HANNOVER MESSE

GLOBAL BUSINESS MAGAZINE

ENTERING NEW MARKETS 24 - 28 APRIL 2017

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GTAI Special: Industrie 4.0

SMART MEANS POLAND PARTNER COUNTRY

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Global Business & Markets

GLOBAL BUSINESS PARTNERS

Welcome to Global Business and Markets

Bundesministerium für Wirtschaft und Energie

The digitalization of industry is a transformation that promises both great opportunities and great challenges. Keenly aware of this, many German companies are pushing ahead with their preparations, laying the groundwork today so that they are ready with new products for the new markets that will emerge. Against this background, the Global Business & Markets foreign trade platform at HANNOVER MESSE facilitates dialogue and exchange between SMEs from Germany and their counterparts from all around the world. It is a valuable and worthwhile initiative, and I would encourage you to build networks across industry and national borders so that you are ready to take advantage of the opportunities of the future.

Brigitte Zypries, German Federal Minister for Economic Affairs and Energy

Niedersachsen

Hannover can rightfully be called the “Davos Summit for Industry”. The Global Business & Markets foreign trade platform at HANNOVER MESSE has developed into one of the biggest events of its kind. The city of Hannover – capital of the German state of Lower Saxony – stands for openness and transparency. This is the place where small and medium-sized enterprises enjoy unique access to decision-makers from industry and government. HANNOVER MESSE – where we are appearing with our own stand – is one of the many places you can enter into a dialogue with our state. We cordially invite you to familiarize yourself with one of Europe’s most attractive locations for future-oriented industrial projects!

Stephan Weil, Premier of Lower Saxony

Europäische Kommission

Industry is and remains one of the strongest engines driving European integration. This is nowhere more apparent than at HANNOVER MESSE – the platform where thousands of European enterprises successfully interconnect. Smart industrial supply chains and networks are a bulwark of the entire European economy, and a key factor in its global competitiveness. As the show's Partner Country for 2017, Poland is dedicated to promoting this dynamic. The Global Business & Markets platform provides small and medium-sized enterprises with a window on international markets, offering them new and valuable cooperation opportunities. I look forward to the strong economic stimulus HANNOVER MESSE 2017 will generate for Europe

Elzbieta Bienkowska, EU Commissioner for Internal Market, Industry, Entrepreneurship and SMEs

BDI

Industry is a key driver of economic modernization and employment. As the initiators of "Global Business & Markets", Deutsche Messe and the German Federation of Industries (BDI) are committed to making it easier for small and medium-sized enterprises to gain access to the world's growth markets, thus providing them with the widest possible scope of action. In the face of so many global challenges, this is and remains the key objective of our partnership – one which has attracted so many participating organizations and networks. We look forward to numerous joint initiatives for industrial growth and cooperation worldwide.

Prof. Dieter Kempf, President, Federation of German Industry (BDI)

DIHK Deutscher Industrie- und Handelskammertag

The international business environment has become more and more challenging in recent months. It is a development that is making itself felt by all enterprises, particularly those at the SME end of the spectrum. This is where the German Chambers of Commerce Abroad (AHKs) can help. They support small and medium-sized German businesses in their search for new customers all around the world. This includes helping businesses to identify and effectively manage risks – particularly important when times are tough. The German Chambers of Commerce Abroad are a global network. Comprising 130 locations in 90 countries, they have been a trusted partner to German business for many years. HANNOVER MESSE is an opportunity for people in business to meet up, to get to know one another and share experiences. As the new patron of Global Business & Markets, it is our great pleasure at the DIHK to welcome you to this key foreign trade platform.

Dr. Eric Schweitzer, President, Association of German Chambers of Industry and Commerce (DIHK)

Open markets, new business, new growth

Global Business & Markets is an unparalleled source of information on prospective industrial opportunies worldwide. There is no better place for gaining a foothold on international markets. All the key players to connect with are here.

Program Overview

Monday, 24 April 2017

Opening Day of Global Business & Markets

10:00 a.m. - 12:30 p.m.
Intelligent Manufacturing and cooperation, new motive power for Sino-German development
Hall 3, Business Forum 2, Stand G31
Event Host: China International Investment Promotion Agency GmbH

11:00 a.m. - 01:00 p.m.
Polish-German Business Summit
Hall 3, Business Forum, Stand H32
Event Host: Bundesverband der Deutschen Industrie e.V. (BDI)

11:30 a.m. - 01:00 p.m.
Workshop USA: Chancen und Risiken auf dem US-Markt unter der neuen US-Regierung
Hall 3, Conference Room 1, Stand H31/9
Event Host: German American Chamber of Commerce, Inc.

02:00 p.m. - 04:00 p.m.
Russia-Germany Business Dialogue: Thinking forward, moving forward
Hall 2, Business Forum 2, Stand G31
Event Host: Moscow City Government Department for External Economic and International Relations of the City of Moscow

03:00 p.m. - 05:00 p.m.
Germany as a Manufacturing Role Model: What´s Next?
Hall 3, Business Forum 1, Stand H32
Event Host: Germany Trade and Invest Gesellschaft für Außenwirtschaft und Standortmarketing mbH

04:00 p.m. - 06:00 p.m.
Moscow - a City of Investment Opportunities. Practical aspects
Hall 3, Business Forum 2, Stand G31
Event Host: Moscow City Government, Department for External Economic and International Relations

Tuesday, 25 April 2017

10:00 a.m. - 12:00 p.m.
Impulse New Markets - New opportunities: Environmental Technologies in East Africa
Hall 3, Conference Room 1, Stand H31/9
Event Host: Delegation der Deutschen Wirtschaft in Kenia

10:00 a.m. - 01:00 p.m.
OWC Foreign Trade Forum: Poland, Russia, Kazakhstan
Hall 3, Business Forum 2, Stand G31
Event Host: OWC-Verlag für Außenwirtschaft GmbH

10:00 a.m. - 02:00 p.m.
Iran Forum
Hall 3, Business Forum 1, Stand H32
Event Host: Industrie- und Handelskammer Hannover

12:30 a.m.- 03:30 p.m.
The Basque Country, a Hidden Champion
Hall 3, VIP Room, Stand H31/8
Event Host: SPRI S.A.

