



Research in the Capital Region

Practice-oriented research and development

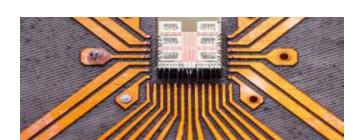
There is exceptionally high scientific and research potential in the capital region. Fifty-two universities and institutions of higher learning and about 200 public and private research institutions form one of the most tightly knit research networks in Europe. Companies in the aerospace industry and innovative suppliers alike are among those that benefit from the expertise of technical universities in Berlin and Cottbus-Senftenberg, Brandenburg University of Applied Sciences, the University of Applied Sciences Wildau, Beuth University of Applied Sciences, and the numerous Max Planck, Leibniz and Fraunhofer Institutes. Many of them work in tandem with small and medium-sized enterprises on transforming innovations into new products.

Forschungsfabrik Mikroelektronik

Worldwide, research is being done on the latest products and materials for the electronics industry. Just recently, the German Federal Government has launched the Research Fab Microelectronics, a research network that is competitive worldwide. It brings together the Leibniz Institute of Innovations for High Performance Microelectronics (IHP), which is located in Brandenburg, the Ferdinand-Braun-Institut, which is located in Berlin and focuses on high-frequency technology, and eleven Fraunhofer Institutes. The research network encompasses four virtual technology parks focusing on different areas:

- 1. Latest in silicon-based technologies for sensors, actuators, and information processing
- 2. Compound semiconductors featuring leading-edge materials for energy conservation and communication
- 3. Heterointegration combining silicon and other semiconductors for applications including the Internet of Things
- 4. Design, testing, and reliability, with an eye to designs and design methods, quality and dependability

In cooperation between companies in the region and this organization, new technologies are being researched and prepared for the market in small series. Berlin-Brandenburg secured EUR 130 million in funding for the local area, more than one-third of the total of EUR 350 million in funding



available from the German federal government. This is a sign of the confidence placed in the expertise and forward-looking approaches found in the capital region in this field.

Alongside hardware-oriented topics, the capital region with its institutes for software systems design, such as the Hasso Plattner Institute in Potsdam, offers outstanding partners for system integration and further issues involving big data, the Internet of Things and cyber security.

The region is also excellently positioned in terms of production of tangible products, from switches for large-scale electrical facilities and wiring for electrically powered special vehicles to ultrasensitive measuring equipment and production of component assembly equipment for market leaders like Intel and Samsung in Nauen - all of this is found in Berlin-Brandenburg.

What we offer you: Nine reasons to choose the capital region

- 1. Germany's most tightly knit research network offers outstanding innovation opportunities
- 2. Excellent market access due to prime logistical connections with the most important European transport axes
- 3. Minimum strain on seed capital due to access to one of the best funding landscapes in Germany
- 4. Save time with active support during fast and non-bureaucratic permit and licensing procedures
- 5. Bright prospects for growth due to access to highly qualified skilled workers and managers
- 6. Cost-effective product development due to pooling research interests and integration into the growing value chains of small and medium-sized businesses
- 7. Optimum connections with clusters in energy technology, transportation, mobility and logistics, healthcare, optics and photonics, in addition to information and communication technology, media and the creative sector, metal, plastics and chemicals, and the food industry
- 8. Various associations in the electronics sector to represent your interests, including the ZVEI and VDMA, with close connections to Germany's political decision-making center
- . Bring people on board more easily by offering Germany's most attractive cities, combined with ideal places for your creative employees and their families to get away from the hustle and bustle

Capital Region Berlin-Brandenburg Location benefits, facts, service





Quadriga in front of the Reichstag

High quality of life

Valued investments



Sanssouci Palace in Potsdam

The region combines the international flair of the Berlin metropolis with the fascinating nature and historical sights of Brandenburg in a unique way. A singular club scene, renowned large events, more than 170 museums, 150 theaters as well as some 500 castles, churches and parks are available to visitors. Sporting and leisure activities such as golf, riding, water sports and flying have no limits. The costs of living, infrastructure and leisure are considerably more affordable than in comparable metropolitan regions.

Berlin-Brandenburg offers excellent and customized funding programs for direct investments

and innovations. Support for investment is provided in the form of direct grants. The funding programs pool resources from the EU, the German federal government and the states of Berlin

Customized service for businesses



Excellent leisure opportunities in the

The two economic development corporations Berlin Partner for Business and Technology and Brandenburg Invest (WFBB) provide comprehensive support for everything for investment or innovation related projects: competent, quick, without red tape, confidentially and free of charge.

