



COHES3ION – Integrating the territorial dimension for cohesive S3



Regional Action Plan for the Ruhr Metropolis



Part I – General information

Project: COHES3ION – Integrating the territorial dimension for cohesive S3

Partner organisation(s) concerned: Business Metropole Ruhr GmbH

Country: Germany

NUTS2 region: Governmental districts of Arnsberg, Düsseldorf and Münster

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Part II – Policy context

The Action Plan aims to impact:

<input type="checkbox"/>	Investment for Growth and Jobs programme
<input type="checkbox"/>	European Territorial Cooperation programme
<input checked="" type="checkbox"/>	Other regional development policy instrument

Name of the policy instrument(s) addressed: Smart Specialisation Strategy for the Ruhr Metropolis

As an introduction to this action plan it is necessary to emphasise that the policy instrument originally chosen and contained in the application form for the Ruhr Metropolis ERDF OP 2014-2020 of North Rhine-Westphalia (“OP EFRE.NRW”) and its successor OP 2021-2027 (currently being drafted) are policies defined by North Rhine-Westphalia’s Ministry of Economy (NUTS1), over which the German partner of the Interreg COHES3ION project, Business Metropole Ruhr GmbH, **has virtually no action and decision-making power.**

As a result, and in order to maximise the impact of the actions contained in this plan, the decision has been made to guide it towards a policy for which the partner from the Ruhr Metropolis plays a prominent role in its design and implementation, as Business Metropole Ruhr has coordinated the development of the subregional S3 together with its stakeholders.

Initially selected Policy Instrument: ERDF OP 2014-2020 of North Rhine-Westphalia (“OP EFRE.NRW”).

Policy Instrument to be addressed in the RAP: Smart Specialisation Strategy for the Ruhr Metropolis (Subregional S3).

Thus, the Action Plan developed by Business Metropole Ruhr has the aim to have an impact on the Smart Specialisation Strategy for the Ruhr Metropolis, the main aim of which is to advance towards a competitive and territorially balanced Region, based on a collaborative, multi-level governance model.

As the German project partner in COHES3ION, Business Metropole Ruhr (BMR) represents the innovation ecosystem of the Ruhr area in the Federal State of North Rhine-Westphalia (NRW), the Ruhr Metropolis, with its innovation centres (technology parks and centres, start-up centres). The “Innovation Strategy Rhine-Westphalia” lacks attention on subregional differences within NRW regarding the innovation capacity and smart specialisation for future calls. NRW is characterised by its subregional disparities between its subregions. This applies especially for the biggest subregion, the Ruhr Metropolis.



Therefore, the Smart Specialisation Strategy for the Ruhr Metropolis is a subregional strategy that aims to integrate regional, subregional and local elements into the S3 framework. Thus, the S3 for the Ruhr Metropolis coexists to the equivalent, geographically and administrative superior “Innovation Strategy North Rhine-Westphalia” in order to make S3 work according to subregional and local conditions and needs. Hence, S3 of the Ruhr Metropolis is an instrument that applies the principles of multi-governance: it demonstrates how valuable it is to develop and implement S3 on a more subregional level to concentrate on specific local potentials and identify local fields of actions in the implementation of smart specialisation strategies and concrete actors that are the region’s unique selling points and able to push the regional innovative capabilities in some economic sectors. Thus, this strategy explicitly aims to identify subregional and local potentials for economic growth and specialisations.

Innovation centres are playing a key role in the smart specialisation strategy of the Ruhr Metropolis and are therefore crucial to improve the policy instrument. Subregional economic strengths were developed in recent years and decades thanks to technology parks and centres, labs, incubators and hubs. Further development of smart specialisation in the Ruhr Metropolis and, at the same time, the improvement of the policy instrument will depend on an effective integration of innovation centres in the subregional strategy. That is why, COHES3ION’s Regional Action Plan for the Ruhr Metropolis explicitly aims at strengthening the subregion’s innovation centres.

Funding framework for innovation activities in the Ruhr Metropolis’ is defined by NRW’s innovation programme and respective lead markets: mechanical and plant engineering/production technology, new materials, mobility and logistics, information and communication technology, energy and environmental industries, media and creative industries, and health and life science. At the subregional level of the Ruhr Metropolis, innovation activities can be mainly detected in the areas of IT services and cybersecurity, green technologies (including resource efficiency, hydrogen and energy), healthcare (with a strong focus on digital health) and smart logistics.

