NORTH RHINE-WESTPHALIA
Europe’s heartbeat

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Situated at the heart of Europe and bordering both the Netherlands and Belgium, North Rhine-Westphalia is the most densely populated of Germany’s 16 federal states. How would you sum up the region’s importance from an economic standpoint?

In a nutshell, North Rhine-Westphalia is among the largest metropolitan and industrial regions in Europe, which is comparable in importance to the metropolitan areas of Greater London or Paris. It is the biggest state in Germany and, with 18 million inhabitants, our population is as large as that of the Netherlands. If the state was an independent country, it would be the seventh-largest industrial nation in Europe in terms of its gross domestic product.

North Rhine-Westphalia benefits from having an excellent geographical location in the middle of the continent: we are just two hours from Brussels, three from Paris and we are very close to the major European hubs of Rotterdam and Antwerp. The state is extremely well connected by fast trains, highways, waterways and airports. As a result, it is possible to travel between any of our main cities—which include our state capital Düsseldorf, Aachen, Bonn, Cologne, Dortmund and Essen—within an hour.

The most industrialized part of the state is Rhine-Ruhr, where 12 million people live. North-Rhine Westphalia hosts the largest European cluster of energy-intensive industries, which involves sectors like aluminum, chemical, cement, glass, paper and steel. However, North-Rhine Westphalia is also an excellent base for enterprises working in science and technology, and we are home to some of the world’s largest and most innovative companies in those sectors, such as Bayer, Henkel, E.ON and Evonik Industries, as well as hundreds of thousands small and medium-sized businesses (SMEs) and startups.

Overall, North-Rhine Westphalia boasts 690 hidden champions that are international frontrunners in their specialized fields. They are innovative, globally oriented and most of them are family owned companies. They, along with all businesses in the state, benefit from having access to highly qualified employees, as our universities are phenomenal and have a combined student body of over 770,000 students, with a substantial number of them studying engineering and natural sciences.

North-Rhine Westphalia is Germany’s top destination for foreign investors, with international enterprises having invested €162.5 billion in the state by the end of 2019. What are some reasons for this?

The state is a prime location for international enterprises and over 20,000 foreign companies have invested here, including very prestigious names like 3M, Johnson & Johnson, Boeing, BT, Ericsson, Ford, Huawei, Toyota, Mitsubishi and Vodafone. Recent newcomers include the U.S. hydrogen-technology specialist Plug Power, Indian information-technology giant Wipro and the pharmaceutical company Gan & Lee from China. International companies employ more than 1.3 million people in the state. Investors have chosen our state because of our unique strengths and technologies, skilled workforce, extraordinary infrastructure and we offer easy access to the European market. North Rhine-Westphalia is a hub for European-wide business as well as for world-class logistics.

In fact, we house the world’s biggest research center for logistics in Dortmund, which is one of the reasons why the iconic Levi’s brand chose our state as its European distribution center.

North-Rhine Westphalia has also attracted significant numbers of investors because we are specialists in organizing value chains and we are at the forefront of the fundamental transformation of these chains through digitalization. We have a strong technology network and invest substantially in competence centers and initiatives that enable our businesses to really benefit from new digital opportunities.

Today, many established companies and startups in the state, supported by our universities and research labs, are using factory 4.0 technologies, IO/IoT, blockchain, neuroscience, quantum computing and artificial intelligence to transition our energy-intensive industries and SMEs to be at the cutting-edge of the new digital world. In addition, North-Rhine Westphalia is an ideal and easy place for businesses to scale up technologies and innovations for export to other markets in Europe and worldwide.

How focused is the state on decarbonization and what is its strategy for reaching net zero in its energy sector?

We have one of the most ambitious climate goals in Europe. In 2019, we recorded the highest decrease in carbon dioxide (CO2) emissions of any industrial region on the continent. Between 1990 and 2020, we have reduced our CO2 emissions by 45 percent in total—which means that we have lowered our output by more than the Netherlands and Belgium combined. However, last summer, we revised our targets and announced that the state will become climate neutral by 2045, which is a huge leap forward.

The German government is also investing heavily in a national battery research plant in Münster, a city located in the north of our state. Already, we have collaborations taking place there between scientists and private-sector players in the chemical, aluminium, automotive and other industries that have a strong established presence here. Hydrogen, batteries, the circular economy and the implementation of climate-neutral processes are the primary drivers of our future climate-neutral industries.

