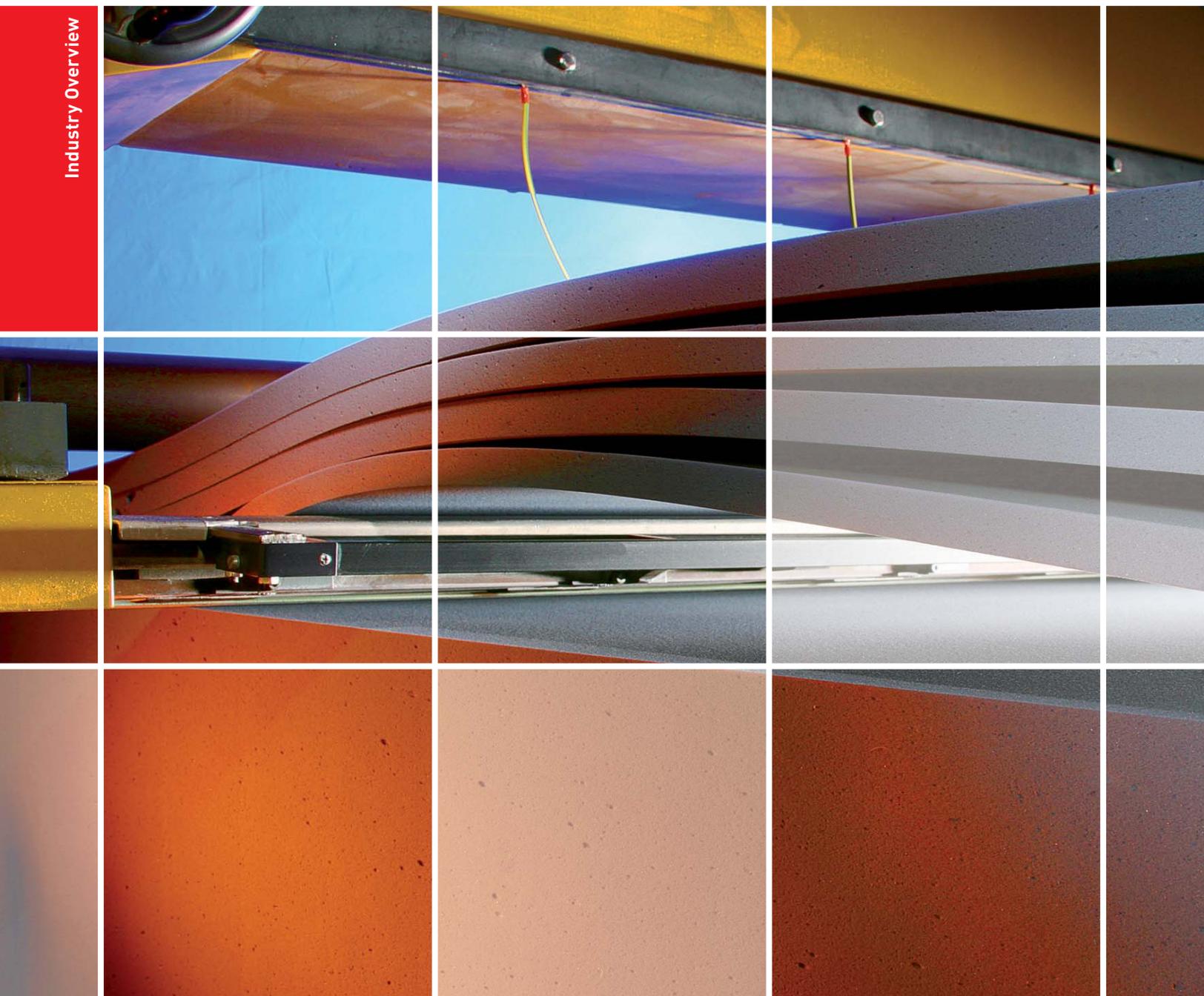


# The Plastics Industry in Germany

Issue 2010/2011

Industry Overview



GERMANY  
TRADE & INVEST

## Germany – 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 turnover 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 industries. 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.



Source: Financial Times; Germany Trade & Invest, February 2009

## The Industry in Numbers

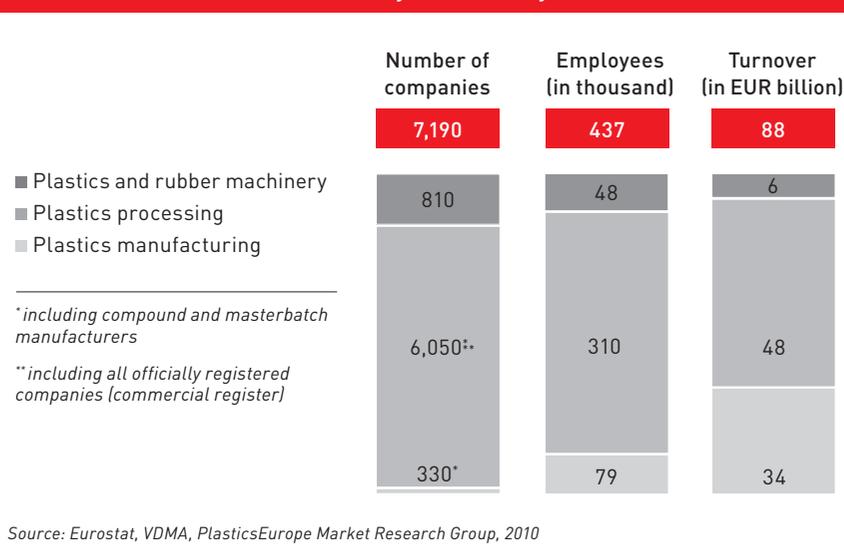
### International Market Demand and Production