There are several national or regional influences on the Ruhr Metropolis innovation ecosystem and strategy: Namely Germany’s withdrawal from coal-fired power generation, which has a major influence on NRW and the Ruhr area as a former industrial mining region. Further and partly related, site conditions for companies (modern industrial and business parks), New Work (Co-Working-Spaces and FabLabs as relevant instruments of innovation work), and cross-innovation (especially between the region’s leading sectors) are crucial touch points in the Ruhr Metropolis’ innovation landscape.

Additional regional external influences are global megatrends, for instance Climate Change, Globalisation and Digitalisation. These merge with demographic changes towards an increasing need for sustainable business and economic transformation.



Part III – Details of the actions envisaged

ACTION 1:

Name of the action: Strengthening innovation centres as pillars of smart specialisation in the Ruhr Metropolis

Action 1 is about strengthening innovation centres as pillars of smart specialisation in the Ruhr Metropolis. By doing so, the Regional Action Plan will contribute to increasing the subregion's innovation capacity and, consequentially, to economic growth and creation of jobs.

Innovation and entrepreneurship are crucial for development of a knowledge-intensive economy and are constantly renewed by a lively start-up scene. In order to support this, targeted promotion is needed at various touch points: Start-ups in particular have bottleneck factors along their development and growth, for example in matters of capital, know-how, material resources/infrastructure, motivation and partner acquisition or networking. As a funding instrument, innovation centres have proven to be a powerful tool to counteract these bottlenecks and thus reduce the risk of failure in the start-up process. While Germany is one of the countries with a high innovation centre density and NRW is one of its regions with a large number of innovation centres, these institutions play an important role in the national and regional innovation ecosystem. In addition to increasing the survival probability of start-ups, innovation centres have other positive effects, as studies have shown:

- innovation centres have a positive effect on the growth of newly founded companies
- they support an increase in company performance
- funded start-ups tend to have higher qualified employees
- in terms of research activity, the number of patents and new products increases
- as a secondary effect, new jobs are created by newly founded and viable companies
- start-ups that are supported in innovation centres often have a better reputation, which improves their access to potential investors, partners, and customers.

In recent years, certain trends have emerged in the innovation centre landscape: For example, the emergence of virtual incubators or centres without actual physical buildings, as well as specialisation and industry focus. The latter is clearly one of the success factors for innovation centres. Specialisation or a clear industry focus that is constantly reviewed and, if necessary, realigned, facilitates networking and the initiation of cooperation with science and research. It also simplifies the support of founders, as they often have similar questions and difficulties in the same industry. Another important condition for success is the network of an innovation centre, on the one hand to provide contacts to founders, and on the other hand to ensure good networking with other support actors in the innovation and start-up ecosystem.

The Ruhr Metropolis is characterised by its heavy industrial past, of which essentially only the production of innovative special steels remained, followed by a transformation towards a strong innovation region with technology-based lead markets as well as a strong service sector. The subregion has a dense network of



scientific institutions and respectively a large number of innovation centres, which promote an increase in the likelihood of survival and growth of young regional companies, as well as entrepreneurship in general. Due to the high heterogeneity of the subregion, smart specialisation, as well as the focus on local needs, is particularly important here. Since the main sectors of the metropolis are research-intensive, infrastructural support for start-ups in terms of laboratories and shop floors is crucial too. These can already exist as resources at universities and companies, or they can be made accessible through entirely new concepts such as those of the FabLab or Maker scene. Another region-specific point of leverage are virtual innovation centres, especially for institutions that are in a process of reorientation. Since a certain number of industry clusters and networks already exist in the region (Tech5plus, AutoCluster.NRW, EffizienzCluster Logistik.Ruhr), linking innovation and technology centres to these associations is another region-specific way to generate impact.¹

Over the scope of the first COHES3ION project phase, valuable opportunity was given to get familiar with the innovation practices of innovation centres in eight European regions. Some of these practices are of special interest, not only within the project, but also for Business Metropole Ruhr as they represent good practices with a high learning and transfer value for the region:

ArcLab is a research and innovation centre located at the Waterford Institute of Technology in Southern Ireland. While the Southern Region of Ireland has many strategic innovation strengths, it is hindered to a certain extent by a lack of academic industrial linkages and limited resources for business-based research and innovation. Hence, ArcLab focused on providing a space where academic, enterprise and regional stakeholders can meet and develop ideas. Increasing cooperation especially between innovation centres and academic stakeholders to facilitate the innovation work of research-intensive start-ups, spin-offs and SMEs is also a goal of BMR for the Ruhr Metropolis within its regional actions. Therefore, the profile, activities and experiences of ArcLab in these fields hold great potential for inspiration and transfer for BMR and the Ruhr Metropolis.²

Those activities include for instance ArcLab's SME Support, including support programmes as well as working individually with entrepreneurs. Further, ArcLab's activities feature events and webinars about business focused topics like investment and tax, fundraising and grants, marketing, but also funding and support for female founders.³ Those business knowledge topics have been named as especially relevant and needed by innovation centre clients in a survey within a strategy development process with Ruhr innovation centres, too. Besides those specialised activities and offers, ArcLab also provides business facilities, whose clients are matched by predetermined criteria to ensure specialisation and a strong governance.