- Location: Facts and figures about the Berlin-Brandenburg economic region
- Personnel: Advice on recruitment and qualification of new employees
- Real estate: Help looking for properties for rent and purchase
- · Financing: Advice on promotional opportunities and financing methods
- Contacts to: Public authorities, banks, chambers of commerce, associations, company networks

www.brandenburg-invest.com www.brandenburg-business-guide.de www.businesslocationcenter.de

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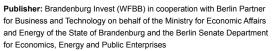
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Photos: Cover: wafer in waferprober (© IHP/Weisflog), Page 2: test bed (© IHP/Pleul); laser solder jetting technology (Packaging Technologies GmbH); Page 4: LAPLACE-Cap process (Packaging Technologies GmbH); cleanroom view (© IHP/Weisflog); chip (© IHP/Pleul); Page 5: dome of the Reichstag Building (Berlin Partner GmbH/FTP-Werbefotografie): Sanssouci Palace (Stiftung Preußische Schlösser und Gärten Berlin-Brandenburg/Bach): sailboats on the Havel (Boettcher/TMB-Fotoarchiv) Dated: October 2018

Electronics Industry

in the Capital Region Berlin-Brandenburg

Your contact in Brandenburg

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THE GERMAN CAPITAL REGION



Berlin-Brandenburg: An outstanding location for starting your business

A strong region

As a cross-cutting, enabling technology, electronics and electrical engineering play a key role in the capital region for all clusters when it comes to development of new technologies. All five clusters (healthcare; energy technology; optics and photonics; transportation, mobility and logistics; information and communication technology, media and creative sector) are shaped to a crucial extent by the use of innovative electronic products and components. This is the case with smart living applications to optimize energy consumption by household appliances, management of electrical grids with high percentages of renewables, autonomous driving, optimized charging and performance management for batteries in electric vehicles, use of high-quality sensor systems for the aerospace industry and road traffic, controlling of highly complex production lines and much more.

Berlin-Brandenburg is a quality location. With a population of six million, this hub of political and economic activity boasts outstanding links to various markets via key European transport axes. The region offers excellent prospects for growth as well as high quality of life for employees and their families to startups and existing companies.

Potential - networks

Autonomous driving and unmanned aviation

Innovative electronic components also form the basis for autonomous driving and unmanned aviation. CURPAS, as the latest company network that has been formed, brings together more than 50 businesses and research institutions in the region, along with universities in Europe, in the areas of unmanned aerial systems and autonomous land vehicles. In cooperation with Siemens Mobility (Berlin), ViP Verkehrsbetrieb Potsdam GmbH commissioned the world's first autonomous tram in Potsdam in September 2018.

Autonome Produktion Industrie 4.0

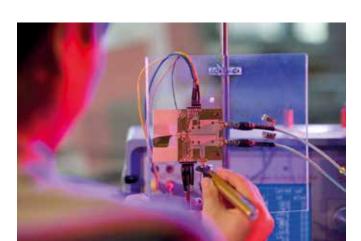
All over the world, the highly automated industrial production found in Germany under the "Industry 4.0" umbrella is viewed as exemplary. It is only possible through coordinated use of hardware and software during development of electronic control elements. In Brandenburg, small and medium-sized enterprises receive special support in this area through transfer centers established for Industry 4.0 at the University of Potsdam and Brandenburg University of Technology Cottbus-Senftenberg. In addition, the government of Brandenburg offers offers attractive financial support programs for SMEs.

The electronics industry in the capital region

The industry in the capital region

Electrical engineering and electronics is Germany's second largest industrial sector, accounting for more than three percent of GDP and ten percent of total exports. In addition, it is already one of the most innovative German industrial sectors and has the highest value added ratio of all major industrial sectors, at 44 percent. The Berlin-Brandenburg capital region is among the birthplaces of the German electronics industry. Names like Siemens,

AEG. Telefunken and Konrad Zuse – the inventor of the first computer – underscore the area's importance. Here, innovation and entrepreneurship come together, making the region once again one of the leading sites of activity in this field. The capital region is now home to approximately 210 companies that manufacture electronic and electrical engineering products, with about 30,000 employees. Electronic products from the local area are in use in all of the high-tech clusters presented in the capital region.





