



# General Informationen

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# At a glance – the location of Bochum

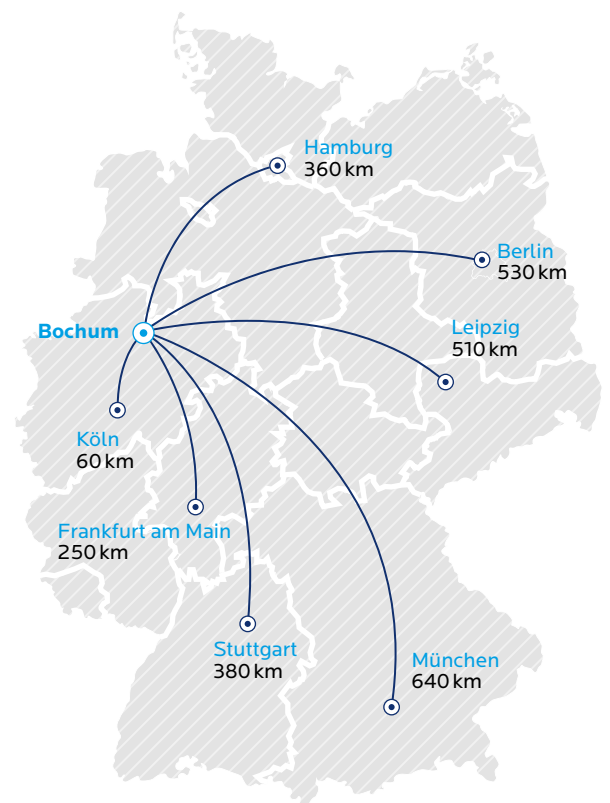
## Bochum at the heart of the Ruhr Region

More than 15,000 companies already benefit from the location advantages of the City of Bochum. Many of them operate in the service sector and in innovative technology fields. After all, this former coal and steel town has undergone a fundamental transformation as part of structural change. Bochum is a central location for business and industry within the Ruhr Region, where medium-sized companies have become drivers for economic activity and progress.

Bochum is at the geographical centre of North Rhine-Westphalia. Its approximately 18 million inhabitants produce a quarter of the German GDP. Private consumption in North Rhine-Westphalia amounts to roughly EUR 220 billion per year. This means that North Rhine-Westphalia is not only the industrial heart of Germany, but also a highly productive marketplace at the heart of Europe.

## Seven good reasons for Bochum

- Bochum is at the centre of the Ruhr Region – this means: large markets, highly productive networks, fast connections.
- Large corporations and numerous small and medium-sized companies are situated in Bochum – this means: favourable conditions for production, services, business and trade.
- The Ruhr-Universität Bochum and eight further Universities of Applied Sciences reinforce the companies' research and development – this means: market success through innovation.
- More than 56,000 students study in Bochum – this means: qualified specialists and management staff.
- Industrial real estate is available at favourable conditions – this means: room for corporate initiatives and growth.
- Green spaces account for forty percent of the city's overall area – this means: room for a wide range of outdoor recreation and leisure activities.
- Bochum's lively cultural scene attracts large numbers of visitors – this means: diversified experience and inspiring entertainment.



