

markets Germany

A STATE OF FAIRS

Trade fairs have Germany buzzing with ideas, quality, and discussion.



The Call of the East

Eastern Germany is proving itself as a high-tech business location **p11**

Smart Industry

INDUSTRIE 4.0 – transforming the world of manufacturing **p18**

Kisses and Flirts in Berlin

The Stadler Rail Group enjoys great relationships in the capital **p22**



GERMANY
TRADE & INVEST



Dear Reader,

Germany is facing an almost unique situation within the European Union: a budget surplus for 2013. It is an impressive achievement, considering the country has also recovered briskly from a weak start to the year to post a likely 0.4 percent growth rate for 2013, a figure predicted to rise to 1.8 percent in 2014. This is all great news, but from here it is important that Germany put this leftover money to good use.

Germany's strength during the economic crisis has been an ability to adapt and to understand that when money is short, there is a different hierarchy of needs. No longer can money be spent on the latest luxuries; the money must go into creating a stable future platform for lasting success. So instead of borrowing in lieu of an uncertain future to simply maintain a status quo, Germany has tried to create a stable future in which borrowing would not be necessary.

One of those strategies has been to make sure that Germany is the best location for foreign direct investment in the world. Our own investment has been in our infrastructure, in our education system, and into a series of rewards for investing foreign companies who recognize Germany for what it now offers: a stable economy at the geographical heart of Europe with a well-educated and culturally diverse population. Within these pages, you will find many stories of companies that have reaped the rewards of that offer.

With the projected budget surplus likely to be reinvested into Germany's infrastructure and education, we at *Germany Trade & Invest* are confident that Germany will continue to pick up accolades as an investment location and continue to be a prime location for foreign direct investment for years to come.

Dr. Jürgen Friedrich
Chief Executive

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MY GERMANY

NEWS

MEDIA

FACTS & FIGURES: The German Trade Fair Market



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Cover
muehlhausmoers; Tom Schulze



Secure profits

“ I originally founded my company in Switzerland, but I then realized that Germany offers major advantages for research and development (R&D) and moved all our business activities here in 2004. We create high-quality security products, such as fingerprint recognition, and have already won several international prizes. The company is very active in many R&D areas, so the abundance of well-trained professionals and engineers in Germany is ideal for us. German personnel work systematically and carefully, which is an absolute must for the industry. Germany also has the EU's largest single market, and most of our customers are here. ”

Zeng Quiping,
CEO and Founder of IDENCOM
www.idencom.com

Want to know more?
Check out OnlinePlus for
the full interview!





Medical robot suit HAL can help individuals with mobility issues.

ROBOTIC REHABILITATION

Cooperation. Innovative company selects Germany as first place to launch medical robot suit outside Japan.

A groundbreaking technology company from Japan has chosen Germany as the place to debut its revolutionary medical robot abroad. The medical robot suit HAL (Hybrid Assistive Limb) is a so-called exoskeleton that can assist, improve, or expand the physical capabilities of people with disabilities caused, for example, by accidents or aging. The first cyborg-type robot of its kind in the world offers three modes: a voluntary mode that uses bio-electrical signals detected from the wearer's skin to assist movement; an autonomous mode that steers movement automatically; and a combined mode. The

unique device is already being used in some 160 medical establishments in Japan. But now its manufacturer, Cyberdyne, has set up its first foreign subsidiary, Cyberdyne Care Robotics GmbH, in Bochum, North Rhine-Westphalia. The firm will introduce the suit into health-care systems in Germany, Austria, and Switzerland, engage in continued research and development, and coordinate joint development efforts with local medical-technology firms such as Bayer MaterialScience. —

→ www.bit.ly/18yP4w4

HAPPY BIRTHDAY, DAX!

Stocks and Shares. Germany's leading equity index celebrates 25 years of success.

On July 1, 2013, German benchmark stock index *Deutscher Aktienindex* (DAX) celebrated its 25th anniversary. Before its debut in 1988, investors had few options to gauge the share performance of the country's blue chip companies. The index was developed by *Deutsche Börse AG*, its operator, in cooperation with the Association of German Stock Exchanges and the *Börsen-Zeitung* (a stock exchange newspaper) to attract global investors. It contains the thirty largest and most liquid companies on the German equities

market, and represents some 80 percent of the free-float market capitalization. The signs of its success are many: over the years, it has become one of the world's most popular underlying measures. After starting at a level of 1,163 points, it reached its all-time high, 8,557.86 points, this May. According to *Deutsche Börse AG*, a EUR 100 investment at its launch would be worth nearly EUR 800 today! —

→ www.bit.ly/1binljt

PACKING POWER

By 2018, there will be an estimated 12 billion new mobile communications users worldwide – 93 percent of which will be in developing and emerging nations. As thousands of radio masts are erected to handle the traffic, a major problem is emerging: a lack of power lines means that many masts depend on generators using expensive and hazardous fuel. German entrepreneurs are developing innovative solutions to this problem. The Kirchner Solar Group, a small company in Hesse, in cooperation with the German Agency for International Cooperation (GIZ), is installing modular, off-grid solar generators that power radio masts in addition to providing electricity to rural populations in Uganda. Meanwhile, Berlin-based Heliocentris is outfitting the masts of mobile telephony providers in Mozambique and the United Arab Emirates with its state-of-the-art energy managers, which use a battery to capture unused power from diesel generators and slash fuel consumption by up to 75 percent. New systems also work with solar cells to further reduce fuel dependence.

→ www.kirchner-solar-group.de
→ www.heliocentris.com



STARS IN THE START-UP GALAXY

Stellar. Shining examples of entrepreneurial success in Germany.

Ciaran O'Leary, a partner at the venture capital firm Earlybird, recently told business magazine *WirtschaftsWoche* that "the number of extremely good start-ups is growing very quickly in Germany," particularly those creating apps for smartphones and tablets. Here, we offer a quick glimpse at a selection of standouts:

Experts-Go-Europe helps solve two problems at once: a lack of qualified staff for German companies and a paucity of jobs in southern Europe. Job seekers and companies enter profiles on the multilingual site, which automatically searches for and returns potential matches. Customers are flocking to Hamburg from afar to enjoy the services of **Twinkind**,

which uses 3-D scanning and color printing technology to create stunningly detailed figurines in different sizes for those wanting one of themselves – or even their pets.

In Berlin, Germany's hotbed of start-up activity, you'll find many further standouts. **Blinkist**, a company offering an

app that summarizes key parts of important but time-consuming nonfiction books into ten "blinks" of 200 to 300 words each, provides the pressed-for-time a good précis in about 20 minutes of reading.

EyeEm, the photo-sharing app attracting a million new users a month, is developing a visual search engine and sales platform that will let companies find and purchase rights to uploaded photos, bringing crowdsourcing to the stock and commission photography markets.

Some one hundred soccer teams are already testing or using **Fubalytics**, a low-cost program that saves time and effort by allowing game and practice videos to be analyzed, edited, compiled, marked, and shared online.

Knusperreich aims to revolutionize the German cookie market: with an online order or subscription, customers get freshly baked cookies made with natural ingredients sent right to their door, usually overnight. The idea has been a hit with companies, investors, and cookie-lovers alike.

Investors continue to line up behind **Plista**, whose



A new kind of portrait: Twinkind's 3-D figurines.

cutting-edge software analyzes the reading and clicking behavior of website visitors to optimize the targeted placement of advertising and other content. Several leading German firms, NGOs, and online retailers already use its services.

Trademob is skyrocketing above its European competitors in mobile app marketing. Major names like eBay and Universal Music use its pioneering services to plan, track, and optimize mobile media advertising across 230 mobile ad networks, RTB exchanges, and media partners.

Read our online special
"Top Investments of the Year 2013"
<http://bit.ly/1b1WTcL>



INNOVATION CALLING

Expansion. Consumer packaged-goods giant Procter & Gamble increases investment in its German R&D location.

Procter & Gamble (P&G) is investing around EUR 90 million to expand its research and development center in Kronberg, Hessen. The interdisciplinary facility will house a wide spectrum of researchers, including chemists, electrical engineers, physicists, and doctors. More than a thousand of its nine thousand researchers worldwide work

in the Rhine-Main region. "The heart of P&G's global research beats in Germany," says Pirjo Väliäho, managing director of P&G Germany, Austria, and Switzerland.

A colorful palate of products: P&G invests in its German R&D center.



