



invest
in
bavaria

Invest in Bavaria

Bavarian & German Automotive Industry

2018



Bavaria

your ideal location for growth in EMEA



Market Overview:

Bavarian Automotive Industry

Key Success Factor #1:

Strong economy in the heart of the EU

Key Success Factor #2:

Powerful and diverse company landscape

Key Success Factor #3:

Europe's leading innovation hub

Key Success Factor #4:

Supportive government and politics

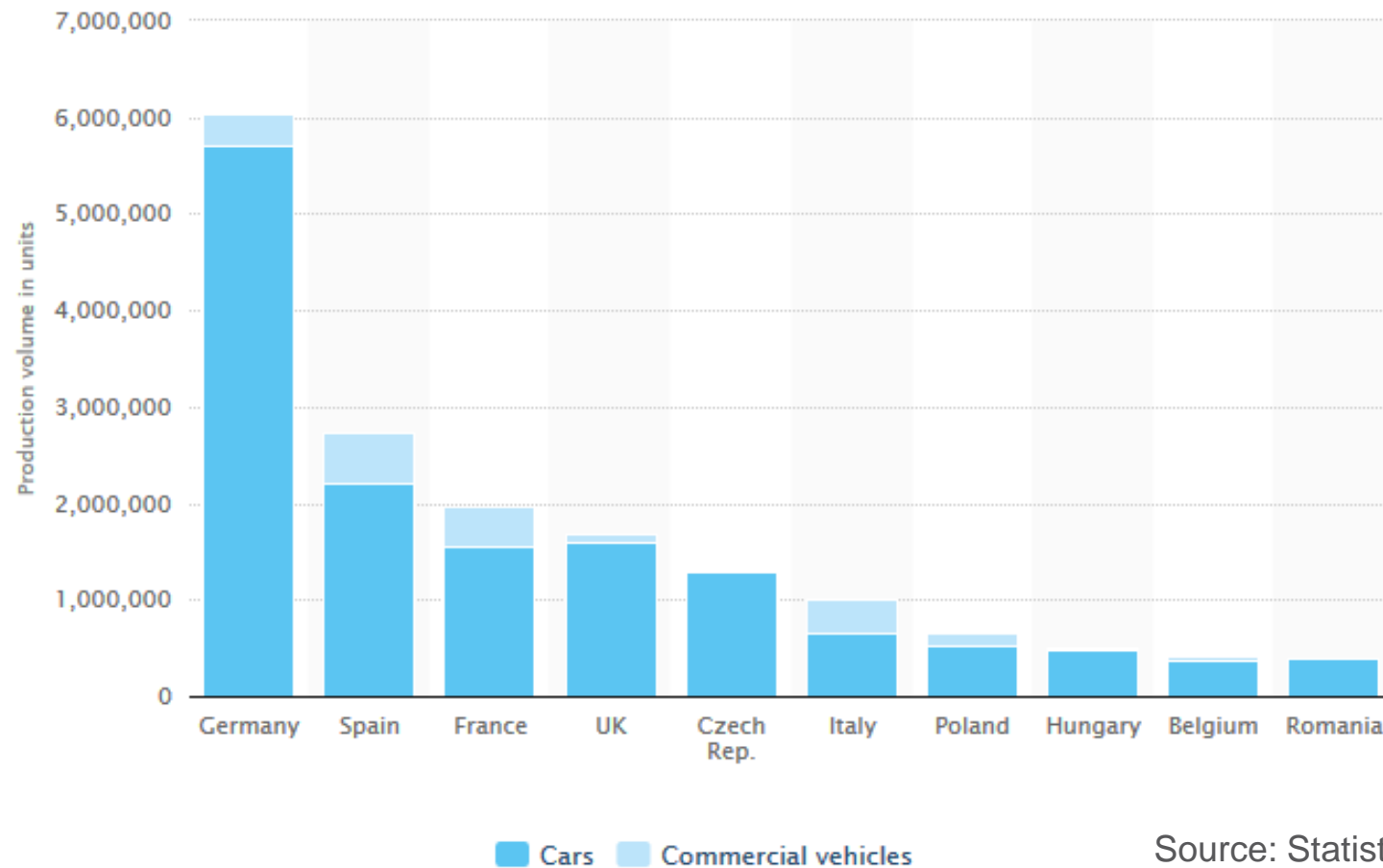
Key Success Factor #5:

High quality of living

Market Overview: Automotive Industry

European Market

Production volume of leading automotive manufacturing countries in Europe (2015)

