

# Berlin to go

Business news to take away

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Partner

1/2015

## SMART CITY



**INDUSTRY 4.0: A view on the fourth revolution with GE**

**CISCO – The aims of the IT-giant in Berlin**

**Interview with Dr. André Zeug from DB Station&Service**

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## EDITORIAL

**Dear readers,**

May we introduce to you “Berlin to go,” the new Berlin Partner magazine. We have dedicated this issue to the future-oriented topic that is moving Berlin, its development into a “Smart City.” This development includes all the advanced technological and organizational concepts that are preparing modern large cities for the essential challenges of the future. By 2030, about 500,000 more people will be living in Berlin – that’s the equivalent of an entire town. We therefore need smart solutions for a smart city. We bring selected companies to the capital city to develop Berlin as a reference city: we invite companies to Berlin so they can gain experience here before carrying it as a reference out into the world. Our capital city has set itself the goal of promoting sustainable concepts in a targeted manner and developing technologies from Berlin for the world’s metropolises.

With this magazin we are showcasing a selection of the numerous initiatives and projects and presenting Berlin to you as a “Smart City.”

I hope you thoroughly enjoy reading this first edition of “Berlin to go.” We look forward to your feedback on this new magazine – just send an e-mail to [stefan.franzke@berlin-partner.de](mailto:stefan.franzke@berlin-partner.de).

Happy reading!

Dr. Stefan Franzke

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**SMART**



INDUSTRIE 4.0: Ein Blick auf die vierte Revolution mit GR

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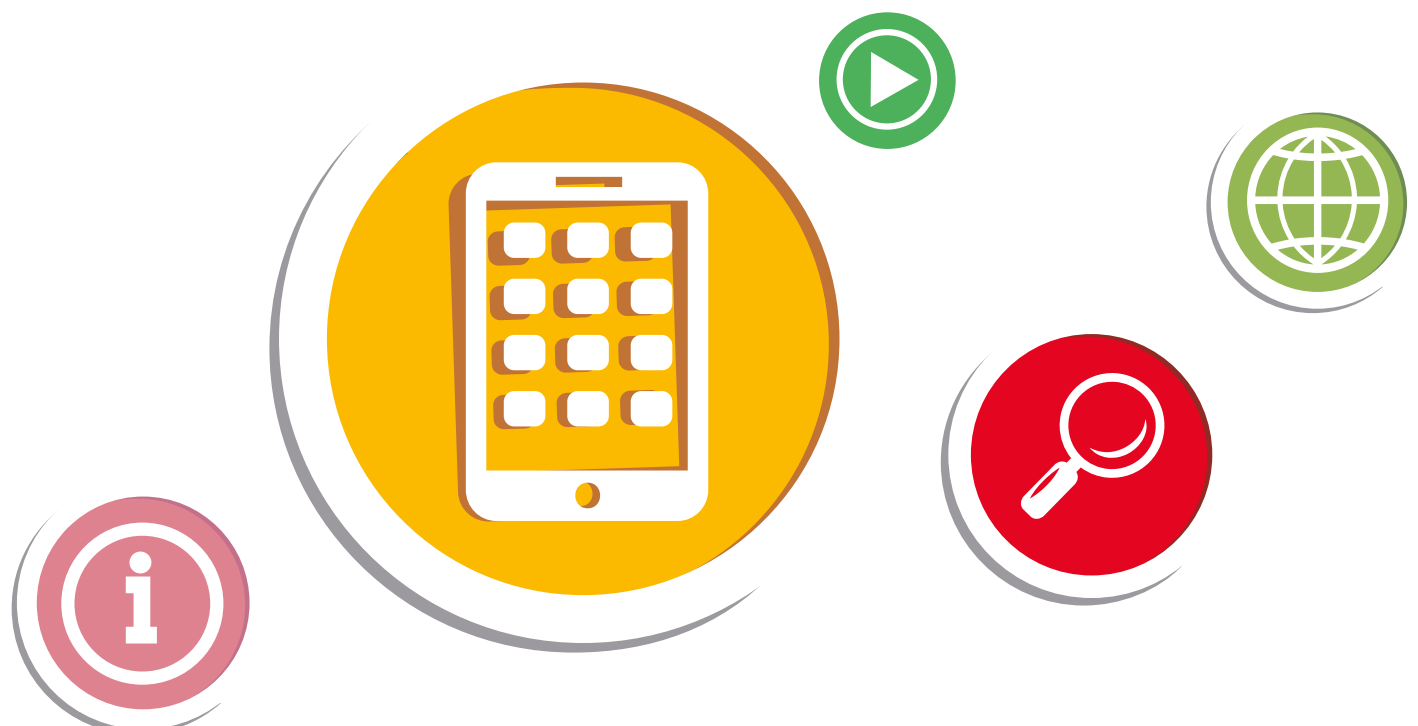
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# THE CAPITAL IS BOOMING

Whether it's the housing or labor market, investment figures of tourist numbers – Berlin is on course for growth: here are the latest figures, projects and other activities

## Utilizing millions in incentives

At the first Berlin Economic Development Day, Berlin Senator for Economics, Cornelia Yzer, and the CEO of IBB, Dr. Allerkamp, presented the subsidy instruments available in Berlin to companies. These include the new program “Investitionszuschüsse 2.0” (Investment Grants 2.0), set up by the Senate Department for Economics. In the biennial budget for 2016/2017, 35 million euros were allocated to this program, which is aimed at supporting those companies whose requests to the GRW (Joint Task Program for the Improvement of Regional Economic Structures) have previously not been considered. Approximately 850 million euros of European funding and approximately 900 million euros from the Joint Task Program are available for the 2014-2020 funding period. For the Joint Task Program (GRW) as well as the European Regional Development Fund (ERDF) and the European Social Fund (ESF) new approval criteria are now applied to project applications.

## More apartments for Berlin

According to the “2014 IBB Housing Market Report”, the number of people living in Berlin rose by around 160,000 between 2009 and 2013, which led to an increased demand for housing. The housing market responded accordingly: Since 2012 the number of completed construction projects has been rising again for the first time. Overall, approximately 6600 new apartments were built in 2013, with another 9000 added in 2014. The developers included state-owned housing associations as well as private developers. The municipal housing stock is planned to reach a total of 300,000 apartments by 2016.



## Job generator Berlin

According to the “Statistical Office for Berlin-Brandenburg”, 1,805 million people were employed in Berlin in 2014 – 1.7 percent more than in 2013. This means Berlin not only showed the strongest growth rate for the third consecutive year (against a national average of 0.9 percent), but the total number of employees reached the highest level since 2000. In just the past three years, 100,000 new jobs have been created, particularly in the service sector.





## Proud of their city

Berlin residents take a positive view of the increasing number of tourists and the city's general popularity. According to a recent survey by visit-Berlin, 94 percent of city residents enjoy living in Berlin and 85 percent feel neither trammelled nor bothered by tourists. 88 percent of Berlin residents are proud that people from across the globe are interested in visiting their city.



## Capital of innovation

In 2013, Berlin-based companies generated around 11 billion euros, or 14 percent of their revenues, from new products. This means that with 1.6 percent the proportion of innovation in Berlin's overall commercial activity again grew faster than the national average (0.2 percent). These figures are documented in the "2014 Berlin Innovation Survey" published in March by the Technologiestiftung Berlin.

New products constituted a particularly high proportion of aggregate turnover in equipment and vehicle manufacturing (46.9 percent) and in the electronics industry (43.5 percent). Not only did Berlin-based companies earn more revenue from new products, they also spent more on innovation (8.1 percent compared to the national average of 6 percent).

## Beacon city Berlin

Berlin, together with Paris and Bologna, has responded to the EU's Smart Cities Call and must now demonstrate that it's ready to be a "beacon city" by developing proposals on how it can become a fully networked city and shift to more sustainable forms of energy and transportation. Should Brussels award Berlin the contract, 7 million euros in funding from the Horizon 2020 EU research project would flow into the capital city. Berlin's contribution envisages setting up a network of smart urban neighborhoods along a smart axis. This would involve retrofitting buildings for greater sustainability and operating them with greater energy efficiency through constant data exchange. In addition, electric vehicles and innovative infrastructure would provide residents with eco-friendly mobility. A decision is expected in October.





## “Going Local Berlin” – our most popular app

Although “Going Local Berlin” was launched just a few weeks ago, this new mobile travel companion from visitBerlin has already been downloaded 10,000 times. The app contains more than 600 personal tips on Berlin’s 60 diverse neighborhoods. In addition, the app offers one tour per district, available as a video which provides glimpses of the atmosphere in the respective part of the city. What really makes the app special is that it lets users submit their own tips and other information to visitBerlin. The free app is available for Android and iOS devices (smartphones & tablets) in the App Store and at Google Play or from [app.visit-berlin.de](http://app.visit-berlin.de). It can also be used offline.



## Exports up three percent

In 2014, exports from Berlin increased by almost 3 percent compared to the previous year. Overall, exports grew by 382 million euros to a total of 13.3 billion euros. With an export volume of 1.5 billion euros the USA were again the most important export country for products made in Berlin. France, which was Berlin’s second-largest trading partner in 2013, is now in third place (at 802 million euros) after Poland, where goods worth 918 million euros were delivered. Along with pharmaceutical products (exports worth 1.3 billion euros), equipment for generating and distributing electricity (1.2 billion euros) and machines (1.0 billion euros) are among the traditionally strong Berlin export products.

## A strong year for the Berlin economy

Berlin’s economy is booming – as the growth figures published by the Statistical Office for Berlin-Brandenburg show. According to the report, the capital city’s gross domestic product increased by 2.2 % in 2014. Berlin keeps catching up, clearly surpassing the national average for growth (1.6 %) and posting the second best performance of all the German states, just behind Baden-Württemberg. As the Senator for Economics, Cornelia Yzer, has said: “Berlin’s economy is on the right track and companies across all sectors are optimally positioned. Whether its manufacturing, industry, construction or the service sector,

which includes retail, transportation and tourism, as well as in the digital economy and the healthcare industry: all major growth sectors showed profits in 2014. Berlin continues to focus on a wide range of growth industries.” The Office of Economics expects current year growth to remain well above the national average, and has revised its forecast upwards, from 1.7 % to 2.2 %.

