

INDUSTRY OVERVIEW

# The Plastics Industry in Germany

ISSUE 2016/2017



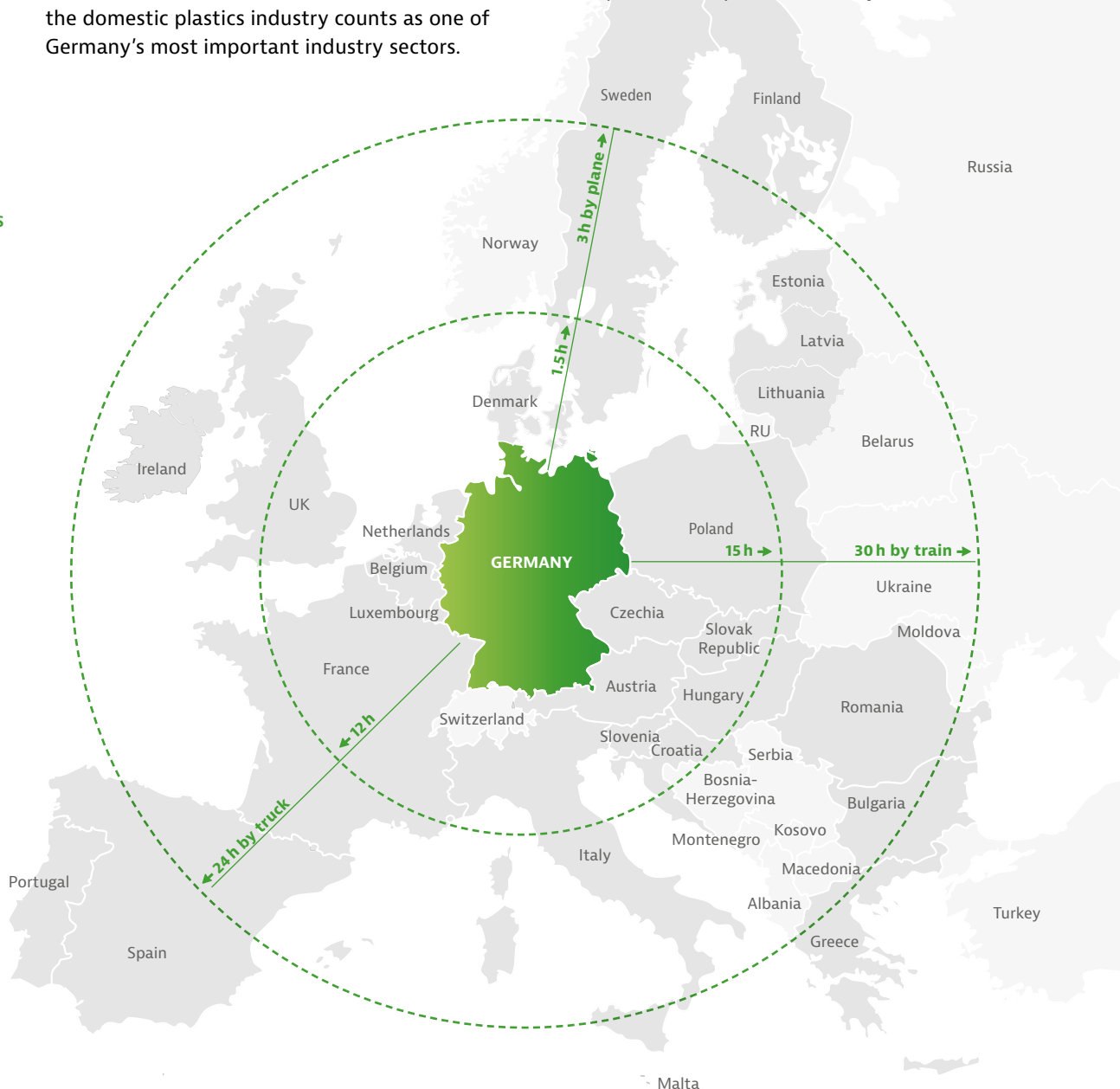
## Europe's Leading Plastics Nation

Plastics are an essential part of modern life. Increased living standards, growing environmental awareness, and sustainable development thinking are driving the demand for new and innovative material solutions. Plastics are everywhere, and often in the unlikeliest of places: in housing and construction, in wind turbines and solar panels, and even in state-of-the-art sporting apparel. As Europe's largest producer of chemicals and plastics, Germany is Europe's leading plastics industry. The country's plastics industry includes polymer manufacturers, converters and machine manufacturers alike. And with sales of over EUR 90 billion, the domestic plastics industry counts as one of Germany's most important industry sectors.

The industry plays a major role in providing new and innovative products and solutions to a number of key industries including the automotive, mechanical engineering, packaging, electrical engineering, and construction sectors. Growth (carbon composites) and future (INDUSTRIE 4.0) market trends are also making themselves felt in the domestic plastics sector. Germany is setting the international standard as a plastics industry location, with the country's leading-edge network of chemical parks and unique cluster concept providing industry actors with swift and easy access to all parts of the plastics industry value chain.



Germany's plastics industry – at the market crossroads of Europe



# The Industry in Numbers

## International Market Demand and Production

The global plastics industry has recorded average annual growth of nine percent since 1950. In the past 30 years alone, international plastics production has grown by around 500 percent. World plastics production ramped up from 1.5 million tons in 1950 to almost 311 million tons in 2014. According to the PlasticsEurope Market Research Group (PEMRG), global plastics materials demand is forecast to grow 3.7 percent per annum for the period 2012 to 2017.

## European Market Demand and Production

The European plastics industry generated total annual sales of EUR 350 billion in 2014. Europe accounts for around 23 percent of global plastics production (59 million tons in 2014). To provide some context, China and the NAFTA trade bloc are responsible for 26 percent and 23 percent of global plastics production respectively.

With plastics demand of around 48 million tons per year, the European market belongs to the biggest markets in the world. The market is best characterized by a high level of demand for quality and performance which has proven attractive with international investors. Four European countries count among the top ten destinations for global plastics and rubber foreign direct investment (FDI), with Germany leading the way in the vanguard of European countries.

## German Market Demand and Production

The German plastics industry generates sales in the region of more than EUR 91 billion each year. The industry is made up of around 3,300 companies in total. These companies employ a workforce of around 393,000 people. The industry enjoys more than six percent share of domestic industrial production.

