

ANNUAL REPORT 2020

ENABLING INNOVATORS TO GROW

20
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Advanced Microturbines S.r.l. Italy, Aquarray, Armin G. Burkhardt (P. 19), EIFER, Hochschule Pforzheim, INERATEC, Social Entrepreneurship e.V., City of Vitoria-Gasteiz, City of Riga, Uli Regenscheit (P. 17), University POLITEHNICA, Bucharest

Reference to the Equal Treatment Act

For reasons of easier readability, we do not use gender-specific differentiation. Corresponding terms apply to all genders within the meaning of the Equal Treatment Act.

At the end of 2019, the European Commission launched a new growth program for the economy in Europe, called 'Green Deal'. A good year later, the Green Growth Index certifies Europe's leading position compared to Asia, America and Africa, especially in the area of 'Green Economic Opportunities'. The research and innovation programme Horizon Europe, which has just been launched, and the new industrial and SME strategies respond to these challenges and needs and birthed development and investment opportunities that have, until now, not existed in Europe. The subsequent strategic value chains and technological alliances now forming across the member states have the potential for a stronger Europe, where innovations are not only invented but also lead to sustainable growth.

Even in times of pandemic, we as Steinbeis-Europa-Zentrum, together with Steinbeis 2i GmbH and the Institute of the Commissioner for Europe, were able to continue developing the important innovation topics with our customers. You can read the numerous success stories of our customers in this report. We hope these stories inspire you!

We would like to thank all our partners for their contributions and encourage you, dear reader, to continue shaping the European Innovation Area with us. We look forward to your ideas and to building upon our current cooperation.

Yours,



DR. PETRA PÜCHNER

Commissioner for Europe
of the Minister of Economic
Affairs, Labour and Housing
Baden-Württemberg; Head of
Steinbeis-Europa-Zentrum

DR. JONATHAN LOEFFLER

CEO Steinbeis 2i GmbH

2020 AT A GLANCE

The competitiveness of companies depends largely on their ability to develop innovations and successfully implement them in the market. Despite the pandemic in 2020, we remained very active in supporting our clients through giving them access to new knowledge, to financial resources and to reliable partners in Europe.

We encouraged them to go beyond their own horizons and open up their processes with the aim of entering into new strategic partnerships, from which, we supported them in creating collaborative innovation projects and transnational cooperations.

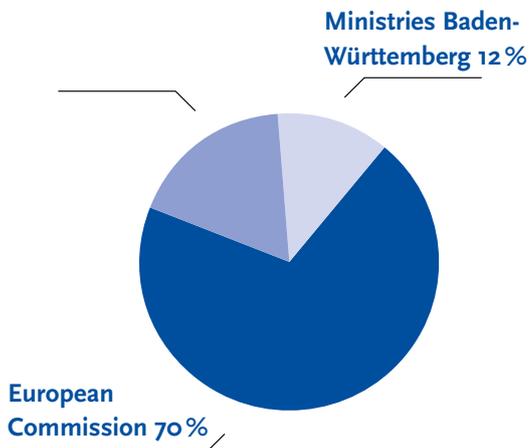
OUR MISSION STATEMENT

Enabling innovators to grow –
European innovations for a sustainable society
and responsible industrial transition

TURNOVER 2020

Our turnover in 2020 consisted of three sources. The largest part – 70% of the project funds – came from funding measures of the European Commission. 18% came from services we provide on behalf of clients. 12% of the funding came from the ministries of Baden-Württemberg.

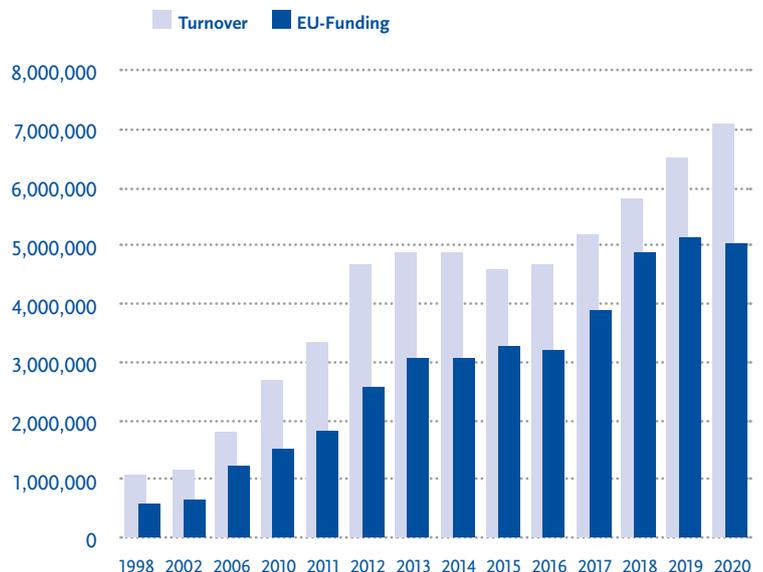
TURNOVER AND FUNDING SOURCES 2020
TOTAL: **7.2 MIO. EURO**



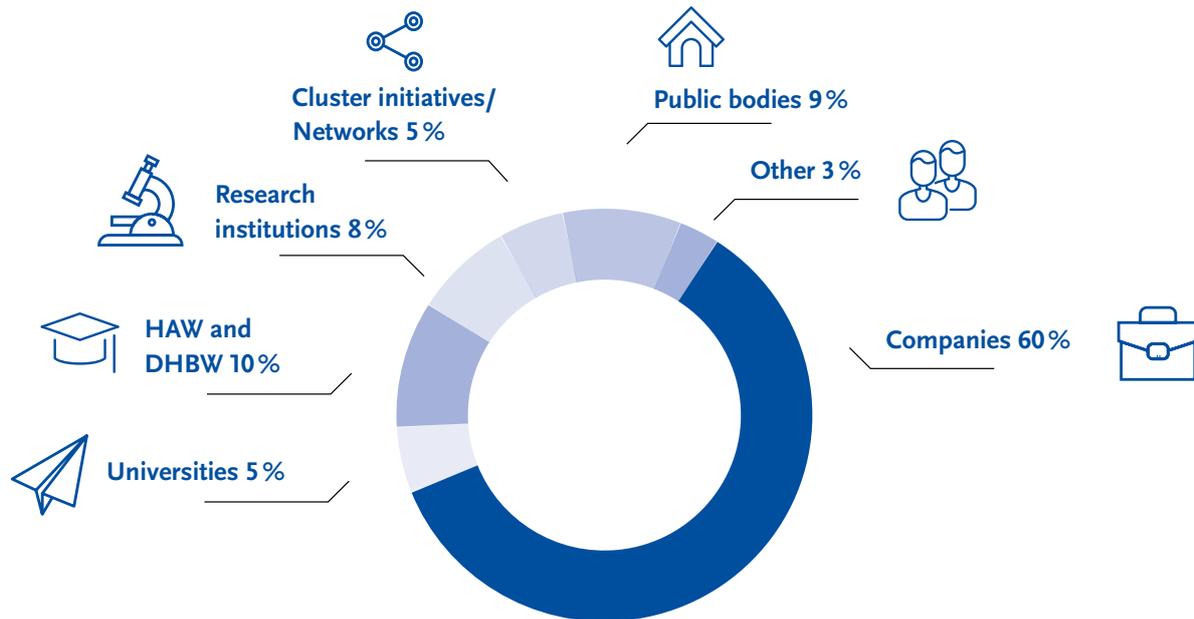
For our clients, we remained committed to our mission statement in 2020. We were able to realise it through the following services:

- **468 clients**
were advised on innovation financing, of which the majority were SMEs from Baden-Württemberg.
- **115 clients**
were advised on internationalisation and market access.
- **55 SMEs**
received several days of coaching in innovation management.
- **86 project proposals**
were submitted to the European Commission.
- **9.3 million euros**
were returned from the EU to Baden-Württemberg.
- **77.4 million euros**
in EU funding for Europe were acquired through our involvement in proposals for the coming years.