- The global plastics industry has recorded average annual growth of nine percent since 1950. The past 30 years alone, international plastics production has grown by more than 500 percent.
- Global plastics consumption is forecast to grow five percent per annum for the period 2007 through 2015. In actual production terms, this represents an overall global production level of 330 million tons by 2015.

### European Market Demand and Production

- The European plastics industry generated total turnover of EUR 300 billion in 2008.
- Europe accounts for around 25 percent of global plastic production (60 million tons in 2008). This is more than is produced by NAFTA (North American Free Trade Agreement) member countries.
- Plastics producers and converters created a EUR 13 billion trade surplus in the EU-27 region in 2008.
- As Europe's number one plastics location, Germany enjoys global plastic production share of around seven percent.
- As a major plastics production site, Europe attracts significant foreign direct investment (FDI) from globally active industry players. In global plastics and rubber FDI rankings, Germany occupies the fifth spot. Within Europe, it is the number one FDI destination country.

### Structure of the Plastics Industry in Germany 2009



### German Market Demand and Production

- The German plastics industry generates turnover in the region of EUR 88 billion each year. The industry, as a whole, is made up of approximately 7,200 companies. These companies employ a workforce of around 440,000 people.
- The German plastics production market, with its 330 companies and 79,000 employees, generated turnover of EUR 34 billion in 2009.
- Germany is home to more than 6,050 companies active in plastics processing. They can call upon a workforce of 310,000 people. In 2009, their turnover was EUR 48 billion.
- Germany's plastics and rubber machinery builders are world leaders. In 2009, they employed a labor force of 48,000 people in 810 companies, generating turnover of EUR 6 billion.

### Home Market Europe

- Around 10.9 million and 7.2 million tons from overall plastics production go to export and import markets respectively. Around 13.3 million tons of plastics are processed in Germany. More than 80 percent of plastics produced in Germany are intended for the European plastics market: 72 percent of this volume remains in the European single market with a further 10 percent ending up in other European countries in 2009.
- The main European importers of German plastics are France, Italy, the Netherlands, and Poland. Germany is also one of the largest importers and processors of plastics materials. Ninety-four percent of all plastics imported in 2009 came from Europe (of which 90 percent came from EU-27 countries).

## Increased Global Plastics Demand

Global plastics demand is forecast to grow five percent annually through to 2015 as a result of so-called "megatrends" including urbanization, growing 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 in which plastics are playing an ever-increasing role.

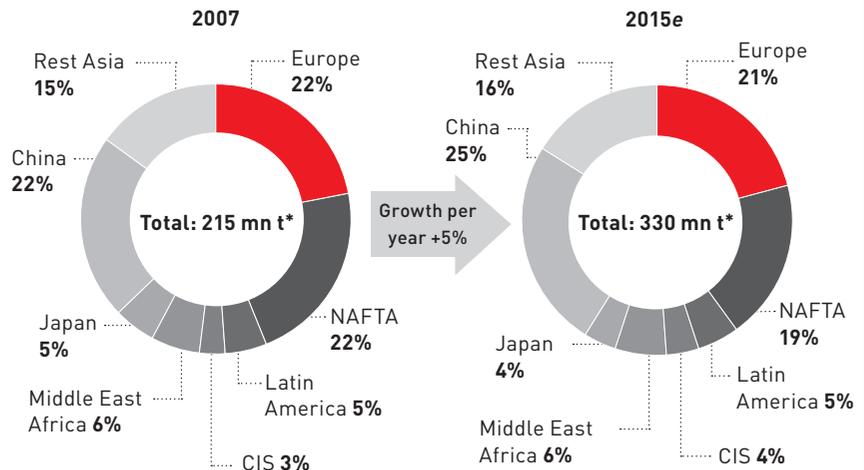
According to research conducted by PlasticsEurope Market Research Group (PEMRG), per capita plastic materials consumption has reached the 100 kg level in western Europe and the NAFTA region. This is expected to grow to around 140 kg by 2015.

Internationally, the greatest growth is predicted in the developing Asian nations (current per capita consumption of just 20 kg). Within Europe, the developing economies of central and eastern Europe who constitute the EU's new member states are expected to record the highest increase levels.