02:00 p.m. - 05:30 p.m.
The 6th Annual UAE Investment & Business Forum
Hall 3, Business Forum 1, Stand H32
Event Host: Abu Dhabi Department of Economic Development

02:30 p.m. - 04:30 p.m.
Convention - Bulgarian Chamber of Commerce and Industry
Hall 3, Conference Room 2, Stand H31/1
Event Host: AHK Bulgarien

03:00 p.m.- 04:45 p.m.
Opportunities for Industrial Automation in Poland
Hall 3, Business Forum 2, Stand G31
Event Host: Germany Trade and Invest Gesellschaft für Außenwirtschaft und Standortmarketing mbH

04:30 PM - 06:00 PM
Potential market - South Korea and Yellow Sea Free Economic Zone
Hall 3, Conference Room 2, H31/10
Event Host: AHK Korea-German Chamber of Commerce and Industrie

Wednesday, 26 April 2017

9:30 a.m. - 12:30 a.m.
ASEAN in 2017: Taking new opportunities through trade policy
Hall 3, Business Forum 2, Stand G31
Event Host: Deutsche Industrie- und Handelskammertag (DIHK)

10:00 AM - 11:00 AM
Why Southeast Finland? - Experiences of a German entrepreneur
Hall 3, Conference Room 1, Stand H31/9
Event Host: Finpro Oy

10:30 a.m. - 12:00 p.m.
Transatlantic Forum
Hall 3, Business Forum 1, Stand H32
Event Host: Bundesverband der Deutschen Industrie e.V. (BDI)

09:50 p.m. - 06:00 p.m.
14th Lower Saxony Foreign Trade Conference
Pavillon P37, Nord LB/forum
Event Host: Niedersächsisches Ministerium für Wirtschaft, Arbeit und Verkehr

01:30 p.m. - 06:00 p.m.
11th German-japanese Economic Forum 4.0: Creating Value in Germany and Japan
Hall 3, Business Forum 1, Stand H32
Event Host: Deutsche Messe AG

04:00 p.m. - 06:00 p.m.
Russia-Germany: Digital Transformation of Industries and New Opportunities for Cooperation
Hall 3, Business Forum 2, Stand G31
Event Host: Ost-Ausschuss der Deutschen Wirtschaft

BDI
Bundesministerium für Wirtschaft und Energie
Europäische Kommission
Niedersachsen

Strong partnership

Global Business & Markets is a joint initiative of the Federation of German Industries (BDI) and HANNOVER MESSE under the patronage of the Federal Minister for Economic Affairs and Energy, Sigmar Gabriel, of the European Commission and the Premier of Lower Saxony, Stephan Weil.

Thursday, 27 April 2017

09:30 a.m. - 12:30 p.m.
3rd Networking Event Oil and Gas Industry
Hall 3, Business Forum 1, Stand H32
The German Industry and Commerce AHK VAE, Oman, Katar
Abu Dhabi MallUAE-Abu Dhabi

10:00 a.m. - 12.30 p.m.
Sustainable Development Goals (SDGs): Corporate Responsibility - Corporate Chance
Hall 3, Business Forum 2, Stand G31
Event Host: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

01:00 p.m. - 05:00 p.m.
Mexico - Diversification of the export markets
Hall 3, Business Forum 1, Stand H32
Event Host: Lateinamerika Verein e.V.

02:00 p.m. - 04:30 p.m.
EU- China Economic Cooperation (EUCEC) Forum 2017
Hall 3, Business Forum 2, Stand G31
Event Host: Deutsch-Chinesische Wirtschaftsvereinigung e.V. (DCW)

03:00 PM - 04:00 PM
Optimized translation management workflows: 0 min time to market
Hall 3, Conference Room 1, Stand H31/9
Event Host: Fausttranslations.com Sarl

Friday, 28 April 2017

10:00a.m. - 01:00 p.m.
Cooperation German Economy and German Development Cooperation in Eastern Europe
Hall 3, VIP Room, Stand G31/8
Event Host: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Partner

Partner Country Poland

Program overview

SMART MEANS
POLAND
PARTNER COUNTRY

Sunday, 23 April 2017

06:00 p.m. - 09:00 p.m.
Hannover Congress Centrum (HCC)
Hannover Messe Opening Ceremony

Monday, 24 April 2017

9:00 a.m. - 9:30 a.m.
Opening of the national stand
Hall 3, Polish national Pavilion

9:30 a.m. - 05:30 p.m.
Hannover Messe B2B fair 2017
Hall 3, Polish national Pavilion

11:00 a.m. - 01:00 p.m.
Polish-German Business Summit
Hall 3, Business Forum 1, Stand H32

Tuesday, 25 April 2017

12:00 p.m. - 01:00 p.m.
"Striving for Polish-German partnership in innovation"- conference, dedicated to fostering cooperation between Wałbrzych Special Economic Zone and German companies.
Hall 3, Polish National Stand

03:00 p.m. - 04:45 p.m.
Opportunities for Industrial Automation in Poland
Hall 3; Stand G31, Business Forum 2

06:00 p.m.
Taste Pomorskie
Hall 3, Polish national Pavilion

10:00 a.m. - 5.30p.m
B2B Fair Technology Cooperation Days
Will also be held at the same time on April 25/26/27
Hall 2

Wednesday, 26 April 2017

10:00 a.m. - 11:00 a.m.
Presentation of th Opole region
Hall 3, Polish national Pavilion

11:00 a.m. - 12:00 p.m.
Presentation of the Malopolska region
Hall 3, Polish national Pavilion

01:00 p.m. - 02:00 p.m.
"Poland and the Federal State of North Rhine- Westphalia as strong partners in knowledge and economy.
Hall 3, Polish national Pavilion

03:30 p.m. - 04:00 p.m.
"Invest in Poland" presentation by the Polish Investment and Trade Agency
Hall 3, Polish national Pavilion

06:00 p.m. - 09:00 p.m.
Partner Country Night -B2B meeting for exhibitors and visitors Hannover Messe
Hall 3, Polish national Pavilion

Thursday, 27 April 2017

12:00 a.m. - 12:30 p.m.
"Invest in Poland" presentation by the Polish Investment and Trade Agency
Hall 3, Polish national Pavilion

12:00 p.m. - 12:30 p.m.
Polish- US Business Mixer, dedicated to the cooperation in the field of investment and new technologies coupled with the B2B meetings
Hall 3, Polish national Stand

Friday, 28 April 2017

12:00 a.m. - 12:30 a.m.
"Invest in Poland" presentation by the Polish Investment and Trade Agency
Hall 3, Polish national Pavilion

“Poland to participate in the fourth industrial revolution”

Mateusz Morawiecki, Deputy Prime Minister and Minister of Economic Development and Finance on the industrial strategy of Poland

What is the primary expectation of Poland in its role as a partner country of Hannover Messe?

The partner country status offers us a wide range of possibilities for presenting our industry to the entire world and also means another step towards a deeper business cooperation between Poland and Germany. Polish products are characterised by a very high a quality, and our companies operate successfully in foreign markets and are appreciated even by the most demanding customers. Polish companies compete on the world markets with regard to the production of electric vehicles, smart grids or perovskites.

Addressing the world's manufacturing industries as potential investors in Poland - what are the main arguments you will communicate at Hannover Messe?

The theme of our presence during the Hanover fair as a partner country is SMART MEANS POLAND. We show a new vision of Poland's development, its strength and innovativeness in such fields as robotics, industrial informatics or digitisation. Our achievements in that field can be seen at the Polish national stand: 1,200 m2 dedicates to present the offer of 11 companies, 8 regions and 5 Special Economic Zones, which means around 200 Polish firms in total, including startups.

What can investors expect from the major infrastructure projects of Poland, especially in the logistics sector?

Poland is a very attractive place for investments due to its geographical location, which ensures the access to the region's market, its membership in the European Union, its qualified staff and the market's size. An element of particular importance for locating investments is transport, especially intermodal transport. Fifteen logistic centres and container terminals have been built and expanded, and the intermodal transport systems has been purchased or renovated.

The cities of Poland became hubs for the technological ecosystem. What are the main incentives to foster the continuous growth in the technology sector?