The German plastics production market, with 200 companies and 49,000 employees, generated sales of EUR 24 billion in 2015. Germany is home to more than 2,850 companies active in plastics processing. They can call upon a workforce of 316,000 people. In 2015, plastics processing companies reached sales of around EUR 60 billion. Germany's plastics and rubber machinery companies are world leaders. In 2015, they employed a labor force of 28,000 people in 250 companies – generating

sales of EUR 7 billion. The growing domestic market is characterized by high-quality requirements of the end consumer. Within Europe, Germany is the leading market, accounting for around 25 percent of plastics demand.

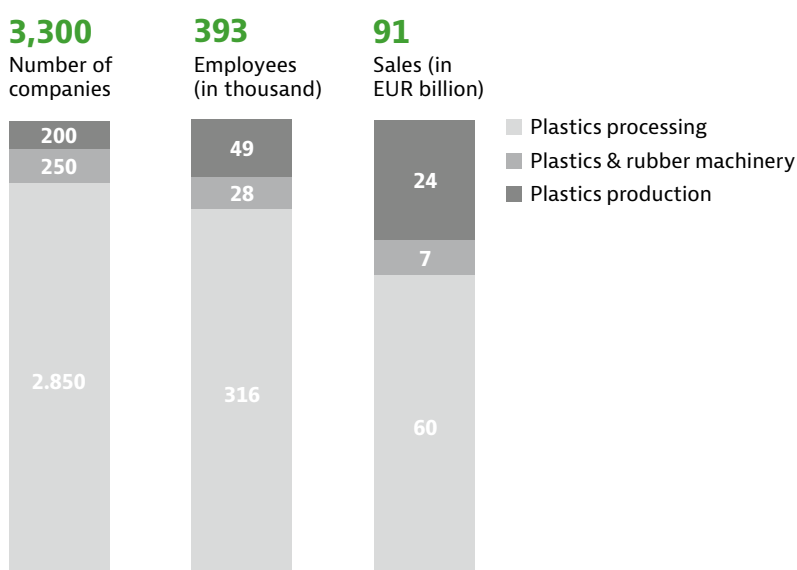
## Home Market Europe

In the region of 12.8 million tons of plastics produced in Germany found their way to export markets in 2015, with 9.3 million tons of foreign plastics making the reverse journey. With 73.9 percent of all exports, the European single market (EU-28) is the biggest recipient of German plastics, followed by the remaining countries in Europe (11 percent) and Asia (9 percent). German plastics exports generated turnover of almost EUR 23.6 billion.

Within the European single market, the main importers of German plastics are Italy, France, Poland, and the Netherlands. Germany is also one of the largest importers and processors of plastics materials – 88.4 percent of all plastics imported in 2015 came from EU-28 countries (92 percent across Europe).

## Structure of the Plastics Industry in Germany 2015

approximated value



Source: PlasticsEurope Deutschland e.V. 2015

## Increased Global Plastics Demand

Global plastics demand is forecast to grow five percent annually through to 2015 as a result of global megatrends including urbanization, energy demand, climate change, and new technology developments. The different megatrends driving growth are closely linked to industry sectors including construction, energy efficiency and housing – areas in which plastics are playing an ever-increasing role.

According to research conducted by PEMRG, per capita plastic materials consumption has reached the 100 kg level in western Europe and the NAFTA region. This figure is expected to grow to around 140 kg by 2015. Internationally, the greatest growth is predicted in the developing Asian nations. Within Europe, the developing economies of central and eastern Europe that constitute the new EU member states are expected to record the highest increase levels.

### Europe's Number One Plastics Industry

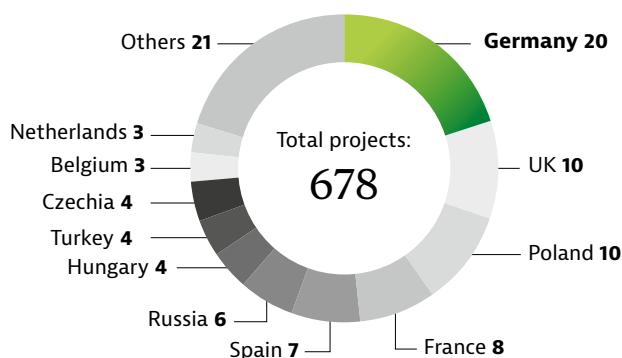
Centrally situated in Europe, Germany is optimally located to meet the new business opportunities presented by current market developments. At present, Europe accounts for one fifth of total global plastics consumption. It is forecast to maintain current consumption levels in global comparison throughout the end of 2015. As Europe's number one plastics location, Germany enjoys a global plastics production share of around eight percent.

Germany is a major FDI destination country for companies in the whole plastics industry value chain – in both international and European comparison. Germany occupies third place in terms of international plastics FDI attractiveness, and has been Europe's leading plastics FDI nation for the last decade. The German plastics industry produces for the international market with the added advantage of having the European market as its home market.

International companies have also been setting up businesses along the entire carbon fiber-reinforced plastics (CFRP) idea-innovation-implementation chain, investing in German companies and entering into collaborative efforts with German firms and research institutions.

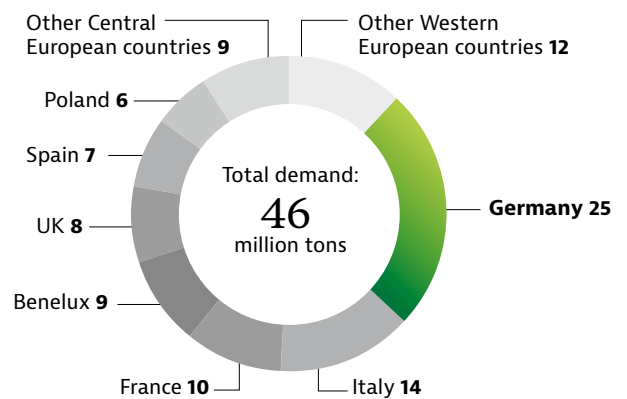
Within Europe, Germany is the undisputed leader in terms of both plastics manufacturing production and sales. Germany is also Europe's best-served country in terms of available plastics production facilities. It also records the highest level of plastics demand by converters (i.e. demand expressed as tonnage of virgin resin).