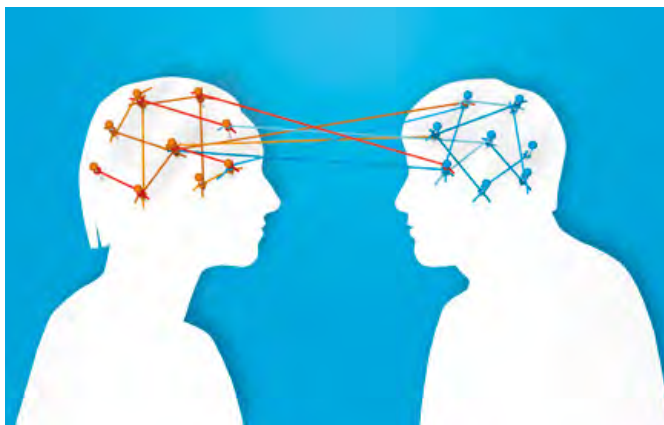






## Investment boost for industry

Companies are investing more than ever in Berlin: This is confirmed by the 2014 balance sheet of Berlin Partner for Business and Technology. Berlin Partner gave support to a total of 234 projects that will generate 5,670 new jobs over the next three years, with capital expenditure totalling 579 million euros. With an increase of around 200 million euros compared to 2013, the total volume of investment exceeds all previous records. Taking into consideration investments across all clusters and industries, 4 out of every 5 euros from projects supported by Berlin Partner flow into industry – a total of around 480 million euros.



## Platform for innovation

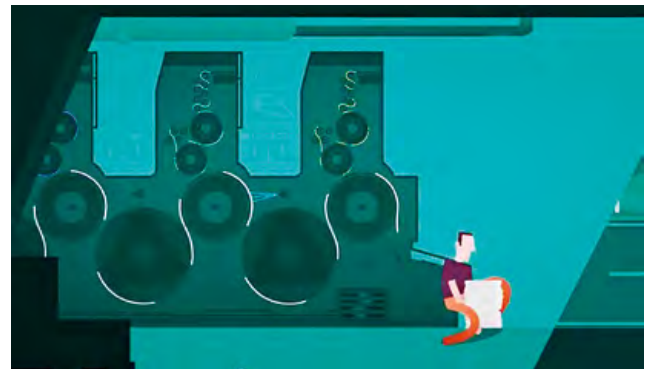
The goal of the new collaborative platform marktreif.berlin, developed by Berlin Partner for Business and Technology, Handwerkskammer Berlin and the IHK Berlin, is to create digital networks between science and industry. The portal is divided into twelve areas of innovation, each highlighting projects being conducted by companies and research institutions that are in need of partners – ranging from theses to large-scale research projects. The purpose is to provide small and medium-sized companies in particular with a platform to describe their work. It also aims at promoting application orientation in research by making it easier for research institutes to find commercial partners.

## Berlin industry rocks

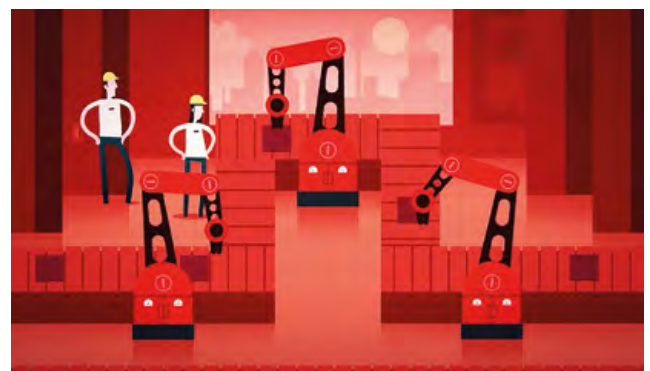
Just how diverse, modern and innovative Berlin's manufacturing sector actually is can be seen in a series of animated films made for the "be Berlin" industry campaign, produced in cooperation with 15 industrial companies in Berlin. Each of the short animated films is dedicated to one of the campaign's partner companies. The background music for each of the spots is a customized remix of the song "Berlin" by the Berlin-based band Bollmer. The 15 remixes were created in cooperation with Universal Music and in close collaboration with 15 musicians and labels. All the animated films can be found at [www.berlindustrie.de](http://www.berlindustrie.de).



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# SMART, SMARTER, BERLIN

Berlin's "smart" vision of the future – a city with green roofs, a decentralized energy supply, multimedia health management and electric transport

The term "smart city" represents all the technological and organizational concepts that will make modern large cities suitable for the essential challenges of the future. As a response to climate and demographic change it aims at increasing the attractiveness of urban spaces and a better integration of industry and science. Innovations in IT and infrastructure will create a networked city that uses its resources in an optimal and sustainable manner, thereby reducing emissions and improving the lives of its citizens.

Berlin is assuming the role of a pioneer in Europe. The accelerated Smart City Strategy is the guiding principle for the future of the city and part of the Berlin 2030 urban development concept, the goal of which is to make the city more economically sustainable and attractive, as well as to increase its profile internationally. Because by 2030 there will be 250.000 more people living in Berlin. That's why solutions are being sought that can address growth with forward-looking, sustainable ideas. Innovative apps and e-mobility solutions are already demonstrating how a smart city might work.

Smart cities will need intelligent urban infrastructure, and will apply digital technology, for instance, to help improve quality of life and reduce resource consumption. This infrastructure includes building automation in many public buildings, smart electricity grids and in particular transportation solutions. In Berlin, for example, Siemens, the operator of the transport information center, supplies drivers with the latest reports on traffic conditions, so they can find a quick, safe and environmentally friendly route to their destinations. The new sensor-controlled parking management system in the Bundesallee should radically reduce the number of cars looking for a parking space, which is responsible for up to 30 percent of total traffic volume. Stromnetz Berlin GmbH's smart grid provides an

energy system that guarantees sustainable mobility and makes maximum use of renewable energy from surrounding areas. Digitizing the power supply provides the Berlin power grid with greater interconnectivity, allowing it to respond more flexibly to supply and demand.

The development of smarter, more sustainable cities is also the subject of Metropolitan Solutions, which is taking place every year in Berlin. Specialist forums, expert tours and workshops will address the challenges and designs for livable cities. Over the long term, this unique technological blending of science and industry will lead to the development of visibly perceptible structures that will make Berlin a modern and competitive location, as well as an attractive place for residents and visitors alike. *at*



## One day in a Smart City

First thing in the morning, **umetriq** adjusts the heating setting based on the current weather forecast. Then you drive to work in your **e-car**, which is of course equipped with a route planner from **VMZ**. If you don't have enough power, you can quickly refuel your e-car at a **ubitricity** e-charging point. For your daily to-do list, you can use the **Wunderlist** app. Thanks to aquaponics, you'll have fresh fish and a tomato salad for lunch in an **ECF container**. And when you return home, the door will open by itself thanks to **KIWI.KI**.



# INDUSTRY 4.0: A QUANTUM LEAP IN DEVELOPMENT

The “Industrial Internet” is coming to Germany and hardly anyone knows about it – as one of the major players, GE is working intensely to make it market ready

**Berlin to go spoke with the managing director of General Electric Global Research, Carlos Härtel, about the appeal of Berlin, the challenges of Industry 4.0, the lessons of past revolutions – and why we should view this new era with optimism.**

**“Industry 4.0” has become a commonly used term, although its meaning often remains rather abstract. Can it be precisely defined?**

**Carlos Härtel (CH):** You’ll get different answers depending on who you ask. “Industry 4.0” is just now beginning to emerge as a concept. Exactly which way things are heading might only become clear in the next two or three years, maybe even five. Content-wise, “Industry 4.0” is closely related to what we at GE call the “Industrial Internet”: the networking of people and

machines with and among each other along the entire length of the industrial value chain. One of the goals is to thoroughly optimize the operation of industrial systems. This ranges from increased productivity to plans for predictive maintenance as well as greater flexibility in terms of application. Take for example wind farm turbines or the compressor on a gas pipeline. They are already continuously producing enormous amounts of measurement and operating data. But, owing to a lack of suitable analytical tools, only a small part of that data can be used. The Industrial Internet or “Industry 4.0” will make it possible to use these large data sets to obtain a comprehensive picture of current system status and operational performance at any time and from any location. This will allow for better management and monitoring than is currently possible.



#### And what is GE working on in this area?

**CH:** Our core research areas cover an enormously wide range of subjects, from aero- and thermodynamics, imaging techniques in medicine, to automation and robotics in manufacturing. With the latter, one of the priorities is “adaptive manufacturing” whereby production robots are equipped with a variety of sensors so they can adapt to the specific machining requirements of each individual component. This, of course, is closely related to such current concepts as “Brilliant Factory” and “Industry 4.0”.

#### What issues are currently being discussed with respect to “Industry 4.0”?

**CH:** The aspect that is most often the focus of discussion in Germany is the optimization of production processes in industrial manufacturing, the key objectives of which are reducing costs and increasing productivity. This could be considered an extension of the digitization and automation of production, which has been of interest to us for quite some time. The next wave of digitization, however, will be much more radical and comprehensive than anything we have seen thus far. Each individual product will be paired with a so-called digital twin, which will accompany the product from the raw material stage, on through design, production and operation, all the way to disposal and recycling. This digital twin will document a product’s



*Carlos Härtel speaking with Berlin to go.*

entire life cycle, creating a treasure trove of information that can be used to make quantum leaps in the development of basic technologies and manufacturing processes.

#### Let’s take Berlin as an example. How would the “Industrial Internet” be applied there?

**CH:** Everyday examples that are frequently mentioned include networked street lighting equipped with sensors so the brightness of the lights

is not only adjusted according to the time of day, but also according to the type and intensity of traffic. Or sensors that identify available parking spots, thereby providing municipal parking guidance systems with needed information. These are the types of “Industrial Internet” applications that we’re sure to see in Berlin in a few years’ time. Of course there’s one obvious problem involved in the use of this technology in the public sphere: data privacy. In industry, the situation is, of course, somewhat different, since the data is primarily technical and not personal in nature.

