Becoming Europe's No. 1 Cybersecurity Location

BOCHUM
Wirtschaftsentwicklung

Largest university location for IT security in Europe with the Horst Görtz Institute for IT Security and the Ruhr University Bochum

Home to 500 IT and IT-Security companies –
Growing 40 start-ups in the IT-Security sector

Home of the European Competence Center for Information Technology Security "eurobits e.V." and the Competence Center for Cybersecurity "DIGITAL.SICHER.NRW."

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IT Security in Bochum– Excellence in Research

- **Horst-Görtz-Institute for IT-Security:** located on the Ruhr-Universität Bochum (RUB) campus, it is Europe's largest university institute in this field, with 18 chairs, more than 200 scientists, more than 1000 students and 32+ internationally renowned professors. It is home to the Cluster of Excellence CASA, whose research goal is sustainable security against large-scale, primarily nation-state attackers.
- **Max-Planck-Institute for Security and Privacy:** The tasks of the Max Planck Institute (MPI) are the development and research of technical fundamentals, interdisciplinary aspects of IT security as well as data protection. The MPI is a competence center for basic research and training of scientific leaders.
- **CAIS – Center for Advanced Internet Studies:** Here, research is conducted in the area of social opportunities and challenges of the digital transformation.

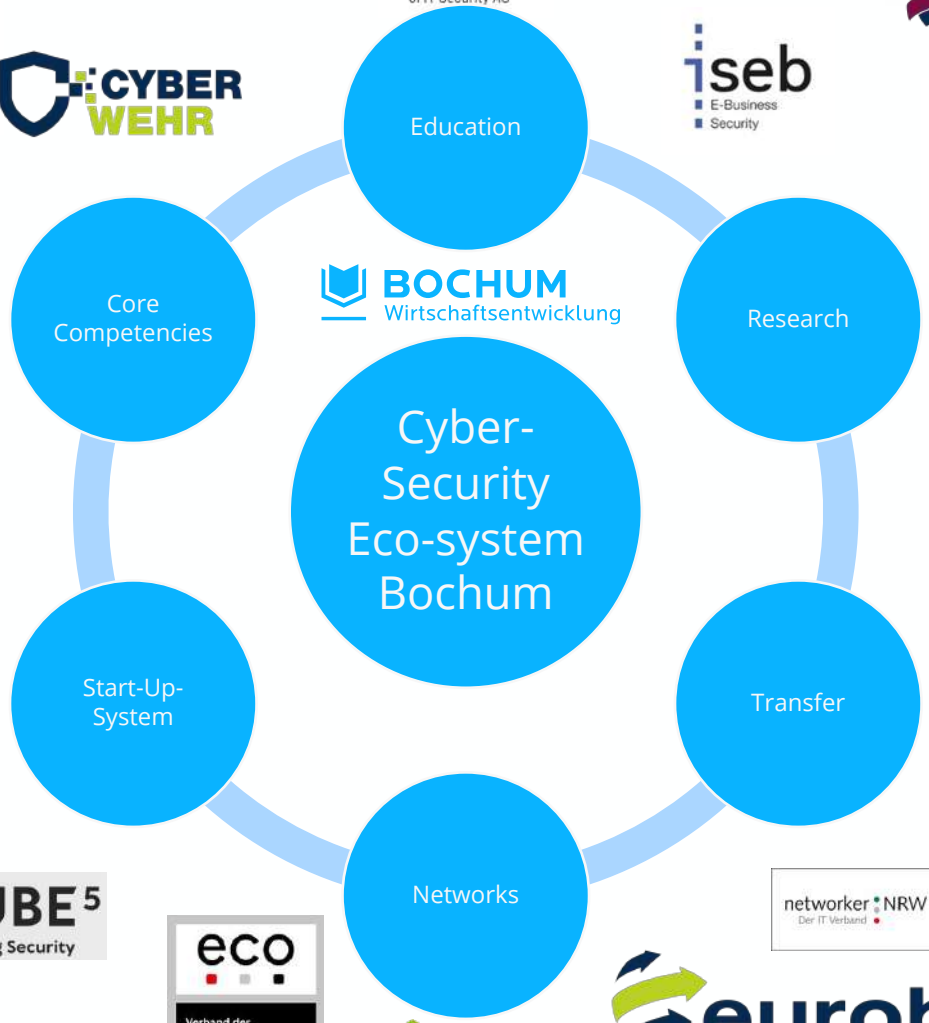
HGI

MAX PLANCK INSTITUTE
FOR SECURITY AND PRIVACY

CAIS
CENTER FOR
ADVANCED
INTERNET STUDIES

Ecosystem IT-Security Bochum

-Examples



BOCHUM Wirtschaftsentwicklung

RUHR UNIVERSITÄT BOCHUM

RUB

isits International School of IT Security AG

if(is) internet-sicherheit.

ewa eurobits women academy

escrypt Embedded Security by ETAS

VISUS

thyssenkrupp

CYBER WEHR

iseb E-Business Security

ETAS DRIVING EMBEDDED EXCELLENCE

G DATA TRUST IN GERMAN SICHERHEIT

HG

MAX-PLANCK-INSTITUT FÜR SICHERHEIT UND PRIVATSPHÄRE

RUHR UNIVERSITÄT BOCHUM

RUB

VOLKSWAGEN INFOTAINMENT

CAIS CENTER FOR ADVANCED INTERNET STUDIES

PHYSEC SECURITY FOR THINGS

VMRAY

IT-SECURITY PITCH BOCHUM

BO·I·T Bochumer Institut für Technologie

LPS LEHRSTUHL FÜR PRODUKTIONSSYSTEME

CCS center of computer science

9ELEMENTS Cyber Security

#DWNRW

ruhr:HUB

Institut für Wertschöpfungs Exzellenz

Pilot-Plant (Ruhr-University)

RiT DISCOVER THE SPIRIT OF EXCELLENCE.

CUBE 5 Creating Security

eco Verband der Internetwirtschaft e.V.