**Top European FDI Destination Countries 2011–2015**  
in percent



Source: fDi Markets, GTAI – FDI Competence Center 2016

**European Plastics Materials Demand 2014**  
in percent



Source: PlasticsEurope Market Research Group 2014



# The Plastics Value Chain

As a cross-sectional material, plastics are vital to technological innovation: without them the basic materials required to make and realize new innovations simply would not be available. The plastics industry in Germany operates from a position of strength. Innovative plastics production and processing companies (i.e. plastics compounders and plastics converters) located in Germany play a significant role in shaping the global plastics market; that they are able to do so is testimony to the country's highly developed plastics industry value chain infrastructure. Networks within the value chain encompass the different steps of the value chain (vertical networking) as well as those of the different sectors and disciplines (horizontal networking). As a result, innovations with a particularly high value chain potential are created. These are accordingly transformed into marketable products and services.

## World Innovation Leader

Complete industry value chain presence ensures that new and innovative products are made to the highest possible technological standards. More than 2,800 chemistry-related patents granted at the European Patent Office in 2013 make Germany the third largest inventor of chemicals after the US and Japan.

## Value Chain Benefits

Germany's unique industry value chain infrastructure secures the country's position as Europe's leading "value added at factor cost" and "gross investment in fixed assets" plastics processing nation. As well as benefiting from the highest standards and industry leadership, investors in Germany's thriving plastics sector are able to take advantage of excellent partnership and synergy opportunities. New investors are provided with unparalleled access to local enterprise partners; domestic, regional, and international markets; state-of-the-art chemical competence center and cluster infrastructure; and a truly world-class R&D network.

## Sustainable Solutions and Market Growth

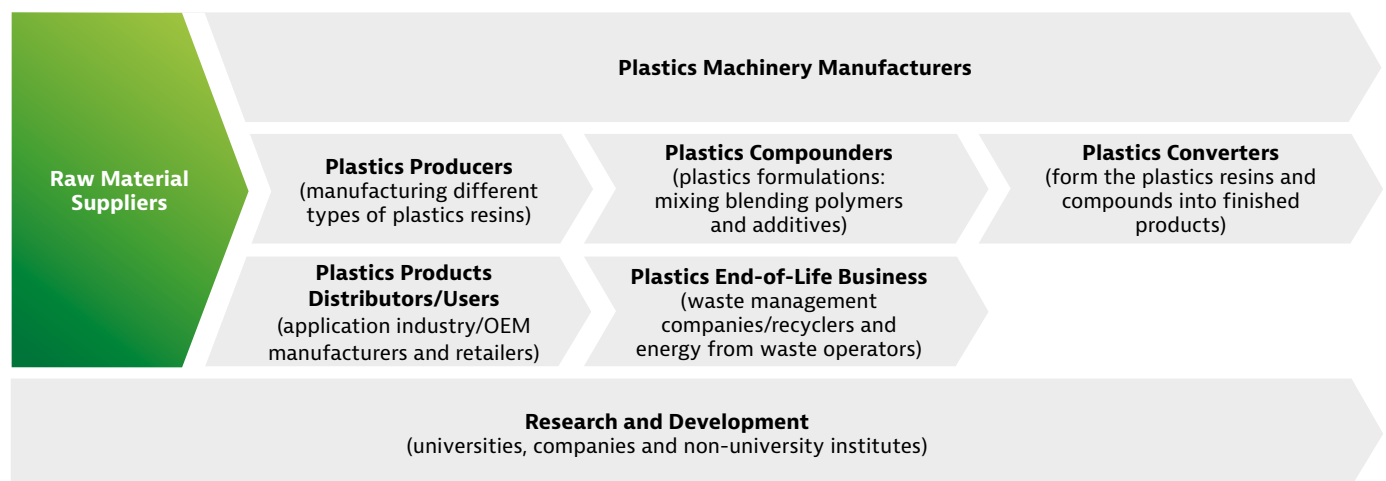
Germany's unique value-chain system recognizes the fact that plastics not only make sustainable solutions a reality, but that they are also a long-term driver of market growth. For that reason, innovative networks and chemical-plastics industry clusters are present along the whole value chain of raw materials suppliers, plastics manufacturers, plastics processors, plastics machinery manufacturers, product distributors, and plastics end-of-life businesses. Around 400 machinery and plant engineering companies have signed up for the "Blue Competence" ([www.bluecompetence.net](http://www.bluecompetence.net)) initiative to increase energy efficiency and plastics recycling quality.



Europe's leading plastics industry opens up new opportunities for international investors.  
[www.gtai.com/plastics](http://www.gtai.com/plastics)

## The Plastic Value Chain in Germany – From Raw Materials to R&D

The entire value chain is available – with the highest integration and based on state-of-the-art technologies and infrastructure.



National and international chemicals and plastics clusters and innovative networks along the entire value chain.

## Market Applications and Segments

Whether in the automotive sector, construction, packaging, or even in the field of health care products, the plastics industry is creating new and profitable business opportunities in numerous application markets. New production and manufacturing technologies like additive manufacturing ("3D printing") open up a growing applications spectrum in almost all application industries.

### Packaging

**Market:** Within Europe, more than 50 percent of all goods are packaged in plastics. According to PlasticsEurope, major efficiencies achieved in plastics packaging mean that, by weight, plastics account for only 17 percent of all packaging. Packaging is the largest plastics application market segment, with 35 percent of total plastics processing finding its way into the packaging sector. According to the IK ("The Plastics Packaging Industry Association"), the industry sector in Germany had a production capacity of 4.3 million tons and sales of EUR 13.6 billion in 2013. The share of plastics packaging in the whole packaging market has been growing constantly in recent years and currently stands at 42.5 percent in production value terms.

The packaging market remains stable, maintaining the record levels of 2013 into 2014. According to the GADV ("German Packaging Manufacturers"), packaging material turnover reached EUR 32 billion (with a slightly reduced production volume of 19 million tons). Plastics packaging was again able to convince in this crowded segment, securing the largest market share with 44 percent of turnover. This took the German market for plastics packaging to record levels in 2014, with production increasing by 2.7 percent to 4.4 million tons. Turnover increased by 2.9 percent taking it over the EUR 14 billion mark. New technologies and improved processes are creating greater efficiencies which are making plastics packaging more attractive. Plastics also provide a ready solution to environmental challenges and ensure the safe and hygienic transportation of water, food, and other consumer goods in an increasingly urbanized world. Since 1991, plastics packaging has, on average, become 25 percent lighter. Almost 100 percent of all household packaging is utilized, of which 56 percent is recycled.