The BIC Bizkaia in Biscay (Spain) is a specialised incubator managed by Bea-PCB and co-funded by the Basque government. It is specialised in advanced technology sectors and high value-added technologies, like

¹ „Erfolgsfaktoren für die Etablierung von Inkubatoren im Ruhrgebiet“, study by Handelsblatt Research Institute, 2015

² <http://www.arclabs.ie/enterprise-support>

³ <http://www.arclabs.ie/events>



bio-micro-nano technologies, clean technologies, and advanced manufacturing.⁴ Its focus on advanced technology sectors in bioscience parallels the specialisation on Life Science/Health of the eastern Ruhr Metropolis. Besides this, the BIC Bizkaia features also socially relevant hands-on topics like the use of 3D technologies for sustainability, or the fabrication of Covid protection gear by 3D printing. Advanced manufacturing, but also frugal manufacturing technologies are of interest for the Ruhr Metropolis and its industrial sector and small to medium-sized companies as well.

BIC Bizkaia is a joint venture by the Basque Government and the Provincial Council of Bizkaia. The multilevel collaboration amongst regional and subregional governments, its location in an advanced territory, as well as its custom-tailored services for entrepreneurs are further points of interest for the Ruhr Metropolis. Especially since side conditions for technology and science parks have been identified as a strategically relevant topic for the area and individual services profiles of BMR, innovation centres have been explicitly named by entrepreneur and start-up clients as a relevant selling point in a survey within the development of a joint communication strategy for the area's innovation centres. The BIC Bizkaia generally offers services for founders and start-ups in terms of mentoring and acceleration, including access to specialised technology centres and training activities.⁵ It covers the whole process from project recruitment, matching the centre's specialisation, monitoring and tutoring the incubated projects, acceleration and support.

The Södertelje Science Park in the Stockholm Region (Sweden) is an innovation centre focussing on sustainable production, among other innovation topics. The Science Park collaborates along the triple helix model – including stakeholders of the academic, public, and business sector. In the Ruhr Metropolis it has been noticed that applying this collaboration principle is particularly important for the successful development and performance of the science and technology parks and centres. The most successful science and technology centres are very well connected to all these elements of the ecosystem. They are building a dense network of actors with different complementary skills, knowledge and other resources. It can be observed that usually there is a quite big gap between those science and technology centres that have developed strong ties to other sectors and those who are acting more on their own. The latter does not necessarily occur because of lack of understanding by the decision makers regarding the integration of the triple helix, but rather because of a lack of relevant actors at the subregional level. Thus, the beforementioned multilevel collaboration and triple helix principle are tightly interwoven success factors, which contribute additionally to highly qualified human resources as an indispensable factor for successful regional development. Also, those science and technology centres that are well integrated within the triple helix model are usually more specialised and more precise in strength development as a competitive advantage. Less integrated centres tend to have contrarily more difficulties in developing a clear specialisation strategy.

Further touch points and learnings can be seen in the region's profile of a strong service sector, combined with a still important manufacturing sector and its history of a severe unemployment struck due to sector closure

⁴ <https://bicbizkaia.eus/en/especializacion/>

⁵ <https://bicbizkaia.eus/en/servicios/>



(by the relocation of the AstraZeneca facilities). The reaction to it in form of a strong collaboration of national, regional, cross-regional and local city actors, shows certain similarities to the Ruhr Metropolis withdrawal of the mining sector. This approach appears to be a very relevant parameter towards the development of a future ecosystem. Furthermore, the Södertelje support instruments for SME with strong focus on sustainability, as well as its prototyping-to-production support are germane to the Ruhr business area, too.