GROWING CAPACITY

In September, Johnson Controls completed the EUR 100 million expansion of its manufacturing facility in Zwickau, Saxony. The move, which created 200 new jobs, boosted the facility's annual production capacity to 6.6 million batteries, making it the world's largest plant for Absorbent Glass Mat start-stop car batteries. According to a recent study, the company is the fifth-largest American employer in Germany, with an estimated 20,000 employees, and the 12th-largest US firm operating in Germany in terms of sales (EUR 3.6 billion).





With proper planning, the benefits of participating in trade fairs can exceed expectations.

A STATE OF FAIRS

Exhibit. Trade fairs offer a unique opportunity to present your product and establish long-term relationships with customers. Germany is the top location for industry shows that attract exhibitors and buyers from around the world.

Of the leading global industry exhibitions, two thirds take place in Germany. Are you selling or buying toys? Come to Nuremberg. Cars, books, consumer goods? Frankfurt's the place for you. Industrial machinery? Head to Hannover or Düsseldorf. Cameras? Cologne's your city.

The Association of the German Trade Fair Industry (AUMA) says that a record total of 2.65 million foreign visitors attended trade fairs in Germany in 2012, 26.3 percent of all visitors. The share of exhibitors from abroad was even higher, at 54.7 percent. A total of 99,000 foreign exhibitors took part in the 160 interna-

tional and national trade fairs held in Germany in 2012. The single largest national contingent came from China.

Clearly, companies around the world view participation at fairs like the IAA International Motor Show in Frankfurt, the Hannover Messe industrial technology show, and the CeBIT computer expo as an essential tool to bring their innovations to the market and keep up with global trends. Indeed, it's not just about buying and selling. Trade fairs are forums for exchanging ideas and debate about products that could one day change our way of life.

During the Frankfurt International Motor Show in September, which was attended by some 900,000 visitors, automaker Daimler outlined its progress in the development of driverless cars. That wasn't just advertising; it was an attempt to help fuel a necessary public discussion about a key innovation that could become reality within the next decade.

AUMA divides the German market into a number of categories. It defines trade fairs as places where large numbers of companies present their main product range to commercial buyers. Public exhibitions, on the other hand, offer companies a chance to promote their wares to the general public. The German market is dominated by specialist trade fairs with clearly defined product ranges, though consumer exhibitions and events catering to a specialist regional clientele have been on the rise in recent years.

Trade fairs for consumers goods, such as toys, fashion, and leather goods, tend to yield immediate orders – customers

visit them to purchase designs for the coming season. Immediate deals are less likely at trade fairs for capital equipment, where orders tend to be placed only after negotiations in the wake of the trade fair.

At first glance, the stability in visitor numbers may come as a surprise in light of the Eurozone debt crisis gripping much of Europe. But exhibitors from ailing southern European countries hit by declining domestic demand have been flocking to German fairs to find new markets for their products.

"In countries like Spain and Greece, for example, trade fair busi-

ness has virtually collapsed in recent years due to the crisis," says AUMA chairman Walter Mennekes, manager of Mennekes Elektrotechnik GmbH, a leading maker of electrical plugs and connectors. "But industries in those countries rely on export success because of the weak domestic demand. So they visit the leading trade fairs in Germany." Mennekes says the presence of Greek exhibitors at German shows jumped 20 percent last year.

The German trade fair industry is structured regionally, and major companies are publicly owned by regional authorities. Hannover-based *Deutsche Messe*, for example, belongs to the northern state of Lower Saxony and the city of Hannover. It has 460,000 square meters of hall space and generated sales of EUR 251 million in 2012. Messe Frankfurt, the market leader with sales of EUR 536.9 million, is owned by the city of Frankfurt and the state of Hesse.

But is attending a trade fair worth the cost and effort? AUMA says the benefits are huge and can't be replaced by modern communication and marketing methods in this era of Facebook and Twitter. "Hardly any other marketing tool is capable of combining the detailed presentation of the company and its products with personal customer contact," says an AUMA spokesperson.

Companies pondering joining an exhibition should ask themselves how much it would cost to achieve the resulting benefits by alternative means such as advertising and using its sales force. According to AUMA, trade fairs result in a multitude of sales leads that are

essential components of any company's sales policy.

"Experts have come to the conclusion that, in spite of the expenditure involved in participating in a trade fair, there is no other situation where it is possible to reach so many competent specialists in such a short time as at a trade fair," says AUMA. The added benefit of participating in a German trade fair is the international exposure it offers and the access to people who matter to your business.

According to a survey released in June by the Society for Voluntary Control of Fair and Exhibition Statistics (FKM), 58 percent of trade visitors are decision-makers, meaning they have a decisive or significant influence on purchasing. A further 20 percent exert influence in an advisory capacity, the survey states. →

Top five tips for foreign exhibitors:

Top 5

1 The Association of the German Trade Fair Industry (AUMA) (bit.ly/cvj25D) offers extensive advice for prospective trade fair exhibitors, including a "Trade Fair Benefit Check" (bit.ly/lftoh0) a software that helps you quantify the benefits of participating in a trade fair and then balances them against the costs.

2 Define precisely what goals you aim to achieve by exhibiting, and set a clear budget.

3 Visit a trade fair before deciding to participate in it, to make sure it's the right fit in terms of product and target groups.

4 Make sure the trade fair is attended by a critical mass of industry players – if it isn't, it may not attract enough trade visitors to make participating worth your while.

5 It's best to participate in a trade fair three times at least. Repeat attendance nurtures crucial customer relationships.

THE PLACE TO BE

Interview. Germany is the beating heart of the industry, says Dr. Peter Neven of the Association of the German Trade Fair Industry (AUMA).

What makes German trade fairs so attractive to foreign exhibitors?

Dr. Neven: First, foreign exhibitors at German trade fairs can find the domestic professional buyers who represent the biggest market in the European Union. In addition, Germany is at the center of the EU and is easy to reach for visitors from all European countries. Also, some 600,000 visitors from other continents attend German trade fairs each year. That gives exhibitors great opportunities to make valuable contacts and represents excellent value for money.

How will the global trade fair industry develop and will the big German trade fairs be able to maintain their leading role?

Dr. Neven: Even in the digital age, trade fairs will continue to play a central role in corporate marketing worldwide. People who want to make important business deals usually want to get to know each other in person, and customers want to test products and to receive advice. Trade fairs are only now starting to really develop in many countries, for example in East Asia and Latin America. That's why we're optimistic overall about the outlook for trade fairs. German trade fairs will undoubtedly face growing competition, but many of them will retain their leading position for a long time to come. Trade fairs aren't simply marketplaces; they are forums for the presentation and assessment of new technologies and industry trends. This doesn't just include exhibitors and visitors but also scientists, industry association representatives, politicians, and the media, which is not something many trade fairs in other countries can offer.

How does AUMA help potential exhibitors from Germany and abroad decide



Dr. Peter Neven

A born Duisburger, Dr. Peter Neven has been a manager at the Association of the German Trade Fair Industry (AUMA) in Berlin since 1988. In 2006, he became the AUMA's sole managing director.

whether participating in a trade fair makes sense for them?

Dr. Neven: AUMA offers exhibitors from around the world an online database of trade fair information in four languages that can be accessed free of charge. It provides detailed information to assess a trade fair, including analysis of the visitor structure. That enables potential exhibitors to ascertain whether they will be able to reach their target groups by participating. They can also use our Trade Fair Benefit Check to calculate the success to be gained from participation. In addition, AUMA publishes information brochures about German trade fairs in up to ten different languages that are available through many outlets abroad.

Can you give a few examples of how AUMA combined economic theories and studies with practical experience?

Dr. Neven: In the last two years, we published two studies on the future development of the trade fair industry. These studies were conducted by the Leipzig Graduate School of Management, which analyzed many scientific studies on the development of business and communications and also interviewed experts about their concrete experiences and

views. Combining theory and practice in that way enables us to arrive at concrete recommendations for the industry.

Could you outline what kind of competency network AUMA has established?

Dr. Neven: AUMA's competency network is based on the fact that all groups involved in trade fairs are AUMA members: exhibitors, visitors, and organizers. In addition, we have contacts with many other political and business institutions as well as with researchers who deal with trade fairs, marketing, and communications.

How do you convey your experience to customers in Germany and abroad?

Dr. Neven: AUMA takes part in many national and international congresses, where it provides information on trade fairs in Germany. We also inform visitor groups, especially from abroad, who come to us in Berlin, and we provide advice on an individual basis as well.

→ MORE INFORMATION

www.auma.de

→ German firms rate trade fair participation very highly. A recent survey among German exhibiting companies conducted by the institute TNS Emnid on behalf of AUMA found that trade fairs and exhibitions ranked second when it comes to the most important forms of business-to-business communication – behind the company's own home page in first place, but before the sales force, direct mailing, trade journals, Internet sales, events, and public relations.