One of our priorities is the growth of Polish companies' innovativeness. We have planned many measures in the governmental Responsible Development Strategy such as focus on eliminating or mitigating barriers to the development of innovative activity. Also Poland has the largest programme for young innovative companies in Eastern and Central Europe, addressed to Polish and foreign operators and predicted to host 1.500 firms within the next 7 years

> We show a new vision of Poland's development

How will Poland be able to cope with a typical challenge of all fast growing economies, the limited HR resources in specific sectors?

In the Strategy, we propose to gradually abandon the current support for all sectors and instead adopt individualised packages for distinct strategic sectors in order to build the human and social capital for the future. Along with the smart reindustrialization that will provide the impetus for the development of new industrial sectors based on digital technologies. That is why it is important to adapt the higher education to the needs of the modern economy and improve the education's innovativeness.

SMART MEANS POLAND
PARTNER COUNTRY

Investment in Poland

Poland is the largest country in Central and Eastern Europe and the sixth largest in Europe. The value of direct foreign investment has amounted to more than EUR 160 billion. According to the EY 2016 European Attractiveness Survey, Poland was declared the fifth most attractive destination for FDI in Europe and first in CEE. Germany, France, Spain and the United Kingdom are the most important investors in the Polish market. The EUR 0.5 billion investment of Mercedes-Benz in Poland is an excellent example of Poland's investment allure and is illustrative of Polish-German cooperation.

- Polish Investment and Trade Agency: http://www.paih.gov.pl/en

First Contact in Germany

Trade and Investment Promotion Department of the Consulate General of the Republic of Poland in Cologne is a non-profit organisation under the Ministry of Development in Warsaw. Its mission is to effectively support Polish companies in the German market and to attract German investment to Poland. It provides comprehensive information on investment opportunities and investor support instruments. It organizes also B2B meetings and cooperates with German business organisations.

- Trade and Investment Promotion Section of the Consulate General of the Republic of Poland in Cologne: www.germany.trade.gov.pl (+49) 221 34 99 11

Read also: Poland - a warm welcome to innovation, page 68

“Our vision is to build a highly diversified and knowledge-based economy “

H.E. Sultan bin Saeed Al Mansoori, Minister of Economy of the United Arab Emirates, on how SME can benefit from the strategy of diversification

Your country has been exhibiting an impressive range of companies and services here for many years. What does HANNOVER MESSE mean for the UAE?

We capitalize on Hannover Messe's reputation as the world's leading trade fair for industrial technology to pursue major opportunities in the industrial domain with a focus on Innovation and Sustainability, which are fundamental to the UAE's long-term development plans.

The industrial sector accounts for 16 per cent of the UAE's GDP and we intend to increase this to 20 per cent by 2020 and ultimately to 25 per cent by 2025. Our participation in high-profile industrial events such as Hannover Messe form part of our comprehensive growth strategy for the sector.
During the last edition, the UAE was represented by 10 government and semi-government organizations involved with the development of the industrial sector along with delegates from more than 35 factories and companies across the UAE. Together we reviewed the latest technologies and practices used in industrial production worldwide.

> The UAE aims to take the lead in the digital industry and promote diversified manufacturing, R&D, innovation, and sustainability.

The UAE industrialists forming part of our contingent then learned a lot of new techniques and their potential benefits. Some of the most important ones were related to energy technology, the streamlining of consumption in industrial production lines, innovative engineering solutions, environmental protection, heavy industry, biotechnology and medical technology.

One of the objectives of UAE Vision 2021 is to build a sustainable, highly diversified and knowledge-based economy driven by empowered Nationals.

> We expect more growth opportunities for our local industries this 2017 that will make the country more resilient to global changes, economic or otherwise.

To realize this, the UAE aims to take the lead in the digital industry and actively promote diversified manufacturing, R&D, innovation, and sustainability. Hannover Messe is an important international event that enables us to pursue our national vision as it provides an ideal platform for the UAE to learn about worldwide developments in industry, modern manufacturing, and technology.

The UAE has expressed optimism that its economy will grow strongly again in 2017. What will be the main drivers of growth - besides the oil price?

We expect more growth opportunities for our local industries this 2017 that will make the country more resilient to global changes, economic or otherwise. Based on the progress we have made so far and backed by our inspiring leadership and our global competitiveness, we remain on track to establish a diverse knowledge- and innovation-driven economy.
As the backbone of national economy, small- and medium-sized enterprises (SMEs) will act as major growth catalysts over the coming months. To ensure their maximum performance, the government has introduced several laws and other strategic measures for fueling their growth. These involve additional incentives, a uniform definition of SMEs, and the provision of modern facilities and benefits tailored to the needs of SME owners and local entrepreneurs.
Moreover, the approval of Executive Regulations governing the Federal Law on SME projects further incentivizes local businesses and provides them with access to more funding to help them expand.
For its part, the Ministry of Economy has forged strategic partnerships with various countries to further boost the SME sector. We will continue to help SMEs maximize their competitiveness, pursue sustainable growth, and explore new foreign markets with an emphasis on innovation, technology, and knowledge.

The UAE's vision for 2021 is to achieve more economic diversification. What have been the main achievements in this regard so far, and what are the most important steps that must be taken?

The UAE's economic diversification policy has been a main factor in the country's resilience amidst various economic challenges. It was instrumental in increasing the GDP contribution of the non-oil sector to around 77 per cent at prevailing prices or 70 per cent

at constant prices in 2015. Among the most productive industries behind this achievement are manufacturing, construction, retail, real estate, logistics, transportation, telecommunications, and tourism – all of which, along with strategic policies and programs, continue to drive the country's march towards a Post-Oil Era and ensure sustainable development.

Although the government has been tightening its belt on spending policies and financial controls in response to the sharp decline in oil prices, it has counter-balanced by introducing strategic financial policies and drawing on the state's vast cash reserves. It has injected substantial funding into projects that stimulate growth, advance economic diversification, and develop human capital and knowledge with a sharp focus on innovation, scientific research, and modern technology. Some of these projects involve supportive infrastructure for the upcoming World Expo 2020, the Etihad rail network, enhancements to telecommunications, transportation, tourism and industrial capabilities, 'smart city' development, and support for the booming Islamic economy.

In 2015, government spending rose 3.8 per cent to AED 179 billion despite significant oil price fluctuations. It is important that we continue to invest in our future and ensure that the non-oil sector leads the UAE's sustainable development.

Last year at Hannover Messe you personally invited SMEs to consider investing in the UAE. What is the background of this initiative?

As I have mentioned, economic diversification underpins our ambition of transforming into an innovative knowledge-based economy as outlined by UAE Vision 2021. I have also touched on how SMEs are the main forces behind our economic activities, and so deserve an exceptional regulatory and business environment conducive to their broad and sustainable growth. SMEs are behind many of the economic sectors advancing our diversification efforts. They collectively account for over 60 per cent of the national GDP – a figure we aim to bring up further to 70 per cent in 2021.

The Ministry of Economy has been extensively promoting the SME sector by including its members in our foreign economic missions and among our delegates to various major international events such as Hannover Messe. We believe in the importance of exposing local SMEs to global developments, best practices and new technologies and giving them the chance to explore and tap new international markets, discover additional sources of investments, and build global partnerships.

What would you personally recommend as a first step for an entrepreneur, engineer or tech founder to discover opportunities in the UAE?

