



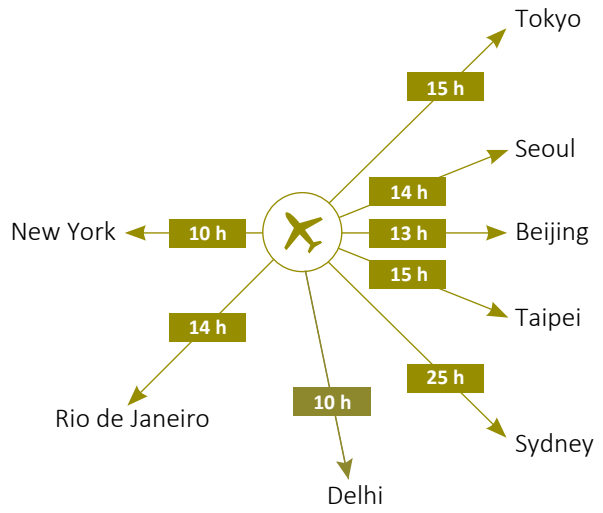
Dresden.
Dresdener.

Tomorrow's Home

Dresden as a
centre for science
and business



The heart of Europe:
Distances and travel time
from Dresden to ...





*Dirk Hilbert on the Brühl's Terrace
(Brühlsche Terrasse)*

Dresden – a diverse, innovative city of excellence

When you hear Dresden, you immediately have this image in mind: you think of the enchanting panorama on the Elbe, probably one of the most beautiful city views in all of Germany. The silhouette of the old town with its towers, the striking Frauenkirche dome and the museum temples, plus the vineyards, meadows and cycle paths, the steamships, bridges, castles and parks - all this has been part of an unmistakable, inspiring cultural landscape for more than 800 years.

But Dresden is much more! Saxony's state capital is young, full of students and families with children. The city attracts professionals, shows entrepreneurial spirit, promotes networks, start-ups and creative people. Everywhere there is versatile, innovative and excellent research and production. The focus is on topics of the future, such as the latest mobile phone technologies, the use of artificial intelligence, digitalisation and microelectronics applications of tomorrow, e-mobility, sustainable and resource-saving materials, the challenges of the energy transition and climate change, and the state-of-the-art treatment of common diseases. The core is the Technische Universität Dresden, one of a total of eleven German universities of excellence. Around fifty other uni-

versities and academies as well as institutes are active in Dresden. The particular strengths of the Dresden location lie in the close networking between research institutions and companies as well as in interdisciplinary and international cooperation. This is particularly evident in the well-known companies that operate in Dresden: Volkswagen, Bosch, Vodafone, Jenoptik, Globalfoundries, Infineon, GlaxoSmithKline and soon TSMC.

Dresden's typical blend of diverse development opportunities, family-friendly environment and appealing quality of life makes for promising forecasts. Dresden is and remains something very special - the fascinating Elbflorenz silhouette and Tomorrow's Home.

A handwritten signature in black ink, appearing to read 'Dirk Hilbert'.

Dirk Hilbert
Mayor of Dresden



*Scan to read the latest news
from Dresden Tomorrow's Home.*



View of Dresden looking out towards Saxon Switzerland. In the foreground are three of the palaces along the Elbe (Albrechtsberg Palace, Lingner Palace and Eckberg Palace) and the 'Blue Wonder' bridge.



*„The future is at home in Dresden.
Whether you want to start a business
here, relocate your premises here or in-
vest here, our experts will be on hand to
assist. The doors of Economic Develop-
ment Office are wide open for you.“*

Steffen Rietzschel
Head of the Economic Development Office
City of Dresden

- 1 The Bundeswehr Military History Museum presents the culture and social history of the military. The museum is one of the largest and most modern history museums in Germany.
- 2 Art, culture and innovative businesses come together at one central location in Dresden, the Kraftwerk Mitte.