Exhibiting makes sense for companies, whose sales aren't geographically limited, whose customer base is broad and whose products or services display a high level of know-how. If your products are mass-produced or everyday in nature, they are unlikely to impress trade fair visitors who come to discover new and advanced products and see them working up close. Firms should also see joining a trade fair as part of their overall marketing mix – new contacts made there can be nurtured through subsequent follow-up contacts via their sales forces.

Then comes the budget. The biggest cost, according to a survey conducted by the ifo Institute for Economic Research, is the construction of your exhibition, including transport, cleaning, and security, and generally amounts to 30.8 percent of total costs. That is followed by stand rental (20.7 percent), staff

(16.3 percent), accommodation, catering, travel, advertising, and hospitality.

AUMA offers detailed suggestions and can put exhibitors in touch with companies that design and build exhibition stands. Its advice extends to details such as using energy-saving lights, reusable decorating material, and carpeting, which offers "good tread comfort and an appealing ambience."

What does the future hold for trade fairs? The leading global fairs, where top companies roll out their latest models, may continue, according to Wolfgang Marzin, the managing director of Messe Frankfurt.

But trade fairs in China, India, and Latin America are catching up and will at some point attract the same numbers of exhibitors and visitors. So, what does the future hold for German trade fairs? Will they retain their dominant role despite the significantly higher growth rates currently being reported for shows in Asia?

The answer is most probably yes. AUMA doesn't believe that Germany's global lead, forged over decades, is at risk in the foreseeable future, as can be read in the organization's last annual review: "A trade fair's standing cannot simply be defined by taking the volume of exhibitors and visitors into account,

There's plenty of advice available to help you find the right trade fair.



for example. More than ever, what counts at a trade fair is the quality of the participants representing supply and demand and its role as a forum for showcasing and evaluating new technology and industry trends. Equally important is the exchange of knowledge, which includes not only exhibitors and visitors but also scientists and representatives of trade associations, politics, and the media. This is where German trade fairs enjoy an advantage that will ensure the leading role of many events for some time to come." —

Top German Trade Fairs in 2014

JANUARY 17-26

International Green Week - Exhibition for food, agriculture, and horticulture
Berlin

JANUARY 25-28

Paperworld - The world of office supplies and stationery
Frankfurt

JANUARY 26-29

ISPO - Leading international sports business trade show
Munich

JANUARY 29 - FEBRUARY 03

International Toy Fair
Nuremberg

FEBRUARY 07-11

Ambiente - Consumer goods trade fair
Frankfurt

MARCH 05-09

ITB Berlin - Travel trade show
Berlin

MARCH 10-14

CeBIT - IT exhibition and conference
Hannover

APRIL 07-11

Hannover Messe - Industrial technology trade fair
Hannover

APRIL 10-13

Art Cologne
Cologne

MAY 08-14

Interpack - Processes and Packaging
Leading Trade Fair
Düsseldorf

MAY 20-25

ILA Berlin Air Show
Berlin

SEPTEMBER 05-10

IFA Berlin - Consumer electronics
Berlin

SEPTEMBER 16-20

Automechanika - Automotive parts, car washing, workshop and filling-station equipment, IT products and services, accessories, and tuning.
Frankfurt

SEPTEMBER 16-21

Photokina - Camera and imaging trade show
Cologne

SEPTEMBER 25 - OCTOBER 02

IAA International Motor Show - Commercial vehicles
Hannover

OCTOBER 08-12

Frankfurt Book Fair
Frankfurt

NOVEMBER 12-15

MEDICA - Medical technology
Düsseldorf

EUROPE'S INNOVATION INCUBATOR

Research and Development. Increased research expenditures in Germany safeguard the country's international competitiveness. Interest from abroad is rising, with a growing number of companies bringing their research centers to Germany.

Foreign entrepreneurs are an important component of the German research landscape, and they have increasingly been investing in research and development (R&D) in Germany. According to calculations by the German Institute for Economic Research (DIW), foreign companies account for a quarter of the annual commercial R&D expenditures within the country. These investments also have a significant impact on employment figures: more than 85,000 people are employed in research for foreign companies here in Germany. These companies come from numerous different industries, highlighting the versatility of the German innovation system.

In February 2012, Intel opened its eleventh location in Germany: a new research center in Karlsruhe. Of Intel's 2,200 employees in Germany, 20 work at the new site. The new research center functions as a global center of expertise for the development of new technologies and is currently developing car systems that network with the Internet.

In parallel the company has recently founded the Intel Capital Connected Car investment fund. Furnished with USD 100 million for the next five years, it will invest in software and hardware manufacturers as well as service providers in the field of automotive consumer electronics. These two simultaneous events could lay the foundations for further investments. In the future, the American company will also manage its European university partnership program from Karlsruhe.

South Korean tire producer Hankook has also committed to Germany as a location for business. In June 2012, the company opened its new European research center in Hannover. Hankook has been conducting research in Germany since 1997, and throughout this period it has increased its R&D staff to 45 employees. In Lower Saxony, the tire producer conducts further development work on its products for the European market in order to meet the high standards

facing original equipment manufacturers in the automotive industry.

As these examples and many others demonstrate, Germany is an extremely attractive location for R&D. The slogan "Made in Germany," which has long been a symbol for Germany's traditional role as a location for industry, is now blending with innovation to form the new label for

the high-tech location: "Innovation Made in Germany."

There are good reasons for this development. At nearly EUR 74 billion (2011), Germany's R&D expenditures are the highest in Europe. When it comes to research intensity (R&D expenditures divided by GDP), Germany also demonstrates positive perfor-

mance. Every year since 2005, R&D expenditures have increased by approximately 5.0 percent. Just under 2.9 percent of Germany's GDP went into the development of groundbreaking technologies in 2011.

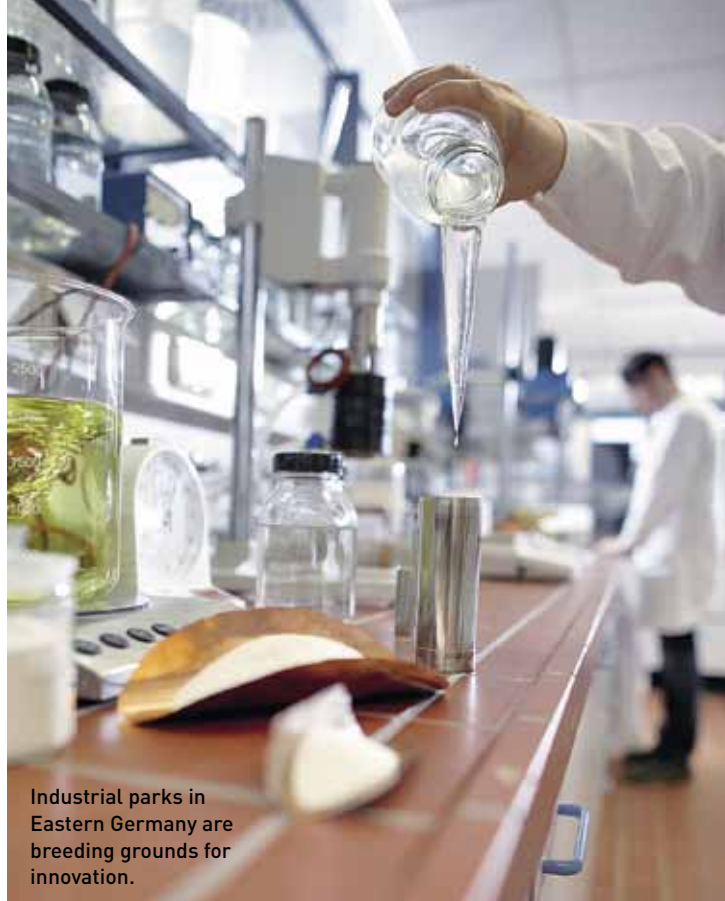
The industry was the innovative heart of Germany in 2011, receiving more than two thirds of the national research budget. In the global competition for technological superiority, companies have invested more than EUR 50 billion in German businesses, as the German Federal Statistical Office reports. With 82.4 percent of all research personnel, the manufacturing industry is the national innovation engine in the traditional sectors of automotive manufacturing, electronics, and machine building. According to the *Stifterverband* (the business community's innovation agency for the German science system), 90,000 brilliant minds are currently developing new technologies in the automotive industry alone.

Germany's R&D expenditures are the highest in Europe

South Korean tire company Hankook develops high-quality products in Hannover.

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Industrial parks in Eastern Germany are breeding grounds for innovation.