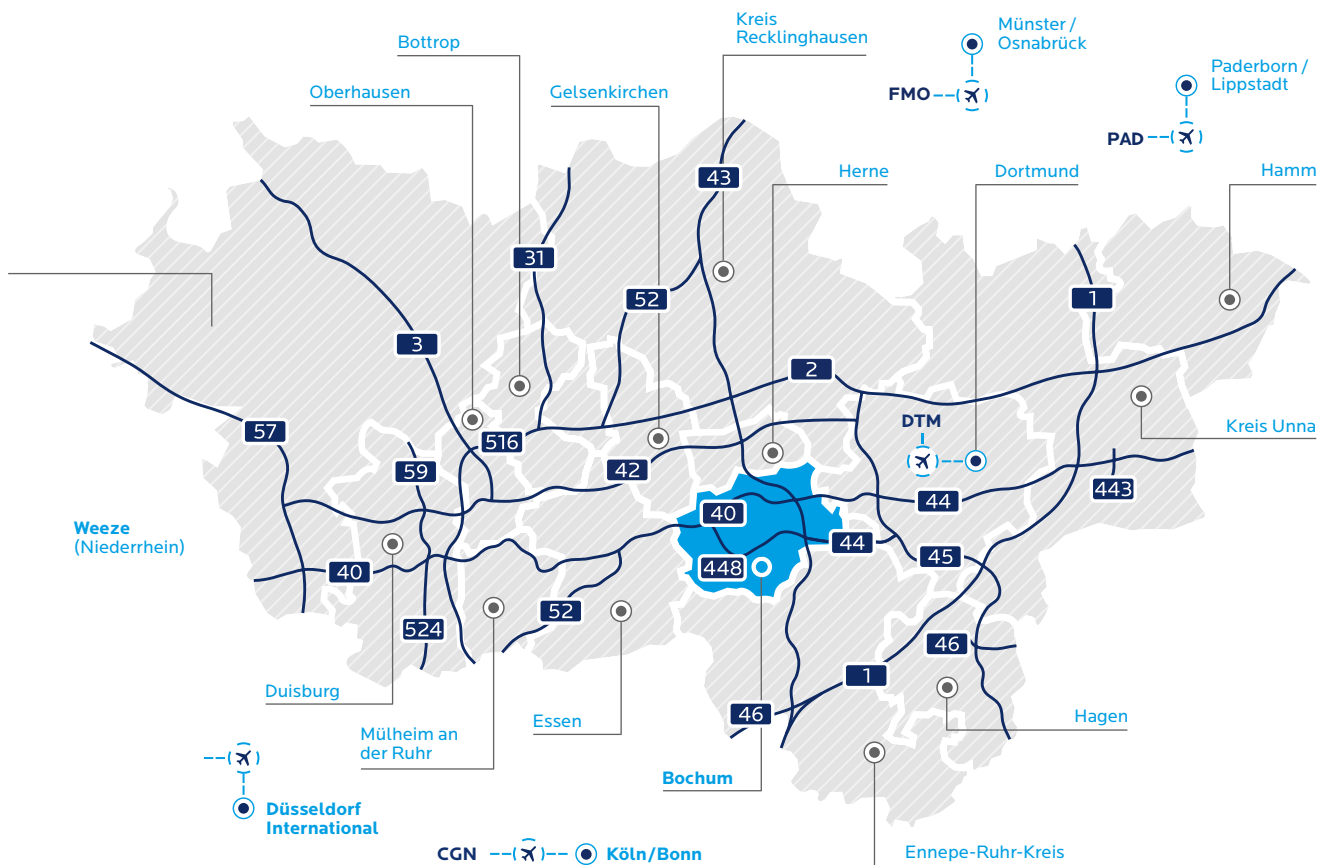
Bochum lies at the centre of the densest and most proficient transportation network in Germany and is closely linked with the cities of North Rhine-Westphalia, Germany and Europe. Düsseldorf International Airport is nearby, connecting Bochum to the global air transportation network. Local companies in the manufacturing industry also reflect the advantages of the city with their large proportion of exports: their export share is more than 50 per cent. So, developing new international markets means excellent expansion prospects are opened up for companies in Bochum.

It is characteristic for the Ruhr area, this interlinked economic region of global importance, that the individual cities are all right next door to each other and that there are hardly any real boundaries between them. This is exactly what makes the region attractive as everything is close together and the strengths of one town balance out any weaknesses its neighbours might have. This sees Bochum as an exceptionally strong magnet within the region. As the City has so much to offer, Bochum's shopping centres

attract large numbers of people from the neighbouring towns and from much further afield as well. This binds purchasing power to the City considerably and also secures a high customer frequency for the retail industry and for service providers.

Bochum offers market potential for companies from all sectors, as it is not only the approximately 371,000 inhabitants who need products and services. Every third inhabitant in the European Union lives within a radius of 500 kilometres of the Ruhr metropolis. This is the best starting point for new products and services and opens up excellent possibilities for lucrative business deals in the east and west, north and south. The service sector, especially, has developed positively. Approximately 60 per cent of Bochum's working population are employed in this sector today. Moreover, innovative technologies excel and achieve above average growth. Main focuses are to be found in the healthcare sector, mechanical engineering, automotive, information technology as well as in the creative industry.

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## General Information

### Statistical Details

|  |                       |
|--|-----------------------|
| <b>Inhabitants</b>                           | 371 000               |
| <b>Population density</b>                    | 2 552/km <sup>2</sup> |
| <b>Employees</b>                             | 126 565               |
| <b>Unemployment rate</b>                     | 9.7 %                 |
| <b>Net commuter flow</b>                     | > 6 600               |
| <b>Proportion of highly qualified people</b> | > 12.0 %              |
| <b>Purchasing power overall rate (‰)</b>     | 4.194                 |
| <b>Purchasing power rate index</b>           | 94.5                  |

### Tax rates in Bochum 2017

|                             |  |
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# The Healthcare Sector in Bochum

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# Growing from strength to strength

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## **Bochum – the location for healthcare**

Renowned research institutions at the Ruhr-University Bochum, the new Health Campus Bochum and a dense company network form the basis of the Health Campus Agency Bochum. The Health Campus Agency Bochum takes care of strengthening and enhancing the development of Bochum and the region as a location for healthcare. As an incubator for innovative projects it aims to attract new companies to the city, to support spin-offs and to generate additional value-added for existing companies in the forward-looking healthcare market. In this way it supports the development of a region where the ultimate ambition is healthy living.

## **The healthcare sector and medical technology**

Bochum plays a leading role in the Ruhr metropolis in the medical technology and healthcare sector. Bochum's healthcare sector includes clinics, doctors' practices, care homes, emergency medical services and service providers such as laboratories, healthcare supplies, health insurance companies, healthcare organisations as well as companies which develop, manufacture and market medical equipment or healthcare products. More than 25,000 employees subject to social insurance contributions work in Bochum's healthcare sector, which represents 19.9 % of all such employees. The healthcare sector is one of the major driving forces behind Bochum's economic development, as this proportion of all employees is well above the national average (16.8 %).