TURNOVER AND EU-FUNDING SINCE 1998



OUR CUSTOMERS



For **companies and start-ups**, we are a reliable partner for innovation management, market development and strategic partnerships in an international context. We offer companies not only access to research, technologies and international markets, but also tailor-made support for growth and financing, access to key technologies and employee training. Beginning our support process with a customer needs analysis, we are able to offer various basic and advanced modules in innovation management, technology foresight and open innovation processes that support the client to identify their individual solutions.

Universities and research institutions need industrial cooperation partners to exploit their research results and to bring them to market. We support in the acquisition of European funding, assist in project management, help secure intellectual property rights, handle communication and exploitation and find industry partners at home and abroad.

With **cluster initiatives**, we jointly develop strategies for innovation, internationalisation and cross-clustering, identifying service needs and designing tailor-made event formats and training. Some exemplary topics are open innovation, smart specialisation or strategic partnerships.

Together with **business support organisations** we organise informative events on innovation funding and EU programmes for local companies, as well as cities and municipalities. We offer insights into international trends and key technologies and open doors towards Brussels.

In the field of **innovation politics**, we bring regional and European experience together with good practice. We are involved in the Vanguard Initiative and the EU Strategy for

the Danube region, testing new cooperation and business models between research and industry. In accompanying studies, we identify future fields of action and new paths for European cooperation, e.g. with the UK after Brexit.

At the **European Commission**, we are known as a reliable partner and a provider of new ideas for the strategic development of its innovation policy, bringing the competences and interests from Baden-Württemberg into the European Innovation and Research Area.

What sets us apart:

- We have 30 years of experience in acquisition of EU funding, in international technology transfer and in developing regional innovation strategies.
- Our team of more than 80 employees is interdisciplinary, international and highly qualified and consists of engineering, natural, economic, social and cultural scientists from around 15 countries.
- We are well-connected as a partner in the Enterprise Europe Network, ENRICH in China, ENRICH in Africa, Vanguard Initiative, Danube Transfer Centres, Smart Anything Everywhere Initiative.
- We are globally successful: In 2020, leading or partnering in 72 EU projects with 620 partners in 41 countries.

TRANSFORMATION THROUGH SUSTAINABILITY AND DIGITALISATION

Our economy and society are undergoing a transformation process. Sustainability and digitalisation are strong drivers of this transformation, which has only been accelerated by the coronavirus pandemic. The issue of sustainability is now highly present in all technology sectors and is even moving to the forefront in the context of the goals of the European Green Deal. Digital technologies are, in fact, universally relevant offering new opportunities for businesses and for a sustainable economy globally. With our project activities and services, we are meeting the challenges of this transformation and we are helping to create new value chains. For example, we contribute to solutions for alternative mobility concepts, circular economy, the recycling of scarce raw materials, urban development and agriculture.

The following section provides success stories of Baden-Württemberg entrepreneurs and researchers from the fields of hydrogen technologies, recycling of rare earths, artificial intelligence for manufacturing and ecological nutrient recovery, as well as on our involvement in Smart Cities.

FUTURE HYDROGEN TECHNOLOGIES

Hydrogen could revolutionise our mobility and make our transport systems more environmentally friendly. Hydrogen, when produced with the help of renewable energies, has also the potential to significantly contribute to the reduction of CO₂ emissions in the industry.

David Colomar, a senior scientist at the European Institute for Energy Research (EIFER), is leading the work on new groundbreaking solutions in three EU projects. Together with the COSMHYC Consortium and Steinbeis zi, EIFER is developing an innovative solution for hydrogen compression. It is based on the combination of two compression technologies: mechanical compression and metal hydride compression. In the COSMHYC XL project, the consortium is developing the solution further for its use in large hydrogen refuelling stations for heavy-duty transport.

For the shipping industry, EIFER and other European partners are demonstrating the technical and economic feasibility of hydrogen systems and propulsion in two pilot projects, funded by the Interreg project H2SHIPS. In the Netherlands a hydrogen powered vessel is being built along with the development of hydrogen infrastructures for a harbour. In Belgium, a hydrogen refuelling system for operation on the high seas is being developed and tested.

DEVELOPING NEW TECHNOLOGIES



“Steinbeis zi GmbH supports us in the market introduction of hydrogen technologies. Steinbeis zi has high competencies in project management, communication and the exploitation of research results and is very committed to make our project successful.”

David Colomar, EIFER

www.steinbeis-europa.de/branchen-und-projekte/nachhaltige-mobilitaet.html



David Colomar refuels hydrogen for a test drive in Karlsruhe

CIRCULAR ECONOMY FOR RARE EARTHS

Permanent magnets based on rare earths are components of many high-tech products, but also of everyday products such as washing machines or heating pumps. However, a large part of these rare earths must be imported to cover the demand in Europe. In addition, their extraction causes enormous environmental damage.

Pforzheim University is pursuing a new approach here: Prof. Dr. Carlo Burkhardt is working with Steinbeis-Europa-Zentrum and 16 further partners from science and industry in the EU project SUSMAGPRO to develop a recycling supply chain for rare earth magnets. Through a short-loop recycling process, the magnet material is embrittled and pulverised with the help of hydrogen in an HPMS process. The powder can be directly reprocessed into magnets, resulting in energy savings of over 90% compared to primary production and as much as 98% lower toxicity.

By 2024, 110 tonnes of end-of-life magnetics shall be recycled annually in four pilot plants in Sweden, the UK, Slovenia and Germany. This will benefit offshore wind turbines, electric cars and water pumps, among others. Through consistent recycling of components with a high magnetic content, the aim is to achieve a recycling rate of 15-25% in the medium term.

The SUSMAGPRO partners made an important contribution to the establishment of the European Raw Materials Alliance in October 2020, a crucial step to strengthen European access to critical raw materials and secure the production of rare earth magnets.



Professor Dr Carlo Burkhardt,
Institute for Precious and Technology Metals, Pforzheim University of Applied Sciences

“The colleagues at Steinbeis-Europa-Zentrum are strong partners in matters of project application, communication, exploitation and project management. Thanks to them, we can fully focus on research and development tasks. They also make an excellent contribution to the development of strategies for the use of new technologies and pilot plants.”

www.steinbeis-europa.de/susmagpro
www.susmagpro.eu

DRIVING INNOVATION

→
Recycling of rare earth magnets using hydrogen in a patented HPMS process



The powder can be directly reprocessed into magnets, resulting in energy savings of over 90% compared to primary production and as much as 98% lower toxicity.