In recent years, eastern Germany has become a poster child for efficiency, productivity, enthusiasm for innovation, and first-rate infrastructure, which has enticed a welcome number of international investors to establish themselves there. Wind energy producers like Enertrag and manufacturers of wind turbines such as Vestas and Repower have found ideal conditions in Brandenburg. Dow Chemical, too, is active in Germany's east: the chemicals giant from Michigan selected Schkopau in Saxony-Anhalt as the location for its photovoltaics business.

Germany Trade & Invest works to attract innovative companies to the region by organizing delegation visits as well as informative events across the globe. During the process, potential investors are presented with attractive locations such as specialized industrial parks. The firsthand examples of best practices make a particularly positive impression.

Managers of companies already investing in Germany are the ideal ambassadors for eastern Germany as a location for cutting-edge technology. Syed Azmin Albukhary, chairman of the Malaysian company Sun + Lite & Power, which produces solar panels in Senftenberg, Brandenburg, is one such example. At an investor conference organized by GTAI in Kuala Lumpur this year, he explained why he decided to open a site in the region. Over the course of the day, GTAI provided the Malaysian company representatives from the clean tech industry with comprehensive information about

the market for renewable energies in eastern Germany.

Companies in Germany's neighbor, Austria, are also keen to manufacture in eastern Germany, say Dr. Jürgen Mader of Borealis Polymere GmbH and Günther Felderer of voestalpine Metal Forming GmbH. At a GTAI event for Austrian entrepreneurs in Vienna earlier this year, the two men presented their arguments in favor of eastern Germany: namely, ideal transportation connections and flexible employees. The companies operate branches in Saxony-Anhalt and Brandenburg/Thuringia, respectively.

In 2013, additional GTAI activities focused on Brazil, Russia, and China. Former German economic minister Michael

Glos accompanied a GTAI delegation to São Paulo and Rio de Janeiro, where the group presented the impressive performance of the Chemical and Industrial Park Zeitz in Saxony. The park does more than merely host companies from the chemical industry and energy supply sector — it is also home to scientists conducting research with practical applications. A Helmholtz Centre for Environmental Research is also located there. Another industrial park, *Solarvalley Mitteldeutschland* in Erfurt, was presented to potential Russian investors in Moscow and Krasnodar. The photovoltaics industry has organized itself within this state-subsidized cluster of excellence.

Chinese companies, too, are already represented in eastern Germany. For example, Greatview Aseptic Packaging Co. Ltd produces aseptic packaging materials in Halle, Saxony-

Anhalt. During a business lunch in Peking, James Liu, COO of Greatview, talked about his company's involvement in the region. At an investor conference in Taipei organized by GTAI, R. T. Tsai, vice president of Delta Electronics, gave a closing statement in which he offered firsthand advice to Taiwanese companies planning to invest in Germany, should they need it.

The major experience that all of these managers had in common: the doors are wide open in "Powerhouse Eastern Germany."

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THE CALL OF THE EAST

Investment. Eastern Germany has earned its spot among the world's best high-tech locations for renewable energies, clean technologies, and biotech and health-care technologies.

REWARDING, RESOURCEFUL, RELIABLE

Smart Move. Israeli businesses are stepping up investment in Germany. What is attracting their attention and, more important, why?

In the three-year period between 2010 and 2012, Israelis have transferred USD 16.3 billion abroad as foreign direct investment. Israeli companies are scouting continuously for good opportunities to expand their presence in important business hubs, save on logistics, and disperse geopolitical risks.

Often enough, that search leads them to Germany. "Stability has become Germany's most important feature. The German market is very sophisticated, has clear rules and a good payment ethic. We really like doing business there," says Motti Sela, the CEO of Ashtrom Properties, one of the investing companies.

Stability and reliability as well as the resourcefulness of German companies and the incentives that Germany offers foreign investors attract numerous industrial companies. A well-known case is the 2010 acquisition of the German generics manufacturer Ratiopharm by Israel's Teva Pharmaceutical Industries for EUR 3.6 billion. Israeli investors often opt for companies in the former German Democratic Republic and in Berlin. As early as 1995, Federmann Enterprises acquired the gallium

arsenide business of Freiburger Elektronikwerkstoffe and turned it into the highly successful Freiburger Compound Materials. In January 2013, the Israeli automotive parts manufacturer Tadir-Gan completed the acquisition of Alu-Druckguss/ADB Group, an aluminum die-casting company whose headquarters are in Brieselang, a ten-minute drive from Berlin.

In Berlin, Ducksprint, a subsidiary of the Israeli IP Ducksprint Ltd., manufactures promotional magnets. Business is thriving. "We decided to establish our subsidiary in Germany because of shorter delivery routes and the size of the German market," says Reshef Almog, Ducksprint's joint CEO. "And why Berlin? Berlin is a creative, open-minded, and international city with a lot of start-ups and many company headquarters. That is a good match for us. We are happy with our investment and plan to expand sales from here into other European countries." —

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Firsthand experiences

markets Germany spoke to Mr. Avi Livne, CEO, Tadir-Gan Group, about his decision to invest in Germany.

Tadir-Gan has acquired Alu-Druckguss / ADB Group. What are the advantages of this move?

Avi Livne: One major point is a diversification of our customer base, including the addition of the VW group as a strategic customer. Another advantage is a significant improvement in our marketing presence in Europe, which accounts for 74 percent of total group sales. Let me also mention the addition of die-casting machines with varied locking force and the enhanced product range that we are able to offer to our customers. And last but not least, we have created a critical mass in the automotive market in excess of USD 100 million.

To what extent have you been able to achieve synergies?

Avi Livne: Centralized marketing and cost savings were an immediate synergy. These included marketing efforts with the company's salespeople in Europe — no sales representatives — and the consolidation of managerial positions at ADB.

What are less immediate effects?

Avi Livne: Planned synergies include coordinated engineering efforts and increased purchasing power for aluminum and tooling.



Good business opportunities, strong logistics, and investment stability are attracting Israeli companies to Germany.



A TRANSATLANTIC APPROACH

Trade. Since early July, the European Union and the United States have been in negotiations on the establishment of the world's largest free-trade area.

Measured according to imports and exports, the European Union is still the United States' most important trade partner. Conversely, the United States is the key export market outside the EU for German companies. The two parties are currently negotiating the conditions of free trade as part of the Transatlantic Trade and Investment Partnership (TTIP). In addition to abolishing customs duties, the negotiation partners intend to replace a patchwork of non-tariff trade barriers with consistent regulations. This process will include the harmonization of regulations on standards and norms, intellectual property, licensing, product certifications, and the trade of goods and services that are under special protection. Additionally, they plan to improve access to government procurement services.

Industry representatives have also submitted their own wish list: the European automotive industry, for example, is making the case for mutual recognition of automobile standards for vehicle headlights, crash tests, child restraint systems, and windshield wiper systems. The American agriculture industry, too, has voiced its own expectations: it hopes that EU import bans on chlorine-treated chicken will be lifted, as well as bans on meat from cows and pigs treated with growth hormones. Moreover, it supports removing the restrictions on genetically modified foods and fruits laden with pesticides, and

it is in favor of protected geographical designations of origin (like for Champagne) for American products. Meanwhile, the chemical industry hopes for laxer EU requirements in the approval process for chemical products. Clothing manufacturers on both sides of the Atlantic support fewer requirements for the adherence of designations of origin such as "Made in Germany." But individual EU member states also have their own concerns. At France's urging, for instance, the EU economic ministers have agreed to exclude cultural and media-related products from the mandate for the time being.

The negotiation partners have already discussed numerous important issues: investments, government procurement systems, cross-border services, textiles, rules of origin, energy and raw materials, and the legal framework. They have also debated other areas, such as health-care policies and strategies for protecting plant life, in addition to market access, standards, and norms for industrial goods.

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FERTILE GROUND FOR US INVESTORS

American investors' confidence in and satisfaction with Germany remains high, and the prospects for improvement are good, according to a report published in September by the American Chamber of Commerce in Germany (AmCham Germany). The survey of executives from the fifty largest US companies or company subsidiaries in Germany based on revenue found that they are enjoying faster annual growth than Germany's national average (1.3 percent vs. 0.7 percent). Likewise, almost two thirds of respondents (65 percent)

said that they intend to maintain or increase investments over the next four years. US-based companies invested in some 840 projects in Germany between 2008 and 2012, making America Germany's most important FDI partner, and the top thirty US companies account for more than 350,000 jobs. Respondents also noted that the proposed Transatlantic Trade and Investment Partnership (TTIP) currently under negotiation has the potential to be "a central driver of growth" for both countries.



