconomy.IN.NRW Grüne Gründungen.NRW Innovation competition Gesünder. IN.NRW	www.ptj.de/projektfoerderung/in-nrw/nrw-patent-validierung www.in.nrw/green-economy www.efre.nrw.de/wege-zur-foerderung/foerderungen-in-2021-2027/gruene-gruendungen-nrw/ www.in.nrw/gesuender
Mittelstand Innovativ und Digital	No technology restrictions; SME funding for external consulting, research, and development services; rolling submissions	www.mittelstand-innovativ-digital.nrw
NRW.BANK.Digitalisierung und Innovation Funding of new products, processes, and services	No technology restrictions; SME funding; rolling submissions before start of programs	www.nrwbank.de/en/

4. EU funding programs

4.1 HORIZON EUROPE

Horizon Europe is the largest joint funding program for research and innovation in the world. It focuses on important social issues such as health, sustainable development, and digitalization. One of its key objectives is to promote excellence in European science.

The structure of Horizon Europe

The EU framework program is based on three pillars: “Excellent Science”, “Global Challenges and European Industrial Competitiveness”, and “Innovative Europe”. As part of pillar 2, the EU Missions were introduced as a new policy instrument. The three pillars are supplemented by the “Widening Participation and Strengthening the European Research Area” program part.

The multiannual financial framework (MFF) has outlined a budget of € 90.1 billion for the program. An additional € 5.4 billion will be provided from the EU recovery instrument NextGenerationEU. The new research framework program now has a total budget of € 95.5 billion.

Duration: 1 January 2021–31 December 2027

Pillar 1: Excellent Science

The first pillar – “Excellent Science” – includes programs for (individual) funding without topic restrictions: the European Research Council (ERC), the Marie Skłodowska-Curie Actions (MSCA), and a program section for funding research infrastructures.

Pillar 2: Global Challenges and European Industrial Competitiveness

These topics are addressed in the second pillar through six thematic clusters:

- Health
- Culture, Creativity and Inclusive Society
- Civil Security for Society
- Digital, Industry and Space
- Climate, Energy and Mobility
- Food, Bioeconomy, Natural Resources, Agriculture and Environment

The Joint Research Centre (JRC) of the European Commission is also part of this pillar.

EU Missions

As part of Horizon Europe (the EU's framework program for research and innovation), five EU Missions were established. The EU Missions aim to achieve ambitious goals to tackle current challenges facing society through innovation by 2023. They are characterized by a strong transdisciplinarity and impact orientation, and are designed to achieve a high visibility (incl. with respect to the wider public).

Pillar 3: Innovative Europe

The instruments focusing on innovation and market uptake are part of pillar 3, including the European Innovation Council (EIC), the European Innovation Ecosystems (EIE), and the European Institute of Innovation and Technology (EIT).

Life sciences funding in Horizon Europe

In Horizon Europe, the topic-specific funding programs have been merged into the program section "Global Challenges and European Industrial Competitiveness". The thematic fields relevant to the life sciences are primarily addressed in Cluster 1 "Health" and Cluster 6 "Food, Bioeconomy, Natural Resources, Agriculture and Environment". There is a particular focus on these clusters, with the topic of health also playing a role in other clusters.

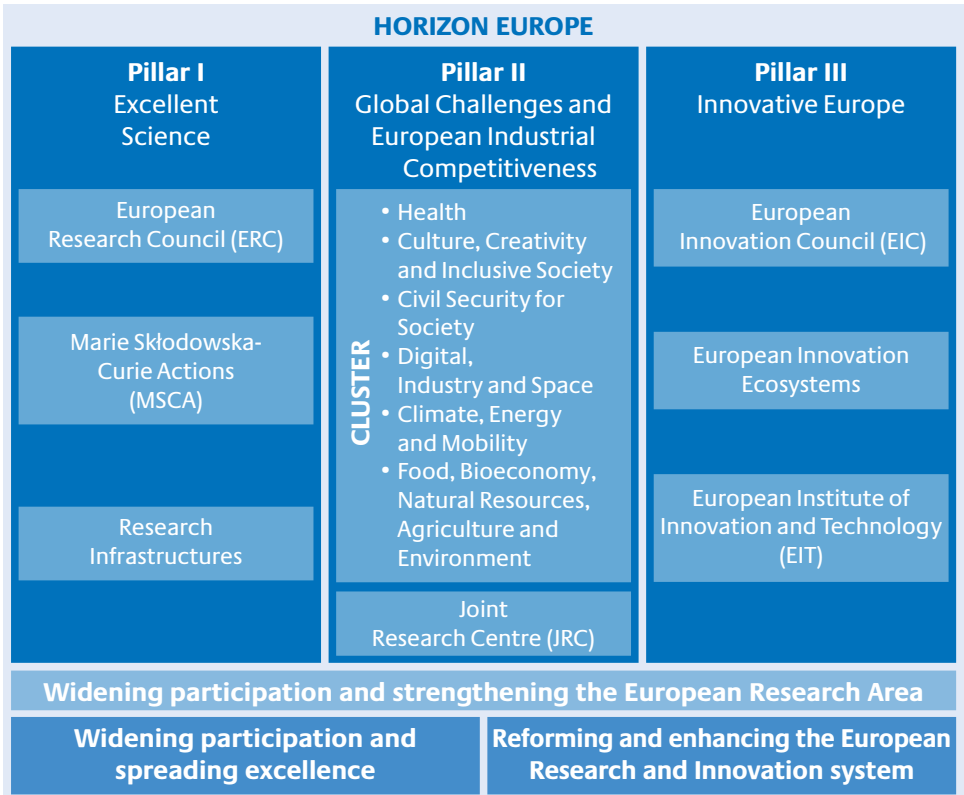
Cluster 1 "Health"

In annual calls with set topics, funding is allocated for the networking of basic medical research with clinical, epidemiological, environmental, and socioeconomic research. Digital solutions and healthcare systems are important topics within the research and innovation projects.

Focus areas:

1. Health throughout the life course
2. Environmental and social health determinants
3. Non-communicable and rare diseases
4. Infectious diseases
5. Tools, technologies, and digital solutions for health and care
6. Health care systems

Oncological research topics do not form a separate focus of research, but are largely integrated within the mission area "Cancer" (see below).



Source: BMBF 2020

Mission area: Cancer

A new approach within Horizon Europe involves research and innovation missions that seek to develop solutions to some of the world’s biggest challenges within a set period of time. Within the field of health, the mission area “Cancer” is committed to its motto “Conquering Cancer – Mission Possible”. By 2030, the mission area “Cancer” aims to save and prolong the lives of more than 3 million cancer sufferers, and to improve their quality of life. Through a better understanding of cancer as well as optimized prevention, diagnosis, and treatment, the quality of life of all people exposed to cancer will be improved and equal access to cancer treatment ensured across Europe. (Source: ffg.at)

Cluster 6 “Food, Bioeconomy, Natural Resources, Agriculture and Environment”

The Horizon Europe strategic plan anticipates the following impact of Cluster 6 “Food, Bioeconomy, Natural Resources, Agriculture and Environment”:

- Carbon neutrality and adaptation to climate change
- Preservation and restoration of biodiversity and ecosystems
- Sustainable and circular management of natural resources; tackling environmental pollution; bioeconomy
- Food and nutrition security for all from sustainable food systems (from farm to fork)
- Balanced development of rural, coastal, and urban areas
- Innovative governance models ensuring sustainability and environmental observation

Calls are mainly issued in the following areas:

1. Environmental observation
2. Biodiversity and natural resources
3. Agriculture, forestry, and rural areas
4. Seas, oceans, and inland waters
5. Food systems
6. Bio-based innovation systems in the EU bioeconomy
7. Circular systems

Funding opportunities for life sciences projects can also be found in program sections that are open to all fields. (Source: National Contact Point for Health; <https://www.nksgesundheit.de/en/index.html>)

Procedure/deadlines:

Horizon Europe is limited to the period from 2021 to 2027. Applicants can participate by submitting formal applications for periodical, mostly annual, calls for proposals. More details are provided in the respective calls. Various instruments are available that have an impact on funding.

