

Science in Berlin – Facts & Figures

Universities **4** Technical colleges/universities of applied science **7** Art colleges **4**

State-recognized private universities and colleges **23** Employees at Berlin universities, almost **45,000** University students **144,000**

Non-university research institutes **70** Including: **7** Fraunhofer Gesellschaft institutes // www.fraunhofer.de
5 Max Planck Society institutes and archives // www.mpg.de
13 Leibniz Association institutes // www.leibniz-gemeinschaft.de
3 Helmholtz Association research centers // www.helmholtz.de

www.berlin-sciences.com
The science portal of the capital city



be thinker
be researcher
be berlin

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 Quadriga: Berlin Partner / FTB-Werbefotografie | Philological library at Freie Universität Berlin (FU): Foster | Campus of HU zu Berlin: Berlin Partner / FritschFoto | 3D portal at the Institute for Mathematics at TU Berlin: TU Berlin / Pressestelle | ESMT: European School of Management and Technology ESMT | Spectrometer: FMP | BiotechPark Berlin-Buch: Berlin Partner / FritschFoto | Berlin City Hall: Berlin Partner / FIB-Werbefotografie | Federal Chancellery: Andrea Bienert / Presse- und Informationsamt der Bundesregierung/Bundesbildstelle | DFG Roboter: Urania | Globe projection: FIRST – Fraunhofer Institute for Computer Architecture and Software Technology
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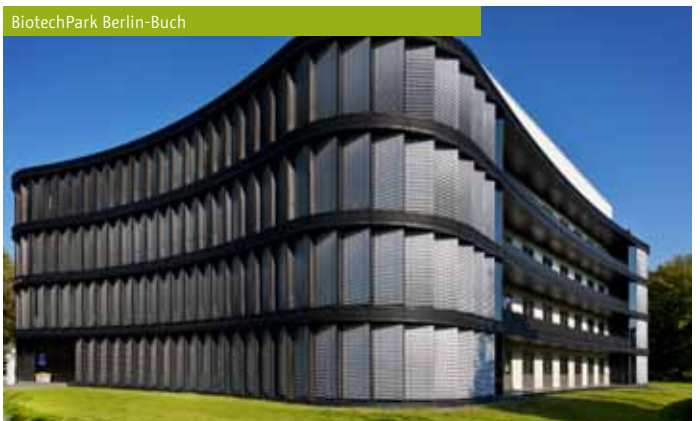
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Science and Business Knowledge and Technology Transfer

The large number of start-up centers for innovation and science and technology parks in Berlin make conditions ideal for young, innovative and tech-oriented companies. The *Adlershof Technology Park* in southeastern Berlin is one of Germany's most successful high-tech sites and home to almost 870 companies and a total workforce of over 14,000 employees, all of whom work in close cooperation with the six Math and Science institutes of the Humboldt-Universität zu Berlin and the 11 research institutes operating there under the auspices of the Joint Initiative of Non-University Research Institutes in Adlershof (IGafa).

Campus Berlin-Buch in northern Berlin specializes in biotechnology. Here, close cooperation between research and industry ensures that new scientific knowledge is transferred quickly and directly into commercial applications. Institutions such as the Max Delbrück Center for Molecular Medicine and the Leibniz-Institut für Molekulare Pharmakologie work closely together with two on-site hospitals as well as with the nearly 50 companies at the BiotechPark Berlin-Buch.

The *TSB Technology Foundation Berlin* promotes cooperation between business, science and politics in the city's key fields of technological expertise. Initiatives undertaken in the areas of biotechnology, energy and medical technology, traffic management and mobility bring scientific research together with small and medium-size companies. The state-sponsored initiative known as "*Projekt Zukunft*" links the media and IT industries. The Berlin-based company *ipal GmbH* markets inventions and expertise – primarily from Berlin's universities and technical colleges/universities of applied science – to encourage the transfer of knowledge to business.