**Opportunities:** Major opportunities abound for companies active in the packaging sector. In 2013, over 19 million tons of packaging materials from glass, metals, paper, and plastics were produced. With 42.5 percent of the German packaging market by production value (paper 33.2 percent, glass 7.8 percent, and metals 16.6 percent respectively), plastics enjoy a significant share of the packaging materials market. The food and beverage sector is a major application market. Increased demand is also forecast for packaging films, hollow bodies, closures, cups, and cans.

### Building & Construction

**Market:** Construction is the second largest plastics end-user application industry with 24 percent of plastics production. Plastics are indispensable to modern building construction due to their durability, easy handling, and high performance characteristics as well as lower maintenance costs.

**Opportunities:** Major opportunities exist in the energy-efficient construction materials segment thanks to the use of plastics-derived thermal insulation materials. The global plastic pipe market will also record double-digit growth over the next decade.

### Electrical & Electronics

**Market:** With around 850,000 employees and sales of EUR 179 billion according to the ZVEI ("Central Association of the Electrical Engineering and Electronics Industry", 2015), the electrical and electronics (E&E) industry counts as one of the biggest industry sectors in Germany. The average plastics content in E&E devices is around 20 percent of weight. Plastics' excellent insulating properties and flexibility are ideal for use in the electrical goods and electronics sector. Germany's E&E sector accounts for six percent of the total plastics consumption market.

**Opportunities:** The global E&E industry is the world's fastest-growing industry sector, and the fourth largest in Germany by revenue (second largest by employment). Plastics are also playing an important role in global efforts to develop novel electronic devices using organic functional layers suited to simple and low-cost products.

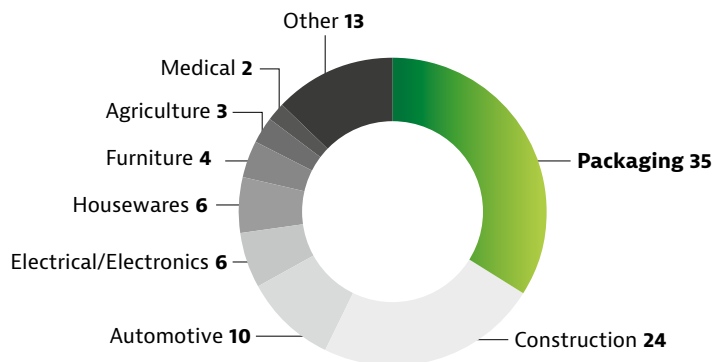
Organic electronics (also “printed electronics”) products have already hit the market in the guise of OLED displays and polymer solar cells. Further development opportunities in the field of 3D printing technologies also arise.

## Automotive

**Market:** German automobile manufacturers produced more than 14 million cars in 2014 – equivalent to more than 17 percent of worldwide production. Domestically, the auto sector remains the country’s most important economic industry sector, and boasts the largest concentration of OEM plants in Europe. According to the VDA (“German Association of the Automotive Industry”) 2015 report, the German automotive industry generated sales of around EUR 370 billion in 2014 (almost two thirds of which in foreign markets). Ten percent of plastics consumption is generated in the auto sector. Plastics contribute up to 15 percent of the body weight of new cars. Lightweight plastics are contributing to make cars more eco-friendly, safer, and comfortable.

**Opportunities:** Worldwide, there are currently more than one billion vehicles in use today. This figure is expected to double to more than two billion vehicles by 2030. Polymer properties and relatively simple processing at low temperatures promote use in many areas of modern car engineering. Increasingly more auto manufacturers are turning to plastics and composites in order to achieve better fuel efficiency levels in accordance with CO<sub>2</sub> emission reduction requirements. As well as improved fuel economies and lower greenhouse gas emission levels, plastics allow multiple auto parts to be consolidated; creating real cost savings for the auto industry. High R&D investment levels are crucial to the automotive sector’s continued success, with research in new and advanced materials (e.g. lightweight construction) an important component. Plastics and composites manufacturers have adopted the role of innovator to constantly develop new solutions for the automotive industry as tomorrow’s autonomous technologies are further developed.

## Plastics Consumption in Germany by Segment in percent



Source: Consultic Marketing & Industrieberatung 2014

## Medical

**Market:** Germany is Europe’s largest market for medical devices and the world’s third largest. With overall turnover in the EUR 28.4 billion region and a workforce of around 130,000, the medical technology sector is a cornerstone of the German economy. According to BVMed (“German Medical Technology Association”), companies in the medical devices sector recorded an 11 percent increase in international turnover (EUR 19.2 billion) in 2015. The industry export ratio reached a peak of 68 percent in 2015.

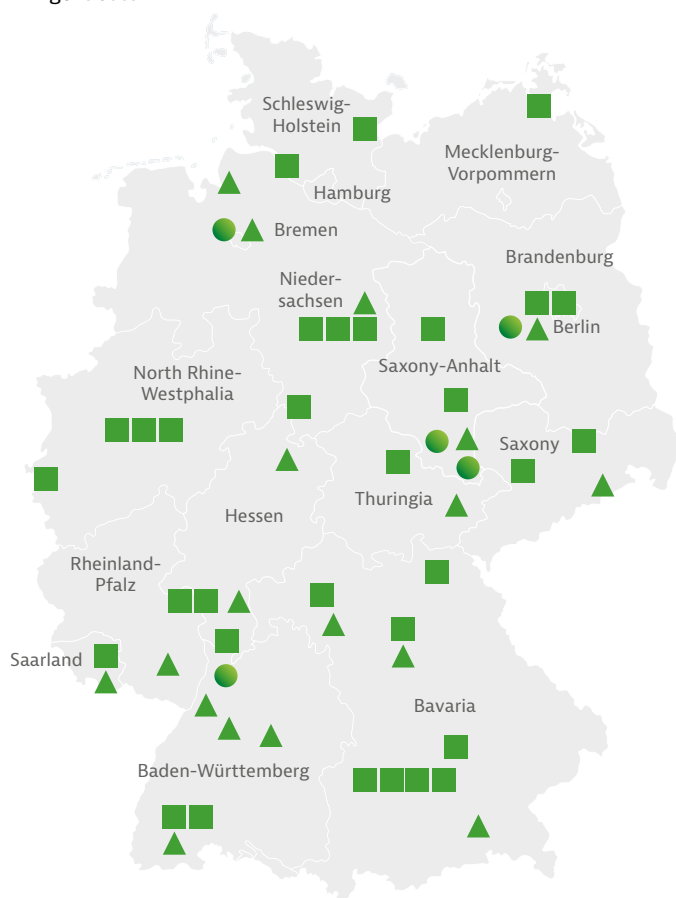
**Opportunities:** Modern medicine depends on an array of plastics-based medical equipment used in general practice. The high acceptance afforded German medical technologies is a clear indicator of the innovative strength of an industry exemplified by above-average R&D expenditure levels (around nine percent of total turnover) in 2015 and the preceding years. But it is not just in general medical practice that plastics are making their presence felt; state-of-the-art orthopedic prostheses and even artificial organs are increasingly being manufactured from plastics. Polymers are also being used in the treatment of extensive wounds to reduce skin grafts levels.