**So there's no need to fear Big Brother as far as "Industry 4.0" is concerned. What about the other common fear associated with this issue? Will machines steal our jobs?**

**CH:** The new development will present us with both positive effects as well as certain challenges. However, I see no realistic scenario in which technology turns everything upside down and human labor is no longer needed. It is safe to say that machines will become increasingly standardized and take over repetitive tasks. However, more skilled workers will be needed to set up and operate those machines. While some things will disappear, new things will appear – exactly on what scale, we'll just have to wait and see. But the need for manpower certainly isn't about to disappear.

**To what extent can the "Industrial Revolution" be seen as a model?**

**CH:** A lesson that the history of industrial revolutions teaches us is that they are often preceded by fears and objections that have often proven unfounded. Mankind has never been deprived of a chance to earn a living. On the contrary, prior industrial revolutions were responsible for historically unique progress in the fields of health, life expectancy and prosperity. We have every reason to enter this new era with optimism.

**Back to the here and now: Has the launch of "Industry 4.0" gone the way you imagined it would?**

**CH:** In Germany, it is still proceeding rather haltingly. Germany certainly aspires to play a leading role in every relevant field of science and technology. But far too little is being done in terms actually implementing "Industry 4.0". Mid-sized companies in particular seem to continue to take a wait-and-see attitude. If the recent history of the Internet teaches us anything, it is

that speed is everything in this new sector. If you don't already have a plan, tomorrow may be too late. So I would like to see fewer strategy sessions and more entrepreneurial spirit.

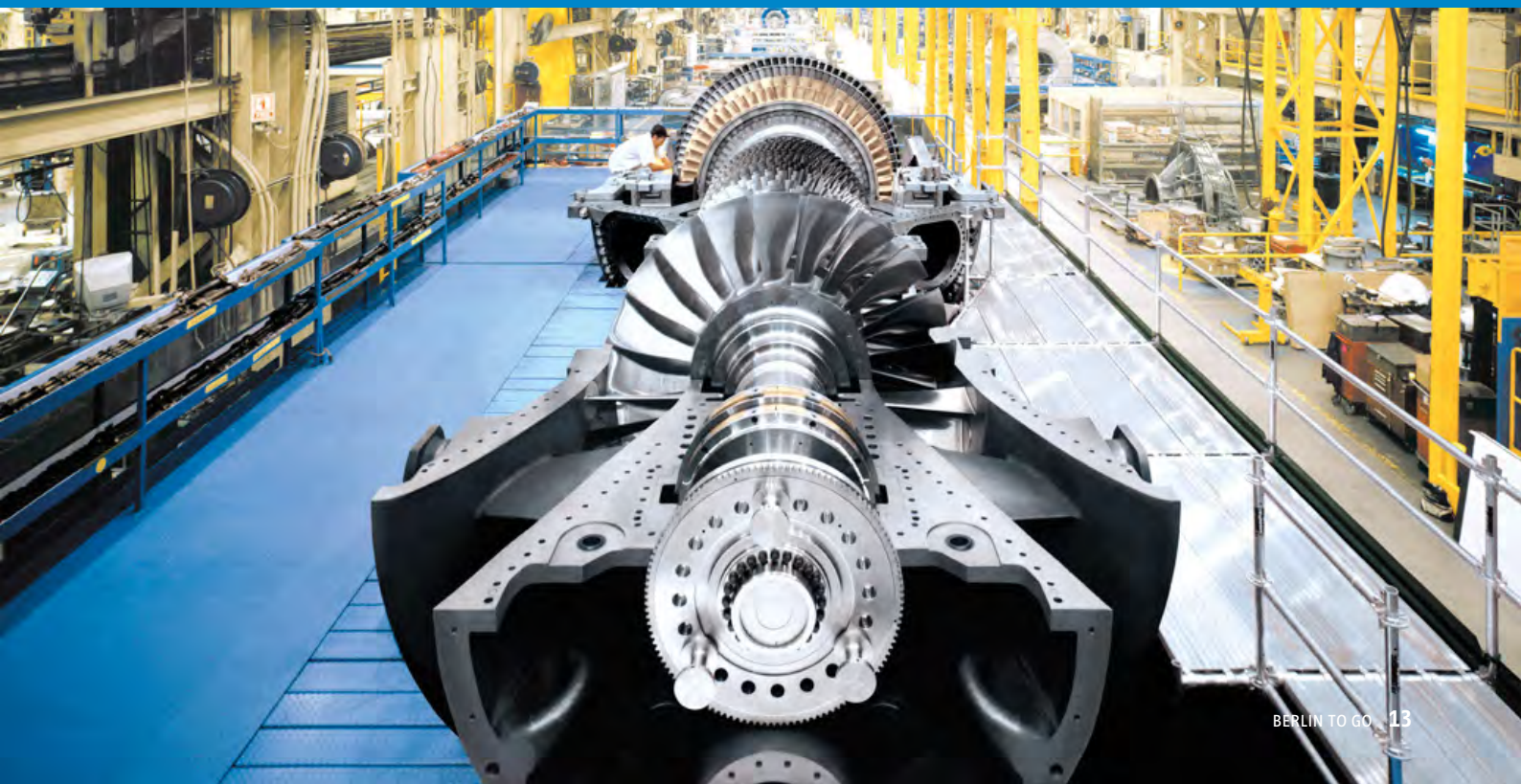
**This year, the new GE training center will be opening in Berlin. Even the chancellor was at the groundbreaking. GE and Berlin: What's the connection?**

**CH:** We have a long history with Berlin, a fact that received considerable attention during the groundbreaking ceremony. The first GE plants were built in the capital more than 130 years ago. Emil Rathenau and our founder Thomas Edison were good friends and Rathenau became a licensee for Edison's breakthrough technology in the field of electricity and lighting. However, there is another reason why Berlin is so important to us: the city's special appeal, which makes it easy to recruit many highly qualified employees, even from abroad.

**Did the city's startup scene play a role in choosing Berlin as your location?**

**CH:** Of course. Berlin is, indeed, a paradise for startups. The concentration of sharp minds in such a lively locale is certainly something that will enrich this city for decades to come and it's what makes it so attractive to companies like GE.

**Thank you for the interview.** *Interview Julian Vetten*





## HUB OF MOBILITY

Berlin to go spoke with Dr. André Zeug, CEO of DB Station&Service AG, about the train stations of the future

**The Berlin Südkreuz train station is not only one of the largest train stations in the capital, it is also the most modern. The train station of the future will be a hub for sustainable mobility solutions. In an interview with Berlin to go, Dr. André Zeug spoke about the train station's unique potential, the innovative navigation systems in use in the train station as well as smart city mobility concepts.**

**Mr. Zeug, you have spent your career getting people from point A to B. What do you find so fascinating about that?**

**Dr. André Zeug (AZ):** It has to do with mobility – and how it is changing. Social trends such as urbanization, digitization and demographic change affect our daily routines, including how we get from point A to B, which in turn also affect the demands on transport and infrastructure operations. In the old days a train station was primarily a gateway to the rail system. Today, train stations are becoming networked mobility hubs. Operating and further refining our 5,400 train stations is an exciting and challenging task.

**Train stations are turning into mobility hubs, especially in urban areas such as Berlin. What are customers demanding nowadays?**

**AZ:** Travelers want a smart and convenient link between different modes of transport. Nowadays when they arrive at a train station, they expect more than traditional urban public transport and a taxi stand. The mobility chain has expanded to

include things like car and bike sharing, for instance. Train stations are even increasingly used as ride sharing hubs where travelers meet to carpool. Many travelers use their smartphones to plan their route, so train stations need their own wireless networks. We provide that at more than 125 train stations, with the first half-hour available free of charge. Due to demographic changes, there's also a demand for barrier-free travel. In Berlin, 94 percent of train stations have been retrofitted to provide wheelchair access.

**In the last couple of years you have modernized several train stations, among which Berlin Südkreuz sticks out as an example for sustainable, holistic development concepts in the urban space. What makes this location so special?**

**AZ:** The Südkreuz train station is one of the largest long-distance train stations in Berlin. It is a very special station for us, because it's where we work with specialist partners to test a variety of innovations. The "Südkreuz Intelligent Mobility Station" project, one of thirty projects in the Berlin-Brandenburg international electromobility showcase funded by the federal government as part of the national electromobility platform, comprises several major projects. In addition, we opened our first self-operated long-distance bus station at Südkreuz in early 2014. It's also where the first electronic train car position indicator went into operation, which gives passengers and visitors real-time information about how cars are arranged as

well as on relevant construction sites and delays. In the S-Bahn hall, mobility monitors show, for instance, the current departure times of long-distance buses and the locations of bike and car sharing services. Other projects include, for example, a solar power generator that rotates so that it is always facing the sun as well as a BVG e-bus with an inductive charging station. We see the Südkreuz station of the future as a public platform where we can invite other specialist partners to test customer-relevant innovations.

**Do you believe the public will embrace these services? What's user response been like? And speaking of navigation, in the future people will use their smartphones to get to their trains. What other services will you be providing customers?**

**AZ:** The new services, some of which are currently being tested, include a long-distance bus station, an electronic train car position indicator and the e-Flinkster parking spot, all of which have been well received. The ride sharing station, a meeting point for travelers, is also being used regularly. An indoor navigation system is currently still in development. Soon we expect to be offering visitors an exhibition in the station that will provide information about the many projects going on at the Südkreuz station.

**The train station of tomorrow networks electromobility in a variety of ways. The micro smart grid even makes it possible to provide optimal control over power generation and consumption. Will you be able to implement this concept everywhere, or will it be limited to just a few trend-setting stations like Südkreuz?**

**AZ:** The Südkreuz station plays a unique role because it is where innovations for existing train stations are tested for the first time. An innovative idea for the construction of new train stations is the so-called "green station," which operates on carbon neutral basis. The prototype, Europe's first CO<sub>2</sub>-free train station, went into operation in Horrem in the state of North Rhine-Westphalia in 2014. The second green station is being built in Wittenberg.