We are carrying out a lot of research in the fields of next-generation mobility, housing, and industries, and directly transferring that knowledge to new companies or to transform existing businesses. In the Rhineland, for instance, we are transforming the largest active coal-mining area in Europe with the aim of making it the most successful economic transformation region on the continent. The transition project has been running for the last two years, we have already invested more than €300 million into it and we intend to have assigned more than €4 billion to specific projects in the region by the end of this year. This will also open up new opportunities for international companies that would like to participate in the area’s transition process.

Another exciting development is that we are seeing many new green investments from international businesses, especially from the U.S. A key illustration is Plug Power, which has opened its European headquarters at Duisburg harbor, the world’s largest inland port that handles almost 110 million metric tons of freight a year. That is indic-
is not only about decarbonization, as some industries will have to take a new approach to carbon management—because climate neutrality is not just an issue of how attractive our state is as a place where new technologies can be developed, implemented and new markets can be opened. What other initiatives has the region taken toward the decarbonization of its energy-intensive industries? We support companies to convert their processes to hydrogen—for instance, thyssenkrupp, the global leader in industrial engineering, is based in our region and is on its way to producing green steel with hydrogen. Four years ago, we also started our IN4climate.NRW initiative, a unique, innovative working platform through which large industrial companies, scientists and the government are collaborating together on solutions for the climate-neutral transformation of industry. Essential, practical solutions are examined and evaluated in key areas that include hydrogen, process heat, the circular and carbon economies, as well as supply and infrastructure. In addition, the state government is supporting a large number of industrial transformation projects as part of the initiative, such as testing climate-neutral processes for the manufacture of high-quality glass products, the use of hydrogen in the steel industry and investigations into climate-neutral and flexible aluminium production. We are also collaborating with energy giants like BP and Shell on a new approach to carbon management—because climate neutrality is not only about decarbonization, as some industries will have to use carbon to an extent in the future, possibly combined with other elements such as hydrogen or synthetic materials. As well as powerful industrial supply chains, there is a great deal of interconnectivity between industries in North Rhine-Westphalia that is proving to be a strength in the new world of climate neutrality. We are creating a network whereby our industries can use each other's resources: we all know we need new materials to substitute fossil fuels and the state has a growing biotechnology investigating these new resources.

To give you an idea of what industrial transformation looks like in North Rhine-Westphalia, Siemens Energy, which is located in the Ruhr area, is an excellent case study. In the past, it produced technologies for gas, coal and nuclear power plants. Now, it produces electrolyzers and other technologies for the climate-neutral hydrogen world. Another of our companies is MAN, which has manufactured compressors for natural gas that have been used over decades in the industries of the past. It is now making compressors to turn hydrogen gas into a liquid or to separate out CO2 in the cement-manufacturing process. In short, our machinery industries are transforming into enablers for our energy-intensive industries, which are in turn transforming themselves. It is a big challenge, but also a huge opportunity.

Can you tell us about the importance of business tourism and the meetings, incentives, conferences and exhibitions industry for the region? With four major exhibition sites in Cologne, Düsseldorf, Essen and Darmstadt, North Rhine-Westphalia is one of the world’s largest and most important trade fair centers. In 2019, we had around 50 million overnight visitor stays, among which were many business tourists. However, visitors to our numerous trade fairs as well as leisure tourists can also enjoy a multitude of cultural activities, opera houses and museums in our bustling cities that are surrounded by the fantastic and incredibly beautiful landscapes of our more hidden regions. These offer great opportunities for activities such as skiing, water sports, cycling and hiking.

North Rhine-Westphalia in numbers

67 universities, plus over 110 technology centers and research institutes

In excess of 770,000 students study in the state every year

A highly skilled workforce of around 9.6m people

2 major airports, expansive expressway and rail networks, plus 120 inland ports

Foreign direct investment stood at €162.5bn at the end of 2019

More than 20,000 companies have invested in the state

“Investors have chosen our state because of our unique strengths and technologies, skilled workforce, extraordinary infrastructure and we offer easy access to the European market.” Andreas Pinkwart, State Minister of Economic Affairs, Innovation, Digitalization and Energy

Aside from large investors, how are appealing is the region for international entrepreneurs and startups? The urban part of North Rhine-Westphalia extends from the Ruhr and Düsseldorf to Cologne. It is a metropolitan area that is not only an attractive city break destination, it is also a great place to live, work and set up a new business in. Here you have the infrastructure and, I believe, even more possibilities than you will find in places like London or Paris. We want to be among the ten most attractive regions for startups and creative people in Europe. Those that chose to come here will find everything they need within a small radius: an internationalized society, outstanding facilities, the rich industrial mix, a remarkably highly-ranked cultural scene and a myriad of opportunities.