## Innovative Cluster Concept – World-Class Knowledge Transfer

Germany's unique industry cluster concept has created an environment in which operators from all sectors are able to flourish in close proximity with other industry actors and investors, academic institutions, and research centers. The German federal government's cluster strategy encompasses the following activities: competition to promote exchange processes between universities and companies; region-specific measures to foster cluster development; measures to foster cluster development in individual technology fields; cross-industry competence creation; and cutting-edge cluster competition.

### Selected Plastics Industry and Materials Processing Innovation Clusters in Germany

- ▲ Fraunhofer Innovation Cluster
- Fraunhofer Group for Materials and Components
- go-cluster



Source: go-cluster, Fraunhofer Innovation Clusters, Fraunhofer Group, GTAI Research 2016

### Innovative Plastics Industry Networks

Clusters in the plastics industry are typically integrated in multi-producer sites overseen by a third-party management company responsible for the efficient running of all onsite services and utilities. There are over 40 regional clusters, innovative networks, and competence centers in plastics and material sciences in Germany. The chemical and plastics clusters and their innovative networks and competence centers span the entire value chain of the plastics industry, providing unparalleled knowledge transfer opportunities and market impulse. Effectively building a partnership bridge between academia, commerce, and industry, clusters promote shared dialogue and innovative technology partnerships between science and industry.

### Specialized Chemical Parks

There are currently around 60 chemical sites in Germany, of which 37 are organized as so-called "chemical parks." Of these, 28 specialize in polymer manufacturing and plastics processing. The chemical parks and sites concept allows investors to easily "plug into" and access all of the necessary infrastructure resources they require – and all without the financial costs of a greenfield investment.

### go-cluster

The Federal Ministry for Economic Affairs and Energy "go cluster" excellence program brings together more than 100 innovation clusters from across Germany. Cluster members are at the cutting-edge of innovation and represent the technological diversity within the country's industry and technology sectors. The initiative provides financial aid – in the form of support for innovative services and funding for novel solutions – to optimize cluster management allowing member clusters to position themselves as highly effective and visible international clusters.

[www.clusterplattform.de](http://www.clusterplattform.de)



# International R&D Leadership

Germany is Europe's leading R&D investment nation. Internationally, only the US, Japan, and China have higher domestic R&D budgets. Germany is also a leader in terms of R&D investment as share of GDP; at 2.9 percent in 2013 it is above both the OECD average of 2.4 percent and the EU-28 average of 1.9 percent.

According to the European Innovation Union Scoreboard 2016, Germany ranks as an innovation leader within the EU-28. The report also singled out Germany as being particularly strong in terms of the number of "innovators" (innovative products) and "firm investment".

## R&D Infrastructure and Competence

The chemical industry is by far the most important source for new materials. As such, it supplies a large number of industrial sectors with new material innovations. As well as plastics processing, almost all industry sectors benefit from preliminary innovation work carried out by the chemical sector.

Investments in innovation (including R&D and capital investments) account for almost nine percent of annual turnover. In 2014, the German chemicals industry spent EUR 11.1 billion on R&D – equivalent to almost one fifth of total German industry R&D expenditure. R&D activities located in Germany are international in nature, playing a key role in the global research program activities of international chemical industry operators. Plastics and rubber processors have consolidated R&D spending in the last 10 years, helping establish Germany's plastics processing sector (with R&D expenditure of more than EUR 1 billion in 2014) as the undisputed European number one.

INDUSTRIE 4.0 application potential is also being used to allow efficiency improvements in plastics processing. Non-university based applied research institutions, competence centers and pilot projects provide mainly small and medium-sized plastics processors with unparalleled access to cutting-edge research infrastructure and expertise. In the field of composites, the Fraunhofer Materials and Components Group combines the expertise of 17 Fraunhofer institutes and is the most important "Fraunhofer Alliance" in terms of research budget.

*"Industrial clusters and a strong research base are major success factors in the German plastics industry. The fact that Germany can successfully conduct research, development and production for the world market is due in part to the classic benefits Germany offers as a business location: well-trained, highly-qualified and motivated employees, political stability and the ability to make long-term plans, as well as a long-standing tradition of good labor relations, decent infrastructure and a strong focus on quality."*

Dr. Josef Ertl, Chairman,  
PlasticsEurope Deutschland e.V.

This allows international investors to profit from highly scalable R&D potential (industry cooperation and strategic partnership). Germany's world-class research landscape includes a significant number of polymer and materials science research institutes. Based on the Federal Ministry of Education and Research (BMBF) research and innovation study 2016 and Germany Trade & Invest research, this impressive list includes:

- 33 university institutes
- 12 university of applied science institutes
- 2 Max-Planck Society (MPG) institutes
- 12 Fraunhofer Association (FG) institutes
- 3 institutes of the Helmholtz Association of German Research Centres (HGF)
- 4 Leibniz Association (WGL) institutes
- 10 federal and national R&D institutes

Academics and scientists have formed the Plastics Technology Scientific Working Group (WAK) for the further promotion and development of plastics technology in Germany.

## Stable Investment Conditions

### World-Class Engineers

Germany's chemical and plastics sector is internationally admired for the quality of its workforce. Around 36 percent of German university graduates have a scientific or engineering degree background (2014). Germany's rate of employees in science and technology is above 35 percent; making Germany a world leader in rates of technicians and scientists among total employees. The success of the German plastics industry is largely based on expertise and innovativeness employed along the whole value chain.