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- 3 The historic Semperoper has once again been the home venue for the Sächsische Staatsoper (Saxon State Opera) and the Staatskapelle Dresden since 1985

A world famous city of culture

The famous ‘Canaletto view’ from the banks of the Elbe River provides a picturesque perspective of Dresden’s historic skyline, dominated by baroque and classicist buildings. At its heart is the world renowned and spectacularly reconstructed Frauenkirche. The historic centre, rebuilt true to original, today shines resplendent once more. Magnificent baroque palaces and impressive art collections continuously attract scores of visitors. In addition to the Old Masters Picture Gallery (Gemäldegalerie Alte Meister), which reopens in 2020, more than 50 museums present unique works of art. Every year, many of these historic sites transform into atmospheric venues for one of Europe’s largest classical music festivals: the Dresdner Musikfestspiele. The Semperoper is Germany’s best known and most popular opera house, and is also one of the city’s main landmarks, with prominent figures such as Richard Wagner and Carl Maria von Weber having worked there. Today, the internationally renowned Sächsische Staatskapelle state orchestra, the masterful Dresden Philharmonic Orchestra and the Dresdner Kreuzchor boys’ choir take the city’s musical traditions out into the wider world.



„As living archives and platforms as well as cultural mediators, museums can build bridges between society and culture. The Dresden State Art Collections work closely with the numerous universities and research institutions in Dresden.“

Marion Ackermann

Director General of the Dresden State Art Collections (Staatliche Kunstsammlungen Dresden)



The Old Masters Picture Gallery in Dresden is one of the most renowned collections of paintings in the world, with around 700 masterpieces from the 15th to 18th centuries on display.



Top, cutting-edge research

Nowhere else in Germany brings together the number of scientists that Dresden does. And indeed very few cities in Europe conduct such intensive and interdisciplinary research as this city. Dresden's dynamic research landscape includes all major German research organisations, such as the Fraunhofer, Max Planck, Helmholtz and Leibniz institutes, while top universities and colleges, led by the Technische Universität (TU) Dresden, provide optimum conditions for students. The TU Dresden has been one of Germany's Universities of Excellence since 2012 – the only university in eastern Germany to hold such an honour. The city also supports three Clusters of Excellence: The Centre for Tactile Internet (CeTI), which advances efficient co-operations between humans and machines, 'Physics of Life' (PoL), which explores the fundamental issues of cellular and developmental biology, and the 'ct.qmat' cluster, which researches the complexity and topology of quantum materials – and thus develops never-before-seen material properties.



„Dresden offers a unique concentration of leading research. Through institutional co-operations, the Allianz DRESDEN-concept is unlocking further potential for science and technology transfer. And we want to position ourselves even more strongly at a global level in future.“

Prof. Ursula M. Staudinger

Rector of the Dresden University of Technology



1 The Dresden University of Technology (TU Dresden) has been one of Germany's Universities of Excellence since 2012. It has more than 31,000 students studying at its 17 faculties.

2 The Saxon State and University Library (SLUB) is one of Germany's oldest libraries.

Dresden Spirit

1 Developing innovative ideas – with Dresden businesses:
The Thin[gh]athon at the Smart Systems Hub makes this possible.



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2 As a MICE hub, Dresden boasts state-of-the-art meeting places in the inner city.
3 Further developing the Internet of Things: Dynamic art in the Piet Mondrian Room at the Barkhausen Institute's Open Lab.

A unique concentration of scientific institutions combines with a highly productive business community to make Dresden one of Germany's most dynamic technological and economic metropolises. It inspires with its oft-lauded 'Dresden Spirit' – a special mix of enthusiasm, innovative power, openness to change, and team spirit. Examples of the exceptionally close cooperation and easy transformation of cutting-edge technologies into products are the Smart Systems Hub, the Volkswagen Software Development Center, the ZEISS Digital Innovation or the technology centres. The city of Dresden supports the growing innovative SME sector and the start-up scene. To enable further growth, construction projects are accompanied and developers are supported in the official approval procedures. The excellent training and employment opportunities attract students and experts from all over the world, and their bright minds benefit local businesses tremendously. The city is also in demand nationally and internationally as a top MICE destination – after all, Dresden is an ideal place for all movers and shakers.