I would personally advise any entrepreneur or enterprise eyeing the UAE to initially focus on opportunities related to innovation, technology and scientific research and development because they form the core of ongoing efforts to transform the country into a knowledge- and innovation-driven economy guided by our National Innovation Strategy. The National Innovation Strategy will focus on the Renewable Energy, Water, Technology, Transportation, Education, Health, and Space sectors, so these are excellent fields to explore.

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“Protectionism is damaging to everybody”

Professor Dieter Kempf, President of the BDI – Federation of German Industry, expresses clear views about the future of international trading relationships.

Germany’s trade surplus has come in for criticism. Is this justified and is Germany pursuing a cheap exports policy to the detriment of its trading partners?

Germany’s renewed record level of exports validates the appeal of our products. Germany is Europe’s leading exporter and importer of goods. At an import quota of nearly 40 percent of gross domestic product, our economy is one of the world’s most accessible industrialised nations in terms of imports from abroad. Accusations, as recently hurled at us from the USA, that Germany is pursuing a cheap exports policy to the detriment of its trading partners are completely wide of the mark. The international trade in goods is based on the principle of supply and demand. International imbalances cannot be eliminated at the touch of a button. Cross-border trade brings reciprocal benefits, while protectionism is damaging to everybody.

After Brexit: what foreign trade challenges do companies in Germany and the EU face?

We Europeans must not talk ourselves down. Europe is one of the world’s strongest economic areas and is a unique production cluster that delivers mutual benefits. We enjoy the benefits of standardised regulations and a common currency. Responsibility for the amount of damage limitation needed as a result of Brexit lies primarily with the British government. The name of the game for the politicians in Brussels and Berlin must be to get EU countries to close ranks and strengthen Europe. That includes the European Single Market with its four fundamental freedoms

of movement of labour, capital, goods and services. Europe is the foundation for prosperity and opportunity – and not least for peaceful co-existence on the Continent. That is why I am surprised at how negatively the European Union is sometimes regarded. Europe is certainly not the problem; in fact Europe helps us to solve problems.

What impact would a US policy of isolation, including high import duties, have on European companies?

World trade is not a zero-sum game, where one party wins everything and the other party loses. If we work together, everybody wins. If we work against each other, that loses us prosperity, jobs and advancement opportunities all over the world. Customs duties make products more expensive. Let's take the automotive industry as an example – according to a survey, a 35-percent punitive duty on imports from Mexico would cause US vehicle manufacturers' costs to rise by an average of nearly five percent.

Vehicles manufactured in the USA are also dependent on upstream products from other countries like Mexico. A customs duty of this kind not only makes products more expensive, but also impacts on local employees and consumers. Customs duties generally hamper the international division of labour and global value chains.

> Europe is certainly not the problem; in fact Europe helps us to solve problems.

What would then be the impact on global players' decades-old, closely interconnected value and supply chains?

Nobody is an island. Industrial production has not been a strictly national affair for a long time. If you break up value chains, you restrict innovation and make production more expensive. That costs both prosperity and opportunity. Companies in the USA are reliant on German and European engineering technology and intermediate products. Currently around 4,700 companies with German stakeholders have operations in the USA. They account for nearly 700,000 jobs in all 50 states. Our companies invest more than seven billion US dollars a year in local research and development, and they want to up their commitment.

> If you break up value chains, you restrict innovation

Is a circumvention strategy of quickly setting up new value chains in markets with isolationist tendencies a realistic option for companies?

No, firstly it only makes sense at most for a tiny handful of very large countries. Secondly it is really expensive and takes a long time. And thirdly companies often lack the confidence to invest capital in countries where governments intervene unpredictably in business decisions, in which the rule of law leaves a lot to be desired and in which the market economy does not function properly.

China now advocates open markets and free investment flows. Have European companies been assured market access throughout the People's Republic? Xi Jinping's speech at the World Economic Forum in Davos raised hopes in January. It would be great to see China providing greater access to its markets. These statements now need to be backed up by actions. In China there are still plenty of barriers to market entry that do not exist in Europe. Here in Europe there is no compulsion to form joint ventures or enforced technology transfer. We Europeans must equally be allowed to acquire majority shareholdings in Chinese companies as the Chinese are permitted to do in Europe.

“We contribute to the prosperity of the markets”

Michael Ziesemer, President of ZVEI, on globalisation and Industrie 4.0

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Trump, Brexit and more: How does the electrical industry look at current challenges?

It’s true, the past few months have been characterized by drastic political events which could keep us busy even into next year. The Trump election, Brexit vote, failed constitutional referendum in Italy and the attempted coup in Turkey are just some of the numerous reasons for uncertainty. In 2016, electrical exports to the USA - our second largest buyer - still amounted to 16 billion Euros, while exports to Great Britain came to ten billion, to Italy almost eight and to Turkey some three billion Euros. Overall, this is a fifth of our total industry export. However our export portfolio today is significantly more diverse than in the past, thus reducing the dependence on separate countries. On the whole, the ZVEI expects growth in both production and export for the year 2017.

Hasn’t internationalization of the electrical industry already generated local added value for some time now?

At this point we should distinguish between foreign trade and direct investments abroad. The electrical industry is positioned extremely well in both fields. Our direct investments add up to an existence of almost 46 billion Euros – and a fifth are direct investments from German industry. In addition to the 804,000 employees in our German industry, there are also some 704,000 employees in locations abroad. With the added value, our companies contribute directly to the prosperity of the respective countries.
However one must consider export surpluses discriminatingly. The commercial statistic constantly illustrates gross sizes which are blown up by the intense payment in advance trade. Incidentally, from all big industrial industryes, the electrical industry with its16 billion Euros has the lowest surplus by far.

Reindustrialization and modernization of the infrastructure as an objective – Are there German companies which aren't yet in a good start position in the USA?

Actually, our export portfolio fits in part very well with the economic agenda in the USA. The areas relevant for a modern industry, namely automation, energy technology and ICT technology account for more than 40 percent of our deliveries to the USA. However, one should not forget that the subduing effects of new protectionist measures could prevent the potentially expansive effects of higher public expenditure or lower taxes in the USA.

> In addition to the 804,000 employees in Germany, there are also some 704,000 employees in locations abroad.

What type of effect does Industrie 4.0 have on the international delivery chains of the electrical industry?

Globalization and internationalization are prerequisites for the digital transformation and for Industrie 4.0. Integrating value added processes beyond industry and national borders creates value networks on a global scale. For the electrical industry, this development means both chance and challenge. The strengthening of international delivery chains has always been an important factor for our sector. In addition to the legal and socio-political setting, this factor is increasingly becoming a criterion for the competitive ability of all companies. This is especially true when it comes to the handling of personal and non-personal data. We need an honest social dialogue which can create the necessary trust.

> We contribute to the prosperity of the global markets

How does the EU's initiative "Digitising European Industry" reflect the network of European industrial production?

It's not just in politics that we are currently seeing different speeds within Europe, but also in regards to the digitisation of the industry. While some member states are concentrating on digitisation, other countries - especially in the eastern and southern parts of the union - that are falling behind. This gap between the creation of value and industrial production cannot exist in a growth-oriented European domestic market. The ZVEI is therefore supporting the EU commission's "Digitising European Industry" strategy. The newly created "European platform of national initiatives" is thus an important step in the right direction. However, other solutions in the areas of standardisation, data economy and cyber security are still to be found. As a key association for the industrial digitisation, this is why the ZVEI is actively taking part in these Europe-political debates.