ARTIFICIAL INTELLIGENCE FOR MANUFACTURING

Arculus GmbH, a start-up in the field of modular production, made initial contact with Steinbeis 2i GmbH at the Hightech Summit 2019 to learn about European innovation programmes. In the following, S2i conducted an analysis of their innovation competence and provided information about funding opportunities. In 2020, S2i then brought the start-up as a partner into an EU application with a focus on artificial intelligence. The AI REGIO project supports SMEs from the manufacturing sector in integrating artificial intelligence into their production processes. The involvement of regional Digital Innovation Hubs enables application experiments and networking among SMEs. Arculus is involved in running an application pilot in robotics and predictive analytics. This will allow the start-up to both expand its technology portfolio as well as to make contact with leading European networks in the field of artificial intelligence and smart manufacturing.

“Within just two weeks, we submitted a successfully funded experiment together with Steinbeis 2i. The collaboration was very efficient and goal-oriented.”

Carlo Fitz, COO Arculus GmbH

www.steinbeis-europa.de/ai_regio
www.airegio-project.eu

STIMULATE
CO-CREATION

ECOLOGICAL NUTRIENT RECOVERY FROM AGRICULTURE

In the Hohenlohe region, a plant for the recycling of agricultural residues was built in July 2020 as part of the project 'AgriPlus: Agricultural Productivity and Sustainability', which is funded by the EU and the Baden-Württemberg Ministry for Rural Affairs and Consumer Protection.

The Agro Energie Hohenlohe GmbH plant enables the transformation of liquid manure and other residues from energy recovery (fermentation residues) into an organic soil conditioner and into phosphorus and nitrogen fertilisers. These innovative fertilisers can then be used specifically and efficiently in agriculture or transported cost-effectively to areas with a prevailing nutrient deficiency.

Steinbeis 2i GmbH has accompanied this process from the beginning, submitted the application and is coordinating the project. It is also responsible for communication and dissemination of the results.

↓
Peter Hauk, Minister of Rural Areas
visits plant in Füßbach



“A very smart approach that can make a significant contribution to environmental protection and to more regional value creation in the sense of a circular bioeconomy.”

Peter Hauk, Minister for Rural Affairs and Consumer Protection, Baden-Württemberg, during his visit to Agro Energie Hohenlohe GmbH in July 2020.

www.steinbeis-europa.de/agriplus



European Agricultural Fund for Rural Development:
Europe investing in rural areas co-financed
by the State of Baden-Württemberg

www.mepl.landwirtschaft-bw.de

INNOVATION CENTRE 'SMART CITY'

The EU enables European cities to internationally exchange ideas in Smart Cities and Communities projects and to set new impulses for sustainable urban development. The European concept of Smart Cities and Communities stands for an intelligent interlinking of technologies in the fields of energy efficiency, renewable energies, mobility, ICT and citizen engagement. More than 100 cities in 18 countries have so far received funding under Horizon 2020. They are testing new forms of cooperation and are thus becoming innovation centres of their own. We support some of these projects in exploitation, communication and replication activities and in the development of innovative business models. For the Smart Cities Marketplace, we are a communication partner and event organiser on behalf of the EU (see page 18), bringing together urban developers, investors, entrepreneurs and researchers and providing an online platform for cooperation, knowledge transfer and market introduction.

www.steinbeis-europa.de/smart-cities
smart-cities-marketplace.ec.europa.eu

TOWARDS CLIMATE NEUTRALITY WITH THE SMARTENCITY ACADEMY

With the SmartEnCity Academy, we designed a digital format for an international audience with eleven speakers, offering real added value for cities. With four modules, S2i supported interested cities on their way towards climate neutrality and enabled them to acquire a certificate. In total, more than 250 city and municipal representatives, project developers, researchers and other interested stakeholders participated. In an interactive format, the 16 steps of the 'Cities4ZERO Urban Transformation Strategy for Cities' Decarbonisation' were explained; a strategy developed within the SmartEnCity project that provides the necessary tools to pragmatically achieve the goals of decarbonisation.



Nika Kotoviča,
City of Riga

"The SmartEnCity Academy was very helpful in facilitating the exchange of best smart city practices between different European cities. It served as an inspiration for Riga and brought us a good step closer to our goal of becoming the first Baltic climate-neutral capital."

smartencity.eu

SHARING KNOWLEDGE AND EXPERIENCE



Cyclist in Vitoria-Gasteiz, Spain.
The city is a partner in the Smart Cities project SmartEnCity



More than 100 cities in 18 countries have so far received funding under Horizon 2020



FIELDS OF EXPERTISE AND SERVICES

- Innovation Management & Growth Financing
- Research Funding & Technology Transfer
- Market Access & Internationalisation
- Social & Regional Transformation
- Innovation Policy Support
- Events & Qualifications

We support you at every step of your organisation’s growth. With our individual consulting, we assist you from the first idea to the market launch.



As experts in event management, we bring together innovation players from all sectors worldwide. At international congresses, information days and entrepreneurial trips, we support the transfer of knowledge and provide information on funding programmes and innovation policy measures.



WE SHARPEN YOUR INNOVATION MANAGEMENT

Especially in times of the corona crisis, companies need new strategies to react to new challenges. We actively support them in these necessary change processes, actively engaging in identifying potential opportunities a crisis may offer, such as opportunities for new products, processes and business models. Through a moderated methodology,

we look at corporate strategies and innovation-relevant competencies and processes. Clients receive recommendations for action and coaching tailored to their needs, for example, regarding intellectual property protection, internationalisation, open innovation or financing.

→ **55 small and medium-sized enterprises**

from Baden-Württemberg received a multi-day coaching programme, with the aim of identifying innovation potential, analysing participation in cross-border cooperation and supporting the introduction of innovative concepts.

→ **138 clients**

were advised on innovation management.

→ **32 consultations**

on project management were carried out.

MICROARRAY TECHNOLOGY FOR PERSONALISED MEDICINE

After having received funding from the European Union's SME Instrument, the Eggenstein-Leopoldshafen-based start-up, Aquarray, is pushing ahead with the further development of its droplet microarray technology into a personalised medicine application. The technology enables cell experiments to be performed at high density with low cell numbers. With small cell quantities, a large number of screenings can be performed without additional laboratory automation and without pipetting, thus saving costs and resources.

As key account managers, Steinbeis 2i senior experts assessed innovation management capacities and identified different coaching options for Aquarray. Since summer 2020, Steinbeis 2i has been supporting the administrative and financial project management of the EU project 'Drop-let Microarray'.



Dr. Wolfgang Sipos,
CEO AQUARRAY GmbH

"To meet the requirements of EU funding, we need to fully understand the various specifications and tools of the EU. As a small start-up, it is very difficult to do this. Therefore, the professional support that Steinbeis 2i offers through their expertise is essential for us."