Information can be found and applications submitted electronically through an online portal (<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/programmes/horizon>).

You can find a helpful overview of Horizon Europe on the website of the National Contact Point for Health and the National Contact Point Bioeconomy and Environment.

Public information and national advisory services:

National Contact Point for Health (NKS Gesundheit)

www.nksgesundheit.de/en/index.html

National Contact Point for food, bioeconomy, natural resources, agriculture, and environment (NCP Bioeconomy and Environment)

www.nks-bio-umw.de/home

Initial advice (open to all topics) from NRW.Europa

Tel: +49 208 30004 2020

Email: info@nrweuropa.de

<https://nrweuropa.de/en/>

Note

LIST OF ASSOCIATED AND THIRD COUNTRIES IN HORIZON EUROPE

The following countries are currently associated with Horizon Europe: Albania, Armenia, Bosnia & Herzegovina, Faroe Islands, Georgia, Iceland, Israel, Kosovo, Morocco, Moldova, Montenegro, New Zealand (for parts of Horizon Europe), North Macedonia, Norway, Serbia, Tunisia, Turkey, the UK, and Ukraine.

This may be subject to change. The EU Funding and Tenders portal should therefore be checked for changes before submitting an application. In addition, there are often calls for proposals in cooperation with certain regions of the world.

Further information:

https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/list-3rd-country-participation_horizon-euratom_en.pdf

4.2 European Innovation Council (EIC)

The European Innovation Council (EIC) identifies disruptive innovations that have the potential to become global market leaders. It supports innovations throughout the life cycle from basic research, validation, demonstration, and product optimization to the establishment and development of start-ups and SMEs. There are calls that are open to all fields as well as subject-specific calls.

Three main instruments cover the entire spectrum of development from idea to scale-up:

Pathfinder projects with technology readiness levels from 1 to 4 (TRL 1–4) are designed for visionary, radically new technologies. They stem from collaborative research work on high-risk projects and long-term visions. Funding covers all stages – from idea to proof of concept and validation. Funding: grants of up to € 3 million and up to 100 % of costs. Participants: consortia (e.g. research organizations, universities, SMEs, industry) involving at least three different nations.

Transition Activities (TRL 4–6) help to close the gap between the EIC Pathfinder and Accelerator programs. This includes activities to formulate a business plan or set up spin-off companies. Funding: grants of up to € 2.5 million and up to 100 % of costs. Participants: individual applicants (SMEs, spin-offs, start-ups, research institutions, universities) or small consortia (max. 5 partners). Applications must build on the results of suitable Pathfinder or ERC Proof of Concept projects.

Accelerator projects (TRL 6–9) focus on high-risk innovations with the potential to disrupt the market. They are proposed by a single start-up or SME to help transform a prototype into a marketable end product so as to scale up their business. Funding: mixture of non-repayable funding of up to € 2.5 million (funding rate: 70 % of costs) and equity capital of up to € 15 million. Participants: single SMEs (incl. spin-offs and start-ups) and – in exceptional cases – small mid-caps (fewer than 500 employees).

Calls for proposals can be found here: <https://www.eubuero.de/en/ncp-eic-2455.html>

Public information and national advisory services:

National Contact Point EIC Pathfinder, DLR Projektträger, EU Bureau of BMBF

Tel: +49 228 38211650

www.eubuero.de/en/ncp-eic-2455.html

National Contact Point EIC Transition, DLR Projektträger, EU Bureau of BMBF

Tel: +49 228 38211650

www.eubuero.de/en/ncp-eic-transition-2466.html

National Contact Point EIC Accelerator, DLR Projektträger, European and international cooperation

Tel: +49 228 38211368

Email: nks-accelerator@dlr.de

www.nks-eic-accelerator.de

4.3 Partnerships

European Partnerships are initiatives in which the European Commission and private and/or public partners make a joint commitment to supporting the development and implementation of research and innovation programs. They make a significant contribution to achieving the EU's political priorities, for example the European Green Deal, the European Digital Strategy, or pandemic prevention measures.

Horizon Europe's strategic approach is to improve cohesion among the partnerships and in conjunction with the framework program's other instruments. Furthermore, the aim is for partnerships to be more open and transparent in terms of participants, activities, and results.

European R&I partnerships should also help to further develop the European Research Area (ERA), overcome the fragmentation of the R&I landscape, avoid any overlaps between national or regional research activities, and promote competitiveness and innovation.

The following partnerships have already been launched or are planned in the field of life sciences:

- European Partnership for Health Innovation – Innovative Health Initiative (IHI): Health innovations, launch end of 2021 (see also 4.4)
- EU–Africa Global Health Partnership (GHP), launch Feb. 2021
- European Partnership for Chemicals Risk Assessment, launch 2021/2022
- European Partnership – ERA for Health Research: Medical research, launch 2021/2022
- European Partnership on Health and Care Systems Transformation, launch 2022/2023
- European Partnership for Personalised Medicine, launch 2023
- European Partnership on Rare Diseases, launch 2024
- European Partnership for One Health/Antimicrobial Resistance (AMR), launch 2023/2024
- European Partnership for a Circular bio-based Europe, launch 2021/2022
- European Partnership for rescuing biodiversity to safeguard life on Earth, launch 2021/2022

- European Partnership for a climate neutral, sustainable and productive Blue Economy, launch 2021/2022
- European Partnership accelerating farming systems transition: agroecology living labs and research infrastructures, launch 2023
- European Partnership for Animal health (PAH), launch 2023/2024
- European Partnership for Agriculture of Data: Digital and data technologies in the agricultural sector, launch 2023/2024
- European Partnership for Safe and Sustainable Food Systems, launch 2023/2024

The launch dates are subject to change. You can otherwise find a complete overview at: www.era-learn.eu

Here, you will be able to find the right programs (also in other EU programs) for you. In all cases, you should contact the respective funding organizations.

4.4 Innovative Health Initiative (IHI)

The Innovative Health Initiative (IHI) builds on the work of the Innovative Medicine Initiative (IMI). The aim of the IHI is to help create an EU-wide ecosystem for health research and innovation so that scientific findings can be readily translated into tangible innovations. These innovations should be safe, effective, patient-centric, and cost-efficient and also cover prevention, diagnosis, treatment, and disease management.

Just as with IMI, IHI brings together various interest groups (universities, enterprises of all sizes, and other healthcare stakeholders) in collaborative projects focused on areas of disease that place a major strain on patients and/or society. Within IHI, however, there is a much greater focus on cross-sectoral projects involving the biopharmaceutical, biotechnological, and medical technology sectors, including companies active in the digital sphere.

As with IMI, the EU is the “public” partner in the partnership, represented by the European Commission. IHI industrial partners include COCIR, EFPIA, EuropaBio, MedTech Europe, and Vaccines Europe. Furthermore, organizations that want to support certain research areas without becoming full members of IHI can apply to become “contributing partners” (similar to Associated Partners in IMI).

The total budget proposed for IHI is € 2.4 billion.