### Production and Demand in Europe

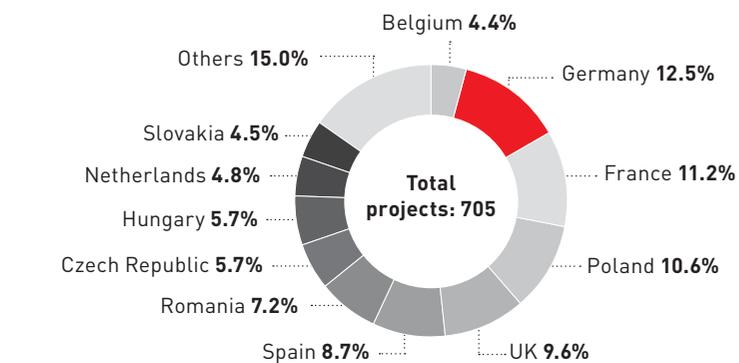
Centrally situated in Europe, Germany is optimally located to meet the new business opportunities presented by new market developments. At present, Europe accounts for just over one fifth of total global plastics consumption. It is forecast to maintain current consumption levels in global comparison through to 2015.

### Global Plastics Consumption 2007>2015e



\*without other plastics 40-45 mn t  
Source: PlasticsEurope Market Research Group, 2009

### Top EU-27 Plastics and Rubber FDI Destination Countries by Project Share\*



\*January 2003 - July 2010  
Source: FDI Markets, 2010

As such, Germany is a major FDI destination country for plastics and rubber companies in both international and European comparison. Germany occupies fifth place in terms of international plastics FDI attractiveness, and is Europe's leading plastics FDI nation. The German plastics industry produces for the international market, but has the added advantage of the European market as its home market.

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

## Plastics Industry 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-manufacturing and processing companies 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.

### 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.

### World Innovation Leader

Complete industry value chain presence ensures that new and innovative products are made to the highest possible technological standards. The facts speak for themselves:

- Companies based in Germany registered the most patents at the European Patent Office for the period 2000-2006.
- With more than 13,000 patents granted at the European Patent Office in 2008, Germany's share is twice as large as that of France and the UK combined.

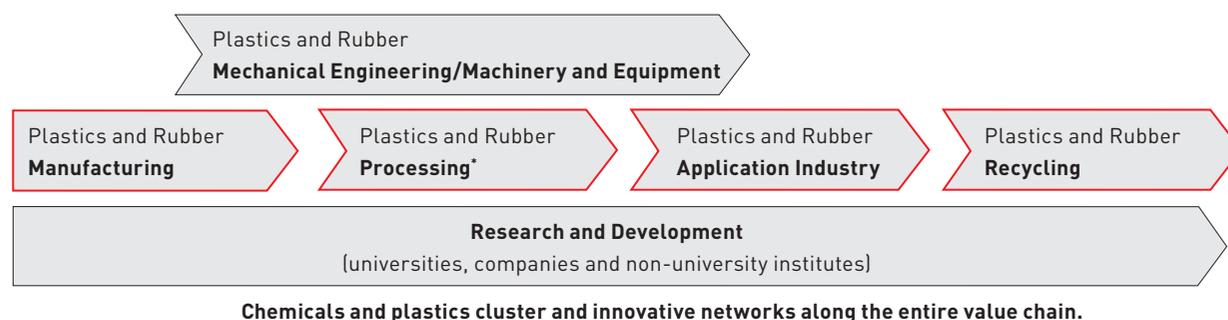
- Germany is also the leading European nation in triadic patents (patents registered at the three major global patent offices: the European Patent Office, the United States Patent and Trademark Office, and the Japan Patent Office).

### 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 manufacturing 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 (both small and medium-sized and larger enterprises); domestic, regional, and international markets; state-of-the-art chemical "competence center" and "cluster" infrastructure; and a truly world-class R&D network.

## Value Chain Advantage in Germany

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



\* including compound and masterbatch manufacturing  
Source: Germany Trade & Invest, 2010

## Market Applications and Segments

In 2009, Germany celebrated 100 years of industrial plastic production. Plastics continue to play a defining role in finding innovative and forward-looking solutions to the way we live. 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 applications markets.

## Packaging

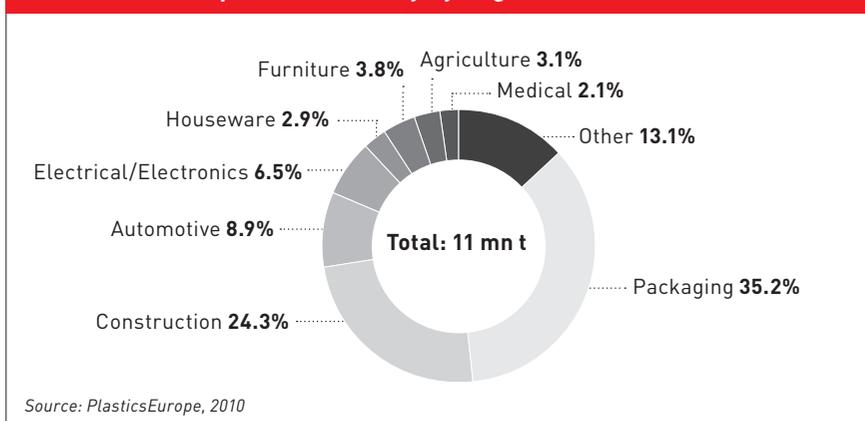
### Market

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 applications market segment, with 35 percent of total plastics processing finding its way into the packaging sector.