DEVELOPING
PROJECT
POTENTIAL

OPTIMISATION OF THE PRODUCTION LINE

ABB Striebel & John GmbH, based in Sasbach on the Upper Rhine, is one of the leading manufacturers of power distribution systems and a partner of the 'Elektrohandwerk' (electrical trade). During an event and while looking for competent partners to optimise its production line for automating the assembly of control cabinets, the company were introduced to a Steinbeis 2i project manager who discussed optimal solutions they could employ.

S2i subsequently worked to identify strategic partners for further development, also in the international environment, and made suggestions for suitable national and European funding programmes. Finally, S2i accompanied the complete development process on automated guided vehicles to determine the material flow and technical requirements for AGV system solutions. This was successfully carried out in a three-part workshop with two business advisors from S2i and five participants from ABB Striebel & John GmbH.

"By working with Steinbeis 2i, we were able to make some very interesting contacts in a short time and together, we were able to derive plans from abstract ideas to be able to implement our strategy. Steinbeis 2i will also support us in the further implementation of these plans."

Markus Weber,
Head of Process and Product Engineering,
ABB Striebel & John GmbH

INITIATING
STRATEGIC
PARTNERSHIPS

SUCCESS

WE PAVE THE WAY TO EU FUNDING FOR YOU

European funding programmes offer great opportunities for innovation actors in Baden-Württemberg to cooperate with excellent institutions in Europe. Participation in EU projects secures competitive advantages and helps access new markets. We support our clients in identifying funding instruments in all fields of technology and advise on EU programmes in the field of research and innovation. From project idea to implementation, we accompany all project phases: proposal conception, formulation and project management.

PROPOSAL SUBMISSION:

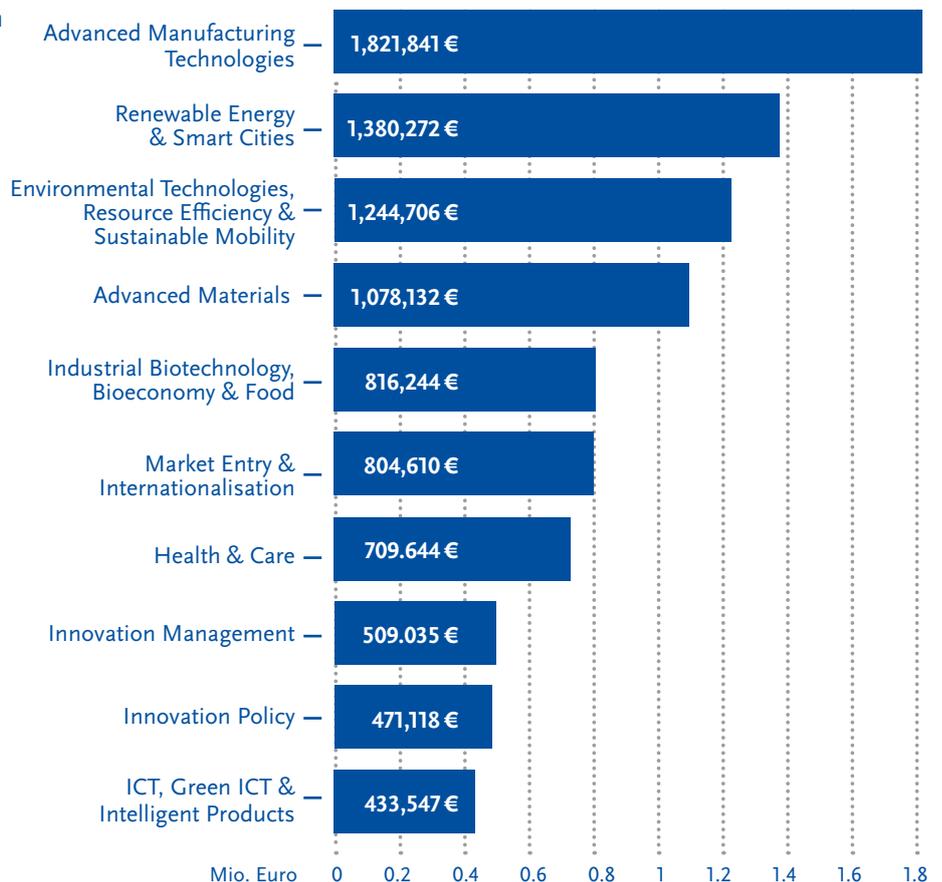
- **86 project proposals** were submitted to the European Commission with our help.
 - 21 project proposal were approved.
 - 3 project proposals are still being evaluated.
 - Among the 86 project proposals, 20 SMEs from Baden-Württemberg were involved, 5 SMEs of those were part of successfully approved proposals with a total of around 3.2 million euros.
 - 4 universities of applied sciences were supported with seven EU proposals.

- **77.4 million euros** of EU funding were acquired for current and future projects across Europe through our proposal support service. These funds benefit European and Baden-Württemberg companies and other institutions.

RETURN FLOW OF EUROPEAN FUNDING TO BADEN-WÜRTTEMBERG IN 2020

- With our support, project funds from the European Commission totalling **9.3 million euros** flowed to Baden-Württemberg in 2020.
- Return of funds in the last five years: around **40 million euros** (2016–2020)

These funds are benefitting companies, universities and research institutions across the state. Within these funded projects, we are either involved ourselves as a partner or coordinator, or our customers from Baden-Württemberg benefit from the EU funding as project partners.



→ 468 clients

were advised on innovation funding. Among them were 252 SMEs; 113 were universities of applied sciences and cooperative state university and 19 cluster initiatives.

→ 144 participants

were trained in 4 web-seminars on the funding programmes of the European Innovation Council.

→ 50 representatives

of the universities of applied sciences and cooperative state university were trained in a web-seminar on the Green Deal funding calls.

SYNTHETIC FUELS FOR EVERYONE

INERATEC, a spin-off of the Karlsruhe Institute of Technology, offers modular chemical plants for power-to-X and gas-to-liquid applications and supplies sustainable fuels and products. With greenhouse gases such as CO₂, hydrogen can be converted into e-kerosene, CO₂-neutral petrol, clean diesel or synthetic waxes, methanol or SNG. The advantage: a complete production plant fits into a container and enables a de-centralised approach. As a result, renewable electricity that previously could not be stored can now be stored directly on site in synthetic hydrocarbons.