networker NRW Der IT Verband

DIGITAL SICHER NRW

nrw-units IT-Sicherheit Nordrhein-Westfalen

eurobits

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IT Security – A Selection

- **ESCRYPT:** The leading provider of IT security solutions in embedded systems is a spin-off of the Horst Görtz Institute for IT Security in Bochum. Especially in the field of automotive security, solutions from the BOSCH eTAS subsidiary are already utilized millions of times today.
- **VMRay:** Since 2013, the mission of the Bochum-based start-up has been to protect numerous corporate and government networks from around the world against digital attacks with their unique technology.
- **Physec:** With their unique combination of applied cryptography and communications engineering, the multiple award-winning Bochum-based company offers innovative security solutions for applications all around the Internet of Things.

escrypt Embedded Security by ETAS eTAS

VMRAY

PHYSEC

The Bochum Tech-Community Model

Health Economy

IT-Security

Production Economy

Digital Mobility

Smart City

…and further possible communities

BOtechnologies

» Digital approach and development of tech-ecosystems under an umbrella brand in economic regions«

Sandra Kunhenn, Bochum Economic Development

Organisational structures

Health Economy	Digital Mobility	IT-Security	Smart City	Production Economy
Agency	**Association(s)**	**Association**	**Digital UNIT**	**Guided Network**
„Health Campus Bochum“ Expert advisory board Initiative Circle (over 80 ambassadors)	„ruhrmobil-e“ Board of directors (private, public, science) „Ruhrvalley Cluster“ Board of directors (private & science)	„eurobits“: over 50 executive board members Expert advisory board Management office	*„SCIU: Smart City Innovation Unit“* Unique model in Germany: 10 representatives from the city corporation of all municipal companies	*„Inno-Network Production“*: local CCI and Business Dev. Agency Bochum „InIDieRegion Ruhr“ public funded project, regionally operated
Neuro Science Biotechnology Smart Health Professionals Urban Health	„adas“: autonomous driving and assistant systems, e-mobility, digitalization, energy systems, IoT, Smart City	Technology transfer in the fields of Cyber- and Information Security between economy and science	Smart government Smart infrastructure Innov. economy/science Digital society Sustainable Mobility and Environment	Process optimization AI digitalization Resource efficiency Resilience SaaS