The first IHI call for project proposals was launched in June 2022. Three calls for proposals have been published so far.

www.ih.europa.eu/apply-funding/closed-calls

Draft versions concerning the topics of the next two calls – IHI 4 (two-stage procedure) and IHI 5 (single-stage procedure) – have already been published. The final calls are expected to be published by the end of July 2023. Read more at:

www.nksgesundheit.de/de/Innovative-Health-Initiative-2245.html

Information and advice:

Further information: www.ih.europa.eu/

National Contact Point for Health, IHI:

www.nksgesundheit.de/en/index.html

4.5 Eurostars/EUREKA

Objective:

Eurostars 3 is a joint funding program of the EUREKA network (European research initiative that aims to promote European competitiveness; incl. 42 countries and full members of the EU) and the European Commission. Eurostars strives to motivate small and medium-sized enterprises (SMEs) to collaborate within European research and development projects. Eurostars works according to the same principle as the overarching EUREKA initiative: its projects are pre-competitive, open to all fields and technologies, and designed for civilian purposes. They also target the development of innovative products, processes, and services. Following a bottom-up strategy, participants are free to choose their project topic. The funding scheme is related to the third program phase of Eurostars (2021–2027), which targets innovative SMEs and the development of future-oriented technologies. This way, BMBF provides impetus to strengthen the European Research Area and the collaboration between science, industry, and society within the European Innovation Union.

Objectives of Eurostars 3:

- Strengthen the global competitiveness of innovative SMEs
- Strengthen the European single market
- Find joint solutions to transnational challenges

Target group:

Eurostars targets research-driven SMEs.

Various national conditions relating to funding must also be taken into account. The participating countries can be found here: <https://www.eurostars.dlr.de/de/1305.php>.

Contact:

DLR Projektträger

European and international cooperation

Funding of innovative SMEs | Eurostars

Heinrich-Konen-Str. 1, 53227 Bonn (Germany)

Tel: +49 228 3821-1380

www.eurostars.dlr.de

4.6 EIT

The European Institute of Innovation and Technology (EIT) brings together the world's leading minds in the fields of education, research, and innovation. As an umbrella organization, the EIT promotes knowledge and innovation communities (KICs). Since 2010, nine large KICs have been established in the fields of energy, climate, information technologies, raw materials, health, food, added value manufacturing, urban mobility, as well as culture and creativity. Additional KICs are in the pipeline. Each KIC has a different focus and structure. In general, however, they consist of three pillars in the areas of innovation, start-ups, and academia.

Side note

EIT Health

In 2015, EIT Health was established as an EIT Knowledge and Innovation Community (KIC) focusing on innovations for healthy living and active aging by the European Institute of Innovation and Technology (EIT). In accordance with the EIT's KIC concept, experts from industry, research, and education work together to create an ideal environment for innovations through exchange.

EIT Health is one of the largest health care initiatives worldwide. As part of the initiative, around 130 EIT health partner organizations as well as thousands of start-ups and entrepreneurs from key sectors such as pharmacy, medical engineering, cost-bearing agencies, scientific research institutions, and universities work together across borders.

EIT Health's programs provide the opportunity to learn new skills, gain access to new markets and funding, and connect with a large network of experts, for example.

Further information:

www.eithealth.eu

4.7 Innovative public procurement

The community of health and social care innovation procurers.

Procure4Health is an EU project that aims to overcome the barriers to an EU-wide adoption of innovation procurement by creating an open community of health and care procurement stakeholders. Its 33 founding partners are actively promoting innovation procurement through knowledge sharing and capacity building, networking and match-making, identification of common needs, and the launch of joint actions to address them. In addition, the project has an influence on innovation procurement policies.

Contact:

procure4health

<https://procure4health.eu/>

5. Funding programs of the German Federal Government

5.1 Future research and innovation strategy

The German Federal Government's Future Research and Innovation Strategy focuses on prosperity, progress, and opportunities for Germany and the EU. It pursues three overarching goals in the fields of technology, research, and transfer in order to systematically and sustainably develop the innovation system:

1. Maintain, expand, and gain technological leadership
2. Optimize and expand the structures for innovation and transfer
3. Develop solutions to tackle a variety of challenges through increased openness to new technology, thus ensuring freedom of action for future generations.

The strategy outlines six priority frameworks for the further development of science, research, and transfer:

1. Preparing the ground for tomorrow's progress
2. Turning new insights into innovations
3. Intensify European and international cooperation
4. Strengthen involvement in research and innovation
5. Promoting talents at grassroots and at top level
6. Establish agile research and innovation policy

To develop targeted solutions for the challenges currently facing society, the strategy formulates six corresponding missions to which all activities of the innovation system are directed:

1. Enabling resource-efficient and on circular economy based competitive industry and sustainable mobility
2. Spearheading climate protection, climate adjustment, food security and the preservation of biodiversity
3. Improving health for everyone
4. Securing Germany's and Europe's digital and technological sovereignty and harnessing the potential of digitalization
5. Strengthening astronautics, exploring, protecting and sustainably using space and oceans
6. Strengthening social resilience, diversity and cohesion

To achieve these goals, the Federal Government is realigning its research and innovation policy across the federal ministries.

Further information:

www.bmbf.de/bmbf/en/research/future-research-and-innovation-strategy/future-research-and-innovation-strategy_node.html

5.2 BMBF funding programs

5.2.1 KMU-innovativ

In many cutting-edge research fields, small and medium-sized enterprises (SMEs) are pioneers of technological progress. Through KMU-innovativ, the German Federal Ministry of Education and Research (BMBF) aims to simplify the application and approval of funding for SMEs. A central advisory service (“Lotsendienst”) can be contacted to answer any questions that may arise, and planning security is provided by binding processing periods. KMU-innovativ is active in fields of technology that are particularly important for Germany’s future. These include:

- Bioeconomy
- Biomedicine
- Electronics and autonomous driving; supercomputing
- Research for civil security
- Medical engineering
- Information and communications technologies
- Interactive technologies to improve health and quality of life
- Materials research
- Photonics and quantum technologies
- Resource efficiency and climate protection
- Future of value creation

Cutting-edge research offers SMEs the opportunity to succeed in the market with new products and processes. When it comes to opening up new markets, SMEs are particularly flexible and quick. This is especially true for new fields of research, where speed is crucial. Important impetus in this regard is often provided by SMEs. In the service industries, SMEs are also the main investors in research and development.

Objective:

KMU-innovativ aims to minimize risks for innovative R&I projects, to improve cooperation between SMEs and large companies, as well as with research institutions, and to accelerate technology transfer.

Target group:

All SMEs that meet the EU criteria are eligible to apply for funding.

Funding:

All high-risk, industrial research, and pre-competitive development projects that are application-oriented and clearly associated with biotechnology are eligible for funding.

In particular, this includes:

- Individual and collaborative projects of smaller companies and SMEs (up to 1,000 employees and annual turnover of max. €100 million) with a funding rate of up to 50 % depending on the project's proximity to application. In accordance with the European Commission's definition, different bonus arrangements are possible for small and medium-sized enterprises.
- Collaborative research projects between SMEs and universities or research institutions
- Collaborative research projects involving large enterprises to support the implementation of R&I results on the market Large enterprises can receive funding for up to 25 % of eligible costs.

Procedure:

Two-phase application procedure

Dates:

Project outlines can be submitted at any time. Project proposals are usually assessed on 15 April and 15 October each year. A decision on the approval of funding is also made within two to three months after all relevant documents have been received.

Contact:

For more information about the program and to access the application portal, please visit www.foerderinfo.bund.de/foerderinfo/en/home/home_node.html

Different funding organizations are responsible for various topics. In the specific calls for proposals for the individual fields of technology, the relevant funding organization is listed as a contact.

5.2.2 GO-Bio initial

Objective:

With its GO-Bio initial funding program, BMBF supports the identification and development of early research ideas in the life sciences that have a clear potential for innovation.