**For several years now you've also been investing in smaller and medium-sized train stations. How can sustainable smart city solutions be developed there as well?**

**AZ:** Even small train stations are increasingly developing into mobility hubs that link together different modes of transportation. This could lead to an increased use of regional and city buses or ride sharing services, for instance. We are working closely together with the states, cities and communities to encourage this development. Stations must now be quickly and easily accessible so that rail travel remains attractive. In order to provide people in rural areas with access to the rail system, we launched the so-called station offensive and tested thousands of potential sites for new stops. As a first step, we are working hand in hand with the Free State to build 20 new stations for regional transport in Bavaria.

**What goals have you set for your company this year and what challenges will you and DB Station&Service AG have to face in the coming years?**

**AZ:** Our focus has always been on travelers and visitors. To make sure they have a comfortable stay, we will use the opportunities of digitization, this year for instance in facility management. We are equipping elevators, escalators and emergency lighting so that they can self-report problems and resume operation more quickly. In order to meet changing customer needs, we are also building on partnerships with startups, for instance. Just this past April we held our second pitch event entitled "Next Station" on the topic of shopping in the station of the future. The two winning teams tested their ideas in June at a pop-up store at Berlin's Hauptbahnhof and can also make use of a co-working space at Jannowitzbrücke free of charge.

**Do you try to envision the Berlin of 2030? What will the city look like? How will personal mobility be different?**

**AZ:** In 2030, even more people will live in urban conurbations than today. Mobility will probably be even more flexible – everyone will only use what they need at the moment. Electromobility will be fully integrated. Cars will be recharged at charging stations located at train stations, for example. Train stations will generate renewable electricity on-site. Probably the first autonomous cars will also stop at train stations by then. I think people will continue to use train stations to leave, to arrive, to shop and as a place to meet.

**Thank you for the interview.** *Interview Gabriele Schulte-Kemper*



*Dr. André Zeug has been CEO of DB Station&Service since 2008.*



## BIRTHPLACE OF SMART BERLIN

Last year, Cisco opened its innovation center – the goal: “To change the world, starting from Berlin”

**More than 50 billion devices – from dishwashers to cars – will be linked together by the end of the decade. Network specialist Cisco estimates the value added by digitization at 900 billion euros and is working hard with the Berlin startup scene to create the “Internet of everything.”**

The first time you hear Cisco manager Bernd Heinrichs enthusing about the EUREF campus in Berlin, it might seem as if you are in a science fiction movie: “More than 10,000 sensors have been installed on our 5.5-hectare site and not only do they ensure that I can get to the former Gasometer without getting caught in traffic, they can also tell me where I can find the perfect parking spot.” Once he reaches his destination, Heinrichs recharges his e-car at the largest electric filling station in Germany, which connects to the local power grid via a smart grid, and then makes his way to the new Cisco Innovation Center. This is where

the IT group conducts research on the “Internet of Everything,” using its own facilities to demonstrate how to network every sort of object, from smart lighting to demand-driven garbage disposal. The most obvious indication of just how efficient this revolutionary technology can be is the fact that by last year the EUREF campus had already met the federal government’s climate objectives for 2050. Thus Cisco’s network specialists made sure that the future has already begun in Berlin. According to Bernd Heinrichs, the rest of Berlin should follow within the next ten years. “Starting from Berlin, we have the chance to change the world,” says the marketing manager in charge of the “Internet of everything.” “Nowhere else are there as many creative minds as there are here – along with policy makers who understand how to take advantage of this unique opportunity.” Heinrichs is of course referring to the city’s vibrant startup community.



Since the unofficial opening of the Innovation Center last year, nearly 50 startups have followed Cisco to the German capital, where they are working together to find solutions for the Internet of tomorrow. There's a mutual attraction between the IT giant, with its annual turnover of nearly 50 billion euros, and the young tech guns from around the world: as a specialist for routers and switches, Cisco provides the lion's share of the world's Internet backbones – so the developers who program applications for the hardware could scarcely be closer to the beating heart of the Internet.

### “Nowhere else are there as many creative minds”

More important for the company's immense popularity in startup circles, however, is Cisco's new openness: “The future is not in the cloud, but in the fog,” says Heinrichs, immediately offering this explanation for his analogy: “A cloud floats out of reach in the sky; but fog stays close to the ground.” Unlike most major competitors, Cisco has begun opening up its products to applications from other companies, starting last year.

But open source is not just sending the developer scene into flights of euphoria or helping build confidence in a technology that, especially in Germany, has long been viewed with suspicion, due to concerns about the loss of privacy. The synergies it provides also allow the companies involved to make quantum leaps in development. “We used to think of our projects in terms of years; now it's weeks, sometimes even days,” says Heinrichs.

The best example of the success of this new strategy is the collaboration with Azeti: This Berlin-based company monitors complex industrial infrastructures and, along with Cisco, has developed a system that allows to analyze the sensor data right there on the network devices – which are, of course, made by Cisco. And here's where the fog comes into play: instead of sending the information into a cloud and analyzing it there, almost everything happens locally – thereby reducing data traffic by 90 percent and saving resources for everybody involved. It's a seemingly minor measure which, Heinrichs is convinced, “may have paved the way for Azeti to become a global market leader.”

Success, spontaneity and a yes-we-can attitude are attractive qualities in the startup world – and the Cisco Innovation Center exudes quite a lot of them. No wonder young entrepreneurs are fighting for the coveted positions. Nearly 150 people work in the charming brick building, and just under a quarter of them are Cisco employees. The rest are mainly startups that have been able to win over Cisco with innovative ideas for partnerships. It's for precisely this purpose that the company makes available a whopping 250 million euros in risk capital. “We see ourselves as a startup accelerator,” says Heinrichs. Free from financial worries, young developers can concentrate on the essentials: developing break-

through technologies in the fields of production, logistics and transport in which the Berlin Innovation Center specializes. At least 900 billion euros of added value could be generated alone in Germany by networking these three sectors – which makes the immense investments suddenly no longer seem so huge.

### “We see ourselves as a startup accelerator”

The changes these sober sums bring about will be utterly revolutionary: Berlin's congestion problems – forever solved. Hunting for a parking space – a headache no more. From dishwashers to cars, more than 50 billion devices are expected to be networked by the end of the decade, helping to make people's lives easier.

What is now emerging in the shadow of the Gasometer is a veritable revolution – and it hasn't even really begun yet: In October Cisco's Innovation Center will be inaugurated. It already is one of the birthplaces of the smart Berlin. *ju*



*Dr. Bernd Heinrichs, Managing Director IoT EMEAR @ openBerlin IoT Innovation Center, Cornelia Yzer, Senator for Economics, Technology and Research, and Dr. Stefan Franzke, Management Spokesperson of Berlin Partner for Business and Technology at the presentation of the Innovation Center.*

# BERLIN PROJECTS FOR SMARTER CITIES

Whether it's storage solutions, traffic control systems, parking tools or houses planted with algae – Smart City solutions are more diverse than you may think

## First Sensor AG: no Smart Cities without sensors

Sensors are the key technology for innovative applications such as the Internet of Things, smart homes and smart cars. Sensors and sensor systems from First Sensor AG are used in automated buildings, in monitoring the condition of buildings, in medical technology, driver assistance systems, passenger counting systems, traffic monitoring, as well as in baggage and body scanners at airports. Sensor systems are also a basic element in the development and use of smart technologies such as street lighting, public transport, water and park management, as well as waste disposal.



## Parku: the parking revolution

In city centers, public parking spaces are a scarce and generally expensive commodity that cannot be reserved. Meanwhile, private parking spaces are left empty during working hours, while both underground and aboveground parking garages and customer parking for shops, businesses and hotels remain mostly unused outside of business hours and peak seasons. Parku's parking-space-sharing concept uses an online marketplace to bring together parking spot owners with those needing a place to park. Using parku.de or the mobile app, users can rent or book parking spaces either up to 30 days in advance or on the spur of the moment.

## Elegant embellishments: smart facade finishing

This Berlin-based company installs enhancements on facades, which otherwise are often left unused. It uses innovative, often invisible, technologies that provide ecological benefits to cities and can reduce the environmental impacts of city pollution. These design solutions are based on the functional requirements of the individual technology. The focus is on using materials more effectively to reduce environmental pollution, such as that caused by nitrogen oxides or atmospheric carbon dioxide. The quasi-crystalline Prosolve370e facade system by Elegant Embellishments, for instance, uses photocatalysis to reduce air pollutants.

## Lego: build your own Smart City

Young Berlin residents and visitors to the Lego Discovery Center can experience and build their own very special kind of Smart City. In the new "City" play area, which opened on March 24, girls and boys can create a very special city out of Legos, placing huge skyscrapers alongside cozy single-family homes, shopping centers and playgrounds. The young urban developers can try out all kinds of different arrangements to see which one works best.





### KIWI.KI: open doors without a key

The Berlin-based startup KIWI.KI develops and markets the KIWI keyless entry system for entrance doors to apartment buildings. KIWI doesn't use buttons or keys – instead, all you need is a transponder and the KIWI app, which communicates with the door sensor. The latter unlocks automatically and reliably via the existing door buzzer. The KIWI app can be used to allow other people access or to open the front door with your smartphone.

### Who will receive the “SMART BUDDY”

Since 2011, the Mayor of Tempelhof-Schöneberg and the Company for Business Development have awarded the GREEN BUDDY AWARD to a total of twelve environmentally responsible companies in their borough. Now a new category has been added: the “GREEN BUDDY BERLIN – Smart Cities,” which will be awarded city-wide for the first time by IBB and Berlin Partner. This award will go to innovative and highly marketable projects that apply Smart City ideas on a multidisciplinary basis. Applications must include a detailed description of the project and a statement on the benefits provided by the particular Smart City solution.