Germany’s top investment destination

Felix Neugart, CEO, NRW.Global Business, reveals why the state is an ideal base for investors in future-oriented technologies

NRW.Global Business is the state of North Rhine-Westphalia’s trade and investment agency. Could you summarize the agency’s activities?

At NRW.Global Business, we offer tailor-made services for local companies that are looking to develop growth markets abroad and we provide end-to-end support for international investment projects in North Rhine-Westphalia. We have quite a substantial international footprint, with 17 offices in all the major business locations across the world. Our activities tend to be focused on future-oriented technologies that are key to the state’s ongoing economic development. NRW.Global Business is already very strong. These include hydrogen as an energy source, electric mobility, digital products, with cybersecurity at the fore, and industry 4.0. How and why does North Rhine-Westphalia stand out as a future-oriented business and investment location? We are not only Germany’s largest state in terms of population, but we are also significantly larger than the others in terms of gross domestic product, contributing about 21 percent of the country’s overall GDP and 4.5 percent of the European Union’s GDP. We also have a very attractive combination of types of business in our region. On the one hand, we were the cradle of the German industrial revolution in the 19th century and are still the country’s industrial heartland, so we have many large, globally prominent companies in industry, energy and other sectors. In fact, 19 of the 50 highest-grossing German enterprises are based in North Rhine-Westphalia. With nearly 4.9 million small to medium-sized businesses, with many of the most interesting ones being our so-called hidden champions. They may not be well known by the public, but they are extremely active internationally and are market leaders in their niche areas. Almost one-third of all the hidden champions in Germany are located in our state. Last but not least, we have a very large number of small, innovative startups, many of which focus on digital services and have grown impressively in the last couple of years. One-third of all German revenues in information, communication and digital technologies are generated in North Rhine-Westphalia, which is a very impressive statistic. One of the secrets of the global success of the German model is that many of these companies are actually not located in our bigger cities but are based in clusters in our rural regions. For instance, in Eastern Westphalia there is a cluster of 200 companies called “it’s OWL,” that is focused on industry 4.0 technologies. North Rhine-Westphalia also has the densest research and development network in Europe. We have 67 universities—that is more than Île-de-France or Greater London—and more than 110 technology centers and non-university research institutes, including various standout institutions like Forschungszentrum Jülich, one of Europe’s most important interdisciplinary research centers, the German Aerospace Center in Cologne; 14 Fraunhofer Institutes, which make up an internationally renowned network of applied science institutes; as well as 10 institutes of the Leibniz Association that are concerned with general research topics.

NRW.Global Business aims to work closely with the research and development institutions in North Rhine-Westphalia, including the ones that are dedicated to that some of our focus areas. For instance, we have universities in Bonn and Bochum that specialize in cybersecurity, so there is a new center for hydrogen being established in Duisburg and there is also a new research production facility for electric-mobility battery technology in the city of Münster. There are numerous initiatives in North Rhine-Westphalia which promote collaboration between the private sector, researchers and other stakeholders. For instance, there is an initiative called Circular Valley, a platform that employs the principles of the circular economy and that combines the efforts of established companies, startups, scientists and society.

An increasingly important factor for international companies is the highly qualified talent pool available in the state, which is a huge advantage that we offer to investors that are desperately looking for talent and skilled employees. There is a density of 43 students per thousand inhabitants in North Rhine-Westphalia and we have a total workforce that amounts to almost 10 million employees. In addition, that talent pool is rapidly expanding in both our workforce and our broader university landscape. Finally, of course, we are in an extremely attractive location at the heart of Western Europe and in one of the continent’s most densely populated and richest regions—with a radius of 500 kilometers of our capital Düsseldorf, you have 160 million consumers, which represents almost a third of the total European Union population, in the very

Felix Neugart,
CEO, NRW.Global Business

Minister is the center of e-battery research
addition to the well over 20 percent of Germany’s purchasing power which is concentrated in the state. There is no other place in Europe from which so many people with such a high purchasing power can be reached within such a short distance.

Our strategically important location is also the reason we have an extremely highly developed logistics industry and that one-quarter of all the logistics companies in Germany are in North Rhine-Westphalia. Just as our campaign slogan “Europe’s Heartbeat” claims, you can reach all of the continent very conveniently from here and, in addition, we embody many of the excellent qualities that Europe as an investment destination offers.