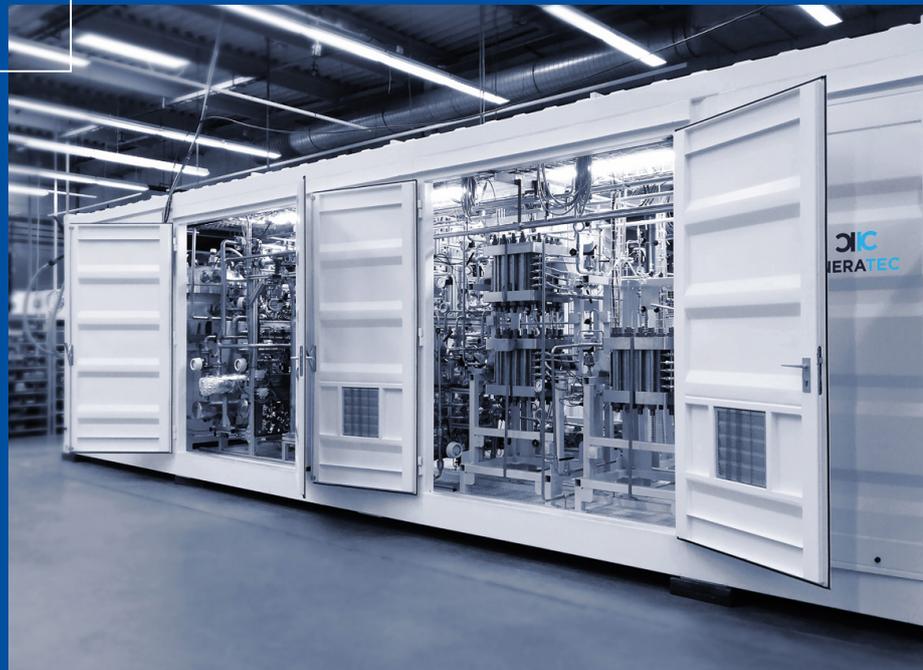
The start-up applied for the award of the European Accelerator 'DeepTech4Good' in 2018 and was given the chance to present itself to investors and industry representatives at a pitch event in Stuttgart. INERATEC thus won personal coaching services from Steinbeis 2i. The support in the scaling process and the targeted search for further funding resulted in an application to the Accelerator Programme of the European Innovation Council. With success: in December 2020, the start-up received funding of almost 2.5 million euros to launch scalable series production.

ENABLING
GROWTH



Philipp Engelkamp,
Managing Director and
Co-Founder of INERATEC

"Through the coaching provided as part of the DeepTech4Good Awards 2018 and the ongoing support from Steinbeis 2i, we were able to successfully submit our proposal to the 'EIC Accelerator Pilot – SME Instrument' and received the desired funding."



ESS STORI

WE BRING YOU INTO EXCITING NEW INTERNATIONAL MARKETS

As a member of numerous European networks such as the Enterprise Europe Network, ENRICH in China, ENRICH in Africa and the Districts of Creativity, we stimulate and support our clients in technology cooperation. The Enterprise Europe Network is the world's largest network for internationalisation and technology transfer. With over 600 member organisations in more than 60 countries, it assists small and medium-sized enterprises with EU funding, innovation consulting and cooperation initiation.

- **115 clients**
were advised on internationalisation and market access. These included 95 companies (79 of which were SMEs), 12 universities and research institutions and 4 cluster initiatives.
- **17 cooperation agreements**
were successfully concluded with research and innovation partners from abroad supported by the Enterprise Europe Network.
- **More than 350 people**
were trained on strategic partnerships with China in 9 web seminars and trainings within the framework of ENRICH in China.
- **A new network**
with Africa was initiated through ENRICH in Africa.

WE ARE INVOLVED IN THE FOLLOWING INTERNATIONAL NETWORKS AND CLUSTERS:



NEW VALUE CHAINS FOR STRONGER INNOVATION IN CENTRAL EUROPE

Together with 38 partners of the Enterprise Europe Network and the Central Europe Interreg project KETGATE, Steinbeis-Europa-Zentrum carried out the first virtual brokerage event in May 2020. Small and medium sized enterprises have been supported to access new value chains in key enabling technologies. For example, SMEs from Baden-Württemberg could initiate cooperation with research institutions in Hungary. More than 300 people from 23 countries participated and talked to each other during more than 200 meetings. As a direct result five cooperation agreements had been signed.

INNOVATION THROUGH COOPERATION



ACCESS TO THE LATIN AMERICAN MARKET

Through the administration of the EU-funded internationalisation grant scheme, and through the INNOWWIDE project, Steinbeis 2i supported profit-oriented and innovative SMEs and start-ups with a grant of 60,000 Euros per project over the past two years. The financial support enabled the selected SMEs to validate their business strategies and models towards entering a foreign target market.

Advanced Microturbines Srl from Genoa, Italy is a manufacturer of microturbines that harvest energy from gas and water pressure and flow in distribution pipelines, generating electricity that enables data-driven management of geographically distributed pipelines. Through the funding, the SME was able to carry out a feasibility study in Peru with the aim of introducing its technology to the Latin American market. In addition, the company from Italy had the chance to network with the other selected SMEs at an Info Day event hosted by S2i in Karlsruhe. Advanced Microturbines Srl will now work together with the Slovenian SME Medius S.o.o., a software expert to develop a solution for the digitalisation of water networks. S2i supported the SMEs on their joint journey and has pointed to a further funding instrument for this project, the EU-funded project Digifed that funds innovation in digitalisation and cyber-physical systems.

→
Microturbine



ACCESS TO NEW MARKETS



Emanuele Gugliemilmeno,
CEO and founder of Advanced
Microturbines Srl

“The project funding from INNOWWIDE allows us to enter new markets. Without this funding, it would have been very difficult for us to find this path.”

Video: www.youtube.com/watch?v=NWmeXiohudk

STORIES

WE ACCOMPANY REGIONAL AND SOCIAL TRANSFORMATION

We see ourselves as mediators between actors at regional, national and European level in order to optimally coordinate processes of strategic planning and operative innovation support. Through this, we help to identify global societal challenges and the resulting future opportunities for Europe’s regions in due time and to develop research and innovation strategies.

STIMULATING SOCIAL INNOVATION

Social Entrepreneurship Baden-Württemberg e. V., a network of social enterprises whose members are committed to adding value to society and the environment, was brought onboard as part of the Interreg Europe project Social Seeds to develop a regional action plan for Baden-Württemberg. Together with the action plans from other European regions, the association provided stimulus for the support of social enterprises in seven European regions. Alexander Bernhard, the association’s managing director, was brought in as a speaker for the final conference in Brussels.



Alexander Bernhard,
Social Entrepreneurship
Baden-Württemberg e.V.

“We had the chance to meet experts in Brussels and we further developed our expertise. We were able to raise our network to an international level. We really appreciate this cooperation with Steinbeis-Europa-Zentrum and are now also getting involved in the Social Innovation Challenges Baden-Württemberg.”

SEZ and the Centre for Social Investment and Innovation at the University of Heidelberg are committed to social innovation in the project ‘Technologische Innovationen zur Bewältigung gesellschaftlicher Herausforderungen – Social Innovation Challenge Baden-Württemberg’ (‘Technological Innovations to Meet Social Challenges – Social Innovation Challenge Baden-Württemberg’) and are developing concepts for improving the living conditions in rural areas, among other things. The association also participates in this project.

STRATEGIES FOR SMART SPECIALISATION IN THE DANUBE REGION

‘Smart Specialisation’ is a location-strategic concept with the aim of promoting structural change towards knowledge- and innovation-led growth. SEZ and S2i support several stakeholders in the Danube Region in the implementation of regional development priorities in the cooperation of SMEs, universities and business development agencies in innovation projects.