Advantages of the umbrella brand

- Cross Innovation
- Further digital transformation
- Synergy effects
- Generation of further value added chains
- Promotion (e.g. common trade fair booth „BOtechnologies“)
- Overview: tech ecosystem „at a glance“

BO technologies

BO

Brand Digital Ecosystem

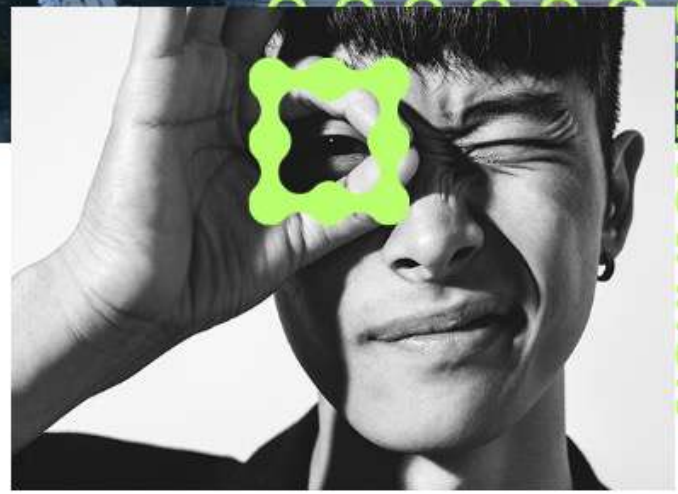
botechnologies.com

technologies

ABOUT PROJECTS TECH-ECOSYSTEM EVENTS NEWS CONTACT DE / EN

BOtechnologies – that‘s technology made in Bochum!

In the synergy of science and business, tech communities have formed in Bochum in the fields of health economy, IT security, e-mobility, production economy and smart city - and more are coming and ready to join them. Under the brand of BOtechnologies, we aim to boost Bochum's reputation as an innovative technology location. Nationally and internationally. Together with you!



botechnologies.com

botechnologies.com

The Digital Tech-Ecosystem of Bochum

BO technologies

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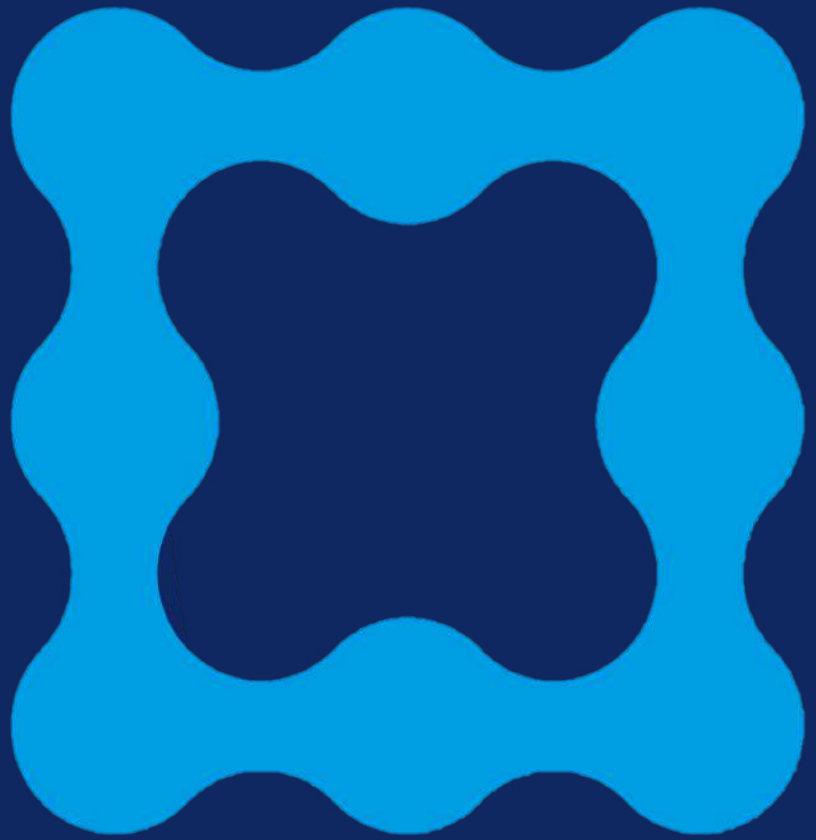