EUROPEAN SUBSIDY PROGRAMS DEALT A NEW HAND

Funding. A quick overview of what will change and why Germany will remain an attractive location for investment in the upcoming 2014 to 2020 funding period.



In mid-2013, the European Commission adopted guidelines for investment subsidies that EU member states can provide to companies between 2014 and 2020. Companies can use these subsidies to promote development in disadvantaged regions of Europe. During the previous funding period from 2007 to 2013, Germany was able to close its development gap, particularly in the eastern regions of the country. This was possible thanks in large part to well-structured, targeted subsidy policies on state and federal levels. Now, the task is to adapt the funding tools to the new requirements.

Eastern Germany is to remain a development area, though subsidy rates will be lowered. Starting on July 1, 2014, large companies can expect a subsidy rate of up to 15 percent, medium-sized companies up to 25 percent, and small companies up to 35 percent. Additionally, these subsidy rates may be increased by five percentage points for the regions along the Polish border to compensate for disparities. In some structurally weak regions of western Germany, too, investment promotion will continue. On July 1, 2014, Germany's regional aid map and the maximum subsidy rates will come into effect. The current regulations and the 2007 to 2013 regional aid map still apply until June 30, 2014.

In that sense, investment promotion by means of direct grants will continue to be one of the most important funding tools for large areas of Germany. The federal and state governments plan to disclose their detailed strategies for implementing the EU's new regional guidelines

in Germany in the second quarter of 2014. Small and medium-sized enterprises (SMEs) – companies with fewer than 250 employees and a turnover of up to EUR 50 million or total assets of up to EUR 43 million – will remain the focus of subsidies in the future. However, the new guidelines stipulate stricter processes for investments made by large companies in regions with a development gap. Investors will need to wait for the regulations in this area to be interpreted and implemented in national law. For certain sectors and industries (e.g., steel and synthetic fibers, agriculture, and transportation), regional subsidies are still prohibited.

Additional funding tools, such as public loans or public loan guarantees and holdings, will gain in importance for investment projects in Germany. The options are numerous and varied. Both KfW, which operates as the German federal government's business development bank, and the individual state development banks, which provide a broad range of products in each state, are on hand to offer investors attractive funding options. Public loans are available for projects such as general investments by medium-sized companies and targeted investments in research and development, environmental technologies, and energy-efficient systems and processes. The interest rate level is excellent and generally dependent on the investor's credit rating or securities. The decisive factor here is that the borrower's bank supervises the project. —

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GLOBAL PARTNERS

Interview. China's "Going Out Policy" fueled a wave of acquisitions in economies around the world, bringing great opportunities and advantages to both partners.

A recent report published by Berlin-based Consulting4Drive highlighted the success of Chinese foreign direct investment (FDI) in Germany's automotive sector, which it says has created a "perfect win-win" situation. *markets Germany* talked to two of the report's authors, Sandro Fengler, director of Operations Asia, and Dr. Roland Eckert, partner in charge of M&A, PMI, and Strategic Programs, and asked them about their findings and the study's relevance to FDI in Germany.

In your experience, which sectors of German industry are particularly attractive for FDI?

Dr. Roland Eckert: If you look at the way Chinese companies have developed, it's not so much that they are trying to win foreign markets but rather strengthen their position in domestic markets, for example through investment in energy and resources. Germany is a byword for processing industries and industrial goods, automobile manufacturers and automobile suppliers, so if you look at the German market, you can easily identify where the focus will be.

Sandro Fengler: German OEMs [original equipment manufacturers] and their suppliers have learned how to thrive in a very expensive and competitive environment while still maintaining their focus on quality and innovation. The Chinese market is changing rapidly, so this is something German companies can teach the Chinese, which they would profit greatly from. And of course, Chinese companies are very keen to acquire technical know-how and are looking very closely at the automotive sector in particular, where Germany is the leader.

What kind of business environment can they expect to deal with?

Fengler: If you compare the Chinese and German systems, it's like two worlds colliding. The Chinese encounter an almost perfect business environment: organized



Sandro Fengler

Director of Operations Asia at Consulting4Drive

processes, planning, everything systemized down to the last detail, and a much more binding communication culture. German large and medium-sized enterprises can make major long-term decisions, and this is one area where Chinese companies would greatly benefit from having a German partner.

What advantages can Germany offer foreign producers and investors? And what mutual benefits are there?

Dr. Eckert: As Mr. Fengler mentioned, what makes investment in the German market attractive for Chinese companies is the acquisition of German innovative strength and engineering power: in other words, good, high-quality branded products that customers in



Dr. Roland Eckert

Partner in charge of M&A, PMI, and Strategic Programs at Consulting4Drive

China want to buy. But the combination becomes really interesting when you add the scalability of the Chinese companies that are used to producing for a much bigger market and the competence that they can contribute.

Fengler: Chinese OEMs in the automotive sector source 26 percent of component parts from domestic companies, import 11 percent, and obtain 63 percent from foreign suppliers with local subsidiaries. That means Chinese carmakers do not source their complex components – injection systems, for example – from Chinese suppliers. Investment in German companies would give them the know-how to produce their own complex components. This is a crucial factor for Chinese OEMs and suppliers.

What sort of investment volume are we talking about, and where will it most likely be focused?

Dr. Eckert: This is a difficult question, because the level of Chinese investment in German companies has varied greatly until now. But I would say that there are two trends. On the one hand, Chinese companies will increasingly take very small minority shareholdings in big listed companies, which will give them a say at annual shareholder meetings. On the other hand, the German market is characterized by family-held small and medium-sized enterprises, and if you take into account their increasing problems with finding successors to run them, a lot of these companies will become vacant. These companies can provide a lot of relevant experience, because they have managed to establish themselves in global markets, and they can also provide German engineering know-how and innovative strength. These are the two directions I see, and I find the second particularly relevant.

➔ **MORE INFORMATION**

www.consulting4drive.com

A 14-YEAR ADVANTAGE

Greentech. Since 1999, Germany has significantly improved its energy efficiency. In fact, the country's rapid progress in environmental technology puts it ten years ahead of the OECD average for energy consumption in production.

As part of its transition to renewable energies, Germany's energy infrastructure will undergo a fundamental change. This process will involve significant investments, and for Germany's greentech industry in particular, it will also mean new business opportunities — not least because greentech spans many different sectors. However, there will also be sales opportunities abroad, as the greentech industry already comprises a significant share of the global market. Additionally, the demand for green services has increased considerably in recent years.

In Germany, a large share of the population and the business community supports phasing out electricity generated by nuclear power. The various methods for achieving this goal are the subject of fierce debate. Germany's vision for the future, the *Energiewende* (Energy Transition), is a complete nuclear switch-off by 2022, with the remaining energy to be produced predominantly from renewable sources.

The foundation of the *Energiewende* was laid back in the 1990s with subsidies for wind and solar energy. These two sectors are part of the fledgling greentech industry, which focuses on developing environmentally friendly technologies and using resources more efficiently. Greentech is included in the German federal government's new energy policy, which sets a number of ambitious environmental protection goals: reduce carbon dioxide emissions by 80 percent by the year 2050 and raise the share of renewable energies in overall energy consumption to 60 percent.

A consequence of the *Energiewende* is that Germany will completely revamp its infrastructure, which will ultimately alter the country's economic foundation. By making these changes, Germany is taking another step toward becoming an environmentally friendly social market economy: a "green economy." According to the Cologne Institute for Economic Research, Germany already holds a very strong position in

international rankings. For example, "producing just one unit of the German gross domestic product requires half the energy it did in 1981." Societal, political, and economic interest and involvement have contributed to the rapid technological progress in the areas of environmental technology and the efficient use of resources. Hence, Germany is ten years ahead of the OECD average in environmental technology implementation and practical benefits. Or, to put it another way, currently production in OECD countries consumes as much energy (on average) as production in Germany did in 1999.

Researchers, trade associations, and politicians still disagree about how the transition to renewable energies should be implemented. In the Boston Consulting Group's (BCG) *Trendstudie 2030+* (Trend Study 2030+), commissioned by the Federation of German Industry (BDI), a number of factors are listed that will need to be taken into account in the

80%
CO₂ emission
reduction by 2050

60%
of energy in the mix
to come from
renewables

coming years and decades: the trends in the demand for electricity, achieving goals in the areas of environmental protection and renewable energies, and the development of the electricity price and the cost of systems.