Its purpose is to support project work in order to advance research outcomes to a level where they become eligible for other more established programs which support validation activities, new business founding, and cooperation between businesses, such as the VIP+, EXIST Transfer of Research, KMU-innovativ, or GO-Bio programs. The overall goal is thus to translate promising innovative ideas directly into practical solutions (source: BMBF 2020).

Funding:

The GO-Bio initial program supports research projects that identify and develop ideas for the commercial exploitation of life sciences research, preferably in relation to therapeutic agents, diagnostic reagents, platform technologies, and research tools from their conceptual design to assessment of feasibility and evaluation of possible options for commercial exploitation.

Target group:

Eligible managers or team members of funded research projects include (but are not limited to) people from research seeking a pathway to application or industrial practice.

Procedure/deadlines:

Selection rounds take place on 15 February each year.

Information:

www.go-bio.de/gobio/en/go-bio/go-bio-initial/go-bio-initial.html

Contact:

Contact for the core module (conceptual and feasibility projects):

Projekträger VDI/VDE Innovation + Technik GmbH

Tel: +49 30 31 00 78-5515

Email: GO-Bio-initial@vdivde-it.de

5.2.3 VIP+ – Validation of the innovation potential of scientific research

Objective:

The aim of the VIP/VIP+ funding program is to bridge the gap between academic research and commercial exploitation/application in society in order to strengthen the German innovation system as a whole. The program is divided into three phases:

Discovery phase

In the discovery phase, promising research findings with a high potential for innovation are identified. The discovery phase forms part of the basic research stage when fundamental insights are made.

Validation phase

The validation phase follows the discovery phase. The aim is to review, demonstrate, and evaluate the innovation potential of research findings identified in the discovery phase, and to identify possible areas of application.

Commercialization/application phase

The commercialization and application of validated research findings generally sees these findings transformed into innovative products, processes, or services. This phase focuses on commercial exploitation – for example in networks, through licenses, and through spin-offs – as well as non-commercial application relating to the economy or society as a whole (source: BMBF 2020).

Target group:

- Universities
- Non-university research institutions receiving basic funding from the German Federal Government and federal states
- German federal institutions responsible for R&I

Funding:

- Individual and collaborative projects
- Up to € 500,000 in annual funding for up to three years
- Securing of patent rights in the EU member states (as part of VIP+ funding – unless funding provided elsewhere, e.g. through SIGNO/WIPANO)
- Framework conditions: projects must be open to utilization and in the public domain

Procedure:

Single-stage evaluation procedure

Submitted applications are subject to evaluation by a panel of reviewers.

Dates:

Applications can be submitted to the funding organization at any time.

Contact:

VDI/VDE Innovation + Technik GmbH

Tel: +49 30 310078-254 (collective number)

Email: vip@vdivde-it.de (collective email address)

www.validierungsfoerderung.de/kontakt

5.3 BMWK funding programs

5.3.1 Central Innovation Programme for SMEs (ZIM)

Funding for individual companies and cooperation projects

Objective:

ZIM is a nationwide funding program open to all technologies and sectors. It targets SMEs and the industry-oriented research institutions that they collaborate with. A revised version of the ZIM guidelines was published at the start of 2020. Through ZIM, the German Federal Ministry for Economic Affairs and Climate Action (BMWK) aims to promote new technologies by:

- minimizing the technical and economic risks associated with research and development (R&D) activities in technology-based projects
- encouraging SMEs to increase their efforts with regard to market-oriented research, development, and technological innovation
- strengthening collaboration between companies and research institutions, expanding technology transfer, and increasing engagement with R&D partnerships and participation in innovative networks
- accelerating the translation of R&D results into innovations with a high market impact
- improving the management of innovations, collaborations, and networking in SMEs

Target group:

- SMEs according to EU criteria
- Companies (including affiliated enterprises or partner companies) with fewer than 500 employees and an annual turnover of less than € 50 million or up to 1,000 employees for collaborative projects
- non-profit research organizations and universities (public or private) as cooperation partners

Funding:

ZIM provides funding for R&D activities dedicated to innovative products, procedures, or technical services without any restrictions in terms of technologies or sectors. Individual projects as well as cooperation projects involving several companies or between companies and research institutions/universities are eligible to apply. Collaborative networks are subject to other funding conditions and are not considered here.

ZIM funding rates

Depending on the type of project, the following grants are provided:

Funding for enterprises	max. € 450,000*
Research institutions	max. € 220,000
Market launch services (SMEs only)	max. € 60,000
Feasibility studies (only for microenterprises, young companies, first-time funding recipients)	max. € 100,000 (Cooperation projects max. € 200,000)

*The maximum eligible costs for ZIM individual projects are € 550,000. For cooperation projects, financial support for the entire project is limited to a maximum of € 2.3 million.

Projects may not run for any longer than three years. Cooperation and individual projects can receive additional funding for advisory services that support the SME innovation, are closely linked to the concept and schedule of the R&D project, and can be obtained from qualified external suppliers based on economic considerations. The funding rate can be increased for cooperation projects with foreign partners. The foreign partners are not funded directly.

Size of company	Individual projects	Cooperation projects	Cooperation projects with foreign partners
Small enterprises in structurally weak regions (GRW)	45 %	55 %	60 %
Small young enterprises	45 %	50 %	60 %
Small enterprises	40 %	45 %	55 %
Medium-sized enterprises	40 %	40 %	50 %
Larger medium-sized enterprises (fewer than 500 employees)	25 %	30 %	40 %
Larger medium-sized enterprises (fewer than 1,000 employees; only in cooperation with an SME)		30 %	40 %

Research institutions are provided with a funding rate of 100 %.

Microenterprises (fewer than 10 employees), young companies (established within the last 10 years), and first-time funding recipients can apply for a feasibility study in preparation for a ZIM project. This study is funded with up to € 100,000 (up to € 200,000 in the case of a cooperation). Depending on the size of the company, the funding rate amounts to 50–70 %.

Procedure:

Application submitted before start of the project

Application submitted to relevant funding organization (contact details below)

Dates:

An application can be submitted at any time while the program is ongoing. A project can be launched at an institution's own risk once the application has been submitted to the funding organization.

Contact:

Different funding organizations are responsible for various topics. An overview is available here: www.zim.de/ZIM/Navigation/DE/Kontakt-Service/Ansprechpartner/ansprechpartner.html

<https://www.zim.de/ZIM/Navigation/DE/Meta/Englisch/englisch.html>

ZIM International and IraSME

At regular intervals, ZIM publishes ongoing calls for proposals to fund bilateral SME projects with various countries (currently more than 20 countries and regions). The German project partner is funded by ZIM, while the international partner is supported by a funding scheme in their country. To date, there have been calls for proposals with Spain, South Korea, Israel, Finland, Canada, Argentina, France, Japan, Austria, Flanders, Wallonia, Brazil, Czech Republic, Russia, Catalonia, and others. A number of the calls take place within the framework of the IraSME network www.ira-sme.net/. You can find the calls here: www.zim.de/ZIM/Redaktion/DE/Dossiers/international-laender-uebersicht.html

5.3.2 EXIST

Objective:

The EXIST funding program (<https://www.exist.de/EXIST/Navigation/EN/Home/home.html>) aims to create a better climate for business start-ups, encourage entrepreneurship at universities and non-university research institutions, and increase the number of technology-oriented and science-based companies in Germany.

EXIST consists of three pillars, two of which are of particular interest to the biotechnology sector. One such pillar, the EXIST Business Start-up Grant, supports students, graduates, and scientists in preparing innovative, technology-oriented, and science-based business plans.