## **Technology transfer platforms**

From research to product: technology transfer platforms in

Bochum ensure that scientific discoveries flow quickly into innovative products. Technology projects connected via these platforms enjoy the ideal conditions for growth.

## **Current projects and plans:**

- S.N.A.P. - Sensor-based Neuronal Adaptive Prosthetics
- Industry in Clinic Platform
- Train2Hear
- MMIRS - MenMachineInterfaceRobotSuit
- Westdeutscher Teleradiologieverbund (west German compound for teleradiology)
- ProDi (Protein Unit Ruhr Within Europe - PURE)

## **Health Campus Bochum**

The Health Campus in Bochum is unique, combining public healthcare administration and research institutions with space for innovative companies in the healthcare sector. Combining this with the excellent scientific and practically-oriented network of the Ruhr University Bochum and a further seven universities in Bochum, this concentration facilitates close cooperations, knowledge transfer and dynamic innovations – a perfect symbiosis with patients' needs at heart.

The Healthcare Campus NRW is being developed in the northern part of the Bochum Healthcare Campus site by the State of North-Rhine Westphalia. This sees the state government sending out another clear signal that North Rhine-Westphalia is going to continue to be a strong state for healthcare for the long term. The Healthcare Campus

NRW is anchored locally in Bochum, but its activities are oriented to the whole of the state of NRW. In a culture of partnership and with joint projects the Healthcare Campus pays an important contribution towards filling the gap and making connections between supply processes, professional groups and between science, suppliers and the healthcare business. This strengthens NRW during the ongoing demographic change as a state providing high quality, needs-oriented healthcare for all its citizens. The institutes setting up here include the State Centre for Health (LZG.NRW), the State Institute for Work Structuring (LIA.NRW), the Epidemiological Cancer Register NRW, the Healthcare University (hsg) and the Protein Research Centre ProDi.

The southern part of the Healthcare Campus Bochum provides round 55,000 m<sup>2</sup> of development space. Healthcare industry companies are setting up here to benefit from the synergies in this outstanding environment. The area has been developed with funding from the State of North Rhine-Westphalia and the European Union and represents a significant component for the continuing development of the Healthcare Campus.

The Health Campus Bochum is deeply embedded in the academic landscape here, directly next to the Ruhr-Universität Bochum (RUB) campus and with even more companies established in the BioMedical Centre Bochum and the Technology Centre Ruhr nearby. The Centre for Clinical Research and the RUB's medical faculties are right next door, too. Bundling so many different types of medical and scientific skills here guarantees good communications and high levels of efficiency.

### **BioMedical Centre Bochum**

Approximately 5,200 m<sup>2</sup> of office and laboratory space is available for start-ups and young companies in the field of life sciences and in the healthcare sector in the newly established BioMedical Centre Bochum. This is to be found on the campus of the Ruhr-University Bochum and is available for the development and production of new products, technologies and services. The BioMedical Science Centre Bochum helps to put the local universities' and clinics' research results into practice.

Highly flexible, modern furnished offices, laboratories and workshops are to be found on five floors in rooms varying in size from 15 m<sup>2</sup> to 50 m<sup>2</sup>. Most laboratories have standard laboratory appliances (S1-Standard) at their disposal. It is possible to set up clean rooms and laboratories with high safety clearance. Furthermore, resident companies have the possibility of hiring centre-owned equipment, which is provided by the BioMedical Centre Bochum. The centre also offers small conference rooms for trainings, seminars and workshops.

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## The healthcare sector at a glance

### Statistical Details

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|------------------------------|-----------------|
| <b>Employees</b>             | > 19 000        |
| <b>Total number of staff</b> | > 25 000        |
| <b>Doctors' practices</b>    | > 800           |
| <b>Pharmacists</b>           | > 110           |
| <b>Hospitals</b>             | 8 (at 11 sites) |
| <b>Students of medicine</b>  | > 2 000         |

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Ein Projekt der

 **BOCHUM**  
 Wirtschaftsentwicklung





# Creative Industries in Bochum

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# The creative industries city

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Creative industries generate employment in Bochum: the sector has grown substantially in the last few years. Today there are around 7,800 men and women working in the creative industries – as many as in the local construction industry. And the employment rate continues to grow faster than average. With its creative service providers, artists and cultural community, Bochum is one of the creative centres in the Ruhr Metropolis.

## **The creative industries as an economic factor**

What some people in the region thought was just a passing side effect of the European Capital of Culture Year 2010 is actually a flourishing economic sector. In Bochum over 870 companies generate considerable turnover and jobs. The strongest subsectors are software/games, film and TV production, design firms, journalists and news agencies and the performing and visual arts. Bochum's creative industry also gives urgently needed impetus to the development of products and services in the classic production sectors.