Start-up centers for innovation (a selection)		
Adlershof – City of Science, Technology and Media and the Adlershof Science and Technology Park	www.adlershof.de www.wista.de	
Joint Initiative of Non-University Research Institutes in Adlershof (IGafa)	www.igafa.de	
Campus Berlin-Buch with the BiotechPark Berlin-Buch and the Innovation and Start-Up Center	www.campus-berlin-buch.de www.bbb-berlin.de www.eh-berlin.de	
Innovationspark Wuhlheide Berlin with the Technology and Start-Up Center		
Technology and Innovation Park Berlin (TIB) with the Berlin Innovation and Start-Up Center (BIG) and the Charlottenburg Innovation Center (CHIC)	www.izbm.de	
Science and Technology Center "Am Borsigturm" with the PHÖNIX Start-Up Center	www.phoenix-gruenderzentrum.de www.hwr-berlin.de www.am-borsigturm.de	

European Networks

The *Enterprise Europe Network Berlin Brandenburg* provides information and advice on innovation-oriented developments, initiatives and programs in the European Union and assists in finding business and technology partners. In conjunction with Berlin Partner GmbH, the Enterprise Europe Network supports companies and scientists in their search for joint partners and the organization of transnational projects, including the following:

- > Research projects
- > Technology projects
- > Marketing of research results
- > Product development
- > Business ventures

Information	
Enterprise Europe Network	www.eu-service-bb.de

Science and Politics

In addition to a large number of outstanding research centers, Berlin offers the strategic advantage of close proximity to federal and state political decision-making bodies. Almost all of the country's major scientific organizations, including the primary research groups, the *German Research Foundation (DFG)* and the *German Council of Sciences and Humanities*, have Berlin offices at the Wissenschaftsforum on Gendarmenmarkt Square.

The *Berlin Senate* promotes the region's key fields of research by supporting the development of future-oriented centers of excellence with an international profile. These centers strive to strengthen cooperation between science and business, encourage a more efficient transfer of research findings into practice and support the establishment of innovative companies.

Berlin's universities achieved outstanding results in the first two rounds of the national competition known as the "Excellence Initiative" sponsored by Germany's national and state governments. The *Graduate School of North American Studies at Freie Universität Berlin*, the *Berlin School of Mind and Brain at Humboldt-Universität zu Berlin* and the *Berlin Mathematical School*, a joint project supported by Berlin's major universities, have been receiving Excellence Initiative funds since 2006. A total of seven Berlin graduate schools and four excellence clusters managed to win the race for the millions of euros in funding. Freie Universität Berlin was accepted into the third round of funding and joined the group of elite universities in 2007 with its concept of an international network university. Humboldt-Universität zu Berlin is applying for funds to support its institutional strategy in the second phase currently underway.



Berlin City Hall

Information	
German Federal Ministry for Education and Research	www.bmbf.de
German Research Foundation	www.dfg.de
Berlin Senate for Education, Youth and Science	www.berlin.de/ser/bwf
Berlin Senate Department for Economics, Technology and Research	www.berlin.de/ser/wtf
German Council of Science and Humanities	www.wissenschaftsrat.de

Science Open to the Public

Berlin is not only the capital of science but also leads the way, with its many institutions, in making science understandable to the general public. The *Long Night of the Sciences*, a nighttime science showcase that has taken place each year since 2001, offers exciting insights into various research institutes in Berlin and Potsdam. With nearly 70 participating institutes and 32,000 visitors, these events have become a fixed date on Berlin's annual calendar. The *Berlin WissensWerte* event series informs the public about the impact of scientific research on daily life.

Universities and research institutes regularly open their doors to the public, for example for institute tours during the *Research Days* at *Adlershof Technology Park*, in lectures and experiments at the life science learning lab known as the "Gläsernes Labor" in Berlin-Buch and at laboratories where pupils learn about different scientific topics.

Similarly, the *Urania* center in Berlin aims to make science more comprehensible. With 2,000 members, 1,400 events and more than a quarter-million visitors annually, the association is one of the largest centers for scientific lectures and cultural events in Europe.