The virtual field trip to the Centre for Advanced Materials and Technologies (CEZAMAT) in the Mazovia Province (Poland) has shown how the Polish partners developed and are implementing their regional smart specialisation strategy and the role an innovation centre is playing within it. Similar to the cases described before, CEZAMAT displays good practice on how to pursue a more targeted exchange with regional science and technology centres, demonstrating the huge role of academia in cooperation mechanics along the triple helix principle. Hence, the CEZAMAT established a consortium containing nine high-tech research institutes and universities. Furthermore, CEZAMAT's labs carry out research and development projects with high tech and commercial potential themselves, ensuring not only a strong association with science and research, but also with commercial relevance.⁶

Subject-related, those activities feature for example 3D printed and personal bio-active implants, focusing on the application of 3D technologies in a high tech medical context, which could also be a significant topic for the Ruhr Metropolis biotech/life science focus in combination with a strong medical research landscape led by the university hospital in the Ruhr city Essen.⁷ Further CEZAMAT subjects bearing potential for the Ruhr Metropolis are printed electronics⁸, photonics⁹, and material composites for medical supplies and protective gear¹⁰, as well as the development of urban innovation ecosystems¹¹. Especially the latter is already carried out by BMR with the project Innovationszentren.Ruhr.

Besides its interdisciplinary research character in high tech and IT, CEZAMAT underlines the importance of scaling-up activities, something many R&D infrastructures have difficulties with. Additionally, the incubators show a good number of international projects, whereas internationalisation is also one of the strategic priorities for the Ruhr area's innovation centres.

Since around the mid-1980s, a large number of innovation centres have been established in the Ruhr Metropolis. Currently a sum of 35 facilities creates a vivid and thriving innovation ecosystem in the metropolitan Ruhr area with their independently and differently developed business models, images, stakeholder and shareholder structures.

⁶ <https://cezamat.eu/o-nas/cezamat/>

⁷ <https://cezamat.eu/personalizowane-implanty-do-rekonstrukcji-zuchwy/>

⁸ <https://cezamat.eu/projekty/w-toku/imdiag/>

⁹ <https://cezamat.eu/projekty/w-toku/inkubator-innowacyjnosci-4-0/>

¹⁰ <https://cezamat.eu/projekty/w-toku/wlokniny/>

¹¹ <https://cezamat.eu/projekty/w-toku/the-smart-city-innovation-ecosystems-festival/>



Whereas a strategy gap can be located in some parts, a wider part already aligns with the regional strategy of specialisation, creating the foundation of a future-oriented innovation ecosystem.

With the project “Innovation Centres Ruhr”, Business Metropole Ruhr, together with the municipal business development agencies, is building up a cooperative network of the 35 innovation centres in the Ruhr region. Up until now, the centres’ work has not followed an integrative approach and their degrees of success have varied.

The project focuses on three aspects:

- the identification and usage of specialisation and development potentials;
- the initiation of a regional network including common activities and workshops between the centres;
- as well as the promotion of supra-regional visibility of the centres.

The practice is implemented by the technology centres, local business development agencies, and further actors from business and science, encompassing 42 partners in total.

A certain degree of specialisation can already be identified among the Ruhr Metropolis innovation centres and categorised in three types:

- sectoral specialisation,
- specialisation on start-up support and topics,
- and regional cooperation networks.

These areas of specialisation are not exclusive. For instance, innovation centres can be crucial contact points for start-up support, as well as maintaining a sectoral specialisation.

The first group, innovation centres with a certain sectoral specialisation, orientate their image and topic-specific or industry-specific focus on regional strengths, deploying the regional leading markets as well as the federal state’s innovation strategy.

The second group, centres focusing on start-up matters, meet the needs of innovative and technology-orientated start-ups, young companies, and scale-ups by offering different advisory and coaching services, as well as flexible rental office, lab and production spaces. Examples for those services are advisory and coaching for planning, founding and company building, capital acquisition, provisioning of infrastructure, networking, and subsidy and funding management. 13 facilities can be allocated to this specialisation.

The third group, facilities with a focus on regional cooperation, provide important support for science, technology, and innovation transfer. They promote cross-sectoral cooperation within start-ups, established companies, and research facilities and universities. With smart funding and providing of infrastructure they bring together matching innovation actors and stakeholders and create a framework for exchange and collaboration. These activities meet the requirements of increasingly complex innovation ecosystems, in which

many challenges can only be resolved interdisciplinary and in cross-industrial and cross-sectoral cooperation, in accordance with up-to-date open innovation principles.

Germany has one of the highest innovation centre densities in Europe, and also NRW displays a high number of innovation facilities. Therefore, innovation centres are a crucial lever for the regional and subregional innovation work, especially with their closeness to entrepreneurs, young companies and start-ups, as well as the academic landscape. By facilitating this, they are key actors towards the development of smart specialisations for instance in form of selective cluster and market profile development.