North Rhine-Westphalia is known as one of the most popular investment locations for international companies in Europe. How robust is investment into North Rhine-Westphalia at the moment?

We are the largest investment location in Germany, with more than 20,000 international companies currently active in North Rhine-Westphalia. Inward investment into the state has been relatively crisis proof—in 2020, in the middle of a pandemic, we increased our share of foreign investments in comparison to other regions in Germany and in Western Europe. Although there was a slight dip relative to previous years, it was much smaller than other places experienced. However in 2021, North Rhine-Westphalia has achieved a clear turnaround with a growth rate of 12 percent compared to the previous year. We welcomed 458 new settlement and expansion projects that created an estimated 14,000 new jobs, which is a new record. Our state has actually recovered more strongly than the average German and global growth rates.

North Rhine-Westphalia is at the forefront of the development of hydrogen technologies, which the government believes are key elements for achieving its climate-neutrality goals for the state’s energy, industrial, and transportation sectors. Significant investment is currently being pumped into hydrogen by the public sector and the state is home to a wide variety of component and system manufacturers that are working in the field of hydrogen technologies.

Outside of hydrogen, could you name some of the most important future-oriented investments that have been made into North Rhine-Westphalia in the last few years?

One particularly interesting example of a new investment relates to electromobility. Marelli, a Japanese-Italian company, has established a production plant in Cologne, very close to an existing large Ford facility, that is concentrating primarily on the transition from fossil-fuel motors to electric motors. North Rhine-Westphalia is home to the largest number of companies that supply the automotive industry in Germany, which makes it an ideal base for enterprises involved in electric mobility. Then we also have Zoom’s German headquarters here in Cologne—the list just goes on and on.

Over 60 technology and business incubation centers have been established in the state to promote innovative startups, spin-offs and the settlement of high-tech companies. How dynamic is North Rhine-Westphalia’s entrepreneurial ecosystem overall and can you describe a few of the support mechanisms that are empowering the development and growth of startups in the region?

We have a higher number of startups than most states in Germany with around 20 percent of the country’s total being based in our region and, even during the pandemic, the number has been growing. Financing for entrepreneurs in North Rhine-Westphalia is also rising: in 2021, capital for startups was three times as much as it had been in 2020. One example of an area in which our young businesses are doing quite well is e-commerce, with the number of startups in this sub-sector increasing from 39 in 2019 to 64 in 2020.

Startup growth in North Rhine-Westphalia is supported by various state government initiatives. For example, the Excellence Start-up Center NRW program has been established at universities to assist emerging companies. Essentially, these are centers of excellence designed to help young innovative people from universities to set up their own businesses. Via the centers, they can access support mechanisms such as mentorships, which are special programs geared to financially supporting startup founders through subsidies for a certain period of time.

Another program is called Scale-up.NRW and that focuses, not on startups and seed-phase businesses, but on companies which have already taken their first steps or collected their first round of capital and are now looking to expand their businesses internationally.

Additionally, we have a substantial wider ecosystem for entrepreneurs in North Rhine-Westphalia that includes a number of Digital Hubs in different parts of the state. These are incubators where startups can find a support network, potential customers and highly experienced mentors. This system is also supported by the state government, as well as by institutions that are focused directly on startups.

Another example of the emerging startup ecosystem is the new Global Entrepreneurship Centre in the city of Meersburg, close to Düsseldorf, which has taken an interesting approach to supporting entrepreneurs with sustainable technologies. On the one hand, it is financing startups from within the region, but on the other, it is also looking to attract international startups.

NRW.Global Business operates subsidiaries in Japan and in the U.S., plus offices in China, the U.K., India, Israel, South Korea, Poland and Turkey. Through these, it provides potential inward investors with support and advice at every stage of their investment journeys and it also facilitates growth and networking opportunities for North Rhine-Westphalian companies. Last year, NRW.Global Business expanded its network by opening an additional office in Atlanta. What potential does the agency see for building new international partnerships in the U.S. or other global regions?

There are certain regions on our radar that we think are extremely attractive. Atlanta in the U.S. is a very interesting partner, both as a source of investment for North Rhine-Westphalia, but also as a target location for our domestic companies. NRW.Global Business already had offices in Chicago and in Silicon Valley, but we want to increase our footprint in the southern states of the U.S. as well.

In addition, we have plans to intensify our activities in India, where we recently opened a new office in Bangalore. It is a huge country with a growing number of middle-income consumers and it is steadily becoming a source of investment for North Rhine-Westphalia. Large information technology companies such as Wipro and Infosys have already invested in our state and we want to grow our partnerships there. In addition, we will increase our activities in SouthEast Asia which is a very attractive region in terms of market potential and changing global supply chains.