### TomTom: Berlin Smart City solution for China

Transport and mobility are becoming increasingly individualized and situation-dependent and need to be managed using Smart City applications.

The TomTom system for broadcasting live traffic information offers an ideal solution. Together with its partner, AutoNavi, TomTom will soon begin working with Audi in China. TomTom Traffic provides accurate, up-to-the-minute traffic information for highways and major thoroughfares as well as the secondary road network in China. The real-time information from TomTom allows drivers to reach their destinations faster and reduces congestion on China's roads.

### Box at work: smart storage & more

Box at Work is an on-demand storage and moving boxes service whose smart storage solutions and sustainable logistics will make life in the city simpler and more convenient. The idea: storing things should require a minimum amount of effort and stored items should be available at any time at the click of a mouse. Box at Work provides free, durable storage boxes with personalized barcodes at the address of your choice, picks up the packed boxes and other items, and stores them in its own secure warehouse. In addition to its storage service, Box at Work also rents out stackable and lockable moving boxes so that, working together, we can reduce our carbon footprint. These boxes are completely recycled after 400 uses and the recycled material returned to the product cycle.



### Arup: sustainable city buildings with biomass

In collaboration with Colt International and SSC Strategic Science Consult, Arup is currently developing the world's first bioreactor facade for a Smart Material House. The house lets sunlight shine through floor-to-ceiling glass panels and uses photosynthesis provided by algae biomass to convert CO<sub>2</sub> into storable, usable energy. Biological and technical cycles are interconnected to make better use of local resources and integrated into buildings and urban spaces.





# BRINGING THE BEST MINDS TO THE CAPITAL CITY

Burkhard Volbracht, Head of Unit Talent Service at Berlin Partner, tells Berlin to go how to bring international talents to Berlin

**More and more innovators as well as skilled professionals and executives from around the world are coming to work in the German capital, and that's a good thing. Because the Berlin economy needs well-qualified workers so it can hold its own in international competition and continue growing.**

Berlin Partner has been working for a long time to make it even easier for professionals from Germany and abroad to live and work in Berlin. The Talent Service – one of the services offered by Berlin Partner – supports companies in their search for qualified employees and provides a comprehensive package of services via its “Business Talent Package.” Burkhard Volbracht, Head of Unit Talent Service, explained exactly what those services are and how they were received by businesses and business professionals.

**Mr. Volbracht, how and when did the Berlin Partner Talent Service come into being and what are its basic tasks?**

**Burkhard Volbracht (BV):** The availability of well-qualified talent is the decisive factor in choosing a location today. Managers prefer speaking with the first candidates as early as the decision-making phase in order to get a real feel for the location. We have taken that into account and completely redesigned the Talent Service. With our service, we want to prove that Berlin is attractive for highly qualified talent. On

the other hand, we want to make the Berlin labor market as transparent as possible. We help employers gain visibility in Berlin while also showing job seekers how to find jobs and advance their careers in the Berlin job market.

**Can all companies use the Talent Service, or only Berlin Partner companies?**

**BV:** In principle, the Talent Service is available to all companies, though it's primarily for those companies working with us on an economic development project. We primarily address Berlin recruiters whose work we would like to support through our services. On the candidate side, every talent may use [www.talent-berlin.de](http://www.talent-berlin.de).

**What services does the Talent Service actually provide to interested companies?**

**BV:** We provide assistance with writing job descriptions and career webpages, bring together companies that are downsizing with those that are expanding, bundle job offers from across Berlin and provide support in welcoming new talent to the city. In addition to these concrete recruitment matters, we also provide support with regard to qualification and continuing education, help facilitate the transition from university to the private sector, as well as market Berlin and its employers at national and international job fairs. Lastly, we

provide help with questions on residence and work permits as well as advice for dual-career couples in the Berlin science community.

**Do companies use all the Business Talent Package services, or do they seek assistance with individual issues, such as promoting employees?**

**BV:** Use of the individual services varies greatly. Companies from abroad that are trying to get into the Berlin market have completely different issues compared with recruiters who have been scouting the Berlin labor market for years on behalf of Berlin-based companies. The Business Immigration Service, in particular, is currently in high demand. This service allows us to support those seeking residence and work permits.



Burkhard Volbracht with a welcome bag.

**Is there an offering of the Talent Service that is of particular importance to you?**

**BV:** Many consider Berlin a good place to make a start. With the Talent Service, however, we also want to position Berlin as a place for advancement. Berlin is not only a great place to live, but also a great place to make a career. In order to make Berlin known as a “great place for careers,” we are working hard on things like transparency, talent and welcoming newcomers. It was a perfect example of the city’s appeal when the director of the British Museum in London, Neil MacGregor, gave up his position there to take on a leading role at the Humboldt Forum in Berlin. Berlin can’t get enough of new arrivals like this one.

**In addition to the job portal, what other portals does the Talent Service use to provide information?**

**BV:** The job portal has now been integrated into the portal [www.talent-berlin.de](http://www.talent-berlin.de). The Talent Portal is a classic welcome portal where questions about the Berlin labor market and related issues such as schools, work permits, housing, etc. are answered. It is aimed at skilled workers and managers who are moving to Berlin or who already live here. The Talent portal is linked to the Berlin Sciences portal, since the Berlin science community turns out 25,000 graduates per year onto the labor market. We seek to provide them with targeted information about the Berlin job market.

**Which companies do you focus your efforts on? Are there sectors that are of particular interest?**

**BV:** We focus on every industry in Berlin. From our perspective, the IT and the services sectors are the most dynamic parts of the labor market.

**Will you be adding any new services in future?**

**BV:** As part of a continuous improvement process, we are currently examining our services to see which target groups are seeking which services and how often. Right now we are not planning to add any completely new services. Often there are many services, but they’re either poorly integrated or not integrated at all. So there is still a lot of untapped potential in terms of meeting our target group’s needs.

**Thank you for the interview.**

*Interview Anke Templiner*

**Business Immigration Service (BIS)  
The Berlin Model – at the Workplace in just Five Days**

The Business Immigration Service provides for the quick and easy issuance of residence permits to entrepreneurs and highly qualified management personnel, all in just five days. Foreign companies, managers and highly skilled specialists and their families can resolve questions relating to residence status quickly and uncomplicated through the Business Immigration Service (BIS).

This includes information about becoming self-employed or starting a business in Berlin (§ 21 Aufenthaltsgesetz, the law governing foreign residents); advice for employers on hiring foreign workers; first applications and renewals for residence permits (temporary and permanent residency), as well as on submitting fee-based requests to the employment office for approval to issue work permits.



# WELCOMING TALENTED PEOPLE

The Dual Career Network and the Talent Portal are two services that Talent Service provides to help make it easier for professionals to come to Berlin

## Network for Career Couples

The Berlin university and research landscape offers the ideal context for careers in science. But when scientists obtain a position at a university or research institute, one question is quick to follow: “How does this affect my partner’s career?”. The Dual Career Network Berlin (DCBN) [www.dualcareer-berlin.de](http://www.dualcareer-berlin.de) provides a central point of contact for dual-career couples who are either new to the capital or planning to move there. The Dual Career Service

offers assistance with career planning, searching and applying for a job, advanced training, as well as professional reorientation and other issues.

This Berlin-wide, service-oriented network assists accompanying partners with any questions they may have about rebooting their career in Berlin or working and living in the capital region – including consultation and coaching services.

## Successful Portal for New Berlin Residents

The portal [www.talent-berlin.de](http://www.talent-berlin.de), in operation for a year now, is intended to inspire well-qualified professionals and executives from Germany and abroad to come live and work in Berlin and provides numerous services to help make it easier for them to get their start in the city.

The site uses a fresh, clear design to provide future Berlin residents with straightforward answers to many questions that are important when moving to the capital city. Talent Berlin offers extensive information on living and working in Berlin as well as numerous job options and information on residence and work permits. Useful and relevant information as well as specific services for new Berlin residents are presented in a wide-ranging and attractive format. It even has the latest tips on recreational activities and relocation checklists. Germany’s biggest job

board, managed by the Federal Employment Agency, is also involved, providing those interested a look at career opportunities in Berlin and Brandenburg. A special highlight is the social media hub, an interactive tool that is creating an online community of its own. The platform can be used to ask and answer questions.

This portal was established to help Berlin provide the kind of creative services that can attract the best talent. Since young professionals nowadays have so many options to choose from, Berlin must offer special services for them and highlight its advantages. It also helps make it easier for employers to find top talent. Up to now, they had to put considerable effort into developing services of their own; now there is a central platform that bundles all the services together.

# BERLIN AS A GATEWAY TO THE WORLD

The EU and International Service assists international projects through its VIP and Delegation Service, Enterprise Europe Network BB and trade show service

**The EU and International Service assists companies in developing global markets and searching for international partners through its Enterprise Europe Network Berlin-Brandenburg (EEN BB) and high-level international trade shows and events.**

It is increasingly important that Berlin-based companies take a more international outlook. Berlin, Germany's most cosmopolitan city, is home to around 160 diplomatic missions, international business clubs, chambers of commerce and associations, as well as half a million people from over 180 countries. This makes the capital an ideal location for global activities.

The Enterprise Europe Network Berlin Brandenburg (EEN BB) provides customized consultation and detailed information on innovation-oriented developments, initiatives and programs in the European Union. The network helps companies search for business, research and technology partners and supports them as they market their services and products abroad. With 20 European experts in the capital region, the network is closely associated with professionals throughout Europe. The network functions as a guide to extensive information from

Brussels. EEN BB also manages the EU research and innovation program, Horizon 2020. Current EU information, cooperation and technology requests can be sent via e-mail or discussed in personal consultation.