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Economic Development – Sustainable and Innovative

Facts and Examples

Bochum Economic Development in Viktoriastraße

Workplace of the Bochum Economic Development

Comprehensive Business Support

The Bochum Economic Development offers a holistic business environment: Find the right site, connect with relevant networks, get tech advice, and access strong partnerships

We have the same understanding of urban and economic development as city leadership. This does not only shorten decision-making processes, but it also helps to solve technical tasks

We support startups, operate our own technology and startup centers, develop and market office and commercial space and make areas fit for future

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MARK 51°7 – the Space for Opportnity

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Economical – Sustainable – Future-oriented

MARK 51°7 bears your costs in mind:

- Primary energy factor below 0.5 by using geothermal energy for heating and cooling
- Feed-in of surplus energy into the local district heating network by the companies
- Fast data transmission through an extensive fiber optic network with transmission rates > 10 GB/sec
- Direct access to the world‘s largest internet exchange points in Frankfurt (DE-CIX), as well as in Amsterdam (AMS-IX)

Companies and Investors

R&D Projects

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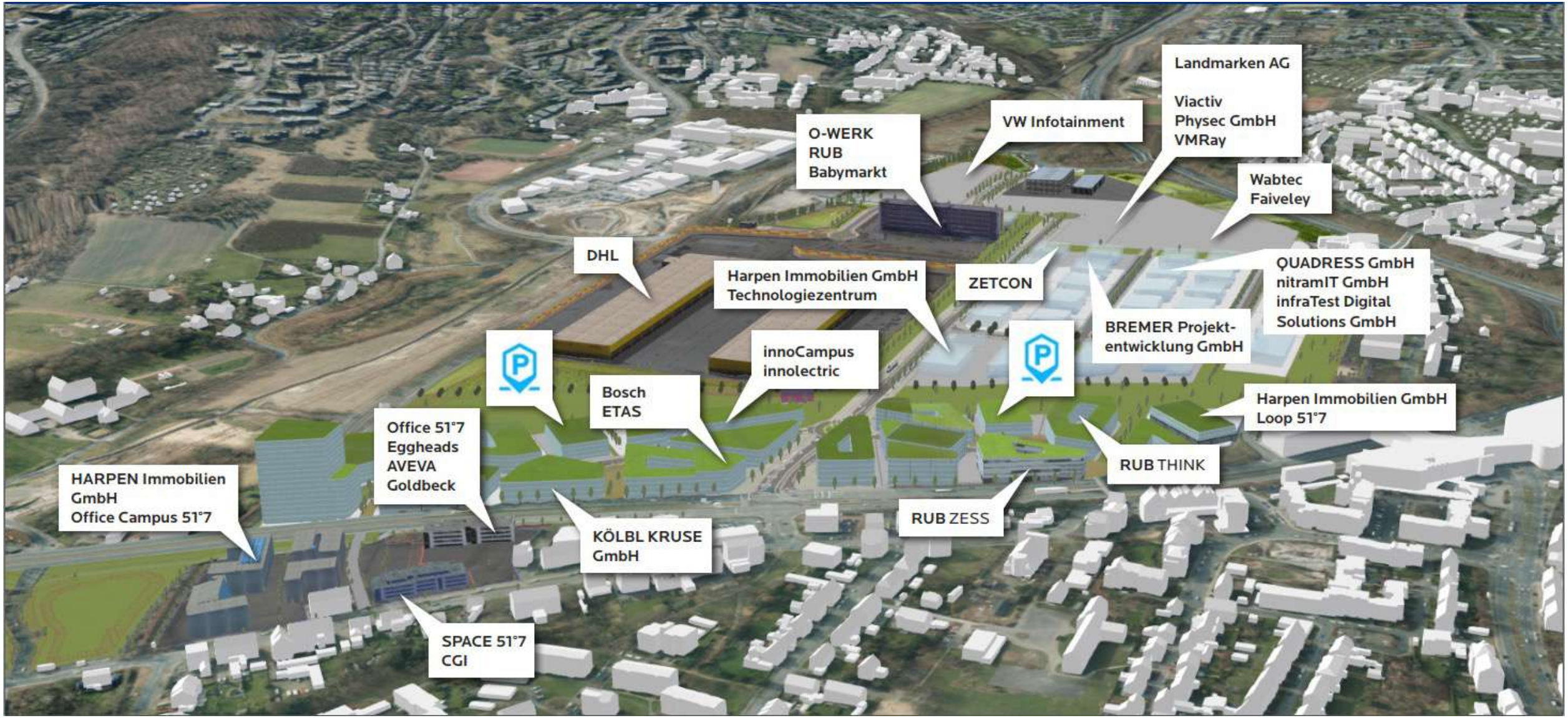
PROJECTS IN EXECUTION