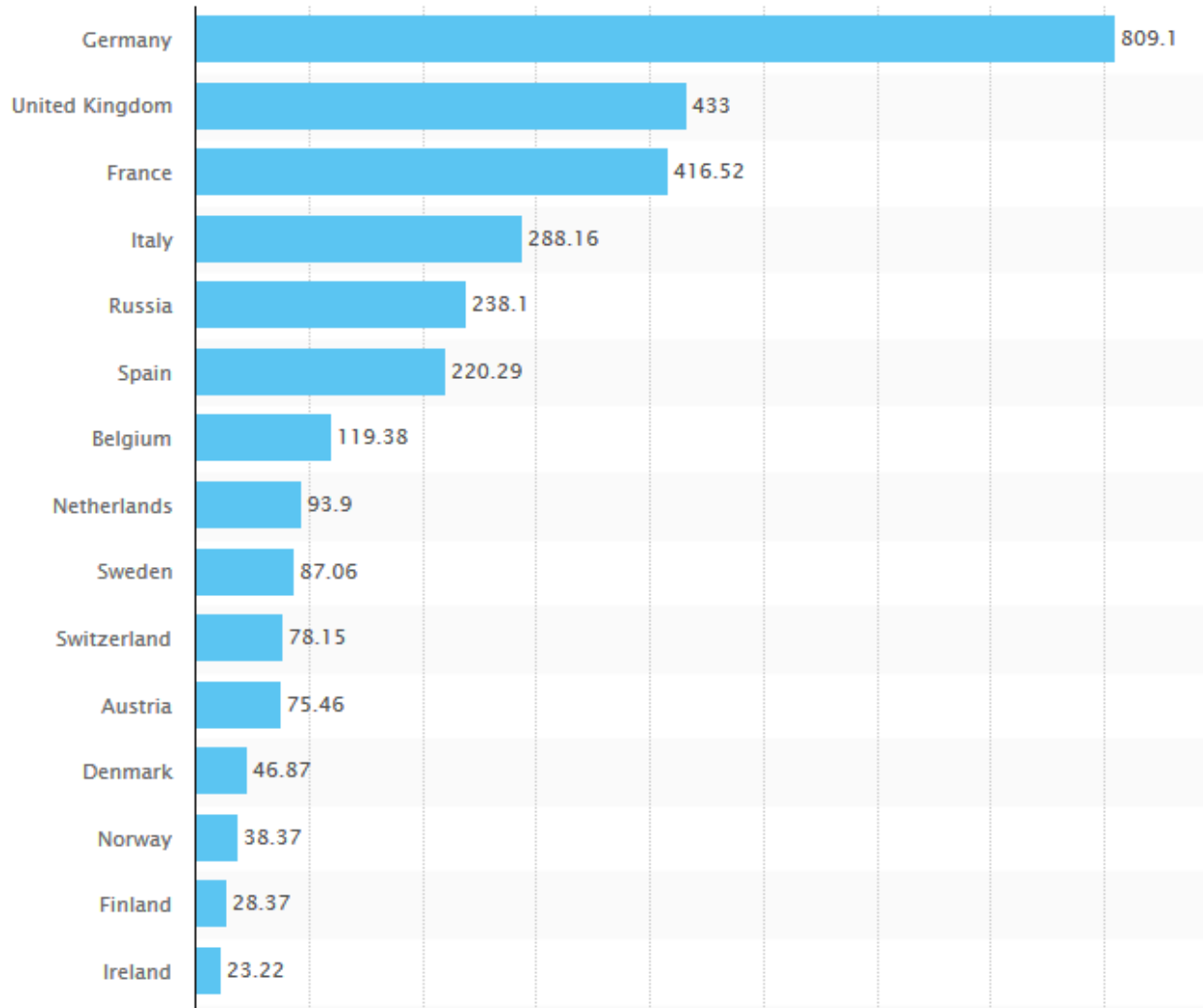


- Germany is the 3rd biggest passenger car producer of the world (2015)

Market Overview: Automotive Industry

Connected Car – European Market I

Revenue in the connectivity segment of the connected car market 2016 (in m USD)



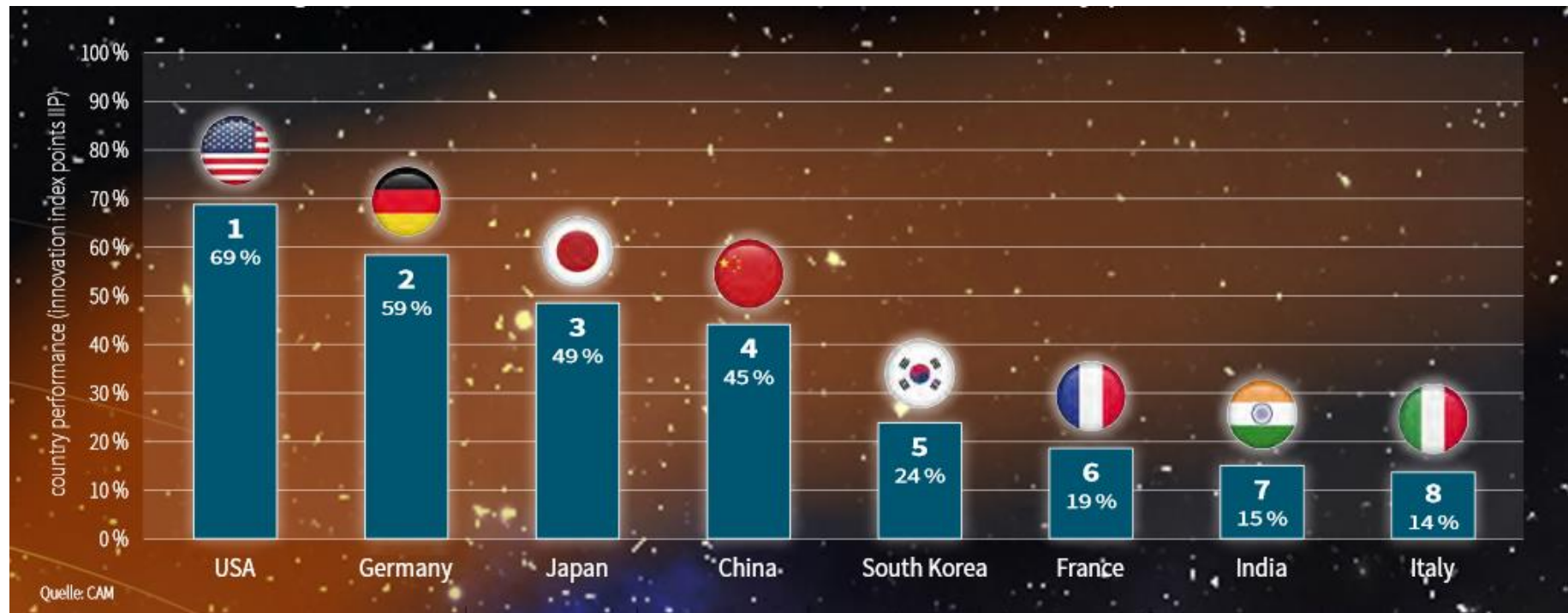
- Germany is the European leader in the revenue segment of connected cars
- Globally Germany ranks 3rd, behind the US and China