Science for kids at Urania Berlin



Information	
Berlin WissensWerte	www.berliner-wissenswert.de
Long Night of the Sciences	www.langenachtderwissenschaften.de
Urania Berlin	www.urania-berlin.de

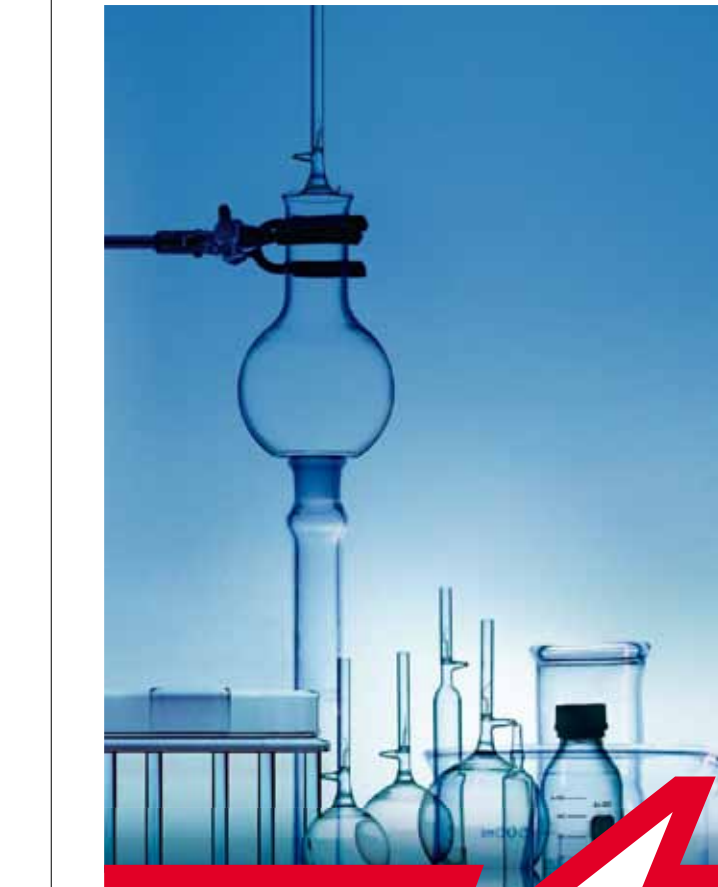
Long Night of the Sciences at the Fraunhofer Institute for Computer Architecture and Software Technology (FIRST)



Awards

The *Berlin-Brandenburg Innovation Award* is one of the largest in Germany. It's presented by both states, Berlin and Brandenburg, in cooperation with companies in the capital region, as part of a public-private partnership. The award honors innovative business ideas and products that show significant market potential and will contribute to the ongoing development of the Berlin-Brandenburg economic region. The *Berlin Technology Foundation Development Agency* presents its annual *WissensWerte Transfer Prize* worth €50,000 to scientists working on a successful regional technology transfer project.

Information	
Berlin-Brandenburg Innovation Award	www.innovationspreis.de
WissensWerte Transfer Prize	www.transferpreis.de



Science in Berlin



Berlin – City of Science

A long tradition and a bright future

Quadriga and Reichstag Building



Berlin is one of the largest and most widely diversified science cities in Europe. Some 200,000 residents from all over the world study, teach, work and conduct research at the capital's four universities, seven universities of applied science, four art colleges, 23 state-recognized private universities and nearly 70 non-university research institutes. The history of science in Berlin is distinguished by names like Humboldt, Einstein, Virchow, Koch, Meitner and Planck. The Charité was founded in 1710 and today is the Freie Universität Berlin's and the Humboldt-Universität zu Berlin's medical institute. The Charité is one of Europe's largest university hospitals. Today's Humboldt-Universität zu Berlin was created on the initiative of Wilhelm von Humboldt. The Freie Universität was founded in West Berlin in 1948 with the goal of giving young people a university education free of ideological and political influence.