The transition will open up opportunities for greentech companies. Calculations in the study show that EUR 350 billion in investments will be required in the German electricity sector in the period between 2010 and 2030. By 2050, this need for investments will rise to EUR 650 billion. Furthermore, according to BCG, additional investments totaling somewhere between EUR 260 billion and EUR 410 billion will be needed for environmental protection. A significant portion of those funds (approximately EUR 200 billion by 2050) is planned for the investment in renewable energies, particularly in onshore and offshore wind turbines and photovoltaics. An additional EUR 70 billion is earmarked for the expansion of the power grid, and EUR 40 billion has been set aside for maintenance. In addition to the tremendous demand for investments in German infrastructure, the transition to renewable energies offers German companies strong prospects

for new sales abroad. They will have a number of decisive competitive advantages in the future, as they can position themselves as the leading international providers of technologies that will have been thoroughly tested at that point.

The most prominent feature of the greentech industry is its highly innovative sub-sectors. These include six lead markets: environmentally friendly energies and energy storage, energy efficiency, raw materials and material efficiency, sustainable mobility, recycling management, and sustainable water management.

This diverse industry benefits from the structure of the German economy to a great degree, as the numerous greentech segments require cross-sector cooperation. They utilize the expertise of traditional industries such as

electrical engineering, mechanical engineering, and automotive manufacturing for their own innovations.

The transition will open up opportunities for green tech companies.

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THE ENERGIEWENDE AT HOME

Transforming the way buildings work is one of the cornerstones of Germany's transition to a renewable and efficient energy system, the so-called *Energiewende*. This is why buildings are becoming a whole lot smarter. Home and building energy management systems (HEMS/BEMS) create transparency with respect to consumption patterns and offer smart control options, thereby enabling building owners and operators to significantly lower the energy use and running costs of their properties.

The market for such energy solutions is expanding rapidly in Germany, where almost half of the European home automation market is already situated. Recent studies forecast an annual growth rate of 16 percent up to 2018. So far, the energy management field is dominated by systems for commercial real estate, but residential applications are on the rise. One of the drivers is the fact that electricity produced by PV panels on private roofs in Germany has become much cheaper than the retail electricity price charged by utilities, making it financially attractive for people to consume the largest share of their own electricity instead of feeding it into the grid. HEMS can automatically control and optimize the interplay of on-site renewable energy generation, battery storage, and large consumers like heat pumps and electric vehicles so that the maximum amount of self-generated electricity is used and money is saved. The added benefit for the grid is that HEMS can help distribute the energy produced from volatile renewable sources more efficiently. As all countries aiming to increase their renewables share will face these system integration challenges, Germany is a key market to watch for successful solutions.

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SMART INDUSTRY

Internet of Things. The world is on the brink of a fourth industrial age. INDUSTRIE 4.0, as it's being called in Germany, promises to revolutionize manufacturing and production forever.

Kaiserslautern, Germany. The small city in the southwest of the country is probably best known for the high number of US Air Force and NATO personnel living there (around half of the city district's hundred thousand or so population); US Americans by and large, who contribute around USD 1 billion to the local economy annually.

But there is another story to be told about K-Town — as its American residents affectionately call it — and the city's own small place in the grand scheme of things: one that is claimed will help change the face of industry and manufacturing. Researchers at the German Research Center for Artificial Intelligence (DFKI) are the leading actors in Germany's ambitious INDUSTRIE 4.0 project.

Established in 2005 in order to build a bridge between academic research and scientific application of modern industrial plant technology, the DFKI's SmartFactory^{KL} showcase facility is unique in being the first vendor-independent project to put INDUSTRIE 4.0 principles into practice.

According to DFKI CEO and Scientific Director Professor Wolfgang Wahlster, the groundbreaking work being carried out in Kaiserslautern will have global implications. "The Internet of Things is finding its way into production," he says. "Semantic machine-to-machine communication revolutionizes factories by decentralized control. Embedded digital product memories guide the flexible workpiece flow through smart factories,

so that low-volume high-mix production is realized in a cost-efficient way."

If the evangelists, of whom there are many, are to be believed, INDUSTRIE 4.0 promises to marry the factory floor with cyberspace in a way that will turn manufacturing on its head. Or to paraphrase German Engineering Federation (VDMA) boss Hartmut Rauen: INDUSTRIE 4.0 will become the global language of production. But what exactly is it?

Referring to the advent of a fourth industrial revolution (the previous three being the industrial revolution beginning in the late 18th century, early 20th century mass production, and the automation of production processes at the tail end of the 1960s), the term



Merging cyberspace with industrial manufacturing to create the future of production.

INDUSTRIE 4.0 first began circulating in Germany around the time the DFKI was officially unveiling SmartFactory^{KL} at last year's Hannover Messe (this year's keynote theme, "Integrated Industry," will enjoy a second outing with "Integrated Industry – NEXT STEPS," having been officially chosen as the key theme and motto of next year's Hannover Messe).

Germany's historical role as an embedded systems technology leader has provided propitious conditions for the creation of cyber-physical system (CPS) technologies, which ingeniously connect the virtual and real worlds in an Internet of Things. The deployment of CPS technologies in industrial manufacturing and production gives birth to the "smart factory" ergo INDUSTRIE 4.0. "Smart production" becomes the norm in a manufacturing environment where intelligent ICT-based machines, systems, and networks are capable of independently exchanging and responding to information to manage industrial

production processes autonomously. Or put simply, the product effectively makes itself. The automated smart factories of the future will allow highly individual products to be created, as historical value chains become value networks and consumers become producers.

"INDUSTRIE 4.0 marks a fundamental paradigm shift towards decentralized and individualized production cycles, which will enable new, Internet-based services and business models," says Professor Henning Kagermann, president of the National Academy of Science and Engineering (acatech) and co-chair of the INDUSTRIE 4.0 Working Group set up by the Industry-Science Research Alliance. "INDUSTRIE 4.0 offers Germany the chance to further strengthen its position as a manufacturing location, manufacturing equipment supplier, and IT business solutions supplier."

Germany is hardly a slouch in the conventional manufacturing stakes, with more than twenty of the country's top SMEs being machinery and plant manufacturers – three of them among the world's top ten. And, of course, it is not alone in recognizing the global market potential of "Integrated Industry" or the "Industrial Internet," as smart factories are being dubbed elsewhere. But Germany has been quick to recognize the significance of the new technologies and has given them a prominent position in the country's framework innovation policy: INDUSTRIE 4.0 is an integral part of the EUR 8 billion High-Tech Strategy Action Plan passed by the German government in 2012. And targets have been set. The country intends to be the lead market and provider of CPS solutions by 2020. INDUSTRIE 4.0, so the logic goes, will also open up considerable new opportunities for start-ups and small businesses to develop and provide

downstream services for the factories of the future.

From a German perspective, INDUSTRIE 4.0 makes perfect sense. In marked contrast to some other industrialized nations, Germany has maintained a stable manufacturing sector while integrating new technological developments into industrial products and processes at an early stage. By gaining an early foothold in the still nascent integrated industry market, Germany plans to maintain its traditionally strong manufacturing position while establishing itself as the world's smart industry

technology supplier of choice. INDUSTRIE 4.0 ideas are also finding favor at home. Together, three leading industry associations have formed Platform INDUSTRIE 4.0 in order to push the smart-factory message at home. They shouldn't encounter too many problems: 15 percent of all SMEs in the manufacturing sector already use decentrally networked, autonomously controlled production processes. Early INDUSTRIE 4.0 adopters are to be found mainly among the country's auto industry suppliers.

That Germany is currently stealing a march on matters smart industry-related comes as no surprise to Roman Dumitrescu, chief executive at the OWL INDUSTRIE 4.0 technology cluster set up in North Rhine-Westphalia. "We should not forget that Germany has invested enormously in research and development for this success. That is the reason we now stand on the threshold of a fourth industrial revolution."

The Internet of Things is finding its way into production.

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GERMANY: EUROPE'S PRESENT AND FUTURE ENGINE

Synergies. The structure of German industry is ideal for other future-oriented industries, with the nation's economic model increasingly garnering attention worldwide.

According to a study by the *Bundesverband der Deutschen Industrie* (BDI, Federation of German Industry), traditional boundaries between industries and sectors could become increasingly irrelevant in the decades to come. In the future, organizations will cooperate across industries and share more and more information, which will result in particularly innovative, sustainable solutions.

To that end, the German federal government is implementing special policies for technology and innovation to foster key areas such as energy, biotechnology, production technology, optical technology, micro- and nanoelectronics, and information, communication,

and aerospace technologies. These policies include the Innovation Strategy from the Federal Ministry of Economics and Technology and the German federal government's High-Tech Strategy, which involves all government ministries.

