Why Berlin-Brandenburg?

- More than 200 biotechnology companies with over 4,000 employees working in the sector, the Berlin region is Germany’s premier biotechnology center and one of the top five biotech centers in Europe.
- "Global Players" of the pharmaceutical sector are located here
- Excellent research infrastructure with effective networks: 350 scientific working groups with 5,000 scientists (at Charité only)
- Outstanding location for clinical trials
- A highly qualified labor force
- Infrastructure costs for R&D in the region are below international levels
- Comprehensive support programs for R&D, investment and personnel
Top location for Life Sciences

The region Berlin-Brandenburg offers

- **Cutting Edge Science:**
  - Charité – largest university hospital in Europe
  - 5 universities, 4 colleges of applied science and 19 non-university research institutes (Max-Planck-, Helmholtz-, Fraunhofer Institutes etc.)

- **World Class Economic Enterprises:**
  - Global players: Bayer HealthCare Pharmaceuticals, Pfizer, Sanofi, Shire, BASF, Takeda Pharma, Menarini Group/Berlin-Chemie, BIOTRONIK, Bausch & Lomb, Nycomed (Takeda Company) etc.
  - 24 pharmaceutical companies with 10,000 employees
  - 215 biotechnology companies with more than 4,000 employees
  - 278 medtech companies with 9,900 employees

- **Highly Qualified and Specialized Personnel:**
  - 3,000 life sciences graduates per year
  - 170,000 students in the region
Top location for Life Sciences

The region Berlin-Brandenburg offers

- **Excellent Infrastructure:**
  - 8 technology parks with lab and office space at moderate prices
  - Fast access to all European markets

- **Strong Governmental Support:**
  - Efficient regional networks
  - Attractive grant programs for R&D, investment and personnel
In comparison to the previous year, the average number of employees per company increased by 4.5% in the 1-10 category and decreased by 5% in the 11-50 category. The average number of employees in the category > 50 employees increased by 10%. (Source: Own survey, BioTOP database, 215 companies questioned, February 2012)
Key Figures Bioindustry

Employment rose to 4,068 in 2011. The number of companies went up to 215, reflecting the arrival of 17 companies and 2 departures. (Source: Internal survey, BioTOP database, 215 companies questioned, February 2012)

Source: Biotech Report 2012, BioTOP
Most companies focus on biomedicine. A total of 83% of companies focus primarily on development in the areas of new diagnostics, drug development and associated services or technologies. 13% of the companies are active in the agriculture/food sector, while biotechnology/environmental biotechnology amounts to 19% of all entries.

(Source: Internal survey, BioTOP database, responses from 215 companies, multiple entries, February 2012)
Join the Health Capital Region

Biotech Networks
- BioNTec Network for Biopharmaceutical Biotechnology
- Biophorum
- Center for Molecular Diagnostics and Bioanalytics (ZMBH)
- DiagnosisNet-BB
- DGB - Genome Analysis in the Plant Biological System
- NESTDD Network for Drug Discovery & Development Berlin-Brandenburg
- Network Biopharmaceutical Biotechnology Berlin-Brandenburg
- NutriGenomics Network Berlin-Brandenburg
- Regenerative Medicines Initiative Berlin-Brandenburg
- RNA Network for RNA Technologies
- Ultrasensitive Network

Scientific Institutions
- Berlin-Brandenburg Center for Regenerative Therapies
- Berlin Institute of Technology
- Brandenburg University of Technology
- Charité – Universitätsmedizin Berlin
- Fraunhofer Institute for Applied Polymer Research
- Fraunhofer Institute for Biomedical Engineering (IBMT)
- Freie Universität Berlin
- German Heart Institute Berlin
- German Institute of Human Nutrition (IfA)
- German Rheumatism Research Center (DRFZ)
- Humboldt-Universität zu Berlin
- Institute of Polymer Research of the GESS Research Centre
- Leibniz University of Applied Sciences
- Leibniz-Institut für Agrarwissenschaften Potsdam-Bornim (IAA)
- Leibniz-Institut für Molekulare Pharmakologie (IMF)
- Leibniz-Zentrum für Apendikolithalsforschung (ZLA)
- Max Delbrück Center for Molecular Medicine (MDC) Berlin-Buch
- Max Planck Institute for Colloids and Interfaces
- Max Planck Institute for Infection Biology
- Max Planck Institute of Molecular Plant Physiology
- Robert Koch Institute
- University of Applied Sciences Berlin
- University of Applied Sciences Wildau
- University of Potsdam

Source: BioTOP Report 2011
A Selection of your potential Industry Partners

Global Player

- **Bayer HealthCare Pharmaceuticals**
  - 11 billion EUR sales; >38,000 employees (5,800 in Berlin)
  - focus: gynecology & andrology, oncology, specialized therapeutics, diagnostics, radiopharmaceuticals
  - [www.bayerpharma.com](http://www.bayerpharma.com)