Germany's major national research organizations, including the Fraunhofer Gesellschaft, the Helmholtz Association, the Leibniz Association and the Max Planck Society, all have several institutes and other facilities in Berlin. Universities, research institutes and businesses are closely linked in Berlin. The Adlershof city of science, business and media, the Berlin-Buch campus and roughly 20 additional technology and start-up centers for innovation offer the best conditions for developing new ideas and converting them into marketable products.

Science in Berlin

Universities

Nearly 75 % of Berlin's 144,000 students are enrolled at the city's four major universities. The *Freie Universität Berlin (FU)* offers more than 160 study programs in 15 departments and institutes in all fields. It is one of the few universities in Germany to have achieved success in all three levels of the "Excellence Initiative" organized by the federal and state governments. Especially noteworthy are the FU's Institutes for North American, Eastern European and Latin American Studies. The broad spectrum of disciplines offered at *Humboldt-Universität zu Berlin (HU)* includes the humanities, social sciences, cultural studies, mathematics and natural sciences as well as general medicine and agricultural sciences.

The HU's Math and Science institutes are concentrated at Adlershof Technology Park where they operate in close cooperation with research centers and tech-oriented companies. The medical programs of the two universities are based at the *Charité – Universitätsmedizin Berlin*. The *Technische Universität Berlin (TU)*, located in the Charlottenburg science district, combines engineering, natural sciences and information technology under one roof. Two of the TU's large-scale projects are supported by the German federal and state governments via the Excellence Initiative.

Unique among technical universities in Germany, the TU also offers study and research programs in the fields of planning, the humanities and economics. Over the course of its 300 year history, the *Berlin University of the Arts (UdK)* – with its fine arts, design, music and visual arts faculties – has emerged as a unique meeting place for art and science.

Philological library at Freie Universität Berlin (FU)



Downtown campus of Humboldt-Universität zu Berlin

The strong international orientation of Berlin's universities and colleges is backed by a longstanding tradition: roughly 15.9% of the city's students come from abroad. Berlin also has 1,700 joint cooperation agreements with partner universities worldwide. The number of visiting foreign scientists at Freie Universität and Humboldt-Universität zu Berlin is higher than at any other university in Germany. This continuing international focus is supported by programs organized by the German Academic Exchange Service (DAAD) and the Alexander von Humboldt Foundation.

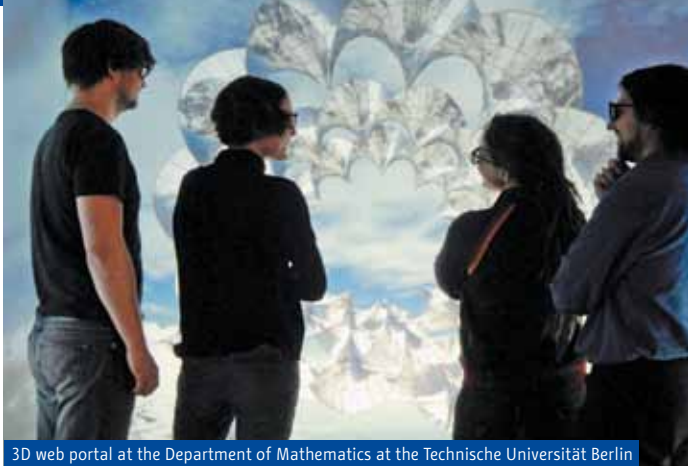
Universities	
Freie Universität Berlin (FU)	www.fu-berlin.de
Humboldt-Universität zu Berlin (HU)	www.hu-berlin.de
Technische Universität Berlin (TU)	www.tu-berlin.de
Berlin University of the Arts (UdK)	www.udk-berlin.de
University Hospital	
Charité – Universitätsmedizin Berlin	www.charite.de