All of these areas offer strong prospects for development to more than just German companies; they also provide incentives to foreign investors. Today, for example, many foreign companies in Germany operate in the environmental technology and information and communication technology (ICT) sectors. Both are important pillars of German economic performance.

Energy and environmental technology currently comprises 11 percent of Germany's gross domestic product. According to a study by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, this share is expected to rise to 15 percent by 2025. Additionally, the study predicts that more than two million people will be earning their living in

this field by then. The study puts the sector's share of the global market at 15 percent, which accounts for approximately EUR 300 billion.

In the rapidly growing international market for services in the energy and environmental technology sector, German companies hold a share as large as 50 percent. This sector benefits greatly from the structure of the German economy, as numerous environmental technology segments require cross-sector cooperation. Among other things, they utilize the expertise of traditional industries such as mechanical engineering, automotive manufacturing, and electrical engineering for their own innovations.

The companies in Germany's ICT sector want to shape Europe's digital future. With a 20 percent share, Germany is the largest market for ICT and is considered to be one of the world's leading exporters of ICT products with a global market share of 5.5 percent. The sector employs nearly 900,000 people, making it Germany's second-largest employer. Approximately 9,000 new companies are founded in this sector every year.

According to the European Information Technology Observatory (EITO), the most important trends in the German ICT sector are to be found in the areas of cloud computing, mobility, analyses, social media, and the growing mobile data service segment. Subsequently, this spectrum will have to expand to include the growth of IT infrastructure and IT security; steady investment is expected in these areas as well.

A box of tricks: The German industrial structure fosters development for national and foreign companies, especially in the ICT and environmental technology sectors.

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Californian electric car manufacturer Tesla is setting up shop on German carmakers' home turf.

BIG CHANCES FOR SMALL COMPANIES

Investment. You don't have to be a global player to be successful in Germany: the country's economy is dominated by highly-efficient small companies, and there is plenty of room for more.

Small and medium-sized enterprises (SMEs) are the backbone of Germany's economy. Indeed, the SMEs that make up the German *Mittelstand* – the country's muscular medium-sized business sector – account for 99 percent of all companies in Germany and more than 60 percent of all employees. According to Germany's Federal Ministry of Economics and Technology, the German *Mittelstand* contributes almost 52 percent of total economic output and accounts for some 37 percent of the overall revenue of German companies, reaching an approximate EUR 2 trillion in 2011.

It's no surprise, then, that Germany also welcomes foreign SMEs looking to establish a foothold in the country, from high-profile tech companies and niche wholesalers to providers of consumer products.

One such company is the Californian electric carmaker Tesla Motors Inc., which, despite Germany's vibrant auto industry, appears eager to take on the world's most successful luxury car brands in their home market. The Palo Alto-based electric vehicle manufacturer, headed by billionaire Elon Musk, will soon be expanding its German presence with two more stores in Berlin and Stuttgart, the latter being home to Mercedes-Benz

parent Daimler AG. The company already has sales centers in BMW's home base of Munich as well as Frankfurt, Düsseldorf, and Hamburg. Tesla unveiled its expansion plans at the 65th Frankfurt International Motor Show in September.

The young company has been making an impression on Germany's car giants. Daimler, which owns a 4-percent stake in the company, is planning to use Tesla's batteries and motors for its electric B-Class vehicles. In addition, Volkswagen CEO Martin Winterkorn, speaking to Bloomberg at the Frankfurt motor show, said the Tesla Model S was "made intelligently."

Germany has proved equally interesting for Jesse & Frichtel Dental Labs, a full service laboratory located in Pittsburgh in the United States, that provides dental products with a focus on implants. The company recently expanded into Germany and Switzerland, and it now expects the two countries to account for some 10 percent of overall business next year, as president and cofounder Mark Frichtel told entrepreneur news platform StartupNation.

The move to Germany was a logical choice for the group: cofounder Sven Jesse, who boasts thirty years of worldwide master dental tech experience, was trained in Bremen, Germany. Established

in 1994, Jesse & Frichtel also has five German master technicians on staff, who, according to the company, have helped the company remain innovative and quality-driven.

Consumer product makers have likewise found strong demand here, as British hair products firm Tangle Teezer recently discovered. In 2012, Tangle Teezer sold one million products here, and Germany now accounts for 25 percent of the company's global turnover. The success has also made Germany a natural springboard to enter other markets, such as Russia, Ukraine, and Turkey.

These are just three examples of how the buoyant German SME sector has attracted the attention of international companies and investors looking to share in the success. The country boasts highly developed economic, legal, and political frameworks, therefore providing investors in all industry sectors with the necessary security to protect their business investments and a good basis for further growth. —

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KISSES AND FLIRTS IN BERLIN

Expansion. Berlin is a boon, swoon, and profitable location for Swiss specialty rail company Stadler.

Stadler Rail's trains are on tracks the world over, bringing regional and suburban passengers from A to B daily. Since their decision to invest in Berlin around 14 years ago, Stadler, the global leader in the niche market for rack railways, has blossomed into a global supplier of specialty rail vehicles.

A key step on the path to growth was taken in 1999, when Stadler came to Berlin to take part in a joint venture with the Adtranz company. Together, the two firms established Stadler-Pankow GmbH at a state-of-the-art rail assembly plant that was only several years old at the time. Local papers reported that the deal saved 200 industrial jobs in the German capital.

The company has since expanded. After becoming sole owner of the Pankow facility in 2001, Stadler opened two other production sites in Berlin and one outside the city. Together, they employ around 1,200 people. Among the Stadler products made in Berlin are the Variobahn and Tango trams, the double-decker train KISS, the fast, light, and innovative regional train FLIRT, the Regio-Shuttle RS1, and the GTW articulated railcar.

When it comes to the advantages of Berlin as a location, the CEO at Stadler Pankow, Michael Daum, said in an

interview earlier this year that one consideration for moving to the city was that the rail industry and its markets here were interesting, both then and now. Daum added that a key contributor to product development is that almost a quarter of Stadler's suppliers are in the region.

When Stadler invested EUR 10 million to open plants in Berlin's Hohenschönhausen and Reinickendorf districts in 2011, Daum pointed out another attraction that Germany and Berlin have for investors coming in from abroad: "Berlin's ample, skilled, and highly qualified workforce offers us a clear advantage in this location."

Finally, when it came to getting Stadler products and services to customers, Berlin's central geographic location made deliveries simple and speedy, said Daum. The manufacturer has delivered its Berlin-made products to countries such as Austria, Britain, France, and Norway. Plus, said Daum, the company sees enormous growth potential in eastern Europe.

Stadler has been actively pursuing this opportunity since 2005; it has opened engineering facilities in the Czech Republic, maintenance centers in Hungary, and

an assembly plant in Poland, and began a joint venture in Minsk, Belarus, last year. Since the beginning of this year, orders have also been received from Russia, Belarus, Italy, Serbia, and Estonia that will be filled at Stadler plants in a number of locations. The company says that all trains ordered in Germany are produced in Germany. Currently, the employees at the Berlin site are working on commissions that have been placed this year from Germany, the Netherlands, and Norway.

As is evident by the product reach, Stadler's well-calculated step to move some production to Berlin was the first on a course that has made the once small, privately owned firm from Bussnang, Switzerland, a global player with a staff of more than 5,000 at 12 locations worldwide. Overall, the Stadler Rail Group estimates it will earn EUR 1.88 billion in consolidated turnover this year, after bringing in EUR 1.9 billion in 2012. The company is therefore clearly on the right track. —

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The Stadler service center in Velten, where test-drives, inspections, small assemblies, and commissionings of the whole product range take place.



Photo: Stadler Rail AG (M)

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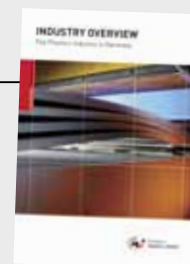
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markets Germany won Gold at the 2013 FOX AWARDS for efficiency in communications.

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in accordance with a German Parliament resolution

MARKETPLACE EUROPE SURVEY RESULTS

Success. Interim research results show that GTAI's continued sponsorship of CNN International's *Marketplace Europe* business program continues to be fruitful.

The weekly program *Marketplace Europe*, hosted by the news broadcaster's foremost business correspondent, Richard Quest, has consistently outperformed brand association benchmark results, allowing a number of important GTAI marketing campaign objectives to be met.

Fifty-seven percent of those surveyed as part of the study were aware of

GTAI's *Marketplace Europe* program partnership, with three quarters of visitors to the program website also aware of the co-operation. Another key campaign objective was achieved with investment likelihood levels up 63 percent among those viewers surveyed. Ninety-three percent of the test group also expressed a strong likelihood to trade with Germany in the next two years.