The second pillar, EXIST Transfer of Research, supports both the development work required to demonstrate the technical feasibility of research-based ideas, and the preparation required to launch the start-up.

Target group:

Eligible for funding are research-based, innovative start-up ideas developed by students, graduates, and scientists.

Funding:

The EXIST Business Start-up Grant (www.exist.de/EXIST/Navigation/EN/Start-upFunding/EXIST-Business-Start-up-Grant/exist-business-start-up-grant.html) funds innovative, technology-based business ideas and innovative services based on scientific findings. Funding is provided in various formats. For example, the grant can cover personal living expenses or the costs of materials and equipment (up to € 10,000 for individual start-up projects and up to € 30,000 for team start-up projects). The maximum funding period is one year. The business cannot be officially established before the start of the funding period.

EXIST Transfer of Research (www.exist.de/EXIST/Navigation/EN/Start-upFunding/EXIST-TransferOfResearch/exist-transfer-of-research.html) is divided into two phases. The first funding phase focuses on developing research findings that have the potential to become the basis of a business start-up. The aim is to verify the technical feasibility of the product idea and to prepare for starting a business. In phase I, personnel expenses for up to four positions and material and equipment expenses of up to € 250,000 are covered for a period of 18 months (or up to 36 months, in exceptional cases). The second funding

phase (“Seed”) focuses on starting business operations and securing external follow-up business financing. In this phase, a non-repayable grant of up to € 180,000 can be issued, which is limited to 75 % of the specific cost of the project. In addition, expenses for business coaching, entrepreneurial qualification measures, and start-up consulting can also be covered (up to € 5,000).

Procedure:

Project outlines and applications should be submitted via the respective university or non-university research institution to Project Management Jülich (PtJ), which has been commissioned by BMWK.

Dates:

Proposals for the EXIST Business Start-up Grant may be submitted at any time.

Several deadlines are in place for EXIST Transfer of Research (www.exist.de/EXIST/Navigation/EN/Home/home.html).

Project management organization:

Project Management Jülich (PtJ)

Forschungszentrum Jülich GmbH/Berlin branch office

Tel: +49 30 20199-411

Email: ptj-exist-forschungstransfer@fz-juelich.de

www.exist.de/EXIST/Navigation/EN/Home/home.html

5.3.3 WIPANO

Focus of funding: Securing patents for companies

Objective:

To provide support with patenting and commercialization

The WIPANO funding program supports SMEs looking to secure industrial property rights (IPRs) for their research and development (R&D) results for the first time as well as SMEs that have not filed a patent or utility model application in the three preceding years. Funding should help SMEs develop a strategic understanding of the patent system and create awareness for the benefits of industrial property rights.

Target group:

Industrial SMEs and self-employed individuals within all technical or scientific sectors

Funding:

Funding is provided for the entire process of registering a patent, from the assessment of an idea right up to the commercialization of the discovery. Applicants are entitled to use service packages, which are provided by a qualified external provider of the SME's choosing. In addition, funding covers the official charges associated with the patent application.

Funding is provided in the form of partial financing, amounting to up to 50 % of eligible costs. Eligible expenditure is limited to € 33,200, meaning that up to € 16,600 in funding can be provided.

Procedure:

Click on “Unternehmen” (companies) on the [WIPANO](#) section of the BMWK website for more information.

Applications can be submitted via: <https://foerderportal.bund.de/easyonline/>.

Dates:

The application deadline for funding area 2.1.3 “Unternehmen – Patentierung” (Securing patents for companies) has been extended to 31 October 2023.

Project management organization:

Project Management Jülich (PtJ)

Forschungszentrum Jülich GmbH

Email: wipano-ptj@fz-juelich.de

www.innovation-beratung-foerderung.de

5.3.4 BMWK innovation vouchers (go-inno/go-digital)

Objective:

Innovation vouchers are issued to promote the innovation and competitiveness of small enterprises (go-inno) as well as the digitalization of SMEs (go-digital). Only the go-inno funding module is presented here.

Information about go-digital can be found at: www.innovation-beratung-foerderung.de/INNO/Navigation/DE/go-digital/go-digital.html.

Target group:

- Small enterprises (fewer than 100 employees/annual turnover or balance sheet total of max. € 20 million)
- Industrial enterprises and trade businesses with technological potential
- Enterprises based in Germany

Funding:

The go-inno program provides funding to:

- prepare and execute technical and technological innovation projects (new products or technical processes)
- create internal infrastructures for the successful implementation of innovation projects
- minimize the technical and economic risks associated with product and process innovations
- reduce transaction costs for technology collaborations

Go-inno covers 50 % of the costs of innovation consulting services provided by an authorized consultancy firm. Small enterprises contribute to the consultancy costs for a maxi-

mum of 50 working days. In accordance with the 50 % rule, total funding amounts to € 27,500 and covers three service levels (assessment of potential, implementation concept, and project management).

Dates:

Applications can be submitted at any time.

Project management organization:

Project management agency EURONORM

Tel: +49 30 97003-200

Email: go-inno@euronorm.de

www.innovation-beratung-foerderung.de/INNO/Navigation/DE/go-inno/go-inno.html

5.4 BMUV funding programs

5.4.1 Environment innovation program (UIP)

Objective:

The funding program of the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) – the Environmental Innovation Programme (Umweltinnovationsprogramm – UIP) aims to support pioneering projects that advance the state of the art in a specific sector and show other enterprises in the same or in other sectors how innovative technologies can contribute to relieving stress on the environment. The UIP promotes large-scale demonstration projects in Germany that demonstrate how advanced processes can be used and combined to prevent or reduce environmental pollution once research and development has been completed. As a leading funding program, the UIP program focuses on pioneering technologies that have a positive impact on the environment.

Target group:

Commercial enterprises and legal entities under public and private law. This also includes domestic and foreign commercial enterprises that are based in or have a branch office in Germany. Local authorities, municipal enterprises, and municipal special-purpose associations are also eligible to apply. Small and medium-sized enterprises (SMEs) are given funding priority.

Funding:

The UIP supports the implementation of large-scale demonstration plants in Germany where innovative technologies are either used for the first time in the respective sector or established processes are combined in a novel way. Funding is provided for investments in machines or other project equipment, construction measures that are needed specifically for the project, as well as expert opinions and measurements, which are required to demonstrate the success of the project.

The investment must be made in Germany, and the applicant's business activities must have a positive impact on environmental protection.

The purchase of land, buildings (provided that their construction is not the main objective of the demonstration project), fire protection measures or other plant components

that have to be set up due to official requirements, contributions made by applicants or their affiliated companies, communication policy measures, credit and other financing costs, value-added tax, as well as recurring administrative and operating costs are not eligible for funding.

The UIP does not provide funding to research and development projects or projects that focus exclusively on the production of eco-conscious products, unless the production process is innovative and environmentally friendly.

The program offers two funding options: an investment grant or an interest subsidy to reduce the cost of a KfW loan.

UIP applications are submitted in a two-stage procedure.

Other changes:

The “decarbonization” funding window is no longer available in the UIP program. The new funding guidelines “Dekarbonisierung in der Industrie” (decarbonization in industry) of the Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection have been in effect since 1 January 2021. The program supports research and development, testing and demonstration, as well as investments in innovative climate protection technologies that contribute to avoiding greenhouse gas emissions from energy-intensive industrial sectors. It is aimed primarily at the steel, chemical, cement, lime, and non-ferrous metal industries, as well as other energy-intensive sectors.

Dates:

Applications can be submitted at any time.