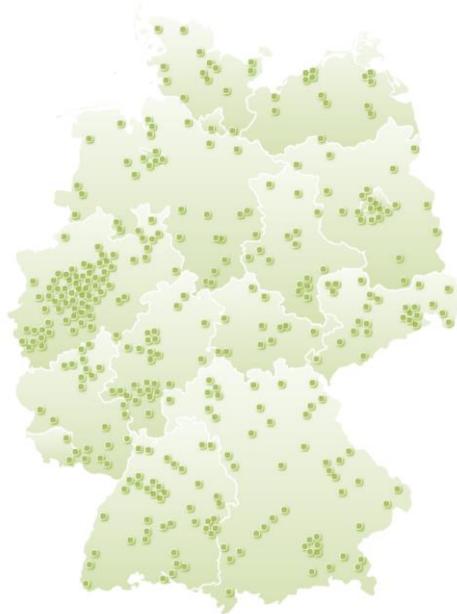


Figure 1 Overview of German innovation centres (only facilities registered with the federal association ADT)¹⁰

While most of the national innovation centres do not have a specialisation yet, the specialisation on specific industries and business areas is a clear trend, depicting the increasing start-up complexity and requirements for infrastructure and investment.

About 9 of 35 Ruhr Metropolis innovation centres have a clear allocation to the topics/industries Environment, Information Technology (IT), and Health/Life Science (see Table 1).

Specific success factors and recommendations for the regional ecosystem have been pointed out¹²: NRW's small and medium-sized enterprises (SMEs) show only low research activity, for example. Combined with the very research-intensive character of the identified lead markets and specialisations, this creates a certain infrastructure demand in terms of labs and workshops, and this not only for start-ups. Thus, innovation centres can act as facilitators and contact points to already existing academic or corporate facilities. There is furthermore significant potential for the utilisation of FabLabs and the so-called "Maker Economy" for cost-efficient provision of R&D and innovation space.

Further subregional factors are the implementation of virtual incubators, allocated at research facilities or alternatively in combination with a specialisation on the region's strong service sector to create a local support for start-ups in this area.

Referring to the region's versatile cluster landscape, the connection of innovation centres to already existing clusters hold additional potential specifically for the Ruhr area.

¹² „Erfolgsfaktoren für die Etablierung von Inkubatoren im Ruhrgebiet“, study by Handelsblatt Research Institute, 2015



<i>Cluster</i>	<i>Number of Innovation Centres</i>	<i>Name of the Innovation Centre</i>
<i>Environment</i>	04	Technological Center Ruhr Bochum (TZR) Eco-Center NRW GmbH, Planning Consulting User Center H2 Herten Future Center Herten (ZZH)
<i>IT</i>	01	Centre for IT Security (ZITS)
<i>Life Science Health</i>	03	BioMedicineCentre Bochum Competence Centre Biosecurity The Witten Centre of Dental and Life Science Research
<i>Other</i>	01	Science Park Gelsenkirchen

In sum, the Ruhr Metropolis brings together many key prerequisites for a successful innovation strategy. But due to its characteristics as a dense urban agglomeration area and its high number of innovation facilities, clusters and activities, a regional and local course of action must be implemented very carefully. Facing the increasing complexity of the start-up sector, as well as many already existing clusters and rooting initiatives, the subregional and local innovation level is of paramount importance for such a complex ecosystem. Though, the Ruhr Metropolis is in need of further actions to support those innovation centres without specialisation to ensure a dense net of local contact points for start-ups and young entrepreneurs, as well as to provide easy and cost-efficient infrastructure access for both start-ups and SMEs and to increase the centre-to-centre and regional cooperation of innovation centres.

The innovation centres' smart specialisation state is as various as the region's innovation centre landscape itself. Those specialisation states can be differed into sectoral and vertical specialisation. The first represents the centre's specialisation based on regional strengths and can be associated with a sector-specific cluster. This kind of specialisation aligns with the subregional lead markets and NRW's regional innovation strategy. A vertical specialisation is evident when the centre's competence profile is outside a sectoral specialisation and is focused on certain set of advisory services. Those centres are strong networkers and have cross-sectoral target groups. Thus, there are Ruhr Metropolis facilities which are already advanced in developing a smart specialisation strategy and approach (as described above in detail), whereas for other centres there are more diverse barriers to pursue a smart specialisation. For instance, for some centres this is not only an ecosystem-related or sector-related question, but also a financial matter, making a general business model innovation process necessary.