**Contact: [eu-beratung@berlin-partner.de](mailto:eu-beratung@berlin-partner.de)**

## The H2020 E-Mail Service

The H2020 E-Mail Service bundles together information on Horizon 2020 and provides information on current invitations, topics and opportunities for participation, as well as events and workshops in Brussels and elsewhere in the region. This information is sorted by topic according to specified areas of interest. The e-mail service is published every two months or as e-alerts for specific events. To subscribe, please visit

**[www.eu-service-bb.de/h2020](http://www.eu-service-bb.de/h2020)**





## THE 7 SERVICE PACKAGES FROM BERLIN PARTNER

# FOR MORE SUCCESS IN BERLIN

Customized services for Berlin-based companies and companies interested in moving there – whether it's help with selecting a location, funding opportunities, or finding qualified personnel

**Berlin Partner for Business and Technology offers special service packages tailored to a company's individual needs. Services include customized funding concepts as well as support in searching for real estate and qualified staff.**

Berlin Partner mediates valuable contacts between science and industry, facilitates technology transfer and advises companies with their international projects.

### WE CURRENTLY OFFER SEVEN PACKAGES:

#### Business Welcome Package

3 months of Berlin for approx. 4,500 euros plus VAT: Companies are provided a fully equipped office, a furnished apartment and basic counseling on entering the Berlin market.

#### Business Location Package

Working in collaboration with your company, we develop search profiles, scout for suitable properties and conduct facility tours. A separate real estate portal is your first point of contact.

#### Business Technology Package

This package provides support during the initiation and planning phases of product and process innovations, as well as with all issues relating to technology and know-how transfer.

#### Business Financing Package

This package applies all relevant criteria to test an investment project's eligibility for funding. Where necessary, a technology check and a marketability assessment can also be carried out on the project.

#### Business International Package

This package provides personal consulting for international projects along with associated services, such as the EU service and the VIP delegation service, either individually or as a bundle – all from a single provider.

#### Business Marketing Package

This is the package that helps companies develop an effective network, so they can quickly gain a foothold in the Berlin business scene and connect with the right people. This package is geared towards foreign companies that are investing for the first time in Berlin or expanding their operations there.

#### Business Talent Package

This package supports companies in their search for qualified employees. Services range from helping formulate job descriptions to placing ads in the company's own job portal, as well as helping procure qualification allowances.



# THE PERFECT LOCATION

From Virtual location information from the Business Location Center to Zukunftsorte in the capital

**Berlin Partner's Business Location Center (BLC) bundles together information aimed at growing companies in Berlin and makes it available online. Companies receive comprehensive guidance regarding their commitment in Germany's capital region.**

Working side-by-side with companies, the BLC develops search profiles, scouts for suitable properties and conducts site tours. A separate real estate portal serves as the initial point-of-contact.

## 3D city model as open data

BLC recently made available a 3D city model of the German capital as open data, which the public can download for free. Users can explore this realistic model of the city online, or use it offline. To create the model, around 550,000 buildings covering 890 km<sup>2</sup> of urban space were photographed from the air and measured. The city model's 3D building data is now available through a web-based service portal as part of the State of Berlin's open data initiative. The Open Data Model allows users to obtain the original CityGML data for

either the entire city model or portions of it and to use it for their own purposes. The 3D city model and video material, available for unrestricted use, can be downloaded from: [www.businesslocationcenter.de/downloadportal](http://www.businesslocationcenter.de/downloadportal).

## Zukunftsorte Berlin

Berlin isn't just making international waves as a startup mecca and dynamic location for modern, innovation-driven industry and research. With its unique blend of science, research and culture, short travel distances and ideal living and working environments, Berlin offers plenty of room and opportunities for the inquisitive and the talented. Of all European cities, Berlin has the greatest share of urban area devoted to science and industry. In addition to providing excellent research and education, various hotspots distributed across the city also offer the perfect locations for innovative companies and startups interested in settling in Berlin. Together, they form a unique network for forward-looking industries. This is where international science meets creative minds and the movers and shakers from the business world. It's where solutions to the challenges of tomorrow are being developed: the Smart City made in Berlin.



# WHERE THE FUTURE LIVES

The EUREF-Campus – a smart urban district and pilot project for the transition to sustainable energy and networked mobility

Those unable to identify the 55,000-square-meter EUREF campus as one of Berlin's Zukunftsorte will at least recognize it as the venue for a well-known TV show. Every Sunday at 9:45 p.m. on the dot, Günther Jauch hosts his talk show from the Gasometer, one of the most impressive and best known buildings on the campus.

The old Gasometer is not only a Schöneberg landmark, a monument to industrial architecture and a special venue all its own, it is, above all, a bridge to the energy of the future. Because the Gasometer is surrounded by a campus that serves as home to a variety of companies and institutions that are working on a smart, modern energy supply and new models of mobility.

The campus, which consists of a unique blend of historical buildings and architecturally attractive new structures, is generating new impetus for pioneering innovations and inspires enthusiasm through its integrated energy and mobility design. An innovative community from industry and science – including Cisco, Deutsche Bahn, Schneider Electric und General Electric – has taken up residence on the campus where they are developing ecologically and economically sustainable solutions for a smart urban model.

The buildings are supplied with locally generated renewable energy from wind, solar, biogas and geothermal sources – using five small wind turbines and three solar installations – which makes them, for the most part, autonomous and carbon neu-



Testing networked mobility – the charging stations on the campus.

tral. The entire power supply system for these energy-optimized “green buildings” is managed via a Micro Smart Grid. The core idea behind this smart grid involves the storage of excess electricity from renewable sources so that it is quickly available when needed and can otherwise be used as an on-site energy source, e.g. at charging stations for refueling electric vehicles. This networking of urban mobility and energy is an important issue on the EUREF-Campus, as shown for example by the “Platform electroMobility” located there. Last but not least, the EUREF-Campus is also an innovative research center that works with the TU Berlin to provide practice-oriented programs of study. at

Old and new in perfect harmony:  
InnoZ on the EUREF-Campus.



## ZUKUNFTSORTE

berlin Berlin

### Facts about the EUREF Campus

#### Pilot site for the transition to sustainability

- CO<sub>2</sub>-neutral energy supply via biogas CHP
- Locally generated renewable energy from solar, wind and geothermal sources
- Smart grid/smart metering and power to heat on campus

#### Platform for electro-mobility

- Largest electric filling station in Germany

#### Innovative research center

- Five Master's degree programs at TU Berlin with 120 students
- “Mobility2Grid” federal government research campus
- “Green Garage” startup incubator

# THE POWERHOUSE IN THE SOUTHEAST

The Adlershof Technology Park is not only continuing a local tradition of innovation, it is also continuously generating its own growth

**Until 1989, the area around the site of Germany's first airfield in Johannisthal-Adlershof served as one of East Germany's foremost research centers and home to television broadcasters. Since 1991, WISTA-MANAGEMENT GMBH has developed this area southeast of Treptow-Köpenick into a setting for integrating business and science. Today, Adlershof is one of the largest science, business and media hubs in Berlin and Brandenburg and one of the Zukunftsorte.**

Adlershof is not merely steeped in technological tradition, it also offers plenty of room for future growth. 1001 companies and scientific institutions (as of January 2015) have settled in this 4.2-square-kilometer area – embedded in an overall urban planning concept. 15,931 people work here, the equivalent of the population of a small town.

At its core is a science and technology park made up of 478 companies, six Humboldt-University institutes and ten non-university research institutes. They focus on photonics and optics, photovoltaics and renewable energies, microsystems and materials, IT and media, biotechnology and the environment, as well as analytics. The “Centre for Photovoltaics and Renewable Energy,” which opened in 2013, offers a total 8000 square meters of production, lab and office space. These spaces can be rented by small and medium-sized com-

panies at favorable terms for up to eight years. Development of additional commercial space between Groß-Berliner Damm and the Schöneweide depot is aimed at further enhancing Adlershof's attractiveness to new companies.

Adlershof grew particularly fast in 2014, with 50 technology-based companies deciding to settle there, a growth rate of exceptional magnitude. There have never been this many groundbreaking, topping out ceremonies and inaugurations by private developers. The development of new areas gives companies the freedom to expand to a much greater degree than was previously possible.

Urban aesthetics and flourishing projects like “Wohnen am Campus” (living on campus) contribute significantly to the area's distinctiveness and serve to enhance the location's appeal. The sudden growth of the Adlershof high-tech hub in 2014 was particularly noteworthy since it occurred against the sharp decline in subsidies happening at the time.

The site currently uses the claim “Adlershof. Science at work,” to position itself as a place where people not only go to work but where they also enjoy hanging out. Along with a focus on new fields of technology, a more international character and additional startups, particular emphasis is given to enhancing the area's “soft” location factors.

Foto: Adlershof

*The Adlershof science and business hub – a place where pioneers, researchers and entrepreneurs come together.*

## ZUKUNFTSORTE

be  Berlin



# MAKING HUMBOLDTHAFEN SMARTER

For seven decades, the Humboldt harbor lay dormant – Berlin is now building a smarter future where the Berlin Wall used to be