## **At centre stage – the Viktoria Quarter**

Bochum's creative scene is a colourful one. Its focal point is the Viktoria Quarter in the town centre. The „Bermuda3Angle“ at its vibrant heart is home to a cluster of more than 60 pubs, clubs and restaurants. Numerous agencies and editorial offices have set up their offices there. Another creative hotspot has emerged in the bordering Ehrenfeld district around the renowned Bochum Schauspielhaus theatre with a variety of creative services.

Further locations for the creative industries are taking root. The new "Musikzentrum Bochum" with its multifunctional building, which includes the converted Marienkirche, is now even more than an architectural hub for the Viktoria Quarter. The area around the City-Tor Süd is being developed into an exciting new location for the creative industries. With a wide range of projects underway the area is destined to become a new centre for performing arts, music and literature.

## **Definition of the creative industry**

**Commercially oriented companies which are involved in the production, distribution and/or publication of cultural/creative products and services. According to the typical industry differentiation this includes design agencies, architects' offices, book retailers, supplying music and works of art, journalists/news agencies, performing/visual arts, literature and music, film industry/TV production, publishing industry/recording industry, broadcasting/TV companies, museum shops/art exhibitions, software/games and the advertising market.**

### **Creative entrepreneurs**

Bochum also boasts a special highlight for creative entrepreneurs in the form of the Kulturwerk Lothringen: two historical colliery buildings have been re-developed and converted to produce premises with architectural flair for young companies from all fields of the creative industries.

The innovative „BizSlam“ format encourages people to set up their own companies: young creative people present authentic reports about how they got started - and all with a strong learning effect.

### **Creative education**

In Bochum the foundations for working successfully are also provided in education. To name but a few:

- University of Applied Science - Department of Architecture
- Folkwang University of Arts - Courses in acting and directing
- RRUhr-Universität Bochum - Media science
- SAE Institute

### **Creative cooperation in the Ruhr Metropolis**

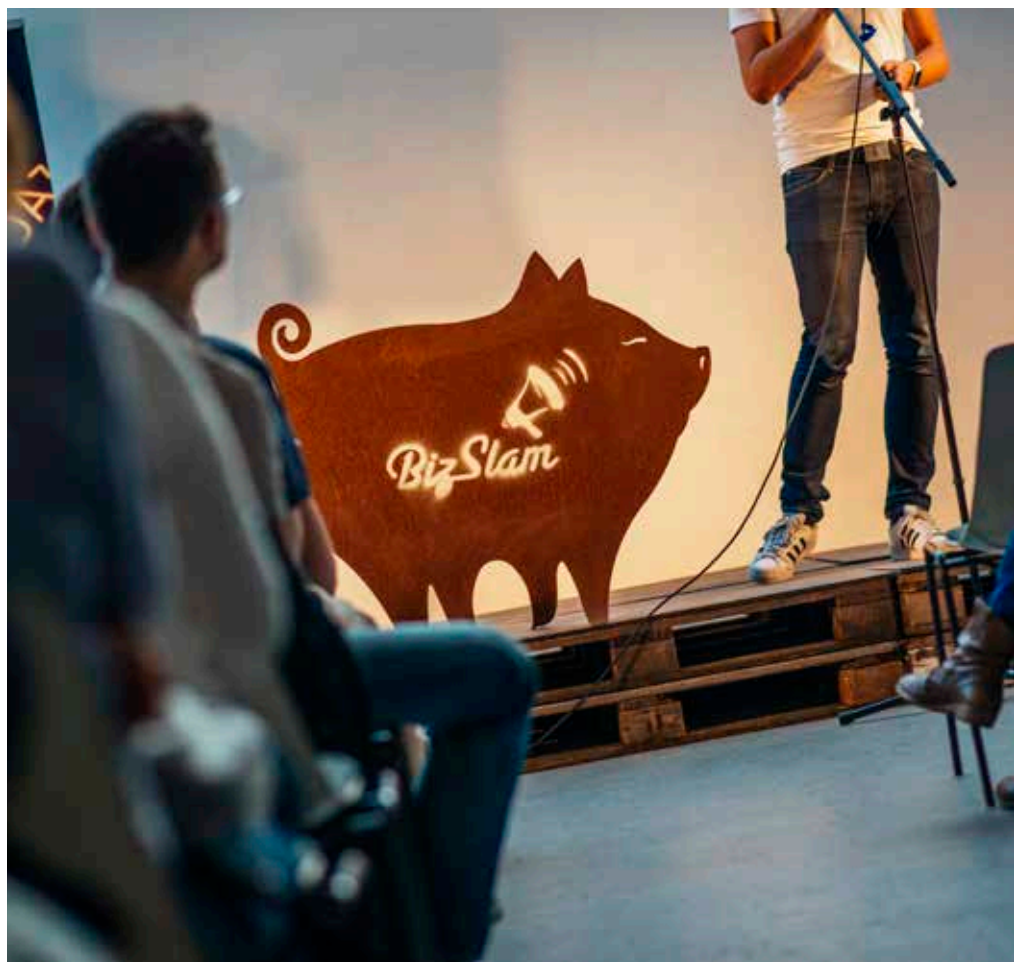
Regional cooperation plays a major role for Bochum's creative industries, its companies having established business relationships beyond the town's borders. A new type of event format, the CREATIVE STAGE, offers the region's protagonists a platform on which to present their projects.