In the following, the content of Action 1 is presented through a detailed description of its sub-actions and related specific activities that will be implemented.

Sub-action 1: Overcoming Smart Specialisation Barriers

To address the centre's individual situation and process state, an appropriate quotation as a focused action towards "blind specialisation spots" shall be offered to the region's innovation and technology centres, which aim at adapting their strategy. All good practices from the COHES3ION project mentioned above will be useful to learn how to overcome smart specialisation barriers, as they are addressing several important aspects: particularly, BIC Bizkaia is focusing on systematic support for specialisation, ArcLab and CEZAMAT are both good examples of strengthening specialisation through cooperation with research, Södertelje Science Park shows how specialisation can be enhanced within the triple helix.

Activities:

- Workshop I "Enhancing Specialisation Schemes" – November 2021
- Workshop II "Enhancing Specialisation Schemes" – February 2022

To support centres in their efforts to specialise, workshops will be held to learn more about the specific specialisation barriers as well as to discover further specialisation potentials. This is accompanied by a study in progress among the region's municipalities and with the aim to gain more data on the individual innovation approaches. In a second workshop project ideas that emerged from the first workshop will be reviewed for realisation. Therefore, this sub-action will help strengthening the role of the innovation centres within the subregional ecosystem and developing them as an important element in the implementation of the subregional S3 as the relevant policy instrument.

Sub-action 2: Transfer & Cooperation

A common challenge for some of the Ruhr Metropolis' innovation centres is a lack of cooperation. The connection with their local and regional environment – civic, academically, economically, but also with fellow innovation centres – is crucial for readjusting strategies, project initiation and client acquisition, but also to create a well-suited one-stop resource for the region's innovators. The social competence and ability of an incubator's management to network has shown to be a determining success factor for incubators.¹³

¹³„Erfolgsfaktoren für die Etablierung von Inkubatoren im Ruhrgebiet“, study by Handelsblatt Research Institute, 2015



Especially those centres that have been founded as a non-specialised space for general entrepreneurial needs like office space rental and those that developed a technical focus only later can find it difficult to connect to the academical landscape. This can happen particularly when centres do generally not have academic institutions in their local environment or miss institutions in their technical specialisation field. But a very crucial contact point for innovators, inventors and founders in high tech are the academic transfer offices at universities and research institutions. Therefore, BMR aims to strengthen the link between those transfer offices and technology and innovation centres not only nearby but also subregionally. Universities and research institutions will be matched with differently specialised centres to meet their research focus and facilitate the potential for knowledge transfer through start-ups, spin-offs and corporate cooperation.

A regional characteristic of the Ruhr Metropolis is its variety of innovation centres distributed over a relatively wide and dense metropolitan area. Therefore, networking and connections throughout the innovation landscape are not always easy to establish. Especially when finding and defining their specialisation, innovation centres need a vivid exchange not only with their academic environment, but also with their fellow centres to differentiate, to join forces or find potential to cooperate. Thus, in the subregion's eastern part seven centres in six locations have already formed a sub-network (TECH5plus), which positive effects on business and employment have been well documented¹⁴. It has been shown that this kind of sub-network increases the centre's capacities, too, since resources can be shared for example in form of joint events and training offers to companies and entrepreneurs, as well as in terms of press work, ads and publications. To stimulate the exchange between the Ruhr Metropolis's centres also in the western subregion, a similar sub-network will be established, comprising several cities of the mid/western Ruhr Metropolis, as well as meetings on the whole regional level.

Here, the Ruhr Metropolis can learn from the good practices of ArcLab and CEZAMAT. ArcLab is successfully focusing on providing a space where academic, enterprise and regional stakeholders can meet and develop ideas. CEZAMAT displays good practice on how to pursue a more targeted exchange with regional science and technology centres, demonstrating the huge role of academia in cooperation mechanics along the triple helix principle.

Activities:

- Roundtable "Transfer and Cooperation" – September 2021
- Roundtable "Transfer and Cooperation" – February 2022

The first step towards enhancing local and subregional cooperation as well as supporting centres in their specialisation efforts with complementing contacts to respective research institutions will be a roundtable event "Transfer" for actors from both innovation areas. Here, different cooperation models and strategies will be

¹⁴ https://tech5plus.de/download/Studie_tech5plus.pdf



developed participatory with all relevant actors. To extend the multilevel cooperation approach, additional innovation partners will be included in the event (like the NRW.Bank, NRW's state-owned development bank).