Eligible for funding:

Private individuals, municipalities, companies

Contact for questions related to the program:

Tel: +49 340-21 03 25 50

Email: pmi@uba.de

Further information (in German) can be found at:

www.umweltinnovationsprogramm.de/?en=1

6. Research Allowance Act (FZuIG)

Objective:

The Research Allowance Act (FZuIG) entered into force on 1 January 2020. Its aim is to strengthen Germany as an industrial location and to boost private investments and innovations.

In contrast to traditional project funding, key aspects of funding according to the FZuIG include:

- legal entitlement to research allowances
- R&I projects that began after 1 January 2020 are eligible.
- no application deadlines, competitive procedures, or topic restrictions

Eligible R&I categories are as follows:

- basic research
- industrial research
- experimental development

Target group:

Companies subject to taxation in Germany are eligible for the allowance, irrespective of their size or age. Affiliated enterprises within the meaning of the Stock Corporation Act (AktG) can only claim the maximum allowance once, while enterprises that collaborate with each other on a contractual basis can each claim this amount.

Procedure:

- For every R&I project, a special review is conducted by the BSFZ certification authority. If possible, all R&I projects completed within a financial year should be submitted in one application.
- An application can be submitted before, during, or after an R&I project.
- The application for certification is submitted electronically to the BSFZ.
- BSFZ certification is then submitted to the tax office responsible for taxation of the company claiming the allowance.
- The level of funding is determined depending on the actual amount of expenses eligible for funding in a respective financial year.
- The research allowance offsets the tax on earnings as part of company tax assessments.

Funding:

- The research allowance is equal to 25 % of eligible costs in a financial year.
- 100 % of internal R&I expenses for salaries are accounted for as eligible costs.
- A maximum of 60 % of external R&I expenses (R&I contracts awarded to external parties) are accounted for as eligible costs.
- Eligible costs can amount to a maximum of € 2 million per year, meaning that the research allowance is capped at € 500,000 per year
- The personal efforts of individual entrepreneurs and partners are calculated as part of a blanket rate of € 40 per hour for a maximum of 40 working hours per week (de minimis rule).

Contact:

The BSFZ certification authority is managed by AiF Projekt GmbH, VDI Technologiezentrum GmbH, and DLR Projektträger. The entire application and certification procedure is conducted digitally via the BSFZ's web portal: www.bescheinigung-forschungszulage.de.

Information on the application procedure, recommendations, and the official application form can be found on the BSFZ website (www.bescheinigung-forschungszulage.de). The BSFZ currently has no plans to provide individual advice on the research allowance.

ZENIT advises applicants on the suitability of ongoing, completed, and planned activities, project development/initiation, the establishment of a reporting system, and applications for the research allowance.

Contact:

Sergej Paveliev

Tel: +49 208 3000-462
+49 176 63-12-68-48

Email: sp@zenit.de

7. Programs provided by the state of NRW

7.1 Multi-Funds Programme ERDF/JTF North Rhine-Westphalia 2021–2027 “Zukunft machen – Transformation gestalten”

On 28 June 2022, the European Commission approved the “Multi-Funds Programme ERDF/JTF North Rhine-Westphalia 2021–2027”. A total of € 4.2 billion is provided through the EU funding from the European Regional Development Fund (ERDF) and the Just Transition Fund (JTF) combined with co-financing from the federal state of NRW and the projects’ own financial contributions to implement numerous pioneering projects by 2027. The program supports projects from the fields of innovation, sustainability, SME development, quality of life, mobility, and structural change in former coal-mining regions. Its target groups are mainly SMEs, universities, research institutions, and municipalities.

Current calls for proposals and funding measures

7.1.1 NRW patent validation

Objective:

As part of the European regional funding program, the Ministry of Economic Affairs, Industry, Climate Action and Energy of the State of North Rhine-Westphalia has launched the NRW patent validation initiative. The NRW patent validation funding competition promotes the commercial exploitation of patent rights from research and educational institutions through licensing agreements, sales, or spin-offs on two levels. In the first phase, the scientific potential of research and educational institutions is exploited to validate patents. In an optional second phase, cooperative relations between science and research are established and consolidated in the form of collaborative projects.

Target group:

The funding program is open to all fields and is aimed in particular at universities and research institutions to improve the exploitation of their inventions.

In phase 1, research and educational institutions that are based in North Rhine-Westphalia or have a branch office in NRW are eligible to apply for their patents to be validated. In phase 2, the institutions that were funded during phase 1 as well as companies engaged in economic activity can work together in collaborative projects.

Funding:

The funding program provides targeted support to projects conducted by research and educational institutions that have the potential to be successful on the market. This includes both the preparation of proof of concepts and the development of demonstrators and prototypes that aim to ensure the exploitation of scientific inventions through patents. The projects receiving funding must fall into the category of either industrial research or experimental development.

Phase 1

- Partial financing; companies must make a financial contribution of at least 10 % of total eligible expenditure
- Implementation period of up to 18 months
- Non-commercial activities
- € 157,500 in funding (total project expenditure of € 175,000 with a 10 % financial contribution by the company)

Phase 2

- Collaborative projects
- Financial aid: Partial financing in accordance with Article 25 of the Commission Regulation (EU) No 651/2014 (company must make a financial contribution of at least 20 % of total eligible expenditure according to the directive on the granting of funding in the field of RDI (FEI-Richtlinie).
- Implementation period of 12 months
- Commercial activities
- Also possible in the non-commercial sector if funding is provided
- € 157,500 in funding for research and educational institutions (€ 175,000 total project expenditure eligible for funding in the non-commercial sector; company must make a financial contribution of 10 %)
- € 200,000 in funding for companies engaged in economic activity

Next round of submissions: Scheduled to start in 2024

Project management organization:

Project Management Jülich (PtJ)

Forschungszentrum Jülich GmbH

Email: patentvalidierung.in.nrw@fz-juelich.de

www.ptj.de/projektfoerderung/in-nrw/nrw-patent-validierung

7.1.2 GreenEconomy.IN.NRW

Objective:

The innovation competition “GreenEconomy.IN.NRW” aims to support small and medium-sized enterprises in the implementation of innovations in the fields of climate and environmental protection, resource conservation, circular value creation, and adaptation to climate change in order to strengthen NRW as an innovation and business location, and to help meet the objectives of the European Green Deal.

Target group:

The competition is aimed at:

- Small and medium-sized enterprises (SMEs)
- Large companies (only in cooperation with SMEs)
- Research and educational institutions
- Chambers, associations, and foundations

Funding:

The funding program is aimed at research, innovation, and development projects in a pre-competitive field. Funding is provided for projects that help to develop environmentally friendly, climate-protecting, and resource-conserving products, processes, and services (green economy). In addition, innovations are funded that contribute to saving resources and to developing circular products and business models (circular economy), as well as innovative projects aiming to increase climate resilience (adaptation to climate change).

2nd round of submissions:

until 18 January 2024

3rd round of submissions:

until 14 October 2024

The innovation competition “GreenEconomy.IN.NRW” involves a two-stage procedure. Project outlines must be submitted via the website.

Project management organization:

Project Management Jülich (PtJ)

Forschungszentrum Jülich GmbH

Email: [greeneconomy.in.nrw@fz-juelich.de](mailto:greenecconomy.in.nrw@fz-juelich.de)

www.in.nrw/green-economy

7.1.3 Grüne Gründungen.NRW

Objective:

The call for proposals entitled “Grüne Gründungen.NRW” aims to leverage the economic and ecological potential of green start-ups in North Rhine-Westphalia and to further increase NRW’s attractiveness as an innovative location for green start-ups. Start-up innovations in the green economy’s eight sub-markets can be funded, including environmentally friendly energy conversion, energy efficiency, materials and resource management, environmentally friendly mobility, water management, pollution control and conservation technologies, sustainable timber and forestry management, as well as environmentally friendly agriculture.