„We develop innovative software solutions for the medical technology, semiconductor and automotive industries. Dresden is an ideal location as an innovation and knowledge cluster because these industries are excellently represented at the universities and research hubs.“

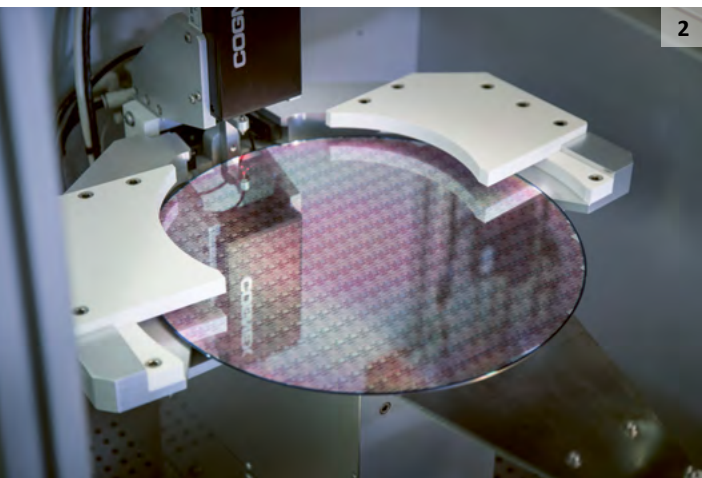
Alfred Mönch
Managing Director Carl Zeiss Digital Innovation GmbH

The ride2career event format is a successful project for recruiting international skilled workers in Dresden.





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Europe's heart of the microchip industry

Silicon Saxony is the beating heart of Europe's semiconductor industry – one in three microchips made in the EU, and which are fitted in Smartphones and cars worldwide, comes from Dresden. Europe's largest microelectronics hub brings together major chip factories with a unique landscape of component suppliers and industry-oriented software experts. Global chip giants TSMC, Globalfoundries, Infineon and Bosch have invested billions in the facility, are developing their factories into state-of-the-art production plants, and are producing chips for growth markets such as automotive and power electronics and artificial intelligence. The heavily automated and networked factory of Infineon Technologies Dresden serves as the blueprint for the 'Smart Fab' worldwide. Bosch has also been focused on Industry 4.0 since the outset at its new Dresden factory – with largely automated manufacturing and networking of production plants via 5G.

1 Automated materials flow with machine-programmed robots at Infineon Technologies Dresden.

2 Bosch is manufacturing semiconductors in 300 mm technology for the first time in its new Dresden fab.



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„We were very impressed by the general conditions: The simultaneous availability of talent, the very good institutions and the availability of equipment manufacturers with service offering in Silicon Saxony. This combination is what won Saxony and Dresden the race.“

Dr. Christian Koitzsch
Senior Vice President and Factory Manager at Bosch



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- 3 The new semiconductor factory in Dresden is the first to be 5G-enabled anywhere in the world for Bosch.
- 4 Globalfoundries' Fab 1 is considered the largest and most cutting-edge semiconductor factory in Europe. Over 3000 leading international engineers and technicians work on the campus.