Cyber security, standardisation, possession of industry data – Isn't this all still a long way off, especially internationally?

We are currently facing the next learning curve when it comes to cyber security. We previously concentrated on "security by design". However, this is not enough. The development and manufacture of a product heavily influence the level of security. Positions of responsibility, processes, budgets as well as security services are thus becoming much more important for security. The next international challenge is upon us: medium-sized companies must be able to request global and standard security from their suppliers. However this requires further categories, metrics and standards not currently available. Industry initiatives like the IEC 64443 must be quickly finalized and supported through policy.

We cannot afford to lose our way when it comes to data possession. In many places it is not about the legal definition of technical data possession - this is frequently discussed among experts, and is not particularly relevant to KMU. Rather it is the data usage rights that are to be clarified by contract between manufacturers and operators. Existing contract law is largely sufficient for this.

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“There are new prospects arising for business abroad”

Dr. Eric Schweitzer, President of DIHK, about discussions on the future of foreign trade.

How did you perceive the recent economic and political developments in the USA?

It is undoubtedly a change that a US President would plead so intensely for closed borders and against free trade. The President's initial orders suggest that business between Europe and the USA might be strained. Yet the USA is and will remain our most important partner. This picture should guide us in discussing our close economic relations with the USA. The move away from free trade, as the President has repeatedly emphasised with the slogans "Buy American" and " American jobs first", would be a lose-lose scenario for all parties in the end.

What arguments can you make in a debate with such completely contrasting viewpoints?

Via complex supply chains the USA and Germany are linked not only with each other but with a large number of other markets. In this environment, protectionist measures are like building a wall in the middle of a factory. I therefore advocate that we keep on promoting open borders to our American partners and others states and in public debates here in Germany. Germany's G20 presidency also provides an excellent opportunity to do this.

Does this mean that German companies will focus more on other countries and regions ?

The developments in the USA and Great Britain with Brexit are naturally a cause for uncertainty among companies. This has only had a slight effect on the economy to date, but is having a greater impact on decisions regarding foreign business and investment. Nevertheless, there are also arising new prospects for business abroad. CETA brings new market opportunities, for instance. Other examples can be found in Asia, and not only in China. Considerable potential exists for the German industry and its products and services in the ASEAN member states, since a new single market has been forming there.

> **Protectionist measures are like building a wall in the middle of a factory**

Investments in these countries are not free of risks, however, particularly for small and midsize enterprises. What do you recommend to members of your IHK organisation?

I tell them that they are not alone in taking such decisions and developmental steps. They can rely on a strong network of Chambers of Commerce (IHKs) in Germany and Chambers of Commerce Abroad (AHKs) in the target markets. While IHKs prepare companies for the move abroad, AHKs offer them support on site, by giving legal advice or through specific market analyses and contacts to business partners. They thus help not only in detecting and minimising risks but above all in identifying business opportunities.

The Association of German Chambers of Commerce and Industry (Deutscher Industrie- und Handelskammertag, DIHK) is the central organisation for 79 Chambers of Commerce and Industry, CCI (Industrie- und Handelskammern, IHKs) in Germany and speaks for more than three million entrepreneurs in Germany. The network of German Chambers of Commerce Abroad (AHKs) advise, support and represent German companies worldwide that wish to develop or expand their business activities abroad.
Hall 3 , Investment Lounge H45

“We will face new challenges”

Friedhelm Loh, owner and CEO of Rittal, on HANNOVER MESSE as the launch pad of global success and future challenges to master

Dr. Loh, how many Hanover Fairs have you been to so far, including this year’s? Did you count them all?

Adding everything up and including CeBITs and so on, well it was certainly around to 60 to 70 trade shows. I came with my father the first time, back in 1962. Later, from 1974 onwards, I was regularly here as Managing Director. Rittal’s half-century as an exhibitor at the Hanover Fair was quite some time ago…

Which role does the Hanover Fair have today in addressing a global industrial audience?

There are many reasons for Rittal’s success. The Hanover Fair is certainly one of them. Rittal has always been a very customer-oriented (and thus trade fair-oriented) company. Many of our international subsidiaries were founded following contacts made at trade fairs. Meeting people, making contacts, and then eventually starting up a separate company: This is how we have managed to establish over 60 foreign subsidiaries since the 1970s. So our global success has very much to do with the international nature of the fair. The fact that the show is based in Germany and that it builds bridges to the international markets with its foreign events is also very important for us.

How do you assess the mood in the international marketplaces in this year of discussions on the future of exports?

I think we have been experiencing a time that will go down in the history books as a positive one. After the fall of the Berlin Wall, we Germans made the most of our tremendous chance in international competition. Now though, we have to reckon with political changes, not only from the USA but also due to a changed

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What are the prospects for further internationalisation?

We have developed strongly in the markets themselves and are producing in China, India, Italy, England, the USA, Brazil and South Korea. These are important springboards for us in conquering entire regions and individual markets. We can take the blueprint of, for example, our manufacturing systems and roll out quickly anywhere in the world. This is not only true for production but also for IT, which we have standardised internationally. For example, we have more than 640 employees in the USA, 500 in the UK, over 1,000 in China, and we have established capacities that let us adapt to market changes relatively quickly.

> “ A highly qualified staff in Germany is a strong backbone.

Our production plants are like a network of interconnecting tunnels; for instance, we can supply the Far East via production centres in China, India and Korea. At the same time, this means that we can respond to international trade agreements in the interest of our customers. Having a strong, central backbone in Germany with highly qualified staff and knowledge of the international markets also helps. It represents a good basis for coping with the new challenges.

How important is digitisation in all this?

We Germans want and need to be competitive in the future. In the case of digitisation, high speed is forcing us to change to new organisational

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structures. In medium-sized companies particularly, this means tremendous physical effort, both in terms of investment in machinery and equipment, but above all in the manpower needed. If products, machines and processes are based on optimisation through software, we will soon have a shortage of software developers – something which will put the shortage of engineers in the shade. That is why digitisation belongs just as much as development in a targeted programme of research funding. Only in this way will we have the chance to implement digitisation successfully in medium-sized companies in the industrial location of Germany.

> “ We can take the blueprints of manufacturing and roll out quickly anywhere in the world

Europe. Moreover, we will face these changes as an industry and use these challenges as an opportunity, just like with internationalisation in the 1970s. German industry as a whole and we as a company will position ourselves more securely in the individual countries.

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Lasting Success story HANNOVER MESSE: From the first stand 1962 to prominent visitors at Rittal 2016.

“Knowledge is not constrained within a country”

Renate Pilz on the values leading to long-term success on world markets

If you look back to the crisis of 2009, how could Germany and Pilz recover so quickly?