- **Takeda Pharma**
  - 11,68 billion EUR sales; 19,000 employees (>600 in Berlin-Brandenburg)
  - cardiovascular & metabolic, oncology, central nervous system, respiratory & immunology, gastrointestinal & genitourinary, vaccine
  - [www.takeda.com](http://www.takeda.com)

- **Pfizer**
  - 48.4 billion USD; 87,000 employees (500 in Berlin)
  - focus: cardiovascular diseases, central nervous system, rheumatism & pain therapy, cancer, infectology & HIV, respiratory tracts, metabolic diseases, ophthalmology
  - [www.pfizer.de](http://www.pfizer.de)
## The global top 10 established biotech clusters

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Country</th>
<th>Patent activity score</th>
<th>Publication score</th>
<th>Company presence score</th>
<th>Ind-acad part’ship score</th>
<th>Reg and policy env’t score</th>
<th>Overall score</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Francisco</td>
<td>US</td>
<td>59</td>
<td>86</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>89</td>
</tr>
<tr>
<td>San Diego</td>
<td>US</td>
<td>100</td>
<td>62</td>
<td>67</td>
<td>80</td>
<td>85</td>
<td>79</td>
</tr>
<tr>
<td>Boston</td>
<td>US</td>
<td>16</td>
<td>100</td>
<td>64</td>
<td>95</td>
<td>100</td>
<td>75</td>
</tr>
<tr>
<td>Biovalley</td>
<td>Switzerland, France, Germany</td>
<td>33</td>
<td>42</td>
<td>58</td>
<td>85</td>
<td>70</td>
<td>58</td>
</tr>
<tr>
<td>Tokyo</td>
<td>Japan</td>
<td>68</td>
<td>28</td>
<td>50</td>
<td>70</td>
<td>65</td>
<td>56</td>
</tr>
<tr>
<td>Cambridge</td>
<td>UK</td>
<td>12</td>
<td>82</td>
<td>42</td>
<td>70</td>
<td>70</td>
<td>55</td>
</tr>
<tr>
<td>Tel Aviv</td>
<td>Israel</td>
<td>27</td>
<td>46</td>
<td>18</td>
<td>90</td>
<td>85</td>
<td>53</td>
</tr>
<tr>
<td>Berlin</td>
<td>Germany</td>
<td>40</td>
<td>44</td>
<td>32</td>
<td>70</td>
<td>80</td>
<td>53</td>
</tr>
<tr>
<td>Research Triangle</td>
<td>US</td>
<td>47</td>
<td>66</td>
<td>20</td>
<td>50</td>
<td>80</td>
<td>53</td>
</tr>
<tr>
<td>Kansai</td>
<td>Japan</td>
<td>65</td>
<td>29</td>
<td>18</td>
<td>80</td>
<td>65</td>
<td>51</td>
</tr>
</tbody>
</table>

Note: Scores are rounded off; all scores on a scale of 100

Ind-acad part’ship score = industry-academia partnership score; Reg and policy env’t score = regulatory and policy environment score

Source: Business Insights Report "Established and emerging Biotech clusters", 2011
Core Technologies

Products and platform technologies in our cluster are focussing on:

- Cancer Research
- Cardiovascular Research
- Infection Biology Research
- Nutrigenome Research
- Clinical Research
- Molecular Diagnostics and Imaging
- Telemedicine
- Regenerative Medicine
- Genome & Proteome Research
- RNA Technologies
- Glycobiotechnology
Core Technologies

Genome & Proteome Research

- **National Genome Research Network**
  Two of the five core institutes in Berlin
  [www.ngfn.de](http://www.ngfn.de)

- **BCB – Berlin Center for Genome-based Bioinformatics**
  [www.bcbio.de](http://www.bcbio.de)

- **GABI Network – National Plant genome research network**
  [www.gabi.de](http://www.gabi.de)

- **White Biotechnology Network Berlin-Brandenburg**
  [www.weisse-biotechnologie-bb.de](http://www.weisse-biotechnologie-bb.de)

- **Regenerative Medicine Initiative Berlin**
  [www.rmib.de](http://www.rmib.de)
Core Technologies

Genome & Proteome Research

Successful platform technologies are developed by:

- Epigenomics AG
  www.epigenomics.com
- Metanomics GmbH
  www.metanomics.de
- Scienion AG
  www.scienion.de
RNA Technologies

- RINA GmbH:
  - Application-oriented association, focused on the development and commercialisation of RNA technologies

- The following main areas have been developed:
  - Protein bioreactor
  - Antisense and ribozyme strategies
  - High affine RNA molecules
  - In-vitro selection of artificial ribozyme
  - Chemical syntheses of nucleic acid
  - Crystallisation of RNA molecules
  - Matrix technology (raster arrangement of nucleic acid and protein to record interactions with binding molecules)
Core Technologies