Market Overview: Automotive Industry

Connected Car – European Market II

Ranking of innovation index IIP

Connected Car Index based on overall country performance 2015/2016

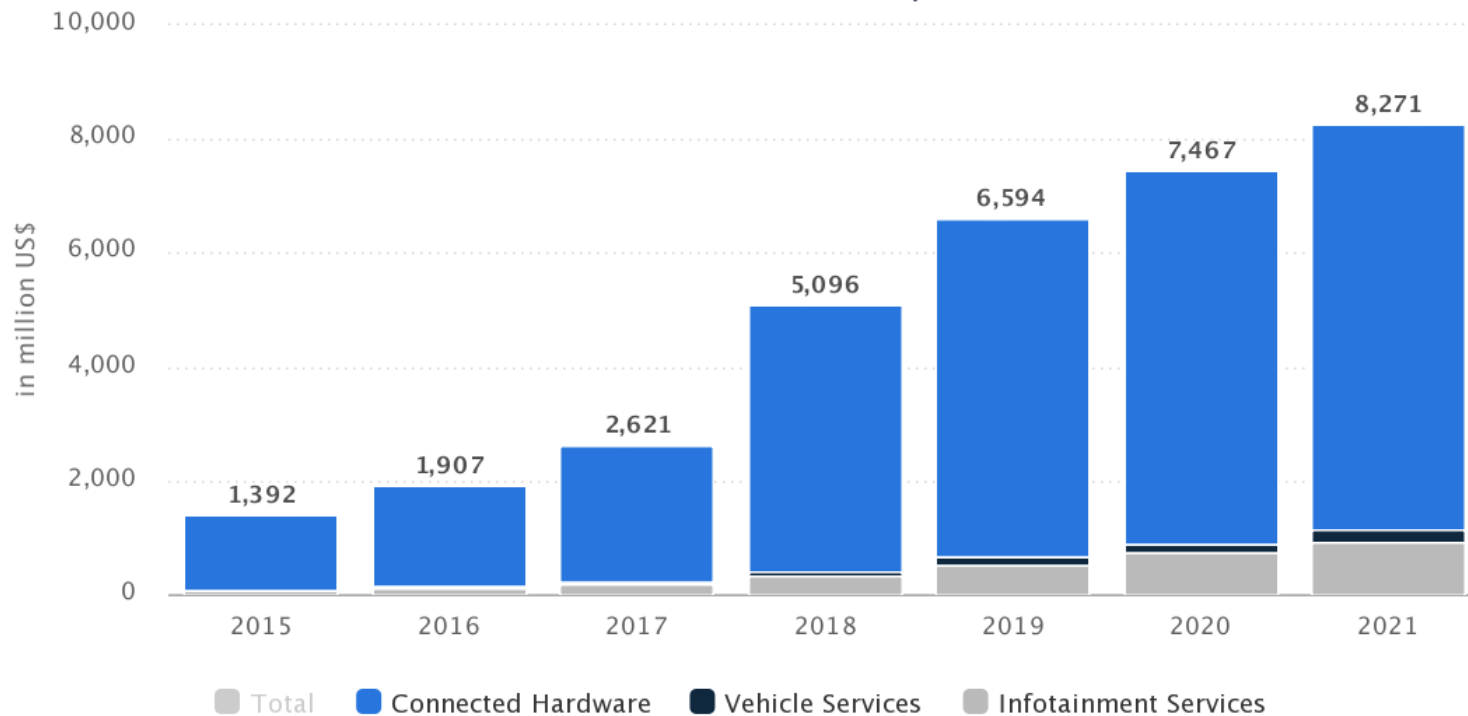


Source: CAM, Graphic by CISCO report

Market Overview: Automotive Industry

Connected Car – German Market

Revenue in the German connected car market



- Expected annual growth rate 2017-2021 of **33.3 %**.
- Connected Car penetration is at **9.2 %** in 2017.
- Expected to hit **34.6 %** in 2021.