Technical Colleges / Universities of Applied Science

The programs offered by Berlin's technical colleges and universities of applied science range from engineering, natural sciences and economics to administrative studies, social sciences, and the humanities. They combine practical teaching and applications-oriented research with the transfer of knowledge to business and industry. The city's wide range of advanced training programs also attracts professionals from Germany and abroad. Nearly 40,000 students are currently enrolled at Berlin's technical colleges and universities of applied science. Berlin's two engineering schools, *The Beuth University of Applied Sciences Berlin* and the *HTW Berlin University of Applied Sciences*, rank among Germany's best. Programs range from standard disciplines such as mechanical engineering and business administration to innovative offerings such as information technology and renewable energy systems. The *Berlin School of Economics and Law* offers a comprehensive range of more than 50 study programs at three sites from economics and business management to law enforcement and security management. The *Alice Salomon University of Applied Sciences* offers programs in social work, health services, physiotherapy, nursing and education. The technical colleges and universities of applied science in Brandenburg complement the institutes of higher education in Berlin. For example, the *University of Applied Sciences Wildau* sets new trends with practice-oriented degree programs with a special emphasis on research and the transfer of knowledge.

Technical Colleges/Universities of Applied Science

Alice Salomon University of Applied Sciences Berlin	www.ash-berlin.eu
Beuth University of Applied Sciences Berlin	www.beuth-hochschule.de
Evangelische Hochschule Berlin (EFB)	www.eh-berlin.de
Federal University of Applied Administrative Sciences Foreign Affairs, Social Insurance	www.fhbund.de
HTW Berlin University of Applied Sciences	www.htw-berlin.de
Berlin School of Economics and Law	www.hwr-berlin.de
Katholische Hochschule für Sozialwesen Berlin (KHSB)	www.khsb-berlin.de
Technische Hochschule Wildau (FH Wildau)	www.th-wildau.de



3D web portal at the Department of Mathematics at the Technische Universität Berlin

Talented young artists are trained at the *Academy of Music Hanns Eisler Berlin*, the *Berlin Weissensee School of Art* and the *Ernst Busch Academy of Dramatic Art*. They offer their 1,400 students almost all artistic study programs. The high quality of training provided at these institutions is guaranteed by internationally renowned artists and reflected in the many awards presented to students and graduates.

The *Berlin University of the Arts* and the city's three other art colleges form a solid part of Berlin's cultural landscape. They regularly present public performances, exhibitions and concerts, many of which are organized in cooperation with Berlin theaters and concert venues. The Academy of Music Hanns Eisler Berlin alone presents more than 400 public concerts, musicals and lectures each year. Students also have the opportunity to study jazz and popular music at the Jazz Institute, a joint venture with the Berlin University of the Arts launched in 2005. Several times each year, students at the Berlin Weissensee School of Art showcase their work in fashion and stage design. One of the unique features of the school is its compulsory, first-year art and science study program, which aims to foster basic creative skills.

Art Colleges

Academy of Music Hanns Eisler Berlin	www.hfm-berlin.de
Ernst Busch Academy of Dramatic Art Berlin	www.hfs-berlin.de
Berlin Weissensee School of Art	www.kh-berlin.de

Private Universities and Colleges

The programs at the *ESMT European School of Management and Technology* and *ESCP Europe Business School Berlin* have an international orientation and focus on practical applications. Both schools enjoy strong contacts to national and international business leaders as well as to leading institutions worldwide. ESCP Europe is the only business school in Europe to offer all of its international programs, including its business management, postgraduate and doctoral programs, in Berlin, Paris, London, Madrid and Turin. Founded in 2002 by leading German companies and associations, the ESMT offers an MBA program and several management training programs at locations in Berlin and Cologne.

The *Hertie School of Governance* prepares students for leadership positions in the public sector with a "Master of Public Policy." In addition to its doctoral program, the Hertie School focuses on practice-oriented training for young managers and also offers an "Executive Master of Public Management" program. The institution has been recognized as a "family-oriented college" since 2008.