This network series which was started at the end of 2009 has now grown to offer 40 events attracting more than 4,800 visitors and is now well-established in the scene here and in many cities throughout the region.

This fresh and unusual form of network has long since become well established in Bochum as well. In cooperation with the Federal Competence Centre for Culture and Creative Industries stakeholders in the creative industries have presented their projects from different fields such as design, film and photography, online marketing, social media, architecture, fashion, music and theatre at a range of different venues.

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## The Creative industry at a glance

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|                  |                 |
|------------------|-----------------|
| <b>Employees</b> | 7 800           |
| <b>Companies</b> | 870             |
| <b>Turnover</b>  | 336,571,000,- € |

\* Study of Wirtschaftsförderung metropol Ruhr GmbH, 02/2010

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# Production Industry in Bochum

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# At the cutting edge

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Thanks to a combination of specialist technical knowledge, innovative ideas and decades of experience Bochum has established itself as a hub of highly successful industrial SMEs which, despite the pressure of increasing global competition, have cemented their place as front runners on the international scene. In the machine and plant engineering sector, in particular, Bochum's expertise is in strong demand: from mining and drilling technology (Eickhoff, Zipp Industries), electric motors (Breuer Motors, Vogel-sang), industrial plant construction (ETABO) to specialist clutches (Mönninghoff, Reich Couplings) – our companies are trailblazers and market leaders in their respective fields. Bochum also has a history as the home of numerous successful metalworking companies: ThyssenKrupp Steel, Stahlwerke Bochum, Eisenhütte Heintzmann and Reese hardening technology – steel and other metal products are processed to the highest quality here in Bochum.

## **Bochum is a Future Workshop**

While these core competencies have evolved over generations, many new fields of innovation are emerging in Bochum: for example, it's a matter of pride for us that over 200 electrical engineers are involved in the development of electric vehicle propulsion, with companies like Scienlab, Volta Vision or Auktora working from Bochum at the forefront of electric mobility.

The future of mobility is not only electric, but also interconnected. Car connectivity is one central aspect on which today's automotive industry is focussing its development efforts – in Bochum it is driven by companies such as VW Infotainment or Novero, who together employ more than 400 developers.

No less groundbreaking and with wide-ranging applications are SMA products: due to their considerably reduced weight and volume, not to mention advanced

functions, these products manufactured from shape-memory alloys are highly sought after in high-tech sectors like aviation and aerospace, automotive or medicine. With SMA specialist Ingpuls, Bochum has an international unique selling point in this fast-growing market. Ingpuls is unrivalled in supplying SMA products from a single source, in other words from alloy production and product development all the way through to series production.

## **Bochum is a Talent Factory**

The companies mentioned here are just some examples that illustrate the density of Bochum's high-performing manufacturing industry. And, with more than 56,000 students enrolled at its numerous higher education institutions, Bochum also has one of the largest university student populations in Germany! Offering courses in the technical fields of automation, mining technology, electrical engineering, energy technology, laser technology, process engineering and materials science, geothermal energy or embedded systems – Bochum's universities not only supply industry with thousands of highly skilled graduates every year, but also conduct cutting-edge research.

The technically oriented universities TH Georg Agricola and Bochum University of Applied Sciences, as well as the Ruhr University of Bochum, also have many facilities that promote the transfer of technology between research and industry. Prominent examples are the Interdisciplinary Centre for Advanced Materials Simulation (ICAMS), the Ruhr University's Lernfabrik and its planned ZESS centre for the engineering of smart product service systems, the Nachbergbau research centre and the ProLab (both part of TH Agricola), not to mention the Geothermiezentrum or the RuhrValley research and development alliance (both under the auspices of Bochum University of Applied Sciences).



### **Bochum is a Driving Force**

Strengthening and developing Bochum's manufacturing industry through specific incentives is one of the core goals of the Bochum Office of Economic Development, with a focus on the transfer of technology and networking between stakeholders from industry and university research. It has already initiated several projects in this area, and here is a brief overview of some of them:

### **Bochum Institute for Technology**

The Bochum Institute for Technology advises companies and university researchers on innovation projects, brings together project partners, identifies suitable funding programmes and implements specific projects at the institute. Upon request, the BOI-T also carries out the entire project management and takes care of the often tiresome red tape, so that project partners can concentrate on their research and development activities. Since its foundation in autumn 2015, the very first technology projects have already been successfully launched, and more are in the pipeline. It is the only institute to be jointly financed by Bochum's universities, the Bochum Office of Economic Development and local industry.