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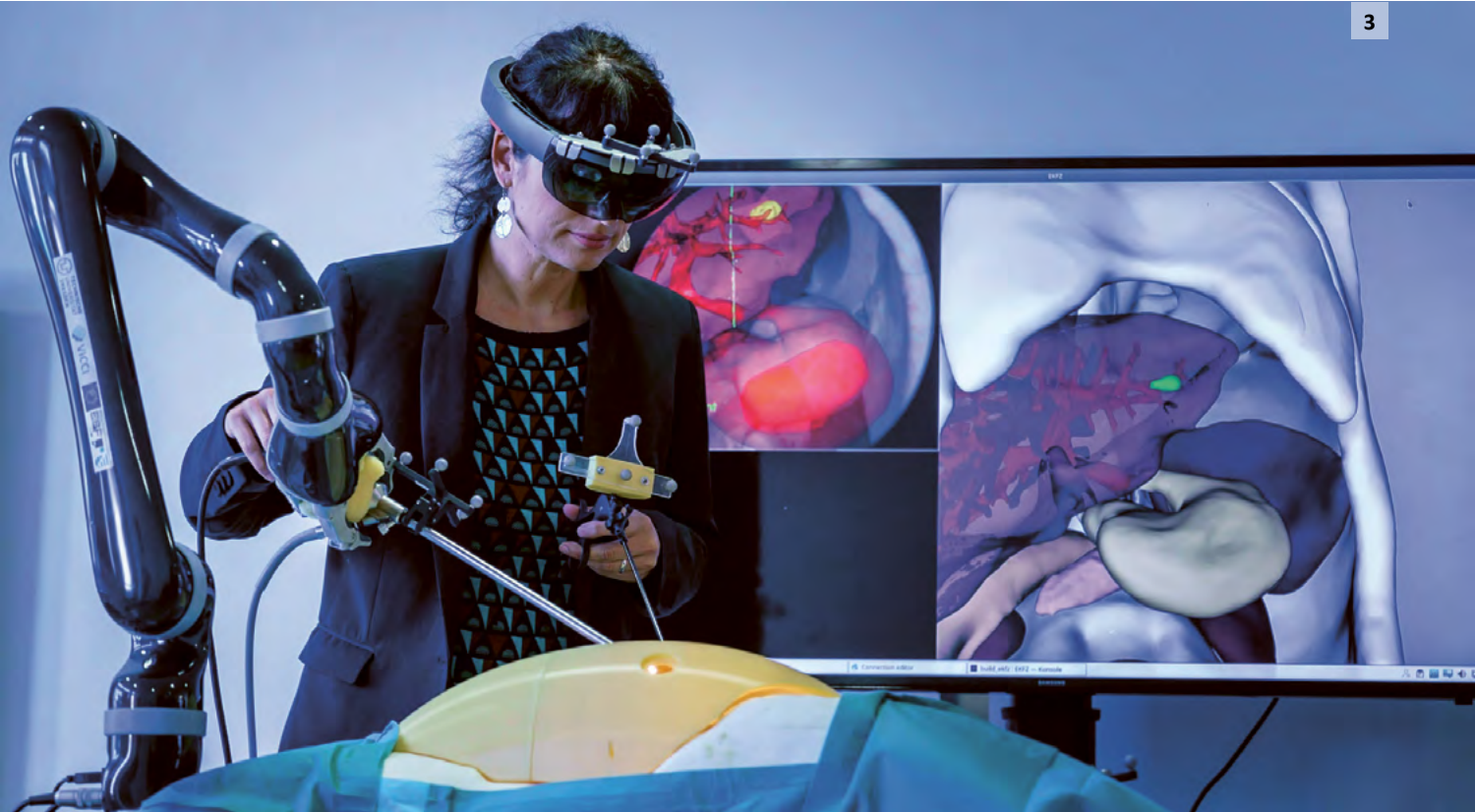


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- 1 Volkswagen's Transparent Factory in Dresden is focused on robot-based solutions.
- 2 The transport hero: with its robot system, Fabmatics has developed a driverless transportation system for the factories of the future.

Robot Valley

Robots are revolutionising industrial manufacturing, and are advancing the automation and digitalisation of SMEs and major corporate groups. Robotics is a globally booming market for which Dresden-based automation experts, robotics start-ups and high-tech researchers are developing and producing futuristic innovations. Because 'Kollege Roboter' comes from Dresden. Specialists AIS, Fabmatics, SYSTEMA and Xenon, who are all part of the Automation Network Dresden, are recognised worldwide for their sophisticated factory-automation solutions. Cobot start-up Wandelbots has developed technologies for teaching industrial robots work flows using simple educational software – a revolution for production right across the globe. Robot-based assistance systems are being researched and tested in the experimental operating theatre at the Else Kröner Fresenius Centre for Digital Health (EKFC) at the Carl Gustav Carus University Hospital. In future, cobots will facilitate a completely new dimension of human-machine interaction – and the innovations driving this come from Dresden's Robot Valley.