GTAI has been promoting Germany as an investment and technology location within the framework of the "GERMANY. SMART SOLUTIONS. SMARTER BUSINESS." campaign since 2010. The campaign, carried out by GTAI on behalf of the Federal Ministry of Economics and Technology, promotes the country as the complete "smart" technology and investment solution for international investors seeking to do business in Europe.

To date, the campaign has covered areas including smart energy, smart mobility, and smart ICT. The most recent campaign phase urged international SMEs to "Smart-up your business."



→ **Marketplace Europe** is broadcast weekly on CNN International at the following times:

Asia Pacific: Fridays 02:45 (Hong Kong time)

South Asia: Fridays 12:15 (New Delhi time)

EMEA: Thursdays 19:45 (Berlin time)

Latin America: Thursdays 15:45 (Buenos Aires time)

North America: Thursdays 13:45 (Atlanta time)

INDUSTRIE 4.0 – NEW BROCHURE AVAILABLE

Print. The New Year brings in the first English-language publication outlining Germany's INDUSTRIE 4.0 vision for international investors.

One of ten "Future Projects" identified by the German government as part of its High-Tech Strategy 2020 Action Plan, the INDUSTRIE 4.0 project – so called because the technologies used will usher in a fourth industrial age – promises to revolutionize manufacturing and production (see "SMART INDUSTRY" on pages 18–19 for Germany's INDUSTRIE 4.0 vision).

As of January, a new English-language publication will provide an entry-level look into the world of cyber-physical

systems, the Internet of Things, and, of course, the smart factories of the future. Exclusive partner contributions from important science and industry actors, including acatech (National Academy of Science and Engineering), DFKI (German Research Center for Artificial Intelligence), Platform INDUSTRIE 4.0 (joint industry association initiative), BOSCH, and SAP, outline their own current activities and forecasts for the INDUSTRIE 4.0 future.

The major focal point of this year's Hannover Messe, INDUSTRIE 4.0 repre-

sents a paradigm shift from "centralized" to "decentralized" smart manufacturing and production. Germany has set itself the goal of being an integrated industry lead market and provider by 2020.

"INDUSTRIE 4.0 – SMART MANUFACTURING FOR THE FUTURE" will be available to download free from the *Germany Trade & Invest* website in January 2014.

"Integrated Industry – NEXT STEPS" is the key theme and motto of the Hannover Messe 2014 (April 7–11, 2014).

Smart companies choose
GERMANY

More than **99%**
of all companies
are **SMEs**.

SMEs responsible
for half of
total **German**
exports.

SMEs who are
world market
leaders.

SMEs
like
yours.

Germany.
Smart-up
your business.

GTAI's advertising campaign targets
SMEs in North America.

GLOBAL CAMPAIGN "SMES LIKE YOURS"

Marketing. Tailor-made for North America: GTAI's international advertising campaign goes regional.

Germany Trade & Invest's international marketing campaign entered its latest stage in October with the launch of a new "SMEs like yours" TV ad specially created for broadcast in North America. This latest stage of the campaign comes hot on the heels of the TV ad campaign addressing the international SME community, which has run on CNN International since February 2013.

Created to complement GTAI's ongoing media cooperation with CNN International, the Bloomberg partnership

consolidates awareness and effectiveness of the campaign among relevant target groups in North America. The United States counts as one of Germany's most important investment partners, being the country's top source of foreign direct investment (FDI) in 2012.

The partnership with Bloomberg TV, part of the media group's cross-platform "2014: The Year Ahead" editorial segment examining trends for 2014, saw the new ad broadcast from the end of September to the end of the year. Supporting

measures included branded banner advertising on Bloomberg's online platform and prominently placed advertorial content in BusinessWeek's special "2014: The Year Ahead" publication. —

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Conference participants during a networking session before the opening of the event "Tapping Germany's Business Potential."

OVERSEAS PARTNERS

Cooperation. North American companies can benefit from the strong partnership between the German Chambers of Commerce abroad and *Germany Trade & Invest*.

Despite some domestic setbacks, North America is still a vital partner for the European market. Even today, companies from North America are the most important investors in Germany – ahead of China and other emerging markets. The recently completed Comprehensive Economic and Trade Agreement (CETA) and the current negotiations on the Transatlantic Trade and Investment Partnership will further support both bilateral trade and mutual investments.

The joint presence of the German Chambers of Commerce (AHKs) and *Germany Trade & Invest* (GTAI) in North America helps to guarantee the success of German foreign trade promotion – including bilateral trade and attracting foreign direct investments to Germany.

Together with AHK Canada, GTAI organized a reception in Toronto this past

October with the theme "Tapping Germany's Business Potential." GTAI CEO Dr. Jürgen Friedrich provided insight into the German market, as well as a look at potential business opportunities for Canadian companies in Germany. Participants learned how their companies could benefit by investing in Germany and in the so-called "Powerhouse Eastern Germany" in particular. "Personal contact with potential investors is extremely important, which is why GTAI has representatives at five locations in North America. The AHKs, which have nine offices in the region, provide vital support here," Friedrich says.

"The partnership between our two institutions offers potential investors a central point of contact under the umbrella of the AHKs, allowing companies to receive expert advice quickly and easily," confirms Thomas Beck, President and CEO of AHK Canada. During the reception, representatives of two companies – Bombardier Transportation Inc. and Nuvo Research – discussed their experiences with successful investments in Germany, especially in the eastern German states, and gave firsthand advice to future Canadian investors. Following the presentation, interested companies had extensive opportunities to talk to industry experts from GTAI, who were able to provide them with concrete advice.



GTAI Canada

Boris Alex has been managing the GTAI office in Toronto since September 2011. In Toronto, he compiles market analyses and reports on economic developments in Canada. He studied business administration and Japanese in Mannheim, Germany. Prior to taking up his position in Toronto, he managed the GTAI office in New Delhi for six years.

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AHK Canada

The Canadian-German Chamber of Industry and Commerce (AHK Canada) is headquartered in Toronto and has a branch office in Montreal. The organization was founded in 1968 in Montreal and promotes bilateral economic and trade relations between Germany and Canada by providing flexible services.

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Yvonne Denz, Department Manager
Membership and Projects
yvonne.denz@germanchamber.ca

Events in 2014

Among countless trade fairs and industry events planned in North America, the "Digital Marketing" workshop series and two events in the "Doing Business in Germany" series are highlights to look out for.

THE GERMAN TRADE FAIR MARKET

12

EUR 12 BILLION SPENT ANNUALLY

Exhibitors and visitors spend an impressive EUR 12 billion (approximately) on attending trade fairs throughout Germany.

17%

OF VISITORS ARE FROM LARGE COMPANIES

Of the more than 10 million visitors to German trade fairs each year, 17 percent are from companies with 1,000 employees or more. Furthermore, 30 percent of visitors are managing directors, board members, or self-employed businesspeople.



2.75 million m²

TOTAL HALL SPACE

The total space available at the 22 German trade fair venues operating on a national scale is 2.75 million square meters. Ten of these centers even have capacities greater than 100,000 square meters each.

4.2%

GROWTH OF FOREIGN EXHIBITORS

In 2012, the number of foreign exhibitors at German trade fairs grew by 4.2 percent to 98,926 exhibitors.

4

LARGEST CENTERS

Four of the ten largest trade fair centers worldwide are in Germany, in Hannover, Frankfurt am Main, Cologne, and Düsseldorf.



AHK – Your Bridge to the German Market

All Around the Globe: The German Chamber Network | AHK

More and more foreign companies consider Germany to be a leading market and the best gateway to the European Union. To be successful, foreign companies need a strong partner.



First port of call: The German Chamber Network

- Spread over 80 countries on five continents.
- Support of thousands of German companies operating abroad.
- Fully integrated into the economy of the host countries.
- More than 40,000 member companies, of which two thirds originate in the local markets.
- Assisting foreign companies that want to enter the German market either by trade or through investment.



Providing contacts, information and advice, particularly in the fields of:

- market opportunities and marketing strategies
- investment conditions and support
- import and export regulations
- customs duties
- currency regulations

**Closely cooperating with
Germany Trade & Invest, the foreign
trade and inward investment agency of
the Federal Republic of Germany.**

The German Chamber Network



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Internet: www.dihk.de, www.ahk.de

The German Chamber Network | AHK All Around the Globe:

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- El Salvador
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- Iceland
- India
- Indonesia
- Iran
- Ireland
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- Korea
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Deutsche
Auslandshandelskammern