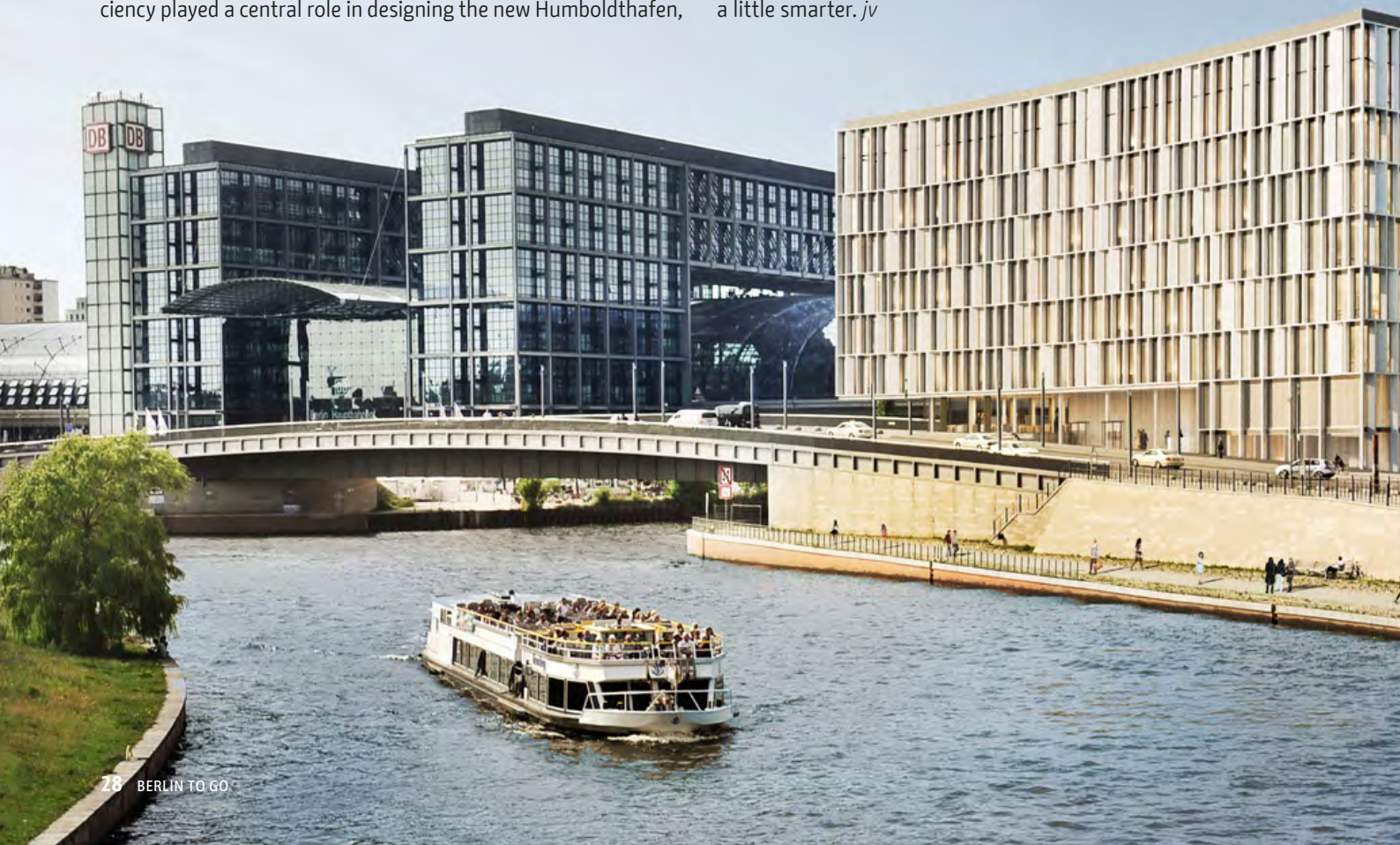
**Berlin-Mitte's new office and commercial complex, the HumboldtHafenEins, will be built using the most advanced technologies, with building biologists creating Berlin's "greenest office building," as the sign on the fence declares. The project has even received a gold certificate from the German Sustainable Building Council (DGNB). The keys should be handed over in summer 2015.**

OVG Real Estate is overseeing the construction of this new building on unused lands in direct proximity to the central railway station. And it would be hard to get any closer to the green spirit than this Dutch company does. This ambitious construction project will cost more than 100 million euros. The planners have made use of an impressive array of modern technologies in the eight aboveground and three underground floors. HumboldtHafenEins is to play a pioneering role on Berlin's road to becoming a Smart City. The smart elements incorporated in the building's structure include highly reflective, triple-glazed windows that provide excellent sound insulation and employ sensors to measure the amount of light in the offices and automatically adjust light levels. In the winter, other sensors register when a room is unoccupied and turn off the heat. Though ecology and efficiency played a central role in designing the new Humboldthafen,

the builders have not lost sight of other smart city elements. It was particularly important to Nikolai Worp that the complex be accessible to the public: "We lowered the whole area by about 1½ meters to make it level with the quay wall," says Worp, Director of OVG Germany. This will allow Berlin residents and tourists to stroll under the arcades and enjoy the view of the water from one of the cafés or restaurants. The individual building components are so cleverly linked that not only does it create the impression of an urban river bed, it also allows space for three light-filled inner courtyards.

A total of 1,200 square meters will be available for restaurants and retail; the rest of the 30,000 square meters of rentable space is reserved for offices. With their three-meter ceiling heights, the upper stories offer an ambiance typical of older buildings, while the ceilings in *bel étage* rise to an impressive 4.3 meters. The complex, soon to be finished in cream white, has already attracted two multinationals that will share much of the available space: auditors with PricewaterhouseCoopers will occupy 24,400 square meters and Sanofi Pasteur MSD has leased 2,300 square meters. In this way HumboldtHafenEins is contributing to Berlin's ability to attract new businesses and make the capital a little smarter. *ju*

photo: OVG



# THE MINDS BEHIND ELECTROMOBILITY

eMO presents: 35 people whose ideas and projects are driving electromobility forwards

In order to better understand and distinguish between the wide variety of ideas, designs and partnerships involved, the Agency for Electromobility (eMO) began providing more detailed information this past year about the movers and shakers behind electromobility. Since March 2014, eMO has been introducing the “Minds Behind Electromobility.”

So far, 35 talented thinkers have been profiled in eMO’s brochure, “Berlin elektrisiert.” Berlin to go will present a few of these profiles in each issue. We begin with two talented young founders, Jacob van Zonneveld and Adam Woolway from PlugSurfing, along with profiles of Prof. Dr. Barbara Lenz from DLR (the German aerospace center) and Jürgen Allesch from eM-Pro Elektromobilität GmbH.



Adam Woolway and Jacob van Zonneveld

## The mobility researcher

In order to improve electromobility, you have to do research on it. That is exactly what Professor Dr. Barbara Lenz does. “We focus on transport demand, how people deal with transportation, which modes of transport they use and what their needs are,” says Lenz, who is director of the DLR Institute of Transport Research. She is currently conducting a variety of research projects at DLR related to electromobility, ranging from whether silent electric vehicles could be used for nighttime commercial deliveries to the installation of fast-charging stations throughout Berlin.



Prof. Dr. Barbara Lenz

## The range extender

If you want to travel by electric car, you need to know where the next available charging station is and the method of payment involved. That’s precisely what the PlugSurfing app offers. It links private charging station owners with drivers of electric cars and shows the user exactly where charging stations are throughout Europe and whether they are currently available or in use. Payment is made via the app or key hanger. The user pays PlugSurfing and PlugSurfing then pays the operator of the charging station. This way, PlugSurfing eliminates all the different payment plans as well as the need for RFID cards, since the PlugSurfing key hanger can also be used at charging stations that require RFID identification.



Jürgen Allesch

## The transport innovator

The boom in e-commerce has also led to significantly increased volumes in urban transport and shipping – along with the side-effects that go with it. A number of years ago, Jürgen Allesch from eM-Pro considered how electric vehicles might provide forward-looking urban commercial transport. He realized that transport vehicles travel 50 to 80 kilometers every day in the city and spend nights in depots – which is exactly how electric cars are operated. eM-Pro Elektromobilität GmbH is currently working on customizable electric vehicles with variable transport capacities, as today’s transport vehicles are often far too large and seldom fully utilized. eM-Pro’s first prototype could be completed by 2017. The thing about eM-Pro that Allesch really finds exciting is the idea of making cities more livable again: “Electric vehicles make it possible to create a completely different city transport system.”

# SELF-CHARGING STREETLIGHTS AND MORE

Smart charging solutions from the Berlin-based startup Ebee Smart Technologies (Ebee) – technology that can be easily integrated into existing infrastructures

**Ebee Smart Technologies GmbH is headquartered on the EUREF-Campus together with many other companies and institutes committed to designing modern solutions for transportation and mobility. The Berlin-based startup with the catchy name develops and sells components for recharging systems.**

Ebee uses existing public infrastructure – from street lights to distribution boards – for charging electric vehicles, just like bees do with flowers in meadows, parks and gardens. It's no surprise, then, that Ebee's founders have also set up an actual bee colony on the EUREF-Campus to supply their campus neighbors with honey. Sustainable supply has many facets, it would seem. The idea for Ebee came in response to the question of how to design an intelligent and, above all,

affordable charging infrastructure for electric vehicles. That is exactly what Ebee's seeks to address by creating a sustainable business model for charging stations and other infrastructures. The startup was initially financed by its founders, as well as through incentive programs such as Climate-KIC Accelerator and subsidy programs. The company now also receives support from an investor interested in furthering its development.

## Safe charging infrastructure

Ebee's charging infrastructure complies with standards and is perfectly safe. All vehicles can be charged using the type 2 plug, since the user identification and authentication occurs via RFID or app. In addition, the charger's robust housing provides

*Where no suitable "street furniture" is available, such as street lights, Ebee can provide separate charging points.*





Charging-station in front of the Ebee building.

protection against vandalism. Another advantage of Ebee's equipment is that its design is limited to just the essentials.

The entire system is modular. That means it can be more easily adapted to existing systems, so it can be integrated into other manufacturers' products and modified for regions with specific needs, such as the hugely important growth markets of the United States and China. This has led to collaborations with BMW (Light and Charge), EnBW and a partner in China.

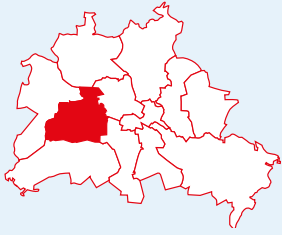
The heart of the charging point is the controller, which communicates with vehicles and provides a simple user interface for end users. Smart grid applications can also be easily deployed via existing interfaces. The charging point controller can be configured to provide any function and the layout of the charging infrastructure can be customized to fit any need.

## Berlin pilot project

In early 2015, the Dutch-German consortium consisting of The New Motion, Allego and Alliander won a bidding for the project to install charging points in Berlin and get them up and running. Ebee and EBG created the charging stations as pilot projects for Allego. EBG will provide the larger charging stations and Ebee the smaller ones. The project got under way in late April and by the end of 2016 more than 400 charging points should be operational in Berlin. *at*



Ebee charging point: user identification and authentication via RFID or app.