„In combination with the Technische Universität Dresden and the variety of hub initiatives here, the unique high-tech landscape in Dresden’s ‘Robot Valley’ offers tremendous potential for technology companies like Wandelbots.“

Maria Piechnick
Co-Founder Wandelbots GmbH

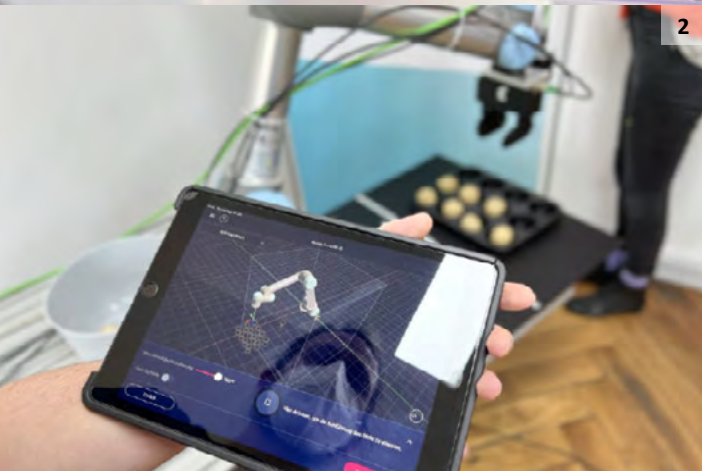


- 3 In future, surgeons will be able to enjoy greater precision during operations through the use of artificial intelligence and augmented reality: the team led by doctor and IT professor Stefanie Speidel at the Else Kröner Fresenius Centre for Digital Health (EKFC) conducts research in an experimental operating theatre using robot-based assistance systems.
- 4 Demonstrating instead of programming robots – with Wandelbots’ Tracepen, even non-IT specialists can programme.

1 Working with experts from the Technische Universität Dresden – Vodafone equipped the Pepper industrial robot to instantly interact with humans. Pepper reacts to gestures as quickly as the human nervous system.



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2 In the IoT Lab, companies and institutes can experiment with robots, 5G campus network and other high-tech infrastructures and, for example, remotely control robots through computer clouds („clouds“) and 5G.

3 Human-machine interactions: a field in which new technologies are being developed at the TU Dresden's CeTI research centre.

Global networkers

Whether it be industrial automation or driverless cars, instant responses by technical systems are essential in many fields. A tactile internet and artificial intelligence require the 5G mobile communications standard. Leading, trend-setting research institutes Vodafone Chair Mobile Communication Systems, Deutsche Telekom Chair of Communication Networks and 5G Lab Germany at the TU Dresden (a University of Excellence) are considered globally to be the cradle of the 5G standard. International teams are already further developing the standard – with 6G firmly in their sights. The 'Centre for Tactile Internet with Human-in-the-Loop' (CeTI) researches how humans can interact with networked automated system in the real and virtual world in real time. Every year, Dresden also becomes a hotspot for the entire industry by hosting the IEEE Summit, where experts discuss the latest developments and findings relating to the networking of the future.



„Dresden is the perfect place for researching and implementing new digitalisation ideas with young, well trained, motivated talent. It combines research and start-up ideas like few other cities in Germany.“

Prof. Frank H. P. Fitzek

Head of the 'Deutsche Telekom Chair of Communication Network', co-ordinator of the 5G Lab Germany and spokesperson for the CeTI Cluster of Excellence at TU Dresden



robots
help the oldest-of-kind
and the oldest-of-kind
to robot

environment
change
to robot
#Tactile

Testing smart gloves developed at the CeTI Cluster of Excellence.

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- 1 The world's leading electrolysis company, Sunfire, has chosen Dresden as its base for developing and producing high-temperature electrolysers that enable sustainable, low-cost production of green hydrogen, synthesis gas and e-fuel.
- 2 'CUBE', the world's first building to be made completely from carbon-reinforced concrete is being erected on the campus of TU Dresden.



„Dresden offers high-tech companies optimum conditions for developing green technologies for the global market. With our technologies, we help customers all over the world to strike a balance between industrial growth and protecting resources.“

René Reichardt
CEO DAS Environmental Experts

In the factory halls of the start-up herone GmbH, integral thermoplastic fibre composite profiles are developed and produced for high-performance applications such as in the aerospace industry.

Greentech made in the green City of Dresden

Whether super-light energy collectors or oil from waste: with innovative technologies, Dresden is paving the way for the ecological circular economy of tomorrow. Over 360 greentech players, a strong research sector with over 70 institutes and chairs, and an environmental focus have grown historically. Dresden's engineers and scientists are true sustainability experts. The environmental specialists at DAS Environmental Experts sell their technology for modern waste gas and waste water treatment all over the world. Dresden is an international pioneer in the development of new materials.