Source: Statista

Market Overview: Automotive Industry

Bavarian Automotive Industry



197,460

employees in automotive industry
(2015)

€ 102 bn

sales (2015)

66.1%

export quota (2015)



20

research institutions

1,100

suppliers

230

providers with service level "Tier 1-4"

Market Overview: Automotive Industry

Things to consider when entering the European Market...



... for some products you MIGHT need a “**CE marking**”

- CE marking indicates conformity with the essential health and safety requirements set out in European directives
- For more information [click here](#)

... if you generate personal data, the **European Data Law Protection** applies

- As of May 2018 the European GDPR (General Data Protection Regulation) will apply in the European Union and is also valid for foreign companies if they process any kind of personal data from EU citizens
- For more information [click here](#)

Bavaria

your ideal location for growth in EMEA



Market Overview:

Bavarian Automotive Industry

Key Success Factor #1:

Strong economy in the heart of the EU

Key Success Factor #2:

Powerful and diverse company landscape

Key Success Factor #3:

Europe's leading innovation hub

Key Success Factor #4:

Supportive government and politics

Key Success Factor #5:

High quality of living

#1 Strong economy in the heart of Europe

Bavaria at a Glance



27,200 sqm

Germany's largest Federal State

12.8 mn

inhabitants (16% of Germany)

3.5%

unemployment (2016)

€ 568 bn

GDP (2016) / #7 in EU

14.7%

growth (2010 to 2016)

€ 183 bn

export volume (2016)

#1 Strong economy in the heart of Europe

In the Centre of Europe



Well connected to 500 mn customers within the EU



1,554 miles Autobahn
making Bavaria a **hub** for east-west and north-south trade

International Airport Munich

250 destinations to **68 countries** in the world

→ Daily nonstop flights to **11 airports** in the US

Bavaria

your ideal location for growth in EMEA



Market Overview:

Bavarian Automotive Industry

Key Success Factor #1:

Strong economy in the heart of the EU

Key Success Factor #2:

Powerful and diverse company landscape

Key Success Factor #3:

Europe's leading innovation hub

Key Success Factor #4:

Supportive government and politics

Key Success Factor #5:

High quality of living

#2 Powerful and diverse company landscape

Potential Clients & Partners



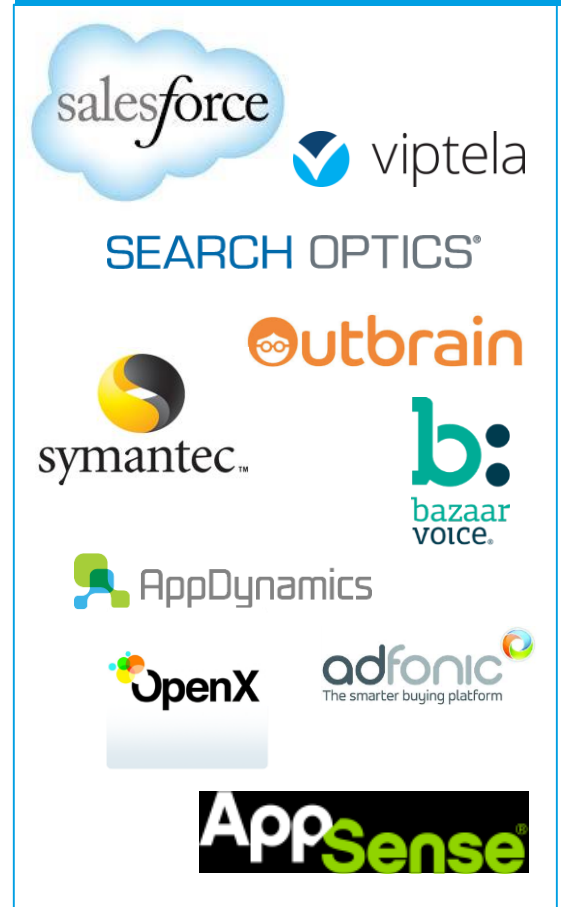
Native Global Players



Global Giants



Attraction for New Tech

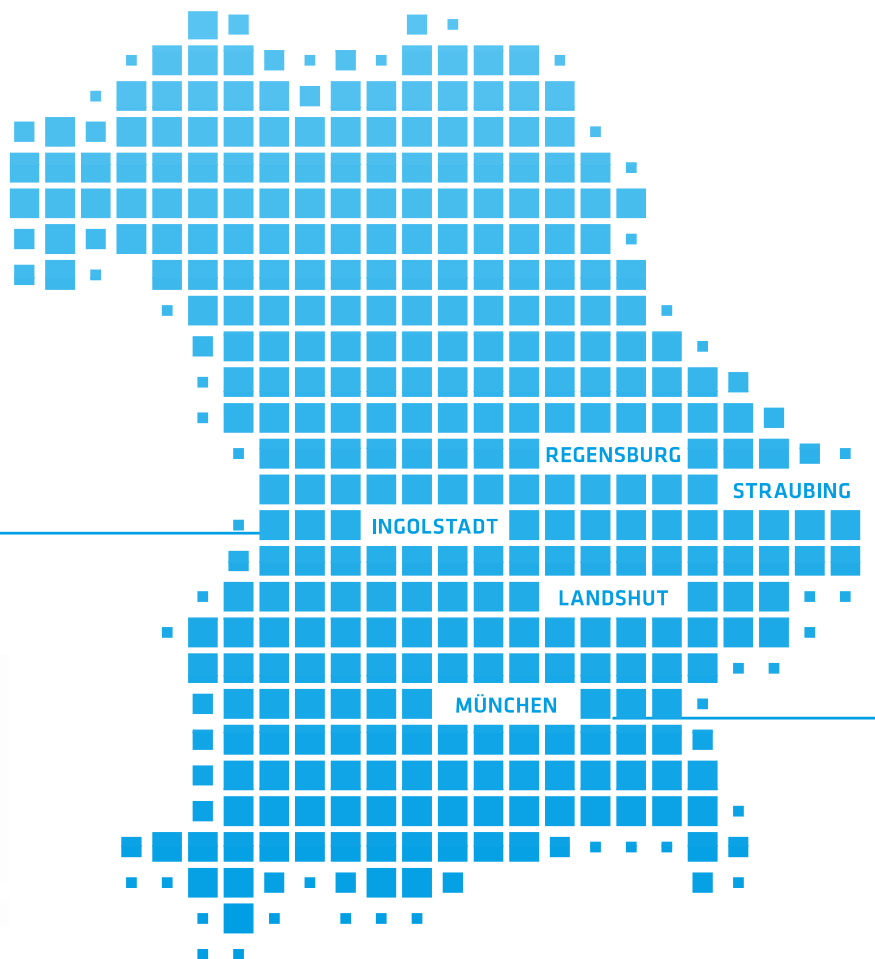


#2 Powerful and diverse company landscape OEMs in Bavaria



belongs to

VOLKSWAGEN
GROUP



#2 Powerful and diverse company landscape

OEMs in Bavaria – World Leaders in Innovation



- Seen as the most *“groundbreaking innovator & technology leader”* in the automotive industry (Source KPMG)
- “iNEXT 100 Vision”: In order to focus on R&D regarding autonomous driving, BMW decided to set up a research center Munich (fully operational in July 2017).
- Partnering with Mobileye and Intel
- Project “Providentia” received funding to improve sensor systems



- Developed *“AUDI Connect”*
- Part of the “Electronics Research Lab”, located in Silicon Valley.
- Started a new subsidiary focused on autonomous driving “Autonomous Intelligent Driving”

#2 Powerful and diverse company landscape

Automotive Hub



Pole position in Europe. More than 1,100 supplier companies in Bavaria



Bavaria

your ideal location for growth in EMEA



Market Overview:

Bavarian Automotive Industry

Key Success Factor #1:

Strong economy in the heart of the EU

Key Success Factor #2:

Powerful and diverse company landscape

Key Success Factor #3:

Europe's leading innovation hub

Key Success Factor #4:

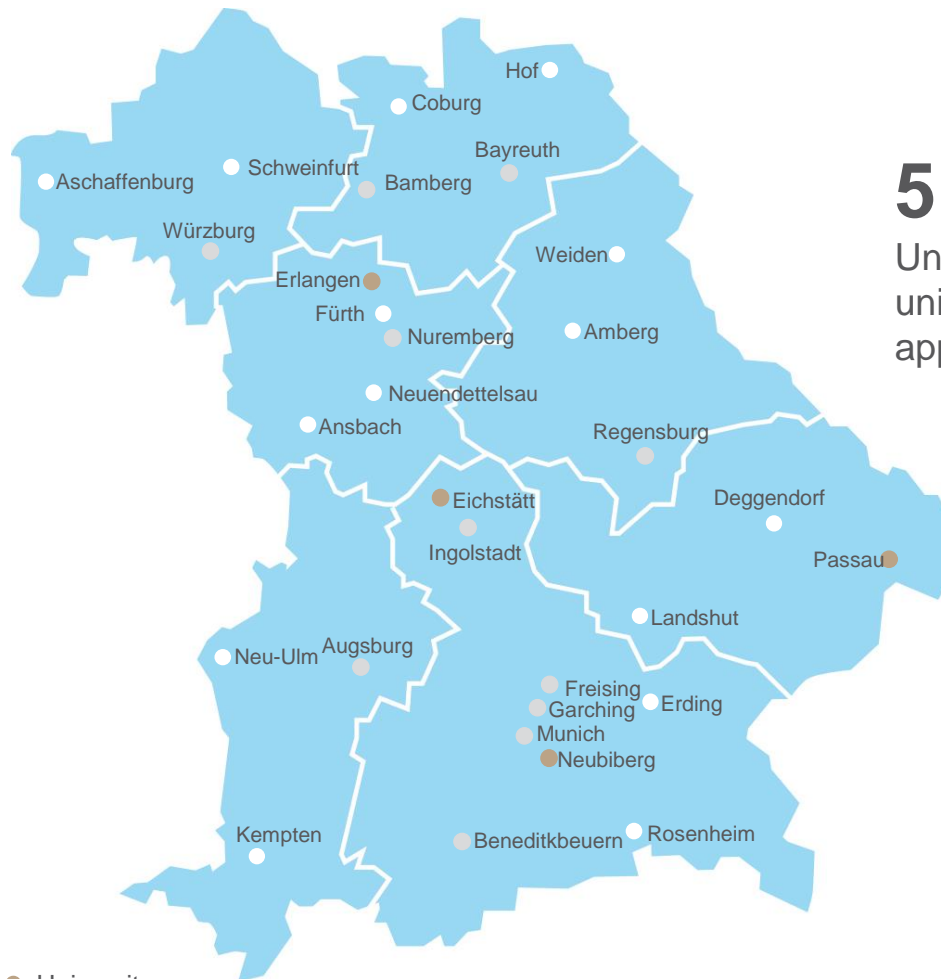
Supportive government and politics

Key Success Factor #5:

High quality of living

#3 Europe's leading innovation hub

Developing Talent and Know-How



- University
- Location with multiple universities
- University of applied sciences

51

Universities and
universities of
applied science

377,700

Students in Bavaria
(2015/2016)

28,000

STEM Graduates (2014)

25

national research
institutes

32.4 %

of all German
patent applications (2015)

15,341

patent applications (2015)

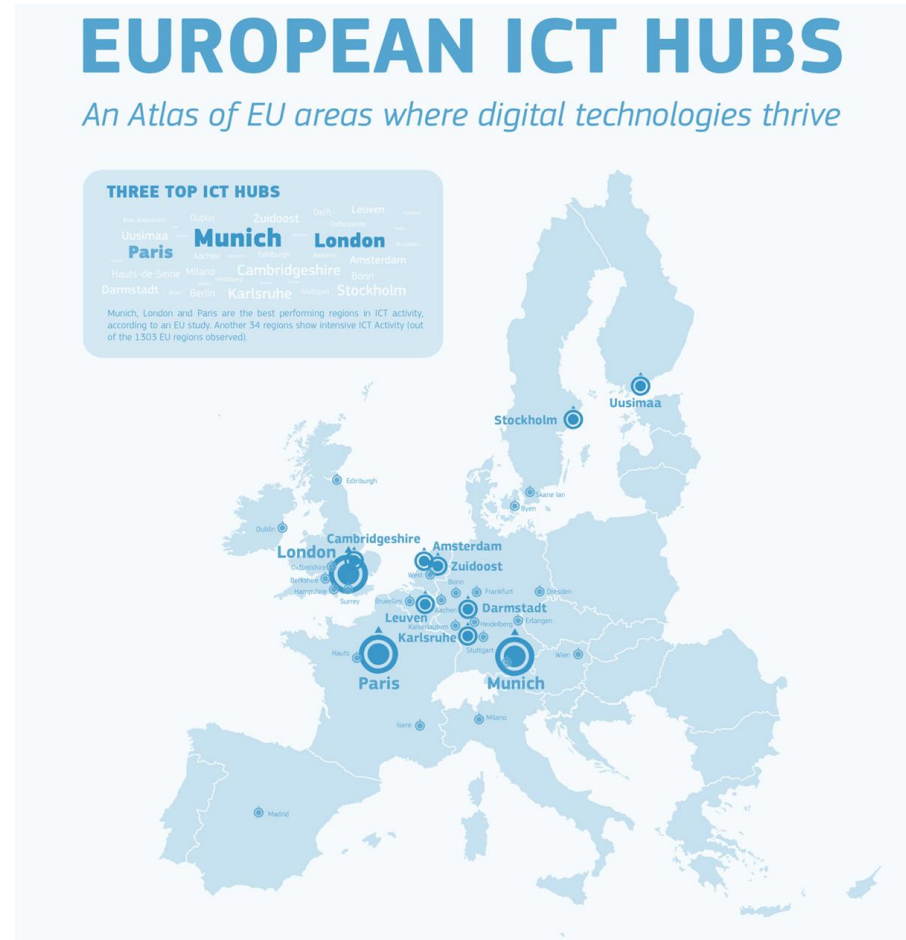
#3 Europe's leading innovation hub

IT and Communication at its best

European Commission ranks Munich # 1 hub for IT and communication in Europe

Munich has it all:

- ✓ high-level R&D at universities and institutions,
- ✓ innovation networks
- ✓ a large ICT business community



Munich scored 100 Points at Composite Indicator European
ICT Poles of Excellence
London 97 Points, Paris 95 Points

#3 Europe's leading innovation hub

Bavarian Automotive Research Hub



8 universities

lecturing automotive special knowledge



20 non-university research institutions

focused on automotive



#3 Europe's leading innovation hub

Research Hubs



Fraunhofer Institute for Integrated Circuits IIS

Fraunhofer IIS is one of the world's leading application-oriented research institutions for microelectronic and IT system solutions and services. With the creation of mp3 and the co-development of AAC, Fraunhofer IIS has reached worldwide recognition. In close cooperation with partners and clients the Institute provides research and development services in Energy Management, IC Design and Design Automation, Communication Systems, Positioning, Sensor Systems, Safety and Security Technology, etc.