Target group:

Small enterprises are eligible to apply if:

- they have been entered in the German commercial register or started their economic activities no more than five years ago
- no profits have yet been distributed
- they were not founded through a merger
- they are not listed on the stock exchange
- they aim to develop prototypes and test their innovations on the market

Non-commercial institutions such as research and educational institutions, associations, chambers, and foundations that help start-ups to develop their prototype, attract capital and/or business partners, and to establish themselves on the market are also eligible to apply.

Funding:

Funding is provided for the development and testing of prototypes that serve as the first version of a product for the purpose of testing and further development prior to series production. These prototypes may be technical solutions such as machine applications as well as process innovations and digital applications such as control software and apps.

2nd round of submissions:

until 28 September 2023

3rd round of submissions:

until 29 February 2024

Applications as part of the Grüne Gründungen.NRW funding call are submitted in a two-stage procedure.

Project management organization:

Project Management Jülich (PtJ)

Forschungszentrum Jülich GmbH

Email: gruene.gruendungen.in.nrw@fz-juelich.de

www.in.nrw/gruene-gruendungen-nrw

7.1.4 Innovation competition Gesünder.IN.NRW

Objective:

The innovation competition “Gesünder.IN.NRW” focuses on funding innovative solutions in the knowledge- and research-intensive fields of cutting-edge medicine, medical engineering, life sciences, nutritional science, and pharmacy. The aim is to promote a climate-friendly, environmentally friendly, and resource-conserving health care and health economy in North Rhine-Westphalia. Funding is provided for research, innovation, and development projects with a focus on three priority topics, including innovative medicine and life sciences, health, and nutrition. Creative concepts and ideas are being sought that provide disease prevention solutions and new treatment options – in particular using digitalization and biotechnology tools as important key and interdisciplinary technologies.

Target group:

The following enterprises/institutions are eligible to apply:

- Small enterprises
- Small and medium-sized enterprises (SMEs)
- Large companies (only in cooperation with SMEs)
- Municipal enterprises and institutions
- Research and educational institutions
- Chambers, associations, and foundations

Funding:

Only collaborative projects are funded, and parties eligible for funding must make a financial contribution of at least 10 % and of no more than 70 % of total eligible expenditure. Projects should be designed to align with the value chain. At least one party eligible for funding must be a small or medium-sized enterprise from North Rhine-Westphalia.

Research or experimental development projects can only be carried out in collaborations between several eligible parties.

2nd round of submissions:

1 March 2024

3rd round of submissions:

6 December 2024

The innovation competition “Gesünder.IN.NRW” involves a two-stage procedure.

Project management organization:

Project Management Jülich (PtJ)

Forschungszentrum Jülich GmbH

Email: gesuender.in.nrw@fz-juelich.de
www.in.nrw/gesuender

7.2 Funding program for innovative and digital SMEs (MID)

Objective:

Developing concepts and actions for a digital age is crucial to the competitiveness of Germany's small and medium-sized enterprises. To this end, the Ministry of Economic Affairs, Industry, Climate Action and Energy of the State of North Rhine-Westphalia (MWIKE.NRW) has launched the "Mittelstand Innovativ & Digital" (MID) funding program for innovative and digital SMEs. The program aims to support SMEs in the digitalization and further development of their products, services, and manufacturing processes in future-oriented fields. It builds on the efforts of its preceding funding program, "Mittelstand.innovativ! – Innovations- und Digitalisierungsgutschein" (innovation and digital vouchers for SMEs).

Target group:

Small and medium-sized enterprises according to the EU definition that are based in North Rhine-Westphalia are eligible to apply for MID Vouchers and Invest; small companies (SEs) receive higher grants here; MID assistance is limited to SEs.

Funding:

The MID program has been restructured to support four separate modules:

MID analysis: funding of external scientific and technological consulting in the development of a product, service, or manufacturing process. Consulting may only be provided by universities and research establishments. The maximum funding amount has been increased from € 10,000 to € 15,000.

MID innovation: up to € 40,000 in funding for external, implementation-oriented research and development activities for innovative products, services, or manufacturing processes that are exclusively provided by universities and research institutions. The maximum funding amount has been increased from € 15,000 to € 40,000.

MID digitalization: funding of consulting on the implementation of digital products, services, and manufacturing processes. In future, there will be a stronger focus here on the future-oriented topics of digitalization that are not covered by the federal funding program go-digital; IT advisors will continue to be eligible for funding.

MID assistant: a two-year funding grant enables small companies to hire a university graduate to help work on innovation and digitalization projects. It is now possible to receive the funding amount in the form of advance payments every two months (funding previously only paid retrospectively).

Applications for the MID funding program for innovative and digital SMEs can now be generated via the program home page <https://www.mittelstand-innovativ-digital.nrw/>.

Dates:

Applications can be submitted at any time.

Project management organization:

Project Management Jülich (PtJ)

Forschungszentrum Jülich GmbH

Email: **MID vouchers:** ptj-mid-gutscheine@fz-juelich.de
 MID assistant: ptj-mid-assistent@fz-juelich.de
 MID invest: ptj-mid-invest@fz-juelich.de
 MID digital security: ptj-mid-sicherheit@fz-juelich.de
 www.mittelstand-innovativ-digital.nrw/

7.3 NRW.BANK.Digitalisierung und Innovation

Objective:

The NRW.BANK provides low-interest loans for fast-growing and/or innovative medium-sized enterprises with a 70 % exemption from liability for the company's house bank.

Target group:

Funding is provided for:

- Enterprises that are being founded
- Companies of all sizes (domestic and foreign commercial enterprises, the majority of which are privately owned)
- Members of the liberal professions

Funding:

The NRW.BANK provides low-interest loans to finance digitalization and innovation projects.

- Type of funding: Installment loan
- Financing share: up to 100 % of eligible investments and/or operating materials
- Maximum loan amount: € 10 million
- Installment loan duration:
 - 3 years with no redemption-free year
 - 5, 7, and 10 years with 1 optional redemption-free year
- Interest rate: fixed interest rate for the entire duration of funding
- Repayment:
 - In quarterly installments starting the quarter after next
After the conclusion of an agreement; if necessary after the redemption-free years have come to an end
 - Unscheduled repayments with prepayment charges
- Disbursement rate: 100 %

Procedure:

Applications for the loan should be filed using the appropriate forms at a credit institute of your choice (house bank), which then forwards the request to the NRW.BANK. Please note that you must submit the application before the project begins.

Contact:

NRW.BANK

Service Center

Tel: +49 211 91741-4800

Email: info@nrwbank.de
www.nrwbank.de/en/companies/
www.nrwbank.de/en

The NRW.BANK.Digitalisierung und Innovation program is described here as an example of innovation funding. Additional programs can be found at www.nrwbank.de. Support and coaching are available at:

Funding advisory support for the Rhineland and Westphalia

Local, specialized funding consultants provide comprehensive support on a broad range of products offered by the NRW.BANK, as well as other public funding and financing options provided by, for example, the state of NRW, KfW Development Bank, and Landwirtschaftliche Rentenbank. Enterprises receiving funding can obtain independent and free advice on their individual financing projects at the NRW.BANK consultation days, for example.

Financial guidance

NRW.BANK's financial guidance team at the economic development advisory centre (BCW) helps NRW-based SMEs with more comprehensive and long-term consulting requirements (e.g. growth plans, safeguarding the company, succession plans) and NRW-based founders with innovative and complex project plans to optimize their financing structures with the aid of public funding from the state of NRW, the German Federal Government, and the EU. This support is provided during individual and impartial consulting sessions.