The plastic packaging industry in Germany had a production capacity of 3.8 million tons and turnover of EUR 12.5 billion in 2008.

The family of bio-based plastics ("bioplastics") is also gaining in terms of market attractiveness, thanks to increased functionality factors. The Fraunhofer Institute for Electron Beam and Plasma Technology has developed a new barrier roll-to-roll-process which prevents oxidization and moisture penetration. The protective foil, made from conventional PET, PP and PLA plastics, significantly increases the shelf life of, for instance, perishable goods.

Plastics Consumption in Germany by Segment 2009



### Opportunities

Major opportunities abound in Germany for companies active in the packaging sector. In 2007, around 18.5 million tons of packaging materials from glass, metals, paper, and plastics were produced. Plastics accordingly enjoy, with 43 percent, a significant share of the packaging materials market. Although Germany can proudly boast a plastics recycling level above the 2008 packaging directive target of 22.5 percent, a number of its near neighbors in western and central Europe are still some considerable way off meeting this target. Increased demand is forecast for hollow bodies, closures, cups, and cans. Within Europe, the packaging recovery trend is also contributing to healthy prospects in the packaging sector. Forty percent of bottles and industrial films are currently recycled Europe-wide.

## 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.

Windows, doors, façade and energy-efficient insulation elements are but a few of the more obvious examples from the long list of potential plastics construction applications.

### Opportunities

Current trends and major growth opportunities in the construction industry can be found in the energy-efficient construction materials segment. Energy-efficient technologies help reduce energy consumption levels by up to 80 percent. Around 60 percent of these energy savings are realized through the use of plastics-derived thermal insulation materials. The pressing demand for energy-efficient construction solutions opens up further windows of opportunity for the plastics industry. New materials and process advances allied to the advent of "intelligent buildings" will open up the market further still.

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## Automotive

### Market

Germany occupies a unique position in the international automotive industry. Home to the world's first four-stroke internal combustion engine, somewhere in the region of five million passenger cars were manufactured in Germany in 2009. Domestically, the auto sector remains the country's most important economic industry sector, and boasts the largest concentration of OEM plants in Europe. Around nine percent of plastics turnover 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 around 600 million cars in use today. This figure is expected to double to more than 2.1 billion cars by 2030. Versatile 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 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.

## Electrical/Electronics

### Market

The rise of the electrical and electronics industry would not have been possible without plastics. Affordable and durable plastics are all around us, having helped revolutionize the way we live today.

The average plastic content in electrical and electronic devices is around 20 percent of weight. Plastics' excellent insulating properties, flexibility and resilience make plastics ideal for use in the electrical goods and electronics sector. Germany's electrical and electronics sector accounts for about seven percent of the total plastics consumption market.

### Opportunities

The global electrical and electronics industry is the world's fastest-growing industry sector, and the third largest in Germany by revenue. According to the ZVEI trade association, new industry orders for the first quarter of 2010 recorded a 25 percent increase on previous year order levels. 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. The first organic electronics (also "printed electronics") products have already hit the market in the guise of OLED displays and polymer solar cells. German research institutes like the Fraunhofer Institute for Applied Polymer Research are making exciting research advances in polymers with electrical and optical characteristics for high-technology applications.

## Medical

### Market

Germany is Europe's largest market for medical devices and the world's third largest. With overall turnover in the region of EUR 19 billion and a hundred thousand strong workforce, the medical technology sector is a cornerstone of the German economy. In the past year, domestic turnover reached EUR 6.6 billion. Medical use of plastics accounts for 2.1 percent of the plastics market.

### Opportunities

Modern medicine depends on an array of plastics-based probes, syringes, tubing, and thermometers in general practice. 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.

## Further Applications

The **sport and leisure sector**, which generated revenue of EUR 7.3 billion in 2009, is a fast-growing market where plastics are setting the optimal performance and safety standards. Plastic versatility is also proving important in the **furniture and houseware** sectors. Just under three percent of plastics turnover is generated in the general houseware sector alone, with the "homeing" trend driving home furnishings sales. Plastic household goods have become a constant companion of ordinary daily life thanks to their low cost. Some 3.1 percent of the plastics produced in Germany find their way into the **agriculture and horticulture** sector. The scope of possible applications in this area is large; running the gamut from silos for the secure storage of grain and stretch films for bales to mulch films used to conserve water keep and pests away from crops. Bio-based and biodegradable plastics represent a significant market opportunity, covering as they do, the whole agricultural value chain from cultivation to disposal and recovery.