### Exemplary Academic Network

Germany provides access to an excellent research landscape and advanced network of universities highly active in the field of polymer and material sciences. With strong connections to industry, 33 universities and 12 universities of applied sciences offer a number of plastics processing-related study programs (e.g. polymer and material sciences). More than 203,000 students matriculated on engineering, polymer and material sciences study programs in winter 2014/15. More than 35,000 students graduated in this field of study in 2014. Chemicals and plastics companies, R&D institutes and the industry cluster provide numerous new technology training programs for SMEs – providing companies with an extra competitive edge.

### Competitive Labor Costs

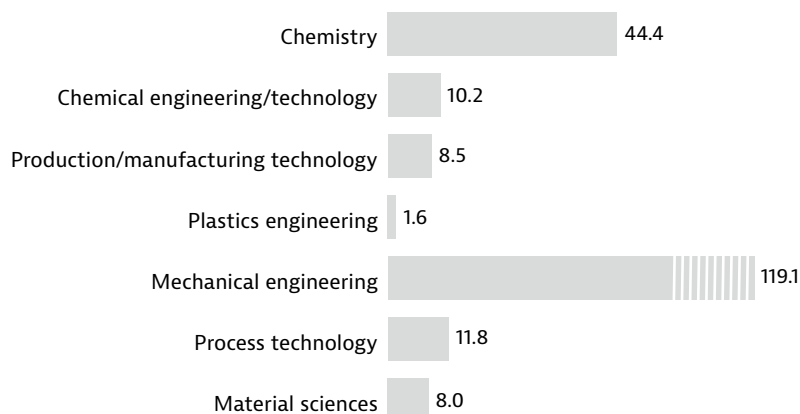
High productivity rates and steady wage levels make Germany an attractive investment location. Since 2006, wages have risen in most European countries (EU-28), with the growth rate averaging 2.5 percent. While some countries – particularly those in eastern Europe – experienced an a rise of close to or more than five percent, Germany recorded one of the lowest labor cost growth rates within the EU at just two percent.

### Competitive Infrastructure and Logistics Edge

Germany's infrastructural excellence is confirmed by a number of recent studies including the Global Competitiveness Report of the World Economic Forum (WEF) and investor surveys conducted by institutions including UNCTAD and Ernst & Young. In the World Bank's Logistics Performance Index 2016, Germany ranks first overall, recording the highest scores worldwide in the categories "Infrastructure" and "Logistics competence." Eighty-three percent of Ernst & Young European attractiveness survey 2016 respondents consider Germany's transport and logistics infrastructure to be attractive. Another aspect of Germany's excellent infrastructure is its extremely reliable electricity supply, which is the safest in Europe. Germany's highly developed pipeline system guarantees stable oil supply from the Mediterranean, the North Sea, and from Russia. Ethylene and propylene pipelines complement the country's unique chemical park delivery infrastructure, with Chemical Parks connected to an advanced pipeline network for natural gas, naphtha, hydrogen, carbon monoxide, and technical gases. This provides unparalleled access to secure supply of raw materials to the plastics and related industries, and represents a major competitive infrastructure advantage.

### University Students in Maths, Sciences, IT, and Engineering Programs in Germany 2015

in thousand



Source: Federal Statistical Office, GTAI 2016

### Business-friendly Tax Conditions

Germany offers one of the most competitive tax systems of the big industrialized countries. The average overall tax burden for corporations is just below 30 percent. Significantly lower rates are available in certain German municipalities – up to eight percentage points less – with the overall corporate tax burden as low as 22.8 percent in some cases. Moreover, Germany provides an extensive network of double taxation agreements (DTAs) ensuring that double taxation is ruled out, e.g. when dividends are transferred from a German subsidiary company to the foreign parent company.

# Financing & Incentives in Germany

Incentives programs in Germany are available through different public funding instruments and for different funding purposes. The individual funding requirements may, for example, result from investment projects, research and development activities, personnel recruitment, working capital needs or other specific purposes. The different incentives instruments including grants, loans and guarantees are generally available for all funding purposes and can ordinarily be combined; thus matching the different business activity needs at different development stages of the company.

## Investment Project Financing by Private Equity

Technologically innovative start-ups in particular have to rely solely on financing through equity such as venture capital (VC). In Germany, appropriate VC partners can be found through the *Bundesverband Deutscher Kapitalbeteiligungsgesellschaften e.V.* (BVK – “German Private Equity and Venture Capital Association”). Special conferences and events like the *Deutsches Eigenkapitalforum* (“German Equity Forum”) provide another opportunity for young enterprises to come into direct contact with potential VC partners. Public institutions such as development banks (publicly owned and organized banks which exist at the national and state level) and public VC companies may also offer partnership programs at this development stage.

## Investment Project Financing by Bank Loans

Debt financing is a central financing resource and the classic supplement to equity financing in Germany. It is available to companies with a continuous cash flow. Loans can be provided to finance long-term investments, working capital and operational costs (R&D, personnel) and for bridging temporary financial gaps. Besides offers from commercial banks, investors can access publicly subsidized loan programs in Germany. These programs usually offer loans at attractive interest rates in combination with repayment-free start-up years, particularly for small and medium-sized companies. These loans are provided by the state-owned KfW Group and also by regional development banks.

## Investment and R&D Incentives

When it comes to setting up production and service facilities, investors can count on a number of different public funding programs. These

## Incentives in Germany

| Funding purposes |                 |                        |                   |           |
|------------------|-----------------|------------------------|-------------------|-----------|
| Investments      | Working Capital | Research & Development | Specific Purposes | Personnel |

**Financing supported by any of the following public funding instruments (combinations of instruments usually possible)**

| Public funding instruments |       |            |                |                   |
|----------------------------|-------|------------|----------------|-------------------|
| Grants                     | Loans | Guarantees | Equity Capital | Mezzanine Capital |

programs complement investment project financing. Most important are cash incentives provided in the form of non-repayable grants applicable to co-finance investment-related expenditures such as new buildings, equipment and machinery. R&D project funding is made available through a number of different incentives programs targeted at reducing the operating costs of R&D projects. Programs operate at the regional, national, and European level and are wholly independent from investment incentives. At the national level, all R&D project funding has been concentrated in the High-Tech-Strategy to push the development of cutting-edge technologies. Substantial annual funding budgets are available for diverse R&D projects.