The Electronics Industry in Berlin-Brandenburg **Uckermark** 33 Eberswalde-Finow 34 Eggersdor Warszawa Schönhage Teltow-Leipzig Frankfurt am Main Elbe-21

Selected companies in the

Research institutions

Associations

Berlin Tegel International Airport (TXL)

Berlin Schönefeld International Airport (SXF), in the future Berlin Brandenburg Airport (BER)

Commercial airports

Federal highway State highway Railroad Inland waterway for freight shipping ----- State border ----- District border Border crossing

The network for your success

Selected electronics companies and research institutions in the capital region

Microsystems technology

- 1 Pac Tech Packaging Technologies GmbH
- 2 Arguimea Deutschland GmbH
- 3 GED Electronic Design GmbH
- 4 Prignitz Mikrosystemtechnik GmbH
- 5 AEMtec GmbH
- 6 Sicoya GmbH
- 7 MAF Microelectronic Assembly Frankfurt (Oder) GmbH
- 8 microtech GmbH electronic

Sensors

- 9 Silicon Radar GmbH
- 10 First Sensor AG
- 11 D-Sensors GmbH
- 12 SensoMotoric Instruments Gesellschaft für innovative Sensorik mbH
- 13 Sensys Sensorik & Systemtechnologie GmbH
- 14 Pepperl+Fuchs GmbH
- 15 ALRE-IT Regeltechnik GmbH
- 16 H.-P. FISCHER ELEKTRONIK GmbH & Co.
- 17 PRODAT Informatik GmbH
- 18 Endress+Hauser SE+Co. KG

Energy supply and switching equipment

- 19 EMIS Electrics GmbH
- 20 Bals Elektrotechnik GmbH & Co. KG
- 21 uesa GmbH
- 22 Caleb Kabel GmbH
- 23 Bruker Nano GmbH
- 24 RITTER Starkstromtechnik GmbH & Co. KG
- 25 Prysmian Kabel und Systeme GmbH

Automation

- 26 IBAR Systemtechnik GmbH
- 27 Swissbit Germany AG
- 28 Schleicher Electronic Berlin GmbH
- 29 Yacoub Automation GmbH
- 30 Witt GmbH Industrieelektronik
- 31 Ametek CTS Europe GmbH
- 32 Schneider Electric GmbH

Electronic components

- 33 IEB Industrie Elektronik Brandenburg AG
- 34 Industrieelektronik Brandenburg GmbH
- 35 Yamaichi Electronics Deutschland Manufacturing GmbH
- 36 MAZ Mikroelektronik-Anwenderzentrum im Land Brandenburg GmbH
- 37 SRM Technik GmbH & SRM Printtechnik GmbH & Co. KG
- 38 ANDUS ELECTRONIC GmbH
- 39 TES Frontdesign GmbH
 - 40 P&R Gerätetechnik GmbH Schwedt

- 41 TDK-EPC AG & Co. KG
- 42 Fluke Process Instruments
- 43 alpha-board gmbh
- 44 Tigris Elektronik GmbH
- 45 Taube Electronic GmbH
- 46 Robert Karst GmbH & Co. KG
- 47 Kämpfe Elektronik GmbH
- 48 KAPI electronics GmbH
- 49 A.S.T. Leistungselektronik GmbH

Vehicle and drive electronics

- 50 Laird Dabendorf GmbH
- 51 IAV GmbH Ingenieurgesellschaft Auto und Verkehr

Digital Health

- 52 GETEMED Medizin- und Informationstechnik AG
- 53 Emperra GmbH E-Health Technologies

Lighting and audio technology

- 54 Selux AG & Co. KG Lichttechnische Werke
- 55 OSRAM GmbH Werk Berlin
- 56 Lautsprecher Teufel GmbH

Telecommunications

57 AVM Computersysteme Vertriebs GmbH

Research institutions

- IHP GmbH Leibniz Institute of Innovations for High Performance Microelectronics
- 59 Forschungsfabrik Mikroelektronik Deutschland c/o Fraunhofer Group for Microelectronics
- Technical University of Applied Sciences Wildau
- 61 Brandenburg University of Technology Cottbus-Senftenberg
- Beuth University of Applied Sciences Berlin
- HTW Berlin University of Applied Sciences
- 64 Technische Universität Berlin
- 65 Ferdinand-Braun-Institut, Leibniz-Institut für Höchstfrequenztechnik
- 66 Brandenburg University of Applied Sciences
- 67 Fraunhofer Heinrich Hertz Institute
- 68 Fraunhofer Institute for Reliability and Microintegration

Associations

- 69 German Electrical and Electronic Manufacturers' Association (ZVEI),
- 70 Mechanical Engineering Industry Association (VDMA), capital city office
- 71 German Association of the Automotive Industry (VDA)
- 72 VDE Association for Electrical, Electronic & Information Technologies
- 73 Association of German Engineers (VDI) Berlin and Brandenburg