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Bochum – A City full of Opportunities

General Information

Quelle: Stadt Bochum / Lutz Leitmann

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The City of Bochum – Knowledge Is Our Most Valuable Resource

Bochum is an important knowledge and research location in the Rhein-Ruhr region

Bochum ranks seventh in the nationwide Bitkom ranking of the most digital cities, ahead of other major cities

Bochum's startup scene thrives. In 2022, Ruhr Uni Bochum ranked 6th for startup-friendliness and in 2021, we had three top 10 startups in NRW

We are part of the Ruhr Metropolis with 53 cities and over five million inhabitants, making it the third largest metropolis in Europe

The proximity of research and education to the business world creates a unique environment for innovation and entirely new partnerships for both large and small companies

Nine universities with more than 60,000 students are the foundation for the economic success of our city - and at the same time our talent factory for our future specialists and managers

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Bochum – A City Worth Working In

Work Inn Bochum-Milestone

Bochum Main Station – Entrance to the Heart of the City

Proximity, Transport, and Modern Hotels

- Bochum offers convenient access to city decision-makers, providing a direct line of communication
- The city enjoys excellent transport connections, including direct reach within 30 minutes to the airports in Dortmund and Düsseldorf
- The main train station (long-distance travel) is ensuring easy access for internal and external stakeholders
- Bochum is experiencing an increase in modern new hotel offerings in the city center, including GHotel, Nena Apartments, B&B Hotel, Be.cause, Premier Inn, and Holiday Inn Express, enhancing convenience for business travelers

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Bochum – A City Worth Living In

Bochum Total: The Ultimate Festival Experience

Oasis for Leisure and Relaxation Bochum along the Ruhr

Affordable, Cultural, and Green

Bochum has a significantly lower cost of living and lower rents compared to other major cities

It boasts a renowned cultural scene, for example with the Schauspielhaus being named as 'Theater of the year' in Germany 2022, hosting the largest open-air music festival in the country and being home to the most successful nationwide musical production

With nearly 70% of its area covered in green spaces, Bochum ranks among the top cities in NRW, clearly outperforming other major cities

Bochum is a fantastic place to party. The Bermuda3Eck is the largest nightlife district in the Ruhr Area

G DATA Campus – This Is Where Cyber Security Goes Out Into The World

Access to outstanding Cybersecurity HUB

- IT security is crucial, especially for international companies facing rising cyber threats; Bochum’s strong IT faculty educates the security experts of tomorrow
- The Horst-Görtz-Institut is the most renowned and largest institution for research in IT security and the Max-Planck-Institut provides excellent research in IT security
- Bochum's innovation hub in IT security drives tech development and facilitates knowledge transfer to industry through the institutions ZESS and think about IT

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どうもありがとうございます

Thank you for your attention.

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