### **In|Die Region Ruhr**

Together with its partners, the Bochum Office of Economic Development offers the region's manufacturing companies extensive coaching and networking services through the network In|Die RegionRuhr, with a focus on the digitalization of product processes. Regular information and networking events give companies the opportunity to keep up to date. They can use focus groups to discuss specific technical issues and widen their competencies. In the form of InnoScheck,

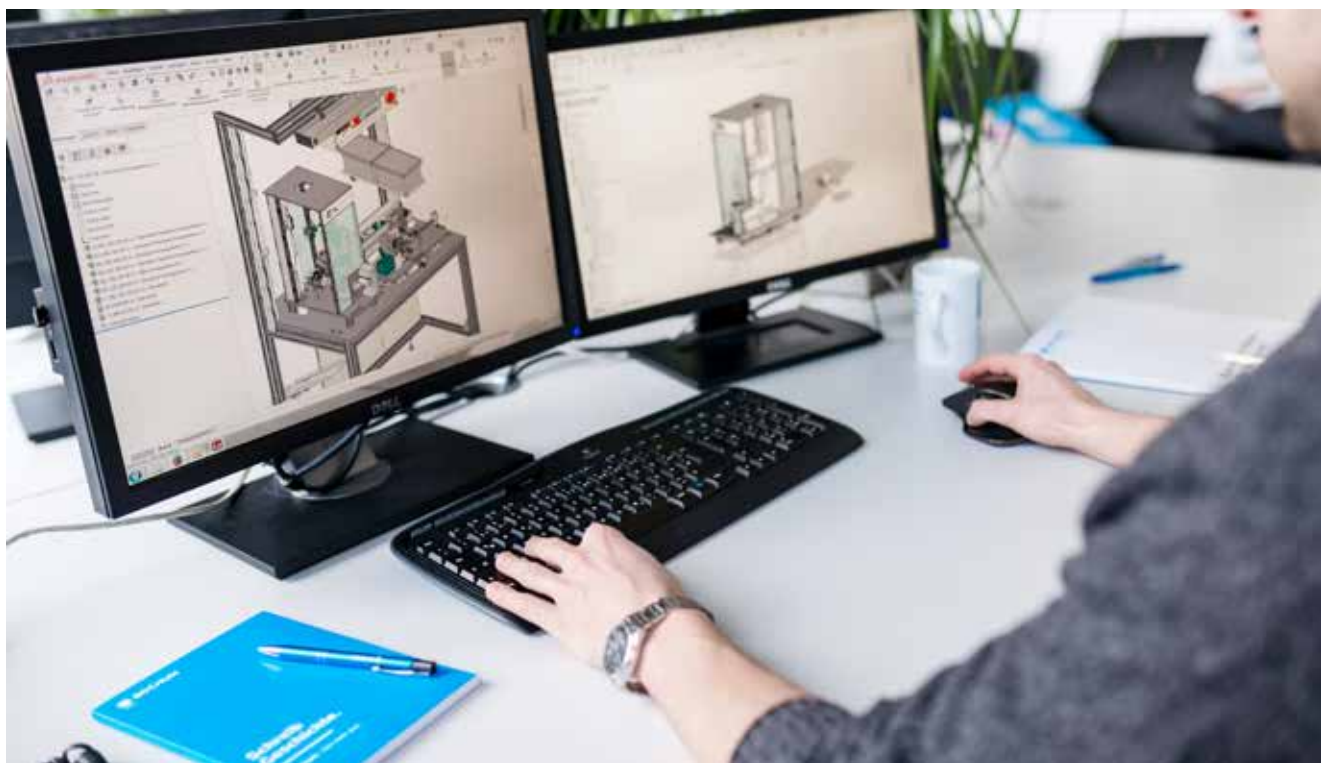
RUHR they also receive a consultancy voucher, which they can use to access professional support for the (further) development of their own innovation projects – from the idea through to the finished product – without red tape and completely free of charge.

### **MARK 51°7**

It's not long since cars stopped rolling off the production line at Opel's manufacturing plant, but things are once more moving at quite a pace. With funding from the federal state government, the Bochum Office of Economic Development and Opel are busy preparing the site and inviting companies to settle there. The first exciting projects, a state-of-the-art DHL parcel post and freight centre, the Landmarken AG's Innovation Campus and the Ruhr University's ZESS centre for the engineering of smart product service systems, are already in the starting blocks. There's plenty of room for more ideas, however. Thanks to its location, size and the opportunities this city offers, MARK 51°7 is probably one of the most promising development zones in Europe and, like the city's manufacturing industry, at the top of its league!

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## Automotive at a glance

### Statistische Daten

|                                       |        |
|---------------------------------------|--------|
| <b>Employees</b>                      | 15 300 |
| <b>Proportion of total employment</b> | 12.4%  |
| <b>Companies</b>                      | > 200  |

## Maschinen- und Anlagenbau at a glance

### Statistische Daten

|                                       |        |
|---------------------------------------|--------|
| <b>Employees</b>                      | 13 950 |
| <b>Proportion of total employment</b> | 12%    |
| <b>Companies</b>                      | > 350  |

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**BOCHUM**



# IT-Security in Bochum

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# Growth sector IT security

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Security is top priority: society's need to communicate and access information is growing faster and faster, and this leads to an increasing demand for more secure data transfer and communication routes.