## 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
- Measures to foster non-technology-specific collaboration
- Region-specific measures to foster the development of clusters
- Measures to foster the development of clusters in individual fields of technology
- Cross-industry competence creation
- Cutting-edge cluster competition

The federal government's "High-Tech Strategy" intends to bring about sustainable improvement in the underlying conditions for innovation and technological advance. In doing so, it aims to promote the innovative capabilities of SMEs in particular. This operates at federal and federal state level. The *Kompetenznetze Deutschland* ("Competence Network Germany") initiative of the Federal Ministry of Economics and Technology brings together the best-performing innovation clusters and networks in Germany.

### Selected Plastics Industry Clusters, Innovative Networks, Centers of Excellence, and Pilot Plants



Source: Economic development agencies of the individual federal states, November 2009  
Germany Trade & Invest Research, Cluster and Competence Center, July 2010

### 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 on-site 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 cluster 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 around 40 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.

## 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: with a figure of 2.5 percent above the 2006 OECD average of 2.3 percent.

### World Innovation Leader

According to the European Innovation Scoreboard 2009, Germany is the fastest growing of Europe's leading innovation nations. It also belongs to the small group of European countries with innovation performance levels above those of fellow EU-27 member states and other countries. The report also singled out Germany as being particularly strong in terms of the economic effects of innovation.

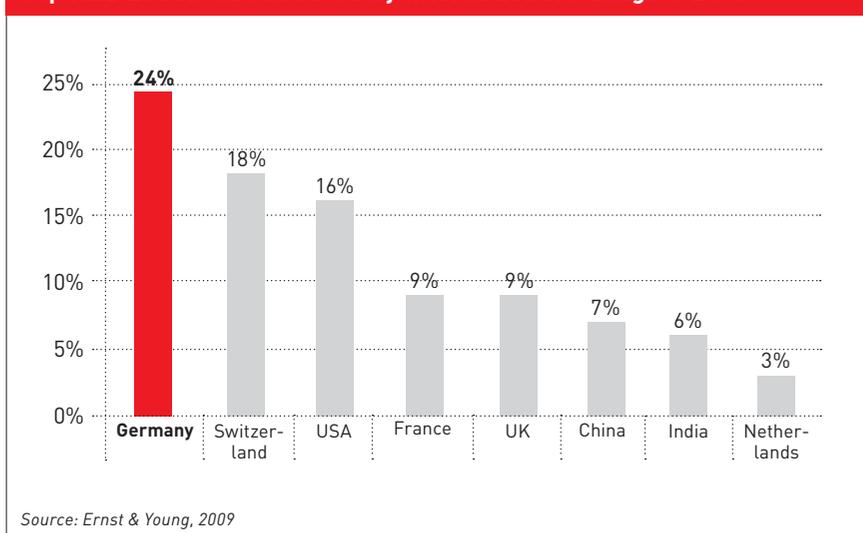
### Public-Private Partnership - Germany's High-Tech Strategy

An unprecedented campaign to foster the advancement of new technologies has been launched by the German government. This campaign – known as the “High-Tech Strategy” – is combining the resources of all government ministries, committing EUR 4 billion annually to the development of cutting-edge technologies.

### R&D Infrastructure and Competence in the Plastics Industry

The chemical industry (including plastics manufacturers) is by far the most important source for new materials. As such, it supplies a large number of industrial sectors with new material innovations. Sixty percent of all R&D expenditure targeted at industrial intermediaries takes place in chemical enterprises. As well as plastics processing,

Top R&D Locations Assessed by International Managers 2009



almost all industry sectors benefit from preliminary innovation work carried out by the chemical sector. The fundament upon which these activities are premised are the strenuous R&D efforts of industry in Germany and efficient scientific practice. In 2007, the German chemicals industry spent EUR 3.7 billion on R&D – equivalent to seven percent 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 ten years, helping establish Germany's processing sector (with R&D expenditure of EUR 800 million) as the undisputed European number one. Non-university based applied research institutions, competence centers and pilot projects provide mainly small and medium-sized plastics processors unparalleled access to cutting-edge research infrastructure and expertise.

This allows international investors to profit from highly scalable R&D potential. Germany's world-class research landscape includes a significant number of polymer and materials science research institutes. Based on *Germany Trade & Invest* research, the impressive list includes:

- 33 university institutes
- 12 university of applied science institutes
- 4 Max-Planck Society (MPG) institutes
- 10 Fraunhofer Association (FhG) institutes
- 3 institutes of the Helmholtz Association of German Research Centres (HGF)
- 3 Leibniz Association (WGL) institutes
- 7 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.

## Dynamic Labor Market

### World Class Engineers

Germany's chemical and plastics sector is internationally admired for the quality of its workforce. Over 30 percent of German university graduates have an applied sciences or engineering degree background.