Resource-saving lightweight construction with high material and energy efficiency is the focus of Europe's largest lightweight construction cluster based here. The world's first carbon house, CUBE, shows how concrete can be reinforced with carbon fibres instead of conventional steel. Dresden is also setting sustainable trends in energy generation: Sunfire, for example, is developing technologies to produce hydrogen and synthetic fuels from renewable energies. Biofabrik Technologies contributes to solving the global waste problem by producing fuel from plastic waste and used oil. All these and other solutions have grown in one of the „greenest“ municipalities in Europe: almost two-thirds of Dresden's urban area is covered with trees, flowers and grasses.



Made in Germany Premium brands from Dresden

As symbols of masterful skill, a tradition of craftsmanship and, above all, top quality, the varied branded products from the region – such as the famous Meissen porcelain, the luxury A. Lange & Söhne and Glashütte Original watches and the lavish interiors made by the Deutsche Werkstätten Hellerau – are highly regarded worldwide. Dresden craftsmanship has constantly reinvented itself to be what it is today: an ambassador for premium German quality and luxury goods made in Saxony. And Dresden also offers top products at a culinary level; delicacies such as Radeberger beer, brewed in what is likely Germany's most famous brewery, and the Dresden Christstollen are real, internationally beloved quality products with their own unique appeal. Equally exclusive is the sparkling wine produced at Wackerbarth Castle, which is pressed at Saxony's oldest sparkling-wine factory using traditional methods.



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- 1 At Saxony's oldest sparkling-wine factory, grapes are transformed into bubbles of pleasure based on 180-year-old sparkling-wine-making traditions.
- 2 Delicate luxury watches are still crafted by hand at the watch-making factories in Glashütte near Dresden, such as here at A. Lange & Söhne.
- 3 Meissen porcelain is moulded and painted by skilled craftspeople in what is painstaking filigree work.
- 4 The famous Dresden Christstollen, a fruit loaf made with raisins, almonds and butter, is traditionally eaten at Christmas.

- 1 Every summer, the Königsufer overlooking Dresden's Old Town skyline hosts the 'Filmnächte am Elbufer', Germany's largest open-air cinema.
- 2 The Bastei is a popular daytrip destination in the Elbe Sandstone Mountains, known as Saxon Switzerland.
- 3 Dresden offers a diverse mix of recreational options: Pictured here is its Banda Internationale performing at the Bunte Republik Neustadt street festival.



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The Saxon Wine Route combines pleasure and exercise, with hikers also able to sample some of the regional wines at a seasonal wine tavern.

A unique approach to life

With a population of more than half a million people, Dresden is one of Germany's major metropolises, but is also one of the greenest cities in Europe. The Elbe River winds its way through the metropolitan area like a teal ribbon for some thirty kilometres, while the picturesque Elbe Valley is lined with vast meadows and hillside vineyards. The Dresdeners love their lush city, whose magnificent parks, such as the Grosser Garten ('Grand Garden') or Pillnitz Palace and Park, are the perfect places to relax. The surrounding area boasts the likes of the captivating Saxon Switzerland rock landscapes and the vineyards of the Saxon Elbland region around Radebeul and Meissen. The UNESCO World Heritage-listed Ore Mountains are also just outside Dresden. Families in particular appreciate the nature-oriented lifestyle Dresden has to offer. Family-friendly work conditions at companies, modern child-care facilities and a child-friendly infrastructure with lots of playgrounds and recreational options are the ingredients necessary for the unique Dresden approach to life.



Pillnitz Palace and Park in Dresden's east: the former summer residence of the Saxon royal family is Europe's largest chinoise-style palace complex.





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City of Dresden

Economic Development Office
Telephone +49 351 4 88 87 01
Fax +49 351 4 88 87 03
Email wirtschaftsfoerderung@dresden.de

Office for Press and Public Relations
Telephone +49 351 4 88 23 90
Fax +49 351 4 88 22 38
Email presse@dresden.de

Postfach 12 00 20
01001 Dresden
www.dresden.de
facebook.com/stadt.dresden

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