The crisis was a period of severe upheaval for all of us. First the extreme drop, then the recovery - this was something we had not witnessed before. One of the reasons why Pilz was able to record the growth it has since then is that we did not have to cut any jobs during the crisis. For which, by the way, we also have to thank the government and our collective bargaining partners for their far-sightedness and decent response back then. As a company, Pilz strives for long-term success. We build development and production expertise and capacity in house to ensure they are sustainable. Our strategic aim is to pick up innovative ideas and run with them over the long term. So we were very well positioned after the crisis and were able to grasp the opportunities. As far as Southern Europe and Russia are concerned: Pilz has a portfolio that enables it to thrive even in countries where the general economic environment is difficult. Although economic constraints may slow investment in new machinery, they also increase the demand for automation solutions that improve the efficiency and safety of existing machinery and systems.

Which foreign market or foreign subsidiary has produced the most positive surprise?

Since establishing a new subsidiary is always initially a challenge, I am grateful that – so far – all of our subsidiaries have evolved positively in their own way.

How scientifically do you approach the issue of site selection? How important are coincidental moments, personal factors, temporary opportunities?

We take our time when setting up national subsidiaries and build them steadily. As a family business, we strive to ensure that the same management principles apply in to subsidiaries as we practice them in Germany. The best way to achieve this is to recruit management and staff from the country itself. They bring a functioning network and existing contacts; they know the mentality – after all, it is their own. And what is maybe most important of all: our managers and staff speak the same language as our local customers. Direct customer contact is essential to learn exactly what it is they want and to then satisfy these requirements well.

Where do you see Pilz vis-à-vis global competition – which markets are home to your fiercest competitors?

Pilz is able, not only to supply individual components and systems to its customers, but to also offer them added value with integrated and safe automation solutions. Services are a key element here. The quality of the support we give customers throughout the entire life cycle of a machine or system is unparalleled the world over. As a global ambassador of safety, Pilz wants to raise awareness of safety everywhere – even in countries that do not have appropriate standards and

regulations governing mechanical and operational safety. Around the globe, companies are becoming increasingly aware that safety is a worthwhile aim for reasons of cost efficiency and not just to prevent injury. At Pilz, we have therefore made it our mission to work with research institutions and the public sector to create a culture that fosters the protection of humans, machines and the environment.

> Companies are built on a foundation of shared values

What do you see as the main criteria for success when building an efficient sales and distribution structure?

Since the 1960s, Pilz has been building, not just a global sales and distribution network but also a competence network. Ireland-based Pilz International Service Group coordinates international projects, such as certifying systems operated by major producers in the consumer goods sector. Pilz can take local knowledge and apply it across borders, and is not constrained within a country. This ability to transfer knowledge is what sets Pilz apart and makes us the ideal partner for multinational corporations.

Where do you stand on technology cooperation? How can it be managed globally with different partners and customers?

Our stance is a very positive one. Our experience has been good.

Now that sales and distribution, service and production have gone abroad – are they soon to be followed by parts of R&D? Is in-depth knowledge going to be kept in house, here in Germany?

Pilz has brought the development and production of its core products together under one roof at its headquarters. This close collaboration and proximity are key to bring products to market quickly and smoothly. All of the departments receive ongoing feedback about their work, and are learning more about what their colleagues do. Transparency is improving. There are fewer interface problems between individual groups. So the proximity is both physical and mental. And in keeping with our "Local for Local" strategy, we want our manufacturing facilities to be located where the products are used, such as China, in order to reduce transportation that pollutes the environment, for example. We have brought all the production-related departments together in our new Production and Logistics Centre, which now houses not only production technology and quality management, but also purchasing and IT. This enables us to ensure a seamless flow of information from the customer right through to production, just as it should be in Industry 4.0.

What role does the shortage of experts play in this respect? Is global sourcing becoming more important?

The most important assets of any company are its staff and the underlying philosophy that employees can relate to, as well. We are increasingly noticing that applicants are consciously opting for Pilz simply because we are a family-run company with corresponding values and a philosophy to match. When experts are in short supply, it is the soft facts that tip the balance in favour of a company. Fifteen or so years ago, we were having problems finding software engineers so I investigated where the training courses were taking place that taught what we needed, and found a college in Ireland. I went over there for a closer look and decided to set up a subsidiary since – back then – as an SME we could not afford to bring these people to Germany. Looking back, I am very glad I made that decision as I feel it is better to give people the opportunity to work in their native country so as not to uproot them and their families.

> Innovation is a central part of our strategy

How do you integrate your global teams; what do you see as the most important element in your corporate culture?

Just as common rules and accepted behaviours govern our private lives together, so companies are built on a foundation of shared values. At Pilz, these values stem from our Christian faith. The values we practice include mutual appreciation and respect in our dealings with each other and especially with other cultures. I am always pleased to see how well we work together with so many different cultures in our company with its 40 subsidiaries. Learning from other cultures is always something that enables a company to evolve and constitutes a real asset. At Pilz, innovation is a central part of our corporate strategy as we believe that technology leadership is the only way to secure market leadership. For years, we have been continuously investing 20 percent or more of our revenues in research and development.

In-depth knowledge, light parts

The lightweight construction specialists from LEIBER are more than just an interchangeable link in the value chain.

Do you know Emmingen ab Egg? Have you been to Ruda Slaska before? At LEIBER you could make your own personal impression of how Germany's much-renowned medium-sized and familiy-owned industry actually works.

Company founder Valentin Leiber started producing the pressing machines for spaetzle pasta in the post-war years. Nowadays the company is also growing in the aerospace industry, where super-stable feet for aircraft seats are manufactured in Emmingen. LEIBER products also include hybrid-forged driveshafts or brake disc chambers which are being fitted to various series across the automobile industry in order to reduce weight and fuel consumption.

The new HGV air bellows support in bionic design, which are manufactured using the patented super-hard Aluxtrem alloy, also do this: they are 50% lighter than those made of steel. The fact that Daimler has been acquired as a customer was a "knighthood" for Rolf Leiber.

In-house development with a focus on future customer requirements is the first recipe for success, control over the production process is the second. Rolf Leiber purposely went down another route compared with many forging works in both cases: "Outsourcing of almost everything - that means you can be replaced at will in the competition".

In the Emminger works they are now successfully following a completely different path along the value-adding chain in lightweight construction. This starts as early as predevelopment, which one can specifically take to possible reference customers. The LEIBER Group safeguards the policy of the primary products - alloys with which one can achieve unique

aluminium material properties - itself, and exchanges its in-depth knowledge with the suppliers as well.

The integrated production lines are the heart and soul of manufacturing in Emmingen. Material infeed, preheating, forging, deburring, quenching and then radiation - the individual stations and the robots are linked. A high number of units run through here automatically. This enables Leiber to achieve its aims in productivity. Customer requirements can be fulfilled after individualisation of the product using jointed-arm robots which can be adjusted to new products in extremely short times. According to Rolf Leiber: "That is our future. Automation, high-quality workplaces, higher wages, more productivity - that really is the right strategy."

This perspective also applies to the location in Poland in the long term. However, wage-intensive manufacture is still concentrated there and is even being extended. Rolf Leiber knows that he has to keep up with the competitors in a tough competitive environment, that he has to manufacture the small and work-intensive series there which are no longer economic in Emmingen. This year, Leiber has set up a further production line of almost 3000 square metres in Ruda Slaska, Silesia, where production has been taking place since 1995. A total of 350 workers are employed there now.