Tel: +49 211 91741-4700

Email: finanzierungsbegleitung@nrwbank.de
www.nrwbank.de/finanzierungsbegleitung

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8. BIO.NRW Business Angel Network

The BIO.NRW Business Angel Network was initiated in 2010 in cooperation with experienced and successful business angels and habitual entrepreneurs.

The network supports creative life science start-ups from universities, promising young companies, and international companies in the fields of biotechnology and life sciences that are interested in setting up their business in North Rhine-Westphalia. In addition to start-up funding, the BIO.NRW Business Angel Network also provides follow-up funding for established companies, enabling them to reach their next stage of development. With its know-how, contacts, and capital, the BIO.NRW Business Angel Network can play a decisive role in ensuring businesses get off to a successful start.

This investor network has grown steadily over time, including partners of the EIT Health consortium (in which BIO.NRW is no longer involved as a partner) and members of the private equity community. They all play an interactive role in developing start-ups and SMEs through funding and co-investment.

BIO.NRW Business Angel Circle

The BIO.NRW Business Angel Circle provides a platform for founders, young enterprises, and SMEs to pitch their ideas and business models to a hand-picked selection of experienced business angels and other investors (private investors, development banks, venture capital, corporate venture), and to attract funding. There are now five to six strictly confidential investor circles per year featuring companies not only from North Rhine-Westphalia, Germany, and the EU, but also all international companies interested in obtaining financing and setting up their business in NRW. Given the number and potential of regularly participating investors, the BIO.NRW Business Angel Circle is certainly unique in Germany.

If you are interested in joining the Business Angel Circle or require more information, please visit the website startups4.eu or contact [Jennifer Maßen](mailto:massen@bioclustermanagement.de).

Contact:

Jennifer Maßen

Email: massen@bioclustermanagement.de

Side note

startups4.eu

BIO Clustermanagement NRW GmbH has designed and launched the online platform startups4.eu, which serves as a central tool of the EIT Health Investors Network to give life science start-ups and SMEs access to private and venture capital, while providing investors with a convenient tool to identify innovative young life science companies looking for funding. After a quick registration process, representatives of start-ups and SMEs can present their company by uploading a 3-minute video, in which they introduce their product, business idea, and team. Private investors, business angels, and representatives of venture capital or corporate venture funds can use the platform to select young companies according to the characteristics of their portfolio. Startups4.eu therefore represents the first step in the matchmaking procedure:

- Investors are asked to select the companies they are interested in.
- BIO CM then invites both the selected companies and the investors community to the BIO.NRW Business Angel Circle in Düsseldorf, a face-to-face, confidential meeting.
- BIO CM coordinates the follow-up work and feedback related to the meeting.

Further information:

www.startups4.eu

9. Public financial support for export activities

Companies in Germany and in NRW benefit from a wide range of financial programs to promote their export activities. A key objective of these programs is to strengthen the international competitiveness of SMEs and to secure jobs in Germany.

The German Federal Government uses investment guarantees to safeguard against the political risks of direct investments made by German companies in developing and emerging countries. To mitigate the political and economic risks of export transactions by German companies, the German Federal Government offers export credit guarantees in various formats. The German Federal Government has commissioned Euler Hermes AG (Euler Hermes) and PricewaterhouseCoopers AG (PwC) as agents to execute and process these funding activities.

KfW Bank Group offers various funding programs to medium-sized enterprises to finance their projects abroad. These programs include the KfW-Unternehmerkredit (Entrepreneur Loan), the KfW Renewable Energies Programme, the KfW Energy Efficiency Programme, and the KfW-Umweltprogramm (environmental program).

The federal state of NRW supports NRW-based companies in their projects abroad that are likely to have an impact on the national economy by providing them with an indemnity bond. The NRW.BANK offers financial support to NRW companies that are active abroad through its dedicated funding programs NRW.BANK.Auslandskredit (foreign credit) and NRW.BANK.Ausland Export (foreign exports).

In addition, NRW.Global Business works on behalf of the state government of NRW to help SMEs to tap into important growth markets, particularly by organizing joint exhibition booths at trade fairs, funding measures for small groups, and delegation and business trips.

Contact:

NRW.BANK – EU Funding/Foreign Trade and Investment Promotion Department

Tel: +49 211 91741 4000

Email: international@nrwbank.de

10. NRW.Europa consultation day on the funding and financing of innovation projects

At the NRW.Europa consultation day, you have the opportunity to discuss your innovation projects in personal meetings with experts on financing, funding, and internationalization.

Translating innovative ideas into new products, processes, and services requires great financial expenditure. To this end, the public sector provides funding at regional, national, and EU level.

In personal discussions, NRW.Europa experts will inform you about the following topics:

- European funding opportunities within the framework of Horizon Europe, Eurostars, ERA-Net
- Tax-incentivized funding of R&D/research allowance
- National research funding: e.g. Central Innovation Programme for SMEs (ZIM), KMU-innovativ
- Funding instruments offered by the NRW.BANK and the KfW Mittelstandsbank
- European Innovation Council (EIC) (formerly SME Instrument)
- Venture capital
- Funding to cover the costs of innovation consulting services: go-inno, EEN innovation management
- Financial consulting
- North Rhine-Westphalia state guarantees
- NRW equity participations

You are supported in implementing your innovation and investment projects.

No general information is provided in the form of presentations. Instead, you can benefit from a 45-minute scheduled individual meeting with our experts.

Participation in the consultation day is free of charge.

Contact:

NRW.Europa funding hotline

ZENIT GmbH

Tel: +49 208 30004-0

NRW.Europa hotline

NRW.BANK – EU Funding/Foreign Trade and Investment Promotion Department

Tel: +49 211 91741-4000

Email: info@nrweuropa.de

www.enterprise-europe-network.ec.europa.eu

<https://nrweuropa.de/en/>



10.1 Cascade funding

Objective:

As part of the cascade funding approach, NRW.Europa offers a special form of funding. Funding programs at regional, national, and EU level are becoming more sophisticated and complex in terms of their project design. For many demand-driven small and medium-sized enterprises (SMEs) with a technological background, it is difficult and challenging to identify and successfully occupy program niches. At the same time, funding innovation is important and often a decisive competitive advantage.

This is where cascade funding provides an opportunity: applications are not submitted for a specific project, but within calls for proposals that are announced as part of large projects. The advantage of this is that the scope is clearer, the project cycles shorter, and the topics closer to the daily operations of the SMEs in question. SMEs are more likely to receive funding since the calls for proposals are very limited in terms of their content. On the other hand, you have to respond to calls for proposals at short notice, work with smaller budgets, and look at the individual requirements associated with the call.

Target group:

The competitions are primarily aimed at small and medium-sized enterprises (SMEs).

Funding:

Small grants (€ 5,000–€ 50,000); funding rate of up to 100 %

Further information:

<https://ec.europa.eu/info/funding-tenders>

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ZENIT GmbH/NRW.Europa
Benno Weißner
Bismarckstr. 28, 45470 Mülheim (Germany)
Tel: +49 208 30004-59
bw@zenit.de
<https://nrweuropa.de/en/>

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BIO Clustermanagement NRW GmbH
Merowingerplatz 1
40225 Düsseldorf, Germany

phone: +49 (0) 211 942 150 49
mail: info@bioclustermanagement.de
web: www.bioclustermanagement.de

Contact

BIO.NRW

Tel: +49 211 385469-9200

Email: bio.nrw@bio.nrw.de
<https://bio.nrw.de/en/bio-nrw-2/>

NRW.Europa

ZENIT GmbH

Tel: +49 208 30004-2020

Email: info@nrweuropa.de
<https://nrweuropa.de/en/>

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