Furthermore, a second roundtable event "Cooperation" will be held. Here, the founding of a new subregional network will be initiated to utilise the greater flexibility of smaller networks. Also, this will support the centres to share resources and join for shared projects and activities, leading to a broader offering portfolio for entrepreneurs, founders, and companies, since also niche topics and events with only a few participants from each centre can be featured.

This sub-action will be very important for achieving more impact through the Smart Specialisation Strategy for the Ruhr Metropolis, the policy instrument addressed here: improving knowledge and technology transfer in the subregion and better using the cooperation potential within its quadruple helix is a key task to advance towards increasing regional competitiveness.

Sub-action 3: Developing Specialisation Sectors

To further develop the umbrella spectrum of high tech and innovation sectors in the Ruhr area, several actions are planned especially towards identifying and offering suitable topics for specialisation to innovation centres and municipalities. Good practices from other regions in the COHES3ION project show how innovation centres can be systematically supported in order to achieve a higher level of specialisation. The BIC Bizkaia can serve as an orientation here: it offers services for founders and start-ups in terms of mentoring and acceleration, including access to specialised technology centres and training activities. It covers the whole process from project recruitment, matching the centre's specialisation, monitoring and tutoring the incubated projects, acceleration and support.

Activities:

- Workshop on regional specialisation fields, e.g.: Hydrogen – August 2022

Municipalities and innovation centres for which the innovation topic hydrogen is relevant, i.e., which are already linked to necessary infrastructure, will have the chance to participate in a workshop and to learn about new innovation opportunities in this field.

Similar actions are intended for other regional specialisation fields, such as healthcare/life science and IT Services – AI & Cybersecurity.

The Smart Specialisation Strategy for the Ruhr Metropolis has defined six priority areas. Subregional innovation centres will be the pillars of the concrete implementation of this strategy. Therefore, an important



task of the Regional Action Plan will be to support innovation centres through this sub-action in developing new opportunities and using their potential in these specialisation areas.

Sub-action 4: Supporting Multilevel Governance and Internationalisation

Multilevel Governance (MLG) is a particularly relevant concept to BMR and its COHES3ION regional action plan. On the one hand, the NRW region and specifically the subregion Ruhr Metropolis is an area in continuous transformation from its heavy industry past to a melting pot for innovation with a complex sector mix, a multitude of emerging projects and new ideas as well as initiatives on various personal and professional levels. Therefore, a holistic regional innovation approach, a project-based way of collaboration between all relevant innovation and technology actors, and internationalisation also on local levels is of paramount importance for BMR as representant for the business and competitive interests of the 53 Ruhr municipalities. Hence, BMR itself as the umbrella organisation outside a specific hierarchy relies on MLG working principles, like a strong actor-centricity and inclusion of a vast number of actors, to drive progress and results efficiently in cooperation on different policy levels and with different partners of the region's innovation landscape like the versatile innovation centres and municipalities of the area.

The experience of the Södertelje Science Park can be particularly valuable here: it collaborates successfully with stakeholders from different societal sectors (academic, public and business) and different governance levels (national, regional, cross-regional and local city actors). This approach appears to be a very relevant parameter towards the development of an innovation ecosystem with specialised innovation centres becoming an important pillar of a regional smart specialisation strategy.

Besides this focus on the regional and local MLG levels, a supranational (EU) focus is, on the other hand, essential. This is because internationalisation of BMR's own innovation activities (as carried out within the COHES3ION project) as well as inducing internationalisation among the innovation centres, and thus among their clients, is one of the regional policy goals (the good practice of CEZAMAT with its incubators showing a good number of international projects is important here).

Activities:

- International onsite workshop "Smart Specialisation" – May/June 2022
- Innovation Forum – October/November 2022
- Field visits to other European regions – May until September 2022

After finishing the workshop process, accompanied by the study "Potentials of Specialisation and Development for Innovation Centres Ruhr", collaboration between municipalities, innovation centres, BMR and other relevant innovation actors (like financial institutions) will be extended.



The nationwide Innovation Forum will offer space to show the potential of Ruhr Metropolis' innovation centres within their ecosystem as well as future trends.

The international workshop "Smart Specialisation" in the Ruhr Metropolis will bring together specialised innovation centres from different European regions to learn from each other regarding smart specialisation of innovation centres and their cooperation with universities.

Additionally, subregional internationalisation in particular will be supported by international collaboration events, and internationalisation of BMR's innovation activities will be supported by field visits to other regions will allow for explicit learning from good practices regarding the role of innovation centres in smart specialisation strategies.