"Hydrogen is already important to our region as a fuel and as a technology for transporting and storing energy, but can we reach all of the continent very conveniently from here and, in addition, we embody many of the excellent qualities that Europe as an investment destination offers."

Felix Neugart, CEO, NRW.Global Business

The region is strongly connected to smart industry. The Middle East and North Africa (MENA) is also an interesting market for us, especially in terms of hydrogen and potentially finding partners for German businesses’ needs. Finally, we are looking at sub-Saharan Africa, another area where we have been limited in our activities in the past. We believe there is potential there and are developing an approach to address that.

Whilst we are aiming to expand our international footprint and network of partners, that does not mean that we intend to reduce our activities in places where we are already established. What we will continue to highlight is that North Rhine-Westphalia is a highly attractive investment location that is focused on the future-oriented technologies that are the keys to success in facing the global challenges of sustainability and digitalization.

NRW.Global Business will also continue to develop targeted instruments to promote the state and our companies. Investment and export promotion do not need to clash—there is substantial overlap, which can be exploited for everyone’s benefit, and North Rhine-Westphalia has a lot to offer to both potential investors as well as to export-oriented companies.

"One-third of all German revenues in information, communication and digital technologies are generated in North Rhine-Westphalia."

Felix Neugart, CEO, NRW.Global Business
Perfect blend of urban culture and rural nature

North Rhine-Westphalia is lauded as one of the most exciting and sustainable tourist destinations in the world.

At the heart of North Rhine-Westphalia is an area the locals call Urbana, a banana-shaped, polycentric urban space that extends from Cologne and Düsseldorf in the south to the Ruhr area in the north, which has become a hub for creative industries and digital startups, says Döll-König. “A wide variety of dynamic, multicultural, open-minded and creative people live, work and spend their leisure time in Urbana. There are, for instance, lots of artists, music makers and fashion developers that have created their own scenes and their own district quarters in every city in the area—it’s those people who are responsible for the extraordinary and striking atmosphere that visitors can experience and be a part of.”

Thrillingly creative and diverse cities

Each city in Urbana and, indeed, the state as a whole, has its own distinct environment and allure. At the top of many tourists’ must-visit lists is Cologne, North Rhine-Westphalia’s most populous metropolis that is considered to be among the country’s most beautiful cities and which has a history going back over 2,000 years, when it was known as the Roman city of Colonia Claudia Ara Agrippinensium. It is still a magnet for foreign visitors and its preeminent landmark, Cologne Cathedral, is Germany’s leading tourist attraction, receiving 6 million visitors in an average year.

Beneath the cathedral’s huge Gothic spires lies a creative, friendly city with many neighborhoods to explore, riverbanks to stroll, 13 of North Rhine-Westphalia’s 54 Michelin-starred restaurants to savor, as well as cutting-edge museums and concerts, says Döll-König. “North Rhine-Westphalia is a perfect destination for a short break or a longer family vacation.”

Half-timbered houses in Freudenberg Siegen-Wittgenstein

Within the last few decades, many of the industrial facilities that were so crucial to North Rhine-Westphalia’s economy in the past have been reimagined by top architects, such as Frank Gehry and Rem Koolhaas, who have converted them into vital spaces for today and the future. An outstanding illustration of this is the immense Zeche Zollverein complex in the Ruhr. Until 1986, Zeche Zollverein was the largest coal mine in the world and an icon of industrial architecture, states Döll-König. “Now, it’s among the most important centers for design, art, culture and creative industries that also hosts large-scale international events and festivals. It’s a vibrant mix of our industrial heritage and the contemporary world.”

Toward the edges and outside the Urbana region are other engaging metropolises to uncover. These include Bonn, a picturesque baroque city on the banks of the River Rhine, which was once the state capital and was the birthplace of Beethoven. Münster, on the other hand, is a laid-back student city that has been hailed as “The World’s Most Liveable City” by the United Nations Environment Programme in the past, while tranquil and historic Aachen provided the setting for the imperial court of the first Holy Roman Emperor, Charlemagne, who is buried in its stunning cathedral.

Contemporary culture is thriving in North Rhine-Westphalia

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Explore North Rhine-Westphalia (NRW). Germany's economic powerhouse! We embrace game changers in emerging technologies such as smart industry, smart cities, new mobility and biotech. Welcome to NRW!

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