Regenerative Medicine – Products and companies

- **Cultured cartilage and bone transplants:**
  Transtissue Technologies GmbH

- **Vascular prostheses:**
  Autotissue GmbH, VasoTissue Technologies GmbH

- **Biohybrid cardiac valves:**
  Autotissue GmbH

- **Autologous chondrocyte transplants:**
  co.don AG

- **Hybrid liver and kidney supported systems:**
  Charité

- **Skin tissue:**
  meGA Tec GmbH, Charité

[www.tissue-engineering.net](http://www.tissue-engineering.net)
Excellent Research and Development

1. Leibniz-Institut für Molekulare Pharmakologie
2. Charité Campus Berlin Buch
3. MDC für Molekulare Medizin
4. TFH Berlin
5. Robert Koch Institut
6. Deutsches Herzzentrum Berlin
7. Charité Campus Mitte
   Charité Campus Virchow Klinikum
8. MPI für Infektionsbiologie
9. Deutsches Rheuma Forschungszentrum
10. Humboldt Universität zu Berlin
11. Technische Universität Berlin
12. Freie Universität Berlin
13. Charité Campus Benjamin Franklin
14. MPI für Molekulare Genetik
15. Zuse-Institut Berlin
16. FhG für angewandte Polymerforschung
17. Humboldt Universität Institut für Chemie
18. MPI für molekulare Pflanzenphysiologie
   MPI für Kolloid- und Grenzflächenforschung
19. FhG für Angewandte Polymerforschung
20. Universität Potsdam
21. Deutsches Institut für Ernährungsforschung DIFE
22. FhG für Biomedizinische Technik
23. TFH Wildau
24. GKSS Forschungszentrum – Institut für Polymerforschung
25. BTU Cottbus
26. FH Lausitz
Regional Life Sciences parks

1. Biotechnology Center Hennigsdorf
   www.cobios-technologiezentrum.de
2. Campus Berlin-Buch
   www.bbb-berlin.de
3. Berlinbiotechpark
   www.berlinbiotechpark.de
4. Berlin Adlershof
   www.wista.de
5. Biotech Campus Potsdam
   www.biotechcampus.de
6. Biotechnology Park Luckenwalde
   www.bio-luck.de
7. GO:IN Innovation Center
   www.goin-potsdam.de
8. Innovationspark Wuhlheide
   www.ipw-berlin.de

Source: ZAB 2004
Clinical Infrastructure

University Clinics with R&D
Charité – University Hospital Berlin

- Oncology
- Neuro-sciences
- Immunology/transplantology/infectology
- Pneumology
- Cardio-vascular diseases/kidneys
- Genetics and genome sciences
- Inflammatory diseases
- Experimental and clinical endocrinology

www.charite.de
Universities

- **Humboldt University**
  - 1.400 students in life sciences
  - Faculties of biology, chemistry and pharmacy
  - Charité University Clinics – 8.000 students
    www.hu-berlin.de

- **Free University**
  - 3.470 students in life sciences
  - Faculties of biology, chemistry and pharmacology
    www.fu-berlin.de

- **Technical University**
  - Institute for Construction, Micro- and Medical Technology
    www.tu-berlin.de

- **Potsdam University**
  - Institute for Biochemistry, Biology and Nutrition Research
    www.uni-potsdam.de
Networks and Initiatives

BioTOP

- The partner for biotechnology in Berlin-Brandenburg:
  - Networking with all relevant partners
  - Technology transfer
  - Comprehensive database
  - Door opener for academia and companies
  - Support for delegations
  - Conferences / Events
  - BioCampus – regional site management
  - Platform for scientific dialogue

www.biotop.de
Networks and Initiatives

- Center for Molecular Diagnostics and Bioanalytics (ZMDB)
  www.zmdb.de
- Tissue Engineering
  www.tissue-engineering.net
- RNA-Network
  www.rna-network.com
- Biohybrid Technologies
  www.biohytec.de
- Nutrigenomics
  www.nutrigenomik.de
- Glycobiotechnology
  www.glykostrukturfabrik.de
- Bernstein Center for Computational Neuroscience
  www.bccn-berlin.de
- National Genome Research Network
  www.ngfn.de
- BCB – Berlin Center for Genome-based Bioinformatics
  www.bcbio.de
Networks and Initiatives

- GABI Network: National Plant genome research network
  www.gabi.de

- Network for Drug Discovery & Development Berlin-Brandenburg
  www.drugdiscoverynet.de
Berlin is your ideal hub:
- Easy access to CEE* markets
- Staff with experience in CEE countries and linguistic knowledge
- Highly qualified industrial and logistical structures

CEE Facts:
- CEE countries have a vast need for medical technology.
- The healthcare sectors standard lies far below Western European standards.
- The CEE market potential relies on 100 Mio. new consumers.
- Germany is already the major supplier within this important market.

* CEE = Central and Eastern Europe