The network of the Danube Transfer Centres now counts 14 members in 10 countries, including Karlsruhe (Germany), Cluj-Napoca, Craiova, Bucharest, Iași (Romania), Nitra (Slovakia), Novi Sad (Serbia), Maribor (Slovenia), Győr (Hungary), Ruse (Bulgaria), Vukovar, Zagreb (Croatia), Odessa (Ukraine) and Villach (Austria). The transfer centres support the regional innovation actors in the area of technology transfer and have established themselves as a successful model for the entire region under the leadership of Steinbeis 2i. In 2020, the focus was on establishing the new centre in Craiova, Romania.

In 2020, Steinbeis 2i and the Technical University ‘Politehnica’ Bucharest successfully launched an Interreg project to support the creative industries in the Danube region. The Restart4Danube project involves 25 partners from 12 countries, including public authorities, companies, consultants, research institutes, civil society actors and the Danube Transfer Centres of Zagreb, Maribor and Craiova. Here, S2i establishes communication between regional and European policies and stimulates regional actors to participate in EU tenders in Horizon Europe.



Prof. Dr. Alexandru Marin,
Director of the Office for Technology
Transfer, University POLITEHNICA
Bucharest

“The collaboration of University POLITEHNICA from Bucharest with Steinbeis 2i already started some time ago in the frame of the Danube Transfer Center Network. They brought valuable expertise, know-how and best practice both in preparing phase of the project application and also by offering substantial support in the implementation period, because of their vast experience in various international projects, including Danube Transnational Programme. Together, our common effort, as main drivers of the RESTART_4Danube consortium, will contribute to a stronger Urban Regeneration process, based on Cultural and Creative Industries in the Danube Region.”

WE SUPPORT INNOVATION POLICY FRAMEWORK CONDITIONS

By participating in various expert committees and in exchange with public authorities at European and state level, we contribute to identifying global societal challenges and the resulting future opportunities, to exploring international innovation potentials and external resources, and to shaping long-term and broad-based development and innovation strategies.

The Commissioner for Europe of the Minister of Economic Affairs, Labour and Housing Baden-Württemberg, Dr. Petra Püchner, is actively engaged in Brussels and across European member states and regions for the benefit of Baden-Württemberg, representing Baden-Württemberg's economic interests and priorities in Europe and likewise taking European policy developments back to Baden-Württemberg as early as possible. The aim is to achieve closer networking of innovation ecosystems in Europe and beyond to particularly support small and medium-sized enterprises (SMEs) in their innovation endeavors. Together, the most innovative regions of Europe can provide services for and with the economy faster and more cost-efficiently in order to jointly manage the transformation towards more sustainability.

KEY INNOVATION POLICY ISSUES: DIGITALISATION AND ARTIFICIAL INTELLIGENCE

For many years, we have supported research and innovation around the topic of 'Artificial Intelligence' (AI). In addition to the goal of bringing AI innovations to the market, inter-regional cooperation in Europe is particularly important.

Here, we contribute to the conception and development of research and innovation policy and funding instruments at the European level and support both the European Commission and stakeholders in Baden-Württemberg in their implementation of policy measures and cooperation projects. Our membership in various initiatives, such as the Enterprise Europe Network, the Vanguard Initiative and the Digital Innovation Hubs (DIHs) contribute to enhanced interconnectedness and better networking opportunities.



For many years, we have supported research and innovation around the topic of 'Artificial Intelligence' (AI).

INTERREGIONAL COOPERATION SUPPORTS DIGITAL TRANSFORMATION

Within the Vanguard Initiative, we have jointly developed an 'AI' pilot with the Italian region of Emilia-Romagna to provide an opportunity for SMEs to put AI into practice. Through this important forward-looking initiative initiated in 2020, we are offering companies and research institutions an additional opportunity to participate in European funding instruments and interregional cooperation, alongside already existing initiatives and instruments in the state, thus gaining additional and easier market access. This initiative complements our commitment to establishing and connecting the European Digital Innovation Hubs with relevant stakeholders here in Baden-Württemberg.



↑ Panel discussion during the virtual congress BW meets UK, 08.12.2020 with Dr. Jonathan Loeffler (in the centre)

STRONGER TOGETHER – NEW BUSINESS RELATIONS BETWEEN BW AND THE UK

In order to enlarge and maintain collaborative partnerships between Baden-Württemberg and the UK in the field of research and innovation, we have conducted a study that presents synergies and potentials for future-oriented topics, including AI, while suggesting fields of action for political actors. We are happy to support you in this process and stand by your side as a reliable partner with a large network in order to create new economic perspectives through cooperation and networking.

WE CONNECT YOU AT EVENTS ...

In 2020, new virtual formats and talents were required. We quickly got to grips with new tools and methods and successfully held around 100 events and trainings, both in-person and online. Some examples:

OPEN INNOVATION CONGRESS BADEN-WÜRTTEMBERG ON 02.03.2020

Under the motto ‘This is how you play along’, the Baden-Württemberg Ministry of Economic Affairs, in cooperation with SEZ and S2i, organised what is now the fifth edition of the Baden-Württemberg Open Innovation Congress. With over 1,200 registrations, the congress was in high demand. Through role play and design sprint-style meetings, entrepreneurs and researchers could playfully get to know new tools live on-site and, for example, make friends with artificial intelligence. Workshops and forums provided information about digital business models, strategic partnerships, Smart Cities and Communities as innovation hubs as well as InConnect, the international cooperation index.

GENERAL ASSEMBLY OF THE EU SMART CITIES MARKETPLACE ON 02–03.09.2020

With more than 300 participants, 100 bilateral online conversations, 20 workshops with 70 speakers, including EU Energy Commissioner Kadri Simson, and various representatives from European cities and Smart Cities projects, we successfully delivered this hybrid event. A virtual TV studio was created in a green screen studio with moderation in Stuttgart, from which the event was broadcast to an online platform and from here, to all of Europe. A connection was also then made to the URBIS Smart City trade fair, which was taking place at the same time in Brno, Czech Republic, where the meeting was originally planned to take place. The entire programme took place live on stage as well as at an on-site stand in Brno, which was also staffed in-person. The speakers and colleagues who were on site were able to speak to and interact with both the trade fair audience and the online audience. As a central point of contact for the event, SEZ used an online platform to broadcast the programme live, including all workshops – online and also those on site in the Czech Republic – as well as event information, networking and brokerage opportunities and much more.

INFORMATION DAY ON HORIZON EUROPE ON 09.12.2020

Around 900 people took part in the virtual event organised by the Ministry of Economic Affairs, Labour and Housing Baden-Württemberg, the Ministry of Science, Research and the Arts, SEZ and S2i. The event was opened by the Minister of Economic Affairs Dr. Nicole Hoffmeister-Kraut, and the Minister of Science Theresia Bauer, followed by high-level representatives of the European Commission such as Jean-David Malo, Director of the European Innovation Council, Dr. Waldemar Kütt, Director of the European Research Council and Dr. Peter Dröll, Director of the Directorate General for Research and Innovation.