> **Outsourcing means you can be replaced at will**

Rolf Leiber likes a lot about Poland. In entrepreneurial terms, he likes the fact that there is "no difference" between productivity and wage cost development. "In contrast, we have even achieved productivity increases there which compensate for the double-figure wage cost increases" says Mr. Leiber in praise of the location. And that is something which he does not regret. "Poland has become a benchmark for us in terms of unit costs". In Ruda Slaska processes and machines which first had to be experimented on in Emmingen are being put into use immediately.

> **Poland has become a benchmark for us in terms of unit costs**

According to Mr. Leiber, a further factor is that "factory planning is more homogenous in Poland. Mr. Leiber is also enthusiastic about his team in Poland. "There is an unbelievable work discipline and schedule effectiveness there". Rolf Leiber, who accompanied the works right from the start, used to be in Poland every month, but nowadays he says: "Everything works so well there that I can leave them on a long lead".

However, long pre-developments are still carried out in Germany. "I need the young and daring heads here for that sort of thing" is how Mr. Leiber praises the good and especially practically-oriented vocational training, which he also wishes he could install in Poland sometime in the future. The only thing which ensures that qualified staff remain is the further personal development and responsibility within the company. During the visit, Mr. Leiber is particularly proud of the fact that he handed over responsibility for the construction and setting up of a Schuler press for a new production line, at an estimated value of 8 million euro, to a very young staff member.
Rolf Leiber's outlook is aligned to the future. The 50 million German mark turnover which was being produced when he took over the company as general manager has become 120 million euro in the meantime. The company grew with double figures nearly every year over the last two decades. Will this carry on in the future? Rolf Leiber shook his head. "That's not my aim at all". For Mr. Leiber, growth, cost effectiveness and financial reserves are only a means for further development of the family company. He also wants to remain prepared for possible crises. "I don't want to have butterflies again the next time something like Lehman happens".

Mr. Leiber is currently not aiming at new international markets although his customers' calls for local content are loud enough. Asia, China, USA – Mr. Leiber isn't going to attempt the "global footprint" yet, especially since he hasn't yet run out of ideas in this country. "We get along very well with 8% growth - provided by both works".

> **We get along very well with the current growth**

His objective is different anyway: "When I step down I want to have a spotless operation". And he means this literally, not only in terms of the balance sheet. "Production without any graphite, a really clean production". And then he adds: "Which also manages without me. What I want is that my people are proud to be here".

LEIBER Group:
Global Business & Markets
Hall 4, Stand E34

“The more expensive we are, the smarter we have to be”

Dr. Eberhard Veit advocates focusing on growth markets.

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Where do medium-sized industrial businesses in Germany actually stand on the issue of digitalisation?

An evolutionary revolution is underway. German industry must now move on very quickly to adopting new business models and new forms of interconnected production. Small and medium-sized enterprises in particular have to a certain extent not yet taken this trend seriously and embraced it as part of their product development efforts. If German industry does not step up the pace now, we will lose our Industrie 4.0 advantage. I estimate we still have two years.

What do these new business models that enable companies to compete internationally look like?

If we are more expensive, then we can and we must be so much better than others – that’s a minimum requirement. Industrie 4.0 enables us to continue offsetting the competitive disadvantage of a high-wage country. We need to learn from the world of IT. New earnings and revenue sharing models are called for and these need to be combined with enhanced, smart services. These will provide effective leverage to help German industry combat stiff price competition from Asian providers. The old argument that

it makes definite sense for customers to invest in German quality, reliability and safety now applies more than ever. Given that competitive advantage is derived via process lead times, it just takes longer for this argument to be proven. New business models enable customers to benefit from higher productivity much more quickly.

Where do companies see risks in Industrie 4.0?

It starts with the fact that companies need 'teammates' or partners with complementary offerings to develop new products. Manufacturers require contact points and interfaces that they can dock onto within the general industrial system as we know it. Without providers of complementary offerings they would merely be extending their tool kits using technologies from their own portfolios, without being able to recoup their investments via fully interlinked Industrie 4.0 solutions.

Added to that are the sometimes conservative investment policies pursued by owners of family-run businesses, which are governed by old-school amortization cycles and risk-averse investment principles. Longer timeframes than the standard amortisation period of 36 months have to be targeted for these brand new digital production platforms.

How is Industrie 4.0 changing global collaborative and customer relationships?

The processes of industrial cooperation as applied to date particularly in Germany and frequently in Europe, are based on a culture of trust and knowledge that has evolved between companies over time. The incentive was and is to develop the most suitable, optimum solutions for customers using all available knowledge. Common sense, trust and belief, a "they will manage it", are all part of the hard-earned brand essence of German industry. Globalisation and digitalisation entail greater anonymisation. Digitalisation means that customers are served digitally using data resources as opposed to human resources. Nowadays consultancy or advice is often provided using fully automated digital consultancy tools. Entire production cells at providers' platforms have to be configured very fast on PCs. The search for solutions is becoming increasingly more transparent and of course non-location-dependent thanks to the Internet.

The old concept of local or regional markets is therefore disrupted if suitable products or components can be purchased from China or the USA at lower cost, based on an identical or comparable standard of advice provision. Companies are navigating their way around an anonymised and standardised global market.

> "The old concept of local or regional markets is disrupted. Companies are navigating around an anonymised global market

How will international competition evolve?

We must focus more on the world's genuine industrial growth markets. These are located primarily in Asia. The future of the mechanical engineering sector will be decided by being successful there, not solely on consolidating market positioning here in this part of the world. And of course, Asia is where the stiffest competition is. Companies from Germany will therefore need to make use of transparency and anonymisation in the opposite direction as well. New digital opportunities are arising for German medium-sized businesses and even small enterprises in distant markets, where they do not yet have a presence, to which they can't dispatch sufficient people, where they are unfamiliar with the local corporate culture.

> "Globalisation is not a one-way street

How important will global partnerships become?

Since markets are increasingly demanding standardised network-compatible products, these interfaces will conversely provide opportunities for new global competitors. At the same, time this harbours prospects for the establishment of global partnerships, so-called 'distance partnerships' between providers of complementary offerings from Europe and China or the USA. That is not just the subject of public debate, but is actually being put into practice. Specifically the first collaborative ventures with Chinese partners are enabling German providers to take up completely new strategic positions locally. Globalisation is not a one-way street for anybody.

This interview appeared in **"Krise, welche Krise? – Internationalisierung in bewegten Zeiten"**, and is available in German language on www.localglobal.de

China is changing the game

Made in China 2025 opens opportunities and creates challenges for advanced economies

China is pushing forward an ambitious plan to build one of the world's most advanced and competitive economies with the help of Industry 4.0. Its industrial masterplan "Made in China 2025" aims to turn the country into a "manufacturing superpower" over the coming decades.

A recent study by the Mercator Institute for China Studies (MERICS) on "Made in China 2025" and Industry 4.0 in China finds that this industrial policy will challenge the economic primacy of the current leading economies and international corporations. The strategy targets virtually all high-tech industries that strongly contribute to economic growth in advanced economies: automotive, machinery, and information technology, to name only a few.

The promotion and dissemination of Industry 4.0 is the centerpiece of the strategy. By upgrading the mostly backward industrial processes of China's manufacturing sector, the Chinese government hopes to enhance the competitiveness of its enterprises on domestic markets and to propel their global expansion.