## Labor-related Incentives

After the location-based investment has been initiated or realized, companies can receive further subsidies for building up a workforce or the implementation of R&D projects. Labor-related incentives play a significant role in reducing the operational costs incurred by new businesses. The range of programs offered can be classified into three main groups: programs focusing on recruitment support, training support, and wage subsidies respectively. Labor-related incentives play a significant role in reducing the operational costs incurred by new businesses.



Please visit our website for more incentives information: [www.gtai.com/incentives](http://www.gtai.com/incentives)

## Chemical Parks – Attractive Location for Foreign Investors

**Foreign investment levels in Eastern Germany's attractive chemical park environment pay testimony to the attractiveness of the region as an investment location.**

### proseat GmbH + Co. KG – BASF Schwarzheide GmbH Chemical Site

Located in the state of Brandenburg, BASF Schwarzheide is a fully owned subsidiary of the world's leading chemical company and one of its largest production sites in Europe. More than EUR 1.6 billion in investment has been made at the chemical park since 1990. In 2015, the site generated turnover of more than EUR 1 billion. The proseat Group set up operations at the site in 2015. One of the world's leading manufacturers of molded foam products for the automotive industry, proseat Group sources Neopolen® required for its EPP-based components directly on site. The decision to erect a five thousand meter square production and warehouse facility at BASF Schwarzheide was integral to proseat Group's aim to establish the new production facility as Europe's leading EPP market and technology site.

*“Decisive for the choice of location was the overall package that proseat found in Schwarzheide.”*

Stefan Hünemann, President and CEO  
proseat GmbH + Co. KG

### Domo Chemicals and Total – InfraLeuna Chemical Site

Leuna in Saxony-Anhalt is home to the one of the largest chemical industrial sites in Germany. Jointly operated by a number of companies the 13 square kilometer site caters for the production of a broad range of specialty and bulk chemicals and plastics. Around EUR 6 billion has been invested at the 1,300 hectare since German reunification in 1990. Domo Chemicals, a leading chemical company headquartered in Leuna, and oil and gas giant Total have announced plans to invest around EUR 30 million each in the production of

benzene feed stock for caprolactam manufacture and a pipeline for transportation within Eastern Germany. The new structure allows Total to improve regional feedstock integration while Domo Chemicals benefits from long-term access to a strategic feedstock for its integrated polyamide 6 production chain.

*“Total and Domo's investment represents an important step to further consolidate our networking at our Leuna chemical site.”*

Dr. Christof Günther, Managing Director  
InfraLeuna GmbH

### Radici Chimica Deutschland – Chemistry and Industry Park Zeitz

The Chemistry and Industry Park Zeitz in Saxony-Anhalt can look back on a tradition of more than 80 years. Extant in its current form since 1996, the 232-hectare chemical park has benefited from more than EUR 100 million in infrastructural investment to date. The park predominantly produces base chemicals, lubricants and specialty chemicals as well as biomass recycling. Radici-Group, with annual turnover in the single billion euro range, counts as one Italy's most internationally active chemicals, plastics and synthetic fiber producers. Through its Radici Chimica Deutschland subsidiary, the group has invested around EUR 230 million in its adipic acid production facility in Zeitz. Since the start of production in 2002, annual capacity of 107,000 tons has been reached, passing the million ton mark in 2013.

*“The location offers many advantages. It has the raw materials that we need. The hydrogen, for instance, is supplied by pipeline from Leuna. The local region also offers a talent pool, with the employees we need.”*

Pio Gazzini, Technical Director  
Radici Chimica Deutschland

## The Industry Associations and Organizations

Germany Trade & Invest works closely with the respective German industry associations to provide support to foreign plastics companies seeking to settle in Germany.

### WVK – Wirtschaftsvereinigung Kunststoff

The *Wirtschaftsvereinigung Kunststoff* (WVK – “Plastics Industry Association”) is the German body representing the interests of members drawn from all corners of the value chain within the German plastics industry. The WVK is a member of the *Bundesverband der Deutschen Industrie* (BDI – “Federation of German Industries”) and enjoys the support of a number of other associations active in the plastics industry.

### PlasticsEurope Deutschland e.V.

PlasticsEurope is a pan-European trade association of plastics manufacturers. The association represents more than 100 companies in 31 European countries. PlasticsEurope Deutschland e.V. is the association of plastics manufacturers in Germany (53 members).

### GKV – General Association of German Plastics Processing Industry

The GKV is the umbrella organization of the German plastics processing industry. It represents the shared interests of the around 700 companies of its carrier associations (plastics packaging, plastics end-consumer, performance plastics, and reinforced plastics industries).

### VDMA – German Engineering Association

The plastics and rubber machinery division within the VDMA represents the interests of over 200 member companies in Germany. Members receive, among other services, support in the form of global market information in the mechanical engineering and client industry sectors.

### bvse – German Association of Plastics Recycling

The bvse – *Fachverband Kunststoffrecycling* represents the interests of the German plastics recycling industry. The association has more than 300 member companies who are active across the entire plastics recycling spectrum: from waste to end-product.

### The Industry Associations of the German Plastics Industry\*



\* founding members

Source: Individual association websites 2016

## Composites Germany

The Composites Germany umbrella industry association was founded in 2013 by the four organizations of the German fiber composite industry: Federation of Reinforced Plastics e.V. (AVK); Carbon Composites e.V. (CCeV); CFK-Valley Stade e.V. (CFK-Valley); and the composite Technology Forum within the VDMA. The organizations in the German fiber composite industry want to strengthen the German composite industry (particularly in the field of research), determine common positions, and take overlapping interests into account.

Composites Germany is also as a member of the EuCIA (European Composites Industry Association). EuCIA is the umbrella organization of the European composites industry and represents the national composites associations in Europe and their member companies. With over 750 member companies within these four organizations, Composites Germany is the largest national agency member.