↑
Dr. Nicole Hoffmeister-Kraut in her opening speech during Open Innovation Congress 2020



900 participants have been informed about the new European programme Horizon Europe

... AND MAKE YOU FIT FOR INNOVATION

PROPOSAL WRITING, PROJECT MANAGEMENT AND INNOVATION

In the framework of the cooperation with the Danube Transfer Centres and various Interreg projects, we have conducted 11 trainings on proposal writing, technology transfer, innovation management and marketing for 313 participants.

We have conducted 5 trainings for Baden-Württemberg stakeholders and 16 trainings for 80 participants in the last three years.

“The complexity of EU calls for proposals and how to find my way around them in order to write a good proposal was conveyed to me in a very good, structured and technically sound way at the Steinbeis 2i training. The group work was very important for me. Examples of successful applications, exercises and the subsequent discussion with the participants gave me ideas for my own proposal that I would never have thought of myself. As a conclusion, I would say that with a well-structured proposal, I now easily leave two thirds of the applicants behind me.”

Matthias Rapf,
University of Stuttgart, Institute for Sanitary Engineering,
Water Quality and Solid Waste Management

SECOND CHANCE FOR RE-START

The year 2020 particularly clearly revealed the explosive nature of the topic ‘second-chance entrepreneurship’: the COVID-19 crisis pulled the rug out from under many entrepreneurs, thus marking for many the end of their previous business model. Adapted to the new situation, we conducted qualification measures virtually and physically. In March, the ‘Trial&Error Academy’ started as part of the DanubeChance2.0 project with the first training on the topic of ‘business financing’. Further trainings followed and led to individual mentoring sessions on demand.

→ 9 trainings

with 135 participants on the topic of Re-Start in Baden-Württemberg ‘Crisis experiences as a chance for a second attempt’.

→ 4 trainings

for Re-Starters in the Danube region with 31 participants and 5 mentoring sessions with 5 participants on the topics of business financing, communication and negotiation skills as well as re-starting.

ACQUIRING SKILLS

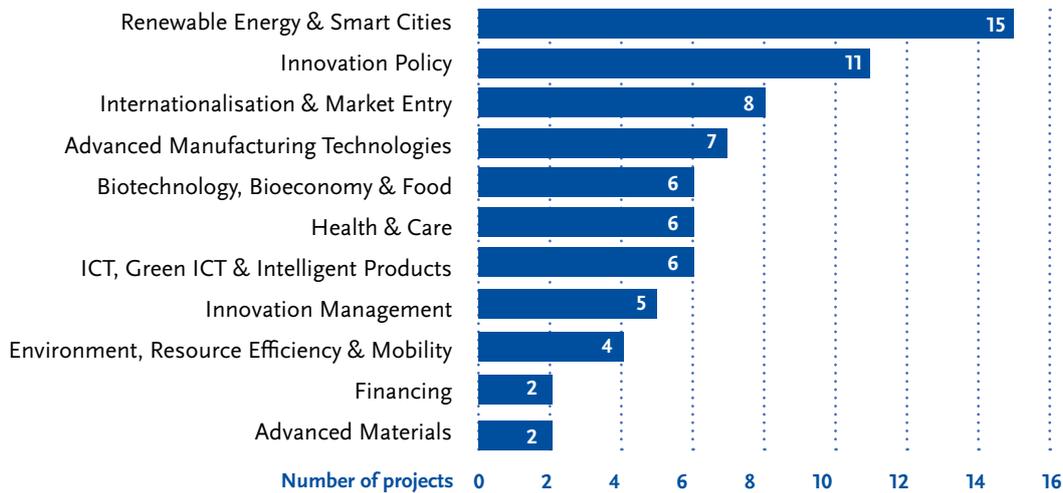


29 trainings with more than 500 participants

PROJECTS AT A GLANCE

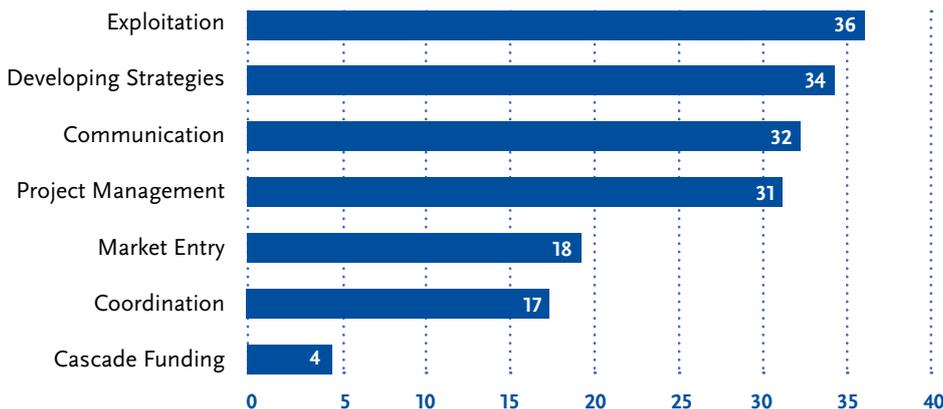
- In 2020, we were involved in **72 projects** with a total of **620 partners** from **41 countries**. Most of the funding came from the Horizon 2020 programme.
- 15 projects focus on Smart Cities and Communities and renewable energies. Here, we are working with around 190 partners from 27 countries, including 27 representatives of European cities and municipalities.
- 12 projects are funded by INTERREG programmes.
- 6 projects received regional funding from the state of Baden-Württemberg.

PROJECTS & SECTORS 2020 (72 PROJECTS TOTAL)



In addition to content-related tasks and research support, we take on a variety of tasks and play different roles in our projects.

OUR ROLE IN PROJECTS



A strong partner for exploitation, in 2020 in 36 projects.

PROJECTS 2020

BIOTECHNOLOGY, BIOECONOMY & FOOD

AGRIPLUS Hohenlohe • www.steinbeis-europa.de/agriplus

Netzwerk Bioaktive Pflanzliche Lebensmittel • www.netzwerk-bpl.de

Danube S3 Cluster – Transnational cluster cooperation on agri-food in the Danube Region • www.interreg-danube.eu/danube-s3-cluster

ROSEWOOD – European network on sustainable wood mobilization • www.rosewood-network.eu

ROSEWOOD 4.0 – European network on sustainable wood mobilization focusing on digitalisation • www.rosewood-network.eu

SMARTX – Accelerator for Smart Textiles • www.smartx-europe.eu

ADVANCED MANUFACTURING TECHNOLOGIES

Connected Factories2 – Industrial scenarios for connected factories • www.connectedfactories.eu

FIT4FoF – Making our workforce Fit for the Factory of the Future • www.fit4fof.eu

INEDIT – Open Innovation Ecosystems for Do It Together process • www.inedit-project.eu

Innoadditive – Innovative Challenges for Additive Manufacturing • www.steinbeis-europa.de/innoadditive

KET4CleanProduction – Connecting SMEs and KETs Technology Centres across Europe • www.ket4sme.eu

KETGATE – Enhancing SME competitiveness through improved access to Key Enabling Technologies in Central Europe • www.interreg-central.eu/KETGATE