### Exemplary Academic Network

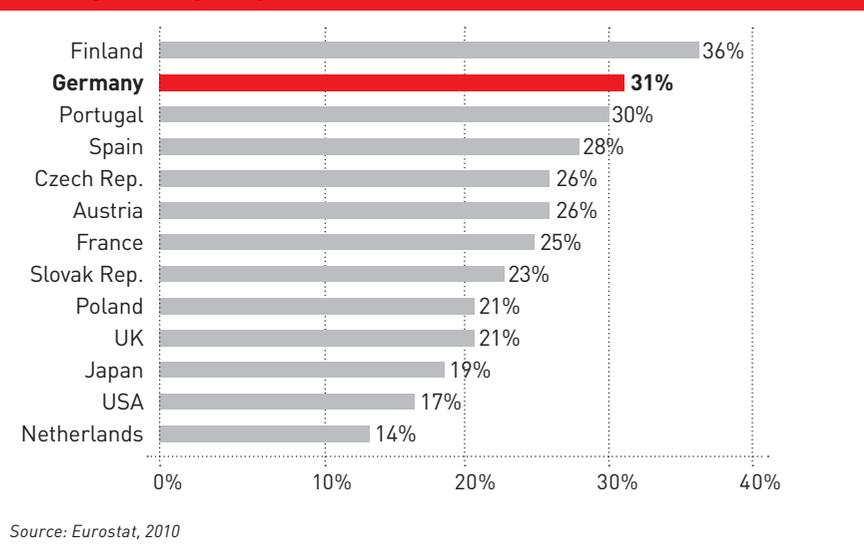
Germany provides access to an excellent research landscape and advanced network of universities highly active in the field of polymer and material sciences. With strong connections to the industry, 33 universities and 12 universities of applied sciences offer a number of plastics processing (polymer and material sciences) related study programs. More than 90,000 students matriculated on engineering, polymer and material sciences study programs in winter 2008/09.

There are currently more than 400,000 students in plastics processing-related study programs in Germany. More than 60,000 students graduated in this field of study 2008. Chemicals and plastics companies, R&D institutes and the industry cluster provide numerous new technology training programs for SMEs – providing companies an extra competitive edge.

### Competitive Labor Costs

High productivity rates and steady wage levels make Germany an attractive investment location. Labor cost increases have been the lowest in Europe in recent years, with a modest annual increase rate of around just two percent. German productivity rates are almost ten percent higher than the average of the EU's 15 core national economies and almost one quarter higher than

University Students in Maths, Sciences, IT, and Engineering Programs 2008



the OECD average. Highly flexible working practices such as fixed-term contracts, shift systems, and 24/7 operating permits contribute to enhance Germany's international competitiveness as a suitable investment location for internationally active businesses.

## Investment Stability

### Competitive Infrastructure and Logistics Edge

Germany's infrastructure excellence is confirmed by a number of recent studies: The 2009-2010 Global Competitiveness Report of the World Economic Forum ranked Germany first for infrastructure; singling out Germany's extensive and efficient infrastructure for highly efficient transportation of goods for special praise.

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 as such, a major competitive infrastructure advantage.

### Business-friendly Tax Conditions

Germany has developed one of the most competitive tax systems in the world. Significant company taxation reforms made in 2008 have resulted in a decrease of the corporate tax burden by around 25 percent. The overall average corporate tax burden has sunk to just below 30 percent, with a number of federal states providing even more competitive tax rates. Standard corporate income tax has also been reduced by ten percent to just 15 percent on all corporate taxable earnings.

## Financing & Incentives

In Germany, investment projects can receive financial assistance through a number of different instruments. These instruments may come from private sources or consist of public incentives programs available to all companies – regardless of country of provenance. They fit the needs of diverse economic activities at different stages of the investment process.

### Early Stage Investment

#### Project Financing

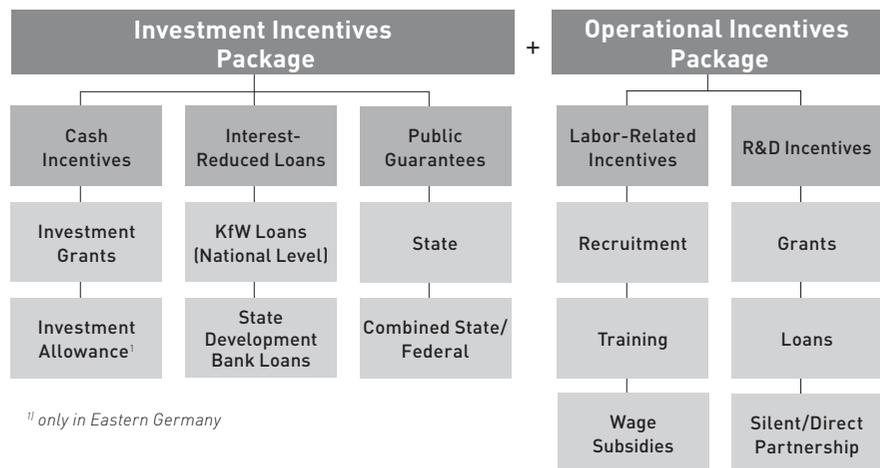
Technologically innovative start-ups in particular have to rely solely on financing through equity such as venture capital (VC). In Germany, appropriate VC partners can be found through the German Private Equity and Venture Capital Association (BVK). Special conferences like the German Equity Forum provide 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.