## Germany Trade & Invest Helps You

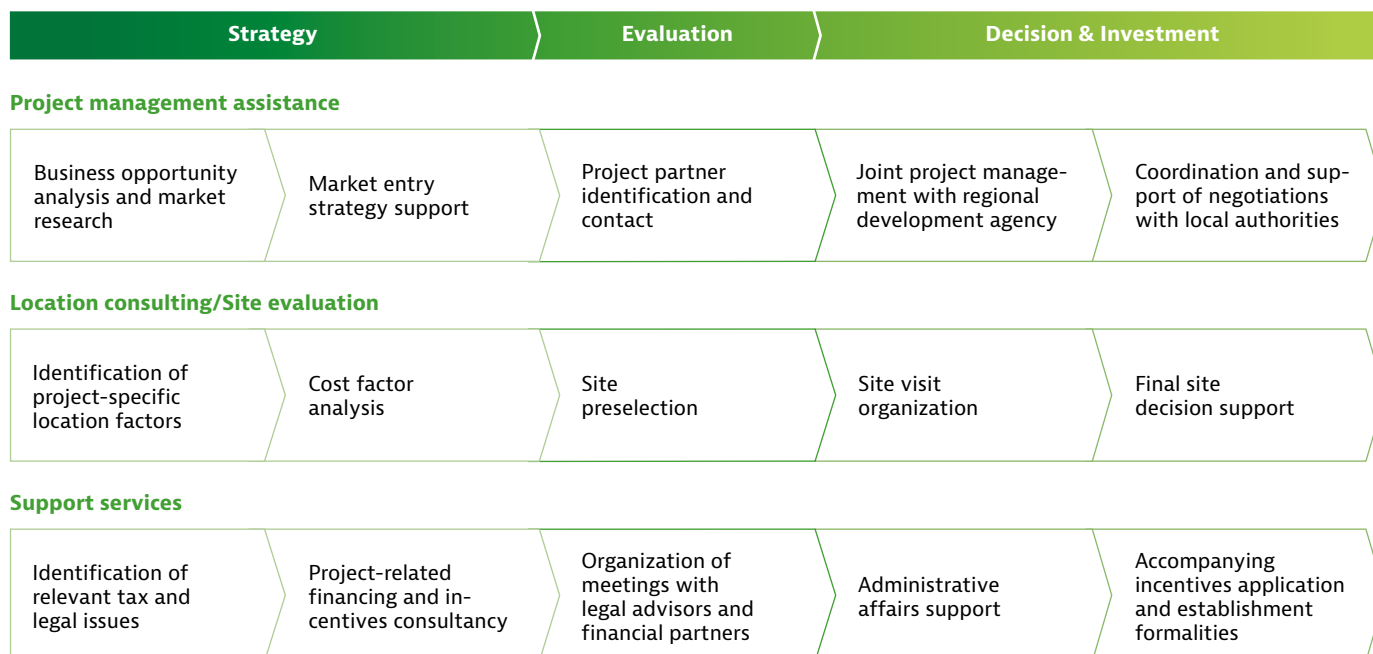
Germany Trade & Invest's teams of industry experts will assist you in setting up your operations in Germany. We support your project management activities from the earliest stages of your expansion strategy.

We provide you with all of the industry information you need – covering everything from key markets and related supply and application sectors to the R&D landscape. Foreign companies profit from our rich experience in identifying the business locations which best meet their specific investment criteria. We help turn your requirements into concrete investment site proposals; providing consulting services to ensure you make the right location decision. We coordinate site visits, meetings with potential partners, universities, and other institutes active in the industry.

Our team of consultants is at hand to provide you with the relevant background information on Germany's tax and legal system, industry regulations, and the domestic labor market. Germany Trade & Invest's experts help you create the appropriate financial package for your investment and put you in contact with suitable financial partners. Our incentives specialists provide you with detailed information about available incentives, support you with the application process, and arrange contacts with local economic development corporations.

All of our investor-related services are treated with the utmost confidentiality and provided free of charge.

### Our support services for your investment project



## Investor Consulting



Peggy Görlitz is the senior manager responsible for the plastics industry in Germany Trade & Invest's Investor Consulting division. She is an acknowledged industry expert with a wealth of more than 20 years' experience and a proven track record in helping international companies set up their business operations in Germany.

For questions on how to establish your business or service center in Germany, please contact Peggy Görlitz at **[peggy.goerlitz@gtai.com](mailto:peggy.goerlitz@gtai.com)**

For more information about the plastics industry in Germany, please visit our website: **[www.gtai.com/plastics](http://www.gtai.com/plastics)**

Contact us at our headquarters in Berlin:  
Germany Trade & Invest  
Friedrichstraße 60  
10117 Berlin  
Germany  
T +49 (0)30 200 099-555  
F +49 (0)30 200 099-999

## Imprint

### **Publisher**

Germany Trade and Invest  
Gesellschaft für Außenwirtschaft  
und Standortmarketing mbH  
Friedrichstraße 60  
10117 Berlin  
Germany

### **Executive Board**

Dr. Benno Bunse, Chairman/CEO  
Dr. Jürgen Friedrich, CEO

### **Authors**

Mechanical & Electronic Technologies Team: Peggy Görlitz  
Marketing Team: William MacDougall

### **Editor**

William MacDougall, Germany  
Trade & Invest, Berlin

### **Layout**

Germany Trade & Invest

### **Print**

inpuncto: asmuth druck+medien gmbh, Köln

### **Picture Credits**

Cover: ©Fraunhofer IAP photo: Alexander Krause  
Page 15: Germany Trade & Invest

### **Notes**

All rights reserved ©Germany Trade & Invest,  
September 2016

Reproduction, in whole or in part, only permissible with express prior authorization. All market data provided is based on the most current market information available at the time of publication. Germany Trade & Invest accepts no liability for the actuality, accuracy, or completeness of the information provided.

### **Order Number**


20852

Supported by:



Federal Ministry  
for Economic Affairs  
and Energy

on the basis of a decision  
by the German Bundestag



#### **About Us**

Germany Trade & Invest (GTAI) is the economic development agency of the Federal Republic of Germany. The company helps create and secure extra employment opportunities, strengthening Germany as a business location. With more than 50 offices in Germany and abroad and its network of partners throughout the world, GTAI supports German companies setting up in foreign markets, promotes Germany as a business location and assists foreign companies setting up in Germany. All investment services and related publications are free of charge.

#### **Germany Trade & Invest Headquarters**

Friedrichstraße 60  
10117 Berlin  
Germany  
T +49 (0)30 200 099-0  
F +49 (0)30 200 099-111  
[invest@gtai.com](mailto:invest@gtai.com)  
[www.gtai.com](http://www.gtai.com)

#### **Germany Trade & Invest Bonn Office**

Villemombler Straße 76  
53123 Bonn  
Germany  
T +49 (0)228 249 93-0  
F +49 (0)228 249 93-212  
[info@gtai.de](mailto:info@gtai.de)  
[www.gtai.de](http://www.gtai.de)