The Smart Specialisation Strategy for the Ruhr Metropolis, the policy instrument addressed here, aims to foster multi-level governance within the subregional innovation ecosystem. Therefore, this sub-action will be very important for implementing smart specialisation from the multi-level governance perspective with the innovation centres as the key elements to connect the different actors and levels.

Sub-action 5: Strengthening Communication

BMR has realised early that in order to maintain the Ruhr Metropolis as a sustainable industrial and service location and to guarantee the rapid transfer of innovations into the economy, it needs a functioning and visible innovation network with a clearly defined structure for action. To realise and maintain this against the above-described backdrop of a highly versatile and transformative innovation landscape with about 35 innovation centres, a regional and supra-regional visibility is needed that bundles the offers of the centres and communicates them to specific target groups. Consequently, a joint marketing and communication concept was formulated in a multi-stage design thinking process and as a prototype for a flexible implementation. A strong focus has been on the analysis of the target group (i.e., the innovation centres as well as their clients) and its needs.

So, with communication being the key for a successful innovation policy in such a multistakeholder environment, BMR is including now respective actions to strengthen the joint communication of the Ruhr area's centres as well as to promote easy communication paths between centres themselves.

Activities:

- Mini Campaign Joint Communication and Marketing Strategy – September 2021- January 2023
- Introduction of new Community Management Tools (e.g., Slack, Matchmaker.Ruhr) – September/November 2021



The Mini Campaign for the recently developed innovation centre's joint Communication and Marketing Strategy was launched September 2021. Content marketing and real hero stories from the innovation centres are used to present the diversity of the Ruhr region and the centres' tenants in a modern, young and appealing way. Focussing on the founders, small portraits of their start-ups are produced in which the excellent infrastructure and other added values of the centres are incorporated casually. The start-ups thus become corporate influencers for the innovation centres. In a one-week campaign, including a landing page for the centres, the stories are spread across several channels and advertise the offers of the various centres in parallel, thus demonstrating the special added value of networking. The introduction of new community management tools aims at facilitating communication between innovation centres as well as innovation centres and their start-ups.

This sub-action is helping advance the Smart Specialisation Strategy through strengthening the subregional network of innovation centres.

- **Stakeholders involved:**

- CEOs of Ruhr innovation centres: responsible for learning and implementing
- staff of Ruhr innovation centres: responsible for learning and implementing
- members of municipal economic development agencies: responsible for supporting the implementation
- universities' innovation transfer managers: partners for strengthening transfer between university and business (SMEs)
- external experts (i.a. NRW.Bank, regional development bank): deliver specific knowledge and strengthen the network through new contacts

- **Timeframe:**

Complete timeframe: September 2021 - January 2023

- Roundtable "Transfer and Cooperation" – September 2021
- Introduction of new Community Management Tools (e.g., Slack, Matchmaker.Ruhr) – September/November 2021
- Mini Campaign Joint Communication and Marketing Strategy – September 2021- January 2023
- Workshop I "Enhancing Specialisation Schemes" – November 2021
- Workshop II "Enhancing Specialisation Schemes" – February 2022
- Roundtable "Transfer and Cooperation" – February 2022
- International onsite workshop "Smart Specialisation" – May/June 2022
- Field visits to other European regions – May until September 2022
- Workshop on regional specialisation fields, e.g.: Hydrogen – August 2022
- Innovation Forum – October/November 2022



- **Costs:**

Total costs: approximately 115,000 €

- Workshop I “Enhancing Specialisation Schemes” – November 2021
- Workshop II “Enhancing Specialisation Schemes” – February 2022
Costs: approximately 7,000 €

- Roundtable “Transfer and Cooperation” – September 2021
- Roundtable “Transfer and Cooperation” – February 2022
Costs: approximately 1,500 €

- Workshop on regional specialisation fields, e.g.: Hydrogen – August 2022
Costs: approximately 1,500 €

- International onsite workshop “Smart Specialisation” – May/June 2022
- Innovation Forum – October/November 2022
- Field visits to other European regions – May until September 2022
Costs: approximately 54,000 €

- Mini Campaign Joint Communication and Marketing Strategy – September 2021-March 2023
- Introduction of new Community Management Tools (e.g., Slack, Matchmaker.Ruhr) – September/November 2021
Costs: approximately 51,000 €

- **Funding sources:**
Business Metropole Ruhr GmbH’s budget for project development

Date: 8 February 2022

Name of the organisation(s):

Business Metropole Ruhr GmbH

Signatures of the relevant organisation(s): _____