## DEEP IN THE WEST

Charlottenburg-Wilmersdorf is the western center of Berlin, home to the Ku'Damm, the trade fair grounds, the Olympic stadium and more

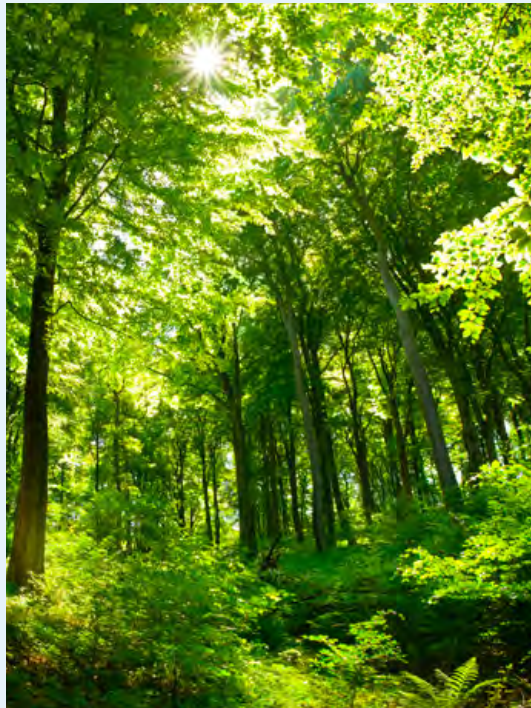
Charlottenburg-Wilmersdorf boasts its charme, its expertise and the fact that it is home to more companies than any other place in Berlin. With the legendary Ku'Damm, the Memorial Church, the Zoo and the brand-new Bikini Berlin, a different kind of shopping mall, Charlottenburg-Wilmersdorf is a magnet for both tourists and Berlin residents. In addition, the prestigious district has two universities and a variety of academic institutions as well as both high-tech and more traditional companies. And with its multi-functional CityCube Berlin complex, built in 2014, the borough serves as hosts to around 100 trade fairs and 500 congresses every year.

### FACTS:

**Population: 323,359**

**Surface Area: 6,472 hectares**

**Companies: 26,441**



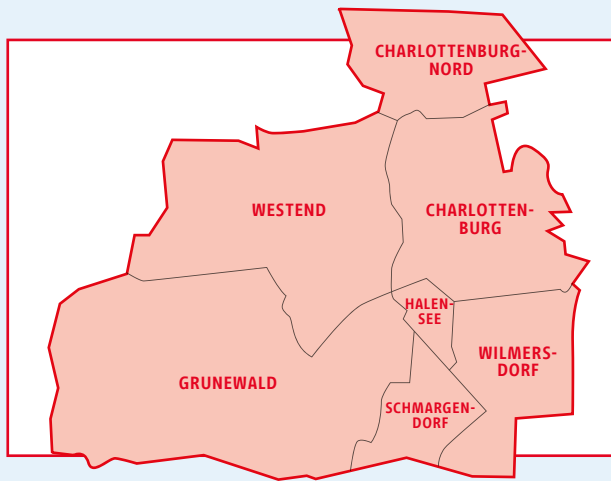
### Preserving Berlin's heritage

In Berlin, the preservation of historic monuments lies in the hands of the **Bildgießerei Noack Hermann GmbH & Co KG**. Whether it's the Victory Column or Schadow's Quadriga atop the Brandenburg Gate, when it comes to preserving and restoring venerable monuments, Noack GmbH & Co. KG is always in demand. This mid-sized owner-managed company, originally founded as a family business in 1897, can look back on a long and proud tradition. Today, Hermann Noack jun. is running the company in the fourth generation at the Berlin location. The company's services include the production of monuments, sculptures and decorative artistic objects. Berlin Partner has provided the company with support during its recent expansion in Charlottenburg and was directly involved in assisting with the purchase of land as well as with promotion and financing.

### Hidden champion

Light and color measuring instruments, goniophotometers and other photometric equipment are shipped from Charlottenburg-Wilmersdorf to countries around the world. **LMT Lichtmesstechnik GmbH** was founded here in 1974 with the goal of developing, manufacturing, delivering, and maintaining the world's most precise measurement instrumentation. Customers include photonics engineers, the bulb and lighting industry, automobile manufacturers, as well as private and state testing laboratories.





### Location Advantages at a Glance:

- Very good infrastructure with extensive public transport network
- Prestigious business and commercial locations
- Skilled workforce potential
- Unique cultural and academic programs
- Campus Charlottenburg: two universities and numerous research institutes
- Multifaceted business landscape
- Attractive residential environment
- Numerous green areas, nature and landscape conservation areas, including in Grunewald



### Tradition meets modernity

Startups meet tradition. Charlottenburg-Wilmersdorf is a place where long-established traditional and family businesses rub shoulders with young entrepreneurs. The area around **Campus Charlottenburg** is teeming with a variety of young, successful startups that are expanding from here out into the world. These are complemented by more traditional, established companies such as the **Königliche Porzellan-Manufaktur KPM**, Berlin's oldest still-operating handicraft enterprise.

### Be fair

Charlottenburg-Wilmersdorf has been a **Fair Trade Town** since 2011. The goal of the campaign is to take a concrete stance for a fairer world and promote the increased and ongoing use of fair trade products. 17 countries now participate in the campaign, and there are roughly 550 Fair Trade Towns.

### Good to know

**TU Berlin** is one of the largest technical universities in Germany. About 35,000 students are currently studying at the TU Berlin and **Berlin University of the Arts (UdK)**, one of the largest and most diverse fine arts universities in the world. With a total of 9,000 employees in research, teaching and administration, the two universities are also among the largest employers in Charlottenburg-Wilmersdorf.

## Three questions for ...

### Mayor Reinhard Naumann

#### What sets Charlottenburg-Wilmersdorf apart from the other boroughs in Berlin?

“CW” is an acronym not only for City West, but also for our local “Creative World.” We have our own way of expressing creativity and diversity and stand for a culture of hospitality – aimed at both investors as well as people in need who are fleeing war zones to find refuge with us. Plus we have the Ku’damm!



#### In what ways is the borough most often misunderstood? What preconceptions would you like to clear up?

The central boulevard, Ku’damm, with its attractive shops, has been written off a thousand times and is now celebrating its 1001st great comeback. I am pleased that City West’s upturn has received the recognition it deserves well beyond the borough’s own borders. One misconception is that Charlottenburg-Wilmersdorf is boring. The exact opposite is true! When I go on my monthly walk through the neighborhood – every 2nd Saturday at 2 o’clock – I always come across something new. The borough has such an exciting variety of places to discover. I invite you to take part.

#### Where in the borough do you go after work?

Since I get off work so late, I don’t have much time in the evenings, so I prefer spending them at home with my husband watching the evening news or the heute show. You’re much more likely to find me while I’m performing my official duties, because I spend so much time out and about in the borough where I enjoy meeting the wonderful people who live and work here.

**Thank you for the interview.**

*Interview Gabriele Schulte-Kemper*

### Borough Consultant from Charlottenburg-Wilmersdorf:

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## Did you know ...

... that Charlottenburg-Wilmersdorf is home to as many **companies**, about **27,000**, as the state capitals Dresden or Hannover?



... that the oldest company in Berlin, **Königliche Porzellan-Manufaktur**, is 250 years old and located in Charlottenburg-Wilmersdorf?

... that about **one in ten Berlin residents** lives in Charlottenburg-Wilmersdorf and about one in six of the city’s companies is headquartered here?



... that **Beiersdorf** produces its bath care products for all of Europe here? In other words: every Nivea shampoo you buy while on vacation in Spain was produced at Ernst-Reuter-Platz?



... that about **20 percent** of the city’s digital **economy** is headquartered here in the borough?

## A man with visions

### Philipp Bouteiller

#### Mr. Bouteiller, what do you think makes Berlin so unique?

Berlin has exactly what a city with international charisma needs: it appeals to young, creative people from around the world. Everyone wants to come here. People enjoy more freedom to express themselves here than in any other European city. And what's more, there's plenty of room here for all sorts of new ideas. Those who come here come with a purpose, they want to do something – and find what it takes to realise their plans.

#### What challenges will Berlin have to contend with in the future?

Like big cities around the world, Berlin will also have to address the key future issues: How will we live and, especially, how do we want to live in the future? Where and how we will work? Will our work-life and home-life continue to be as strictly separated as they are today? How will we get around in the city of the future? How will we make our downtown areas green, emission-free and more livable? How can we make our water and energy supply safe? These are the key questions that we are trying to address through our “Urban Tech Republic” project.



## Brief profile

Dr. Philipp Bouteiller (47) has been CEO of Tegel Projekt GmbH in Berlin since April 2012. He and his team are designing “Berlin TXL – The Urban Tech Republic” set to be developed on the Tegel Airport site starting 2018 – following its closure. This is where the technologies for cities of the future will be developed and tested. This project, the only one of its kind in Europe, if not the whole world, requires both vision and the necessary background.

#### Where do you go after work?

Usually I work late into the night attending the countless events where the future of Berlin is often the topic at hand. But sometimes I get together with friends to cook and occasionally I might even get a chance to spend a quiet evening with my family – but that's something I need to get better at.

#### What would you recommend to someone who is coming to Berlin for the first time?

Pick any normal work day and take the bus (upper deck, first row) for a ride across the entire city: watch the people, soak up the atmosphere. It will very quickly become clear to you how diverse this city is and what makes Berlin so unique. By the way, bus M29 takes the most varied route.

#### Thank you for the interview.

*Interview Gabriele Schulte-Kemper*



And that is exactly what Philipp Bouteiller brings to the table. He studied social and business communication at the University of Arts Berlin, followed by economics and social sciences at the prestigious London School of Economics (M.Sc. and then a PhD in international management and social psychology). He worked at McKinsey & Company, Inc. before he set up his own business as an IT entrepreneur and strategy consultant. He focuses mainly on the fields of high technology and innovation management, infrastructure, mobility and renewable energies.

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