## **Outstanding scientific skills**

The Horst-Görtz-Institute for IT-Security (HGI), an institute at the Ruhr-University Bochum (RUB) with 21 professorships in seven disciplines, over 100 scientists and more than 800 students, is the largest university institute for this subject in Europe. The HGI is involved in research and teaching in almost all the fields dealing with modern cryptography and IT security.

Bochum University of Applied Sciences, the Georg Agricola University of Applied Sciences and the International School of IT Security (isits) also provide a steady supply of young qualified scientists. This academic hotspot brings many advantages for IT-Security companies in Bochum, with new scientific insights rapidly transformed into products, which in turn benefit users worldwide. Non-university research institutes such as the Bochum Institute for Technology or the "Centre for Advanced Internet Studies" - which opened in 2017 - round off Bochum's portfolio.

## **Start-ups**

The Centre for IT-Security, the planned Ruhr:hub for start-ups in the digital sector, as well as an incubator and accelerator for spin-offs in the field of IT security to be implemented within the context of the WORLD-FACTORY, all form an ideal eco-system for founders. For example, the latest spin-offs from the Ruhr-University Bochum, Physec and RipsTech, have achieved successes at the renowned ECO-Award and in the Bochum Economic Development "Senkrechtstarter" competition. The second „International IT-Security Pitch,, and a planned fund complete the activities to date.

## **Companies in the IT security sector**

G Data Software AG can already look back on 30 years of experience. They are currently getting involved in new fields as well, e.g. as a partner for the German Microsoft Cloud, and are continuing to expand on their own campus. The companies, Bosch, Rhode & Schwarz as well as Volkswagen rely on know-how from Bochum when it comes to protecting embedded systems and have taken over Bochum companies or set up their own subsidiaries here. escrypt GmbH – a spin-off from RUB and now a Bosch subsidiary - has grown so successfully that it is leaving the Centre for IT Security (Zentrum für IT-Sicherheit) in the middle of 2017 and moving into generous new offices on a campus near to the city centre. This means their former premises now provide new options for more start-ups or for branch offices of foreign cyber-security providers.

### **Networking and cooperation**

In the field of IT security, the Economic Development Bochum cooperates with the IT association networker.NRW, the eco-association for the internet sector and the European competence centre for IT security eurobits. Their common goal is to strengthen the areas of education, training, congresses/fairs, start-ups, science and company networks in Bochum.

Bochum is also home to the state-funded NRW. UNITS network. Together, the HGI, the networker NRW and the eco- association of German internet businesses work towards more IT security in North Rhine-Westphalia. They are supported by the Department of Economic Development Bochum, eurobits and other partners.

### **Fairs and events**

The Economic Development Bochum, together with networker.NRW, organizes the IT-Trends Security congress every year. In 2017 they succeeded in achieving yet another visitor and exhibitor record. The "IT-Trends and Security" fair has become a trademark for information technology solutions in the Ruhr Region. This specialist congress provides the ideal conditions for intensive discussions between IT providers and medium-sized companies.

Bochum is also home to IT-S Connect, the largest contact fair for companies and IT-Security graduates in Germany. The RuhrSec Hacker congress (hackmanit GmbH) and Java-Script Congress RuhrJS (9elements GmbH) see two new event formats getting off to a successful start in Bochum. 2017 the annual Car-Symposium organised by Prof. Dudenhöfer was again dedicated mainly to digital topics for the automotive sector.

In 2017, for the first time, Bochum's isits AG hosted the Cybics Conference for IT Security in Industry in the Exzenterhaus in Bochum and Auto-Intern GmbH organised the internationally renowned Conference for Embedded Systems EmBo++ in the ProLab at the Technische Hochschule university.

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Germany offers a competitive system of company taxation. The average tax burden on companies is less than 30 percent. Read more at:  
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# Geothermal Energy in Bochum

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# The energy of the future

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## **The energy of the future**

As the global energy situation becomes acute, geothermal energy provides a sustainable and economical power source for the future. A large number of competencies come together in Bochum, making the town a hotspot for geothermal energy.

Geothermal energy, the heat energy stored in the earth's crust, is one of the renewable forms of energy which can be extracted long-term. And, unlike other regenerative energies, such as wind energy, geothermal energy is continuously available. It can be harnessed irrespective of environmental conditions, time of day or the seasons. That makes Geothermal Energy one of the most significant energy sources of the future.

## **The ecological potential of mine water**

Deep in Bochum's former coal pits lies great potential for geothermal energy. Even since the demise of the region's mining industry, mine water still continually has to be pumped out of the former collieries to keep mine tunnels free from flooding. There are three such pumping stations in Bochum alone. Depending

on the depth of the adit, the water has a temperature of around 30°C, providing a potential source of energy, e.g. for heating buildings. An initial pilot project in Bochum Werne supplies, among other places, Bochum's fire brigade headquarters and two schools with heating.