RECLAIM – RE-manufacturing and Refurbishment LArge Industrial equipment • www.reclaim-project.eu

ADVANCED MATERIALS

SUSMAGPRO – Sustainable Recovery, Reprocessing and Reuse of Rare-Earth Magnets in a Circular Economy • www.susmagpro.eu

NanoFabNet – International Hub for sustainable industrial-scale Nanofabrication • www.nanofabnet.eu

ICT, GREEN ICT, INTELLIGENT PRODUCTS

Agile Project Teams – Optimizing handicraft business culture for digital change

AI REGIO – Digital Innovation Hubs Alliance for AI-driven digitalisation of European manufacturing SMEs • www.airegio-project.eu

Deeptech4Good / Scale EU² – Accelerator for European high-potential start-ups • www.deeptechforgood.eu

Industry 4.E – Towards digitalisation of industry • www.ecsel.eu/industry4e

Smart4Europe2 – Central information point for digitisation in Europe • smartanythingeverywhere.eu

Start-up Europe Ambassador • www.steinbeis-europa.de/ambassador_startup_europe

HEALTH & CARE

BrainTwin – A neuroengineering Research Centre by European Twinning • www.braintwin.eu

IC2PerMed – Integrating China in the international consortium for personalised medicine • www.ic2permed.eu

IDIH – International Digital Health Cooperation for Preventative, Integrated, Independent and Inclusive Living • idih-global.eu

MedTech4Europe – Regional strategies for medical technologies • www.interregeurope.eu/medtech4europe

PANBioRA – Personalised and generalized integrated biomaterial risk assessment • www.panbiora.eu

SENET – Sino-European Health NETworking Hub • www.senet-hub.eu

RENEWABLE ENERGIES & SMART CITIES

ATELIER – AmsTERdam and BiLbao citizen drivEn smaRt cities • smartcity-atelier.eu

European Innovation Partnership Smart Cities and Communities Marketplace • smart-cities-marketplace.ec.europa.eu

eTeacher – Empowering energy education of building end-users • www.eteacher-project.eu

FCH Go! – Fuel Cells HydroGen educatiONal model for schools • www.fchgo.eu

INSULAE – Maximizing the impact of innovative energy approaches on EU islands • insulae-h2o2o.eu

ISLANDER – Decarbonisation of European islands through smart energy management and use of local flexibility options • www.steinbeis-europa.de/islander

Metabuilding – Bringing innovation to the construction sector • www.metabuilding.com

mySMARTLife – Towards a new concept of smart life and economy • www.mysmartlife.eu

Network Nature – Advancing nature-based solutions together • www.steinbeis-europa.de/network_nature

REMOURBAN – Regeneration model for accelerating the smart urban transformation • www.remourban.eu

Smart Cities Information System (SCIS) – One-stop shop for exchanging knowledge and experiences from all SCC and EeB projects • www.smartcities-infosystem.eu

Smart Altitude – A low-carbon and resilient future for Alpine winter tourism territories • www.alpine-space.eu/projects/smart-altitude/en/home

SmartEnCity – Towards smart zero CO₂ cities across Europe • smartencity.eu

Triangulum – The Three Point Project: Demonstrate. Disseminate. Replicate • www.steinbeis-europa.de/triangulum

W4RES – Tapping into the potential of women for supporting renewable energy in the heating and cooling market • www.steinbeis-europa.de/w4res

Women4Energy – European Network of Women for Innovative Energy Solutions • women4energy.eu

ENVIRONMENTAL TECHNOLOGIES, RESOURCE EFFICIENCY & SUSTAINABLE MOBILITY

COSMHYC – Innovative compression solutions for efficient hydrogen mobility • www.cosmhyc.eu

COSMHYC XL – Innovative hybrid solution for eXtra Large scale hydrogen refuelling stations • www.cosmhyc.eu

H2SHIPS – System-Based Solutions for H₂-Fuelled Water Transport in North-West Europe • www.steinbeis-europa.de/h2ships

INN-BALANCE – A clean automotive future through improving fuel cell auxiliary components in hydrogen-powered vehicles • www.innbalance-fch-project.eu

OTHER PROJECTS FOCUSING ON INNOVATION MANAGEMENT, INTERNATIONALIZATION & POLITICS

200SME Challenge – Design-driven Open Innovation Challenge for 200 SMEs • www.200smechallenge.eu

ASIS – A social innovation strategy for the Alpine Space • www.alpine-space.eu/projects/asis/en/home

BW-KAM – Supporting SMEs from Baden-Württemberg in their innovation process • www.steinbeis-europa.de/innovationsmanagement

ClusterAgentur Baden-Württemberg • www.steinbeis-europa.de/clusteragenturbw

Danube Chance 2.0 – Facilitate second-chance entrepreneurship in the Danube Region • www.interreg-danube.eu/approved-projects/danubechance2-0

DepoSIt – Development of the European Innovation Audit tool for Social Innovation • www.steinbeis-europa.de/deposit

Districts of Creativity Network • districtsofcreativity.org

Donautransferzentren – Danube Transfer Centre Network • www.dtcnetwork.eu

Enterprise Europe Network – Business support on your doorstep • een.ec.europa.eu

ENRICH in China – European Research and Innovation Centre of Excellence in China • china.enrichcentres.eu

Finance4 Social Change – Leveraging finance for positive social change • www.interreg-danube.eu/finance4socialchange

FutureProof – Novel services for future proof innovation agencies and SMEs • www.steinbeis-europa.de/futureproof

H2020 für KMU – Supporting Baden Württemberg SMEs participation in Horizon 2020 • www.innocheck-bw.de

INNOWIDE – Financing internationalisation projects • innowide.eu

INVITE – Stimulating open innovation across European innovation systems • invite-project.eu

Knowing IPR – Knowledge and IPR management in the Danube Region • www.interreg-danube.eu/approved-projects/knowning-ipr

PITCCH – Open Innovation Challenges for innovative SMEs and large companies • www.pitcch.eu

PRORES – Promoting ethics and integrity in non-medical research • prores-project.eu

Restart4Danube – Boosting creative industries in urban regeneration for a stronger Danube Region • www.interreg-danube.eu/approved-projects/restart-4danube

Social Seeds – Exploiting potentials of social enterprises • www.interregeurope.eu/socialseeds

Social Innovation Challenge Baden-Württemberg • www.steinbeis-europa.de/social_innovation_challenge

TitanE – Trinational networks of enterprises • www.interreg-oberrhein.eu/projet/titan-e-trinational-innovation-and-technology-advanced-networks-of-enterprises

UpGradeSME – Improving policy instruments supporting innovative SME performance • www.interregeurope.eu/upgradesme

Vanguard Stützpunkt Baden-Württemberg • www.steinbeis-europa.de/vanguard_bw

**WE CONTINUE
TO WRITE THE
SUCCESS STORY
IN THE NEW
LOOK & FEEL**

SEE YOU SOON ...

Herausgeber

**Steinbeis-Europa-Zentrum
der Steinbeis Innovation gGmbH**

und

Steinbeis zi GmbH

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