Private Universities & Colleges (selection)

Berlin University for Professional Studies	www.duw-berlin.de
ESCP Europe Business School Berlin	www.esceurope.eu
ESMT European School of Management and Technology	www.esmt.org
Hertie School of Governance	www.hertie-school.org
International Psychoanalytic University Berlin	www.ipu-berlin.de
SRH University of Applied Science Berlin	www.srh-hochschule-berlin.de
Steinbeis University Berlin	www.steinbeis-hochschule.de
Touro College Berlin	www.touroberlin.de
FOM University of Applied Sciences	www.fom.de/studienort_berlin.html

ESMT European School of Management and Technology



Research Institutes

Berlin's 70 non-university research institutes combine with local universities and colleges to create an important basis for the region's economic development. Their main research focus is on health and life sciences, material sciences, optical and microsystems technology, information and communication technologies, humanities and social sciences. The most important themes are energy, logistics, traffic management and applied mathematics.

The region is the leading location of the *Fraunhofer Gesellschaft in Germany*, with seven institutes, two network associations and the eGovernment center. This organization is a driving economic force and serves as an expert partner for next-generation technologies. The *Max Planck Society* operates a number of facilities in Berlin. Several federal government research institutes are also located in the city

Research Institutes (selection)

Fraunhofer-Gesellschaft: 7 institutes and 3 networks	www.fraunhofer-in-berlin.de
Helmholtz Association: 3 research centers	www.helmholtz.de
Leibniz Association: 13 institutes	www.leibniz-gemeinschaft.de
Max Planck Society: 5 institutes and archives	www.mpg.de
Berlin-Brandenburg Academy of Sciences and Humanities	www.bbaw.de
Federal Institute for Materials Research and Testing (BAM)	www.bam.de
Federal Institute for Risk Assessment	www.bfr.bund.de
German Archaeological Institute	www.dainst.de
German Institute for Economic Research (DIW)	www.diw.de
German Arthritis Research Center Berlin	www.drfg.de
Ferdinand-Braun-Institut für Höchstfrequenztechnik (FBH)	www.fbh-berlin.de
Helmholtz-Zentrum Berlin für Materialien und Energie	www.helmholtz-berlin.de
Zuse Institute Berlin	www.zib.de
Physikalisch-Technische Bundesanstalt	www.ptb.de
Robert Koch Institute	www.rki.de
Berlin Institute for Advanced Study	www.wiko-berlin.de
Social Science Research Center Berlin	www.wzb.eu
Center for General Linguistics (ZAS)	www.zas.gwz-berlin.de
Center for Literary and Cultural Research (ZfL)	www.zfl.gwz-berlin.de
Zentrum Moderner Orient (ZMO)	www.zmo.de



900 MHz Spectrometer at the Leibniz-Institut für Molekulare Pharmakologie, FMP, in Berlin Buch

along with the *Helmholtz Association's* engineering and biological research centers, which include the German Aerospace Center (DLR). This DLR's institutes conduct aerospace and transport research at the Adlershof technology park. Berlin's Helmholtz-Zentrum Berlin für Materialien und Energie operates the BESSY II electron storage ring and the BER II research reactor, two large-scale devices used by scientists from all over the world to conduct research on the innermost regions of matter. With 13 institutes and seven field offices, the *Leibniz Association* operates its largest and most important sites in Berlin. These institutes work in close cooperation with Berlin's universities and colleges. The focus at the German Institute for Economic Research (DIW), the largest of its kind in Germany, is on fundamental research and economic policy consulting. Scientists at the Ferdinand-Braun-Institut für Höchstfrequenztechnik (FBH) conduct applied research in microwave technology and optoelectronics.

Berlin is also a European leader in humanities. Researchers from around the world are drawn to the *Zentrum Moderner Orient (ZMO)*, the *Center for Literary and Cultural Research (ZfL)* and the *Center for General Linguistics (ZAS)*, where they work together to develop new methodologies and investigate interdisciplinary issues. Also important for the field of the humanities in the region is the *Berlin-Brandenburg Academy of Sciences and Humanities*, an international association of scholars with some 270 members.