## **Bochum – a centre of geothermal energy**

Geothermal energy is of special economic significance for North Rhine-Westphalia and the Metropole Ruhr in particular: the region is the centre of German mining technology and has enormous competences in mechanical and plant engineering, drilling, supply and building technology as well as the construction and energy industry.

Many companies in the Ruhr metropolis operating in the sector of geothermal energy. Two thirds of all drilling units are manufactured here. The local universities are also leaders in research and education for the geothermal energy sector. The Bochum University of Applied Sciences is at the forefront here and is home to the International Geothermal Centre.



The Office for Geothermal Energy, which is also located at the International Geothermal Centre, networks the regional stakeholders and is the point of contact in North Rhine-Westphalia for industry, scientists, authorities and the general public. At the beginning of 2011 the International Geothermal Association (IGA) also moved its headquarters all the way from Reykjavik in Iceland to Bochum. Founded in 1988, the IGA is an independent and non-commercial, scientific and cultural organisation operating worldwide with the objective of encouraging research, development and utilization of geothermal resources. In the middle of November 2013 the IGA-Academy - an international training and education institute - also got started in Bochum.

#### Cutting-edge research in Bochum

This bundling of competence and know-how was one of the reasons for the decision to develop the International Geothermal Centre in Bochum into a large research centre and to continue to develop technologies for geothermal energy here. 2013 completed, the new building for the International Geothermal Center in the south of Bochum includes an institute with geoscience, geophysical and chemistry labs, a test hall (Geotechnikum), drilling equipment, a 5000 m<sup>2</sup> test area for field tests under realistic production conditions as well as measurement and testing technology for heatpump technology (Energetikum).

The GZB is an association for scientific and business research. Over 15 universities from Chile, New Zealand, Croatia, Greece, Turkey and Germany are the supporting bodies behind the GZB. In addition to other public sector institutes over 20 companies in the geothermal sector are also active partners at the GZB.

Together with the “Bochum Graduate School Applied Research on Enhanced Geothermal Systems (AGES)” founded in 2013 and based at the GZB, the Ruhr-Universität Bochum and the Bochum University of Applied Science also bundle their scientific strengths to enable outstanding graduates from both universities to do their doctorates in geothermal research fields.

#### Geothermal energy in Bochum – everything on site

The unique thing about geothermal energy in Bochum is that the complete added value chain can be found in the city. Bochum is not only the place for unique research and development competence in Germany – e.g. at the International Geothermal Centre at the Bochum University of Applied Science – but it is also home to a wide range of suppliers of geothermal products and services; covering everything from plant design and drilling companies to the manufacturing of equipment and accessories.

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**Efficient energy and  
resources utilization**

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# Location with top conditions

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Energy efficiency is not only a way to achieve ecological aims but has now also become an important part of positioning Bochum as a business and industrial location on an international level. North Rhine-Westphalia (NRW) and Bochum in particular provide excellent conditions for implementing sustainable energy and climate policies: global players, medium-sized companies and excellent research institutes in the field of energy efficiency are all located here. Almost 30 percent of German electricity is produced in NRW.

The economic location of NRW therefore has the best conditions for setting standards where the topic of sustainable energy consumption and efficient resources is concerned. The companies based here with their specific know-how are in the best possible position to drive the topic of energy efficiency ahead. Today, Bochum has already gained an excellent reputation due to its research performance, innovations and products in the fields of:

- wind energy,
- solar cars and developing electric cars,
- geothermal/energy utilization of mine water and
- waste heat utilization

Bochum benefits from its unique advantages as a location:

- Excellent research competences
- Experienced, skilled companies
- Established networks at all levels and between all protagonists
- Its position in the largest industrialised conurbation in Europe

One more advantage of Bochum is that the Ruhr Region is predestined to be a development laboratory because of the demographic and technical developments here. The things that are possible here can be transferred to other parts of Germany or Europe.

This is where the Economic Development Bochum comes in: together with numerous partners from politics, business and science they initiate and promote projects on energy efficiency, link stakeholders and serve as a catalyst for the further development of sustainable energy consumption.

The task for the Economic Development Bochum towards continued development of the energy efficient location of Bochum is to promote entrepreneurial projects and innovations for energy efficiency. The processes in the companies and universities are accompanied by the Economic Development Bochum. Small and medium-sized companies in particular, as well as founders and young companies, can all get support from the Economic Development Bochum with:

- Identifying new types of technology,
- Linking university establishments with companies and companies with each other to help founders, young companies and well-established medium-sized and large companies,
- Introducing innovative technologies and appropriate services,
- Making use of grant and subsidy programmes,
- Establishing companies (e.g. attracting new companies in the fields of renewable energy and energy efficiency),



- Retaining existing companies (energy supply as a location factor),
- Developing energy and climate-related business/industrial parks (networked use of energy flows such as distance and waste heat utilization, use of geothermic energy) and
- Providing building infrastructure and services (setting up an Energy Efficiency Centre and support for sustainable development impetuses)

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