For more info [click here](#)



Fraunhofer Institute for Reliability and Microintegration IZM

Fraunhofer IZM specializes in industry-oriented applied research. With four technology clusters, Fraunhofer IZM covers the entire spectrum of technologies and services necessary for developing reliable electronics and integrating new technology into applications. Focus on development projects for the automotive industry, healthcare and industrial electronics.

For more info [click here](#)

#3 Europe's leading innovation hub

Related Research Centres



iwb Anwenderzentrum Augsburg

IWB at the Technical University of Munich is one of the largest research institutions for production technology in Germany. The thematic focuses lie in the areas of manufacturing technology, machine tools, assembly technologies and robotics, joining and separation technology, as well as in the field of production management and logistics.

For more info [click here](#)



ZAE Bayern

Non-profit association that works on the interface between evidence-based fundamental and applied industrial research. The association was established to promote energy research as well as education, further training, consultation, information and documentation in all fields significant to energy research.

For more info [click here](#)

#3 Europe's leading innovation hub

Digital Hub Mobility



Digital Hub Mobility

Founded by Audi, BMW, Daimler, SAP, Stadtwerke München, IBM and Nokia the **Digital Hub Mobility** focuses on the networking and pooling of initiatives and projects on the issues of big data, eMobility and autonomous driving. Support Partners are MAN, ADAC, Adidas, TÜV Süd, TUM Munich & Infineon.

Innovation and start-up events like start-up pitches, demo days and make tanks are systematically expanding the networking between the mobility industry and IT, software and web companies, and initiating new joint projects.

For more info [click here](#)

#3 Europe's leading innovation hub

Automotive Industry - Bavarian Clusters



Cluster Automotive

- Cluster with regional focus – partners and stakeholders mainly from Bavaria
- Synergies with BAIKA congresses
- Four main topics: E-Mobility, Electrics / Electronics, Powertrain Concepts, Interior / Comfort

For more info [click here](#)



M-A-I Carbon Cluster

- Top cluster in the Munich-Augsburg-Ingolstadt trio of cities
- Focus on the implementation of carbon-fibre-reinforced plastics (CFRP) in the user industries

For more info [click here](#)



#3 Europe's leading innovation hub

Automotive Industry – Other German Clusters



EffizienzCluster Logistikruhr

The solution ideas developed in the cluster show how the high-tech logistics sector is tackling ecological and social challenges such as climate change, resource depletion, urbanization and demographic change with new supply and transport concepts or intelligently networked systems.

For more info [click here](#)



Elektromobilität Süd-West

Members of the cluster include universities and research institutes, SME's, and large companies such as Bosch, Daimler, EnBW, Porsche and IBM. The partners from the fields automotive engineering, energy, information and communications technology (ICT) as well as production work together on new concepts for ecologically sustainable and, at the same time, economically competitive electric mobility.

For more info [click here](#)

#3 Europe's leading innovation hub

Connected Car – German Private Networks



ITS Deutschland

- Bundles nationwide interests in the field of transport and mobility in order to represent them internationally. Key topics: facilitation of R&D, introduction and further development of intelligent transport systems leading to increasing traffic safety and to improve mobility and efficiency on managing growing traffic.



Connected Vehicle Trade Association (CVTA)

- Non-profit business league focused on the entities involved in the vehicle communication environment. Enables the collaboration of companies, organizations, and governmental bodies engaged in developing bidirectional vehicle communications.



automotiveIT

- Newlsetter for business information for automotive executives with IT responsibility and IT service providers to the car industry



#3 Europe's leading innovation hub

Events in Germany



67th International Motor Show IAA Cars

- September 14th – 24th 2017, Frankfurt a.M.
- Offers a globally unique place for technology firms, the automobile industry, mobility businesses, startups and the digital economy, science, media and society to meet and re-think, present, discuss the future of mobility and bring it to life. Focus on connected cars - **carIT congress** - & fuel efficiency.

ConCar Expo 2017

- July 5th – 6th 2017, Berlin
- Europe's largest trade fair for Connected Car & Mobility Solutions
- Organized by the VDI German Association of Engineers, and supported by leading associations of the automotive and digital industry: VDA, Bitkom, ITS Deutschland and CVTA (Connected Vehicle Trade Association).