A smart manufacturing boom

The political push for industrial modernization in China creates an enormous demand for smart manufacturing. The expected boom brings attractive business opportunities, because the transformation of China's manufacturing base requires advanced technologies that Chinese suppliers are not able to provide at the moment. For China's economic partners

"A unique oppertunity for technology partnerships"

By now, German companies of all sizes have solidified their I4.0 strategies and are starting their implementation. As the MERICS study shows impressively, Chinese industry and government are also intensively working on I4.0 with some successes, for example the number of patent applications. While the number of high-quality innovations is a small share of the total, it would not be wise to underestimate the quality of the effort. For China, I4.0 is the last piece of the puzzle to achieve a century-long goal: establishing China as a high tech manufacturing nation.

This creates a unique opportunity. Based on superior know-how in I4.0, German companies can help shape the development of China, develop their own products for China while "going with the flow" of the overall technology landscape development in China, and thus build up a long-term position in the future's largest high-tech manufacturing market in the world. In contrast to previous topics, e.g. In the automotive industry, I4.0 is not about adapting Western technology to Chinese needs, but rather about applying the same basic technologies with different focus areas. In Western Europe, the aim is to increase the flexibility of production in small batches; In China, the focus is on the use of "big data" to further optimize mass production.

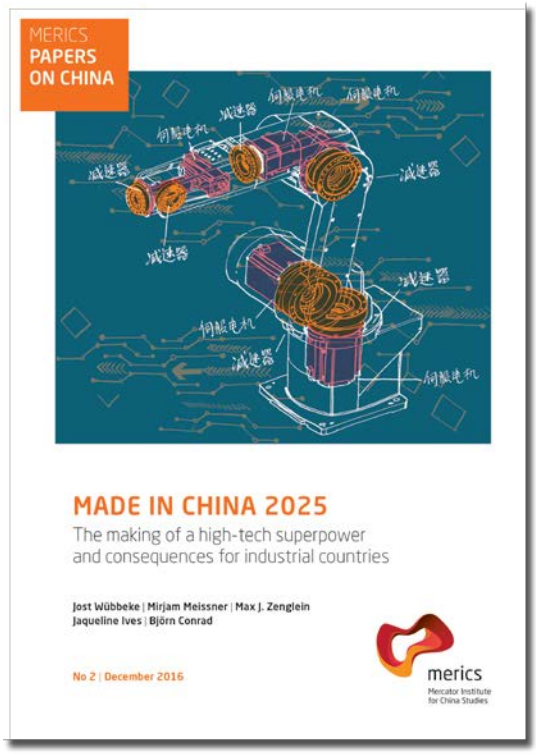
However, this implies also a big challenge: I4.0 products tailored to European requirements run the risk of being rejected by customers in China. In addition, Chinese authorities often require the disclosure of sensitive specifications for the approval of electronic products - a risk of unwanted technology outflows. Large European companies with their own sales and development activities in China can directly work towards harmonizing and influencing standards, which is very difficult for medium-sized companies exporting from Germany.

Bosch, for example, is a cooperation partner of the Development Research Center (DRC) of the State Council of the PRC. Strategic collaborations are under way, such as Siemens with Baosteel Group Corporation (Baosteel), China Shipbuilding Industry Corporation (CSIC), China Electronics Corporation (CEC) and China Aerospace Science Industry Corporation (CASIC). The German side

in Europe and the United States, it could even open up opportunities for deepening economic and political cooperation.

In principle, the global economy has good reasons to welcome China's quest for increased innovation capacity, provided that China abides by the principles and rules of open markets and fair competition. However, Made in China 2025 in its current form represents exactly the opposite: China's leadership systematically intervenes in domestic markets so as to facilitate the economic dominance of Chinese enterprises and to disadvantage foreign competitors.

In essence, Made in China 2025 aims for substitution: China seeks to gradually replace foreign with Chinese technology at home – and to prepare the ground for Chinese technology companies entering international markets. Made in China 2025 intends to increase the domestic market share of Chinese suppliers for "basic core components and important basic materials" to 70 per cent by the year 2025. Semi-official documents set very concrete benchmarks for certain segments: 40 percent of mobile phone chips and 70 percent of industrial



brings know-how and experience on the topic I4.0, the Chinese side brings China-specific industry know-how. For medium-sized companies, the option of a partnership with a medium-sized company in China is an interesting option. The support of the local partner can be very valuable, e.g. in certification. With a Chinese partner who has an interest in protecting the partnership's know-how, the risk of unwanted disclosure is reduced. Many companies have a strong position in the market and the financial resources to cope with an international partnership. There is a remarkable number of entrepreneur-led "real" medium-sized companies, where the fit with German partners is often very good.

Publicly known are, in particular, acquisitions where the Chinese investor takes full control of the German company, e.g. Kuka by Midea, AMK by Zhongding or IMA Automation by Joyson / Preh. One should note, however, that Midea, Zhongding and Joyson are big, expansive market leaders who are willing to take on considerable risk. My talks with lesser known competitors from these three companies show that the far greater number of Chinese companies is more cautious and takes smaller steps. These are then not publicly known, but they are effective and reduce the risk for both partners, who get to know each other better.

I4.0 partnerships with Chinese companies can have different focal points: distribution channels for existing hardware products or system integrators for software; joint ventures for local distribution, operation of cloud solutions, product customization and, where necessary, production; capital participation in the German company or takeover. Our experience: The most promising approach is always a case-by-case decision, based on the goals and abilities of the German company as well as on the availability of corresponding Chinese partners. When selecting the partner, the long-term and short-term goals as well as the company cultures should fit together. In addition, entrepreneurial homework has to be done (IP protection, technology, capital). Only carefully developed partnerships can lead to sustainable success, which can then be gradually expanded.

Lutz Berners,
Berners Consulting GmbH

robots on the Chinese market are supposed to be produced in China by 2025. In order to achieve these goals, government entities at all levels funnel large amounts of money into China's industrial future. The recently established Advanced Manufacturing Fund alone amounts to 20 billion CNY (2.7 billion EUR). The financial resources are enormous compared to, for instance, the 200 million EUR of federal funding that the German government has provided for research on Industry 4.0 technologies so far.

Taking over international high-tech enterprises

Made in China 2025 also has an outward-looking dimension: the accelerating acquisition of international high-tech companies by Chinese investors. To speed up China's technological catch-up and to leapfrog stages of technological development, Chinese companies are acquiring core technologies through investment abroad. This in itself is neither surprising nor objectionable. However, China's technology acquisitions are partly supported and guided by the state. This undermines the principles of fair competition: China's state-led economic system exploits the openness of market economies in Europe and the United States. State-led Chinese high-tech investment aims to systematically acquire cutting-edge technology and generate large-scale technology transfer. In the long term, China wants to obtain control over the most profitable segments of global supply chains and production networks.

Will "Made in China 2025" succeed? A mixed picture

Made in China 2025 will have a major impact on China's domestic as well as international markets. However, the MERICS report finds that the strategy is at the same time limited by a number of significant weaknesses. It is likely to succeed in elevating a small vanguard of Chinese manufacturers to a higher level of efficiency and productivity. At the same time, Made in China 2025 will probably fail in its endeavor to catalyze a comprehensive, broad-scale technological upgrading across the Chinese economy.