### Later Stage Investment

#### Project Financing

Debt financing is a central financing resource and the classic supplement to equity financing in Germany. It is available to established companies with a continuous cash flow. Loans can be borrowed for day-to-day business (working capital loans), can help bridge temporary financial gaps (bridge loans) or finance long-term investments (investment loans). Besides offers from commercial banks, investors can access publicly subsidized loan

## Types of Incentives in Germany



programs in Germany. These programs usually offer loans at attractive interest rates in combination with repayment-free start-up years, in particular for small and medium-sized companies. These loans are provided by the state-owned KfW development bank and also by regional development banks.

#### Cash Incentives for Investment Projects

When it comes to setting up production or service facilities, investors can count on a number of different public funding programs. These programs complement the financing of an investment project. 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 or machinery.

#### Labor-related Incentives and R&D Project Grants

After the location-based investment has been initiated, 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.

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 so-called High-Tech Strategy to push the development of cutting-edge technologies. Substantial annual funding budgets are available for diverse R&D projects.

### Manuli Stretch S.p.A. (Italy)

Manuli Stretch, one of the world's leading manufacturers of stretch films, has announced plans to invest a further EUR 21 million at its plant in the Dow ValuePark® in Schkopau, Saxony-Anhalt, through 2012. The investment will be ploughed into creating two new facilities and a production building, allowing production to be increased by 40,000 tons to 140,000 tons per annum.

The company's workforce will also increase to 175 as a result. Over the past decade, the Italian chemical leader has invested EUR 55 million in new facilities at the Schkopau site. The company was first attracted to Germany by the presence of Dow, whose polyethylene provides the raw material for stretch film production. Since the company's initial investment, production has generated annual revenue in the EUR 120 million region. Manuli Stretch's decision to invest at the German site was premised

upon the presence of suppliers and joint-venture partners, as well as ready access to a highly skilled labor force.

*"Our positive experiences with the local workforce and specialized suppliers in the immediate vicinity played a major role in our decision to continue sustainably investing in our plants at the ValuePark® Schkopau."*

Manuli Stretch S.p.A.  
Sandro Manuli, President

Milestones of a Successful and Continuous Investment in Germany	
1997	ValuePark® Schkopau – industrial park concept developed by Dow Olefinverbund GmbH. Initial discussions with potential investors that fit into the value chain.
1998	ValuePark® Schkopau (Saxony-Anhalt) opens.
<b>Manuli Stretch S.p.A. – LLDPE Stretch Film (Italy) – one of the first companies to settle in the ValuePark®.</b>	
<b>Phase I</b> 1998 - 1999	Manuli Stretch establishes new plant for the production of stretch films – EUR 25 million investment supported by the federal state of Saxony-Anhalt.
	<b>Manuli Stretch Deutschland GmbH-consistent use of the advantages of the ValuePark® concept:</b> Raw materials synergies and strategic partnership – Dow is the strategic supplier (LLDPE)* for the Manuli stretch film production and thereby eliminating transportation.
<b>Phase II</b> 2002	Expansion investment: New production line for packaging films – EUR 15 million investment.
2007	Further expansion of the production line for packaging films – EUR 15 million investment.
2010	<b>Manuli Stretch plant in Schkopau</b> <b>Total investment volume: EUR 55 million, 144 employees,</b> <b>Annual production capacity: 100 thousand tons, annual sales (2008) EUR 122 million</b> <i>(Manuli Stretch Group: annual sales in total EUR 319.5 million, production in six plants in Europe and in Latin America with a total annual capacity of 270 thousand tons.)</i>
<b>Outcome</b>	The Manuli Stretch plant in Schkopau has developed into the most important production plant of the Manuli Group with 37 percent share of annual production and 38 percent share of annual sales.
<b>Phase III</b> 2010 - 2012	Investment to create two new facilities and a production building in Schkopau with a capacity of 40 thousand tons and a further 31 employees – EUR 21 million investment.
	<b>Outcome of Manuli Stretch continuous investment at the Schkopau site in Germany</b> Total investment volume: EUR 76 million, 175 employees Annual production capacity: 140 thousand tons
<b>Outcome</b>	<b>Manuli Stretch consolidates its leading position in the European market and expands market share from current 18 percent level .</b>

\*] LLDPE - linear low-density polyethylene

Source: Manuli Stretch S.p.A. press conference on 25th January 2010 in Schkopau, [www.manulistretch.com](http://www.manulistretch.com), ValuePark® Schkopau brochure