3 Europe's leading innovation hub

Upcoming Events in Bavaria



TU Automotive Europe 2017 Munich

- November 1st – 2nd 2017, Munich
- For 14 years the Conference & Exhibition has been the central meeting place for those at the forefront of automotive technical innovation and business strategy.
- Executives from the leading OEMs, tier1s, telematics services providers, telecoms and government bodies will gather to develop effective innovation processes to bring the auto industry up-to-date with the digital revolution



eMove360° Europe 2017

- October 17-19, 2017, Munich
- 2nd International Trade Fair for Mobility 4.0, focusing on electric – connected – autonomous driving.
- Parallel there will be the **MATERIA-LICA Design + Technology Award 2017** and the **World Mobility Summit 2017**

3 Europe's leading innovation hub

Upcoming Events in Bavaria



- <https://www.gputechconf.eu/Home.aspx>

Bavaria

your ideal location for growth in EMEA



Market Overview:

Bavarian Automotive Industry

Key Success Factor #1:

Strong economy in the heart of the EU

Key Success Factor #2:

Powerful and diverse company landscape

Key Success Factor #3:

Europe's leading innovation hub

Key Success Factor #4:

Supportive government and politics

Key Success Factor #5:

High quality of living

#4 Supportive government and politics

Supportive Federal Government



Digital Motorway Test Bed

Source: OCR

- To fund startups, the Federal Ministry of Transport and Digital Infrastructure is investing **100m Euros** in the early development of digital innovations in the sphere of mobility.
- The federal German Government launched a new research program for **digital test beds**.
- Established the digital test field “Autobahn” on the A9 in **Bavaria**, where many manufacturers are going to test their technology. This is the first intelligent and fully digitalized road in the world. It will now be followed by several city-centre test beds throughout Germany.

#4 Supportive government and politics

Digitization Initiative “Bayern Digital I + II”



5.5 Billion € (2015-2022)

“Bayern Digital I + II”

Bavarian Government’s Digitization Initiative
Investment program until 2022

- Projects include high speed internet infrastructure (Gigabit speed in all Bavarian regions), grants and new facilities for research in various fields, and projects promoting digital education
- The Munich ICT hub will gain a massive boost and increase its scope for business
- International companies are more than welcome to tap into these resources and are invited to become a partner

#4 Supportive government and politics

Government Funding & Financial Incentives

R&D Grants

- The Bavarian state is supporting and funding technology-oriented business startups, who develop new products, processes, and application of modern technologies in products and production with a special focus on **Electromobility and innovative drive technologies for mobile applications & ICT**

For more info [click here](#)

Bavarian state-backed Venture Funds

- **Bayern Kapital** and its funds have invested over EUR 250 m in more than 250 companies and currently manages funds to the value of EUR 340 m.
- The five investing funds currently managed by Bayern Kapital are: Seedfonds Bayern (€ 250k), Clusterfonds Start-Up! (€ 500k), Innovationsfonds, Innovationsfonds EFRE (€ 2m) and Wachstumsfonds Bayern (€ 2m-8m).
- **BayBG** VC financing from € 250k to € 1.5m, an increase up to € 7m is possible if signs of business progress are seen

Other Bavarian Funding Programs

- **Start?Zuschuss!** (up to €36k for digital startups)
- **BayTOU** – Program for technology based startups (€ 26k- € 150k for R&D)
- **FLÜGGE** – startups out of university (18months a 50% researcher position for recent graduates)

#4 Supportive government and politics

Our Services for You

| Planning & Preparation | Location Search & Site Selection | Implementation | Growing in Europe |
|--|---|---|--|
| <ul style="list-style-type: none">• Market and business environment• Sector and technology networks• Legal and taxation issues• Brokering of contacts | <ul style="list-style-type: none">• Presentation of ideal locations in Bavaria• Organizing of site visits• Networking with local partners | <ul style="list-style-type: none">• Coordination with all project partners• Appointments with support and financing partners• Human resources | <ul style="list-style-type: none">• Information about programs• A worldwide network of Bavarian offices for economic development• Invitations to networking events |
| free of charge confidential without obligation | | | |

Bavaria

your ideal location for growth in EMEA



Market Overview:

Bavarian Automotive Industry

Key Success Factor #1:

Strong economy in the heart of the EU

Key Success Factor #2:

Powerful and diverse company landscape

Key Success Factor #3:

Europe's leading innovation hub

Key Success Factor #4:

Supportive government and politics

Key Success Factor #5:

High quality of living

#5 High quality of living

Bavaria Ranks First in Germany



One of Germany's favorite **tourist destination**



Unmatched **leisure** and **recreation** opportunities



Breathtaking landscapes, **historic cities**, rich culture



Safe, secure, **financially stable**



CULTURE



SPORTS



NATURE



RECREATION



OKTOBERFEST

Any Questions?

Your contact in the US (West)



Antonia Zierer
Executive Director

Bavarian U.S. Offices for Economic Development, LLC
388 Market Street, Suite 1050
San Francisco, CA 94111
T: +1 415-362-1001
E: azierer@bavaria.org



Exclusion of liability

This site description was compiled with the utmost diligence. Notwithstanding this, Invest in Bavaria assumes no liability for its contents being accurate, up-to-date or comprehensive. This description is supplied to companies inquiring on a free-of-charge basis. Its being reproduced and electronically distributed within the company for the purposes of facilitating site selection processes is permitted.

Notification of copyright

This description enjoys the protection of copyright laws. Any reproduction, dissemination and public-use reporting of all or parts of its contents which go beyond the above mentioned bounds of utilization require the express and prior consent by Invest in Bavaria. As a general rule, this consent will only be provided under the condition that the further use of this description will not be associated with the earning of profits. In all cases, any such further use is permitted only with the detailing, in a clear and unequivocal way, of its source.