## Our Investment Project Consultancy Services

### 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.

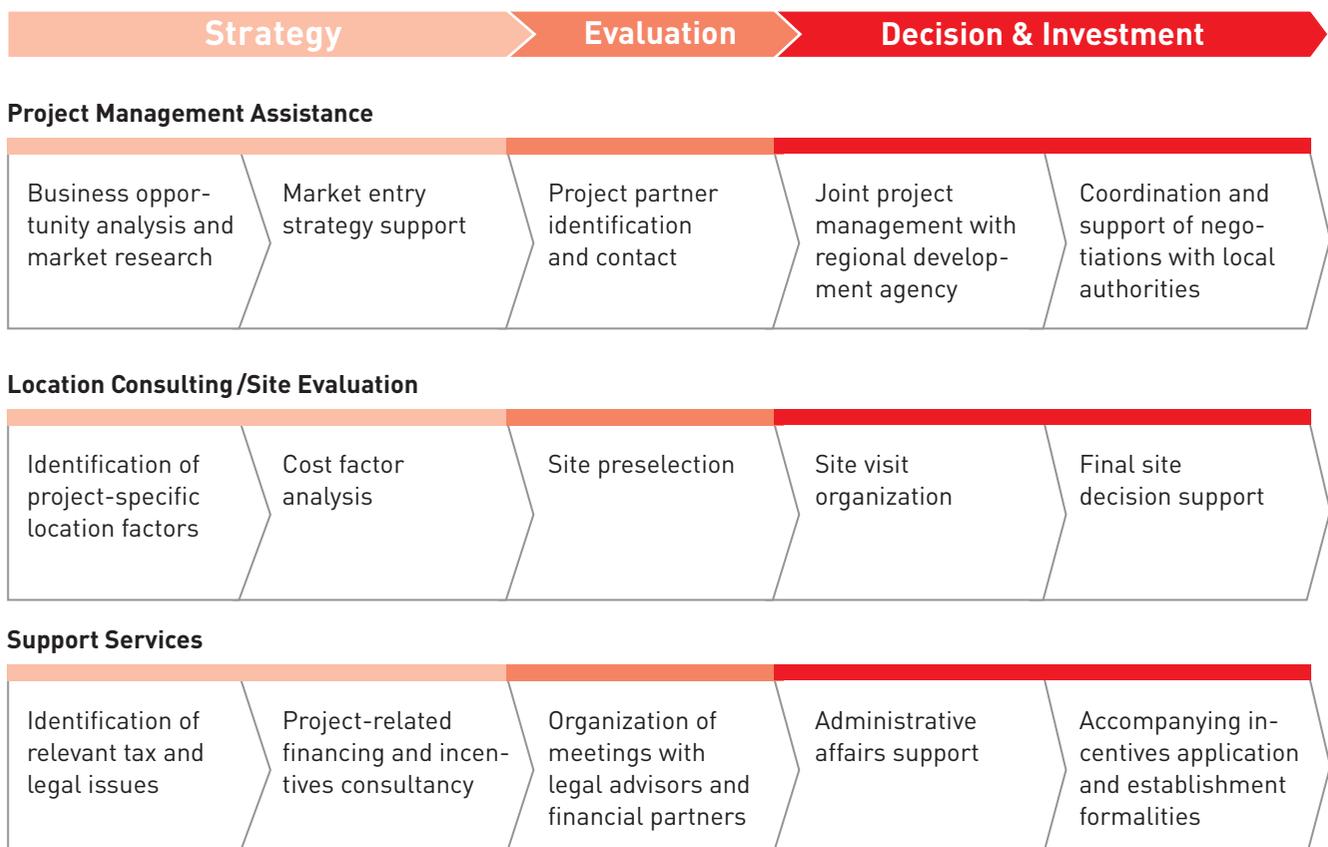
We provide you with all of the industry information you need – covering everything from key markets and related supply and application sectors to the R&D landscape. Foreign companies profit from our rich ex-

perience 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. 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.



### The Industry Association of the German Plastics Industry

Germany Trade & Invest works closely with the respective German industry associations to provide support to foreign plastics companies seeking to settle in Germany. As a result, these companies are able to benefit from the competencies of the different professional associations.

The *Wirtschaftsvereinigung Kunststoff* (WVK – “Plastic Industry Association”) is the German body representing the interests of members drawn from all corners of the value chain within the German plastics industry. These include plastics manufacturers, plastics processors, plastics machinery manufacturers, and companies in the plastics “end of life” recycling

sector. One of the most important industry sectors in Germany, the plastics industry generates annual turnover in the region of around EUR 88 billion, and provides employment to some 440,000 workers in approximately 7,200 companies. The industry enjoys more than six percent share of domestic industrial production. 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. Plastics Europe Deutschland e.V. is the association of plastics manufacturers in Germany.

#### General Association of German Plastics Processing Industry (GKV)

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

#### VDMA – “German Engineering Federation”

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.

### The Industry Association of the German Plastics Industry



WIRTSCHAFTSVEREINIGUNG  
KUNSTSTOFF

Wirtschaftsvereinigung Kunststoff (WVK – “Plastic Industry Association”)\*

[www.wv-kunststoff.org](http://www.wv-kunststoff.org)



\*

PlasticsEurope  
Deutschland e.V.  
Association of  
Plastics Manufacturers

[www.plasticseurope.org](http://www.plasticseurope.org)



\*

General Association of  
German Plastics  
Processing  
Industry (GKV)

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



\*

Plastics and  
Rubber Machinery  
Division within the Verband  
Deutscher Maschinen-  
und Anlagenbau (VDMA –  
“German Engineering Federation”)

[www.vdma.org](http://www.vdma.org)

\*founding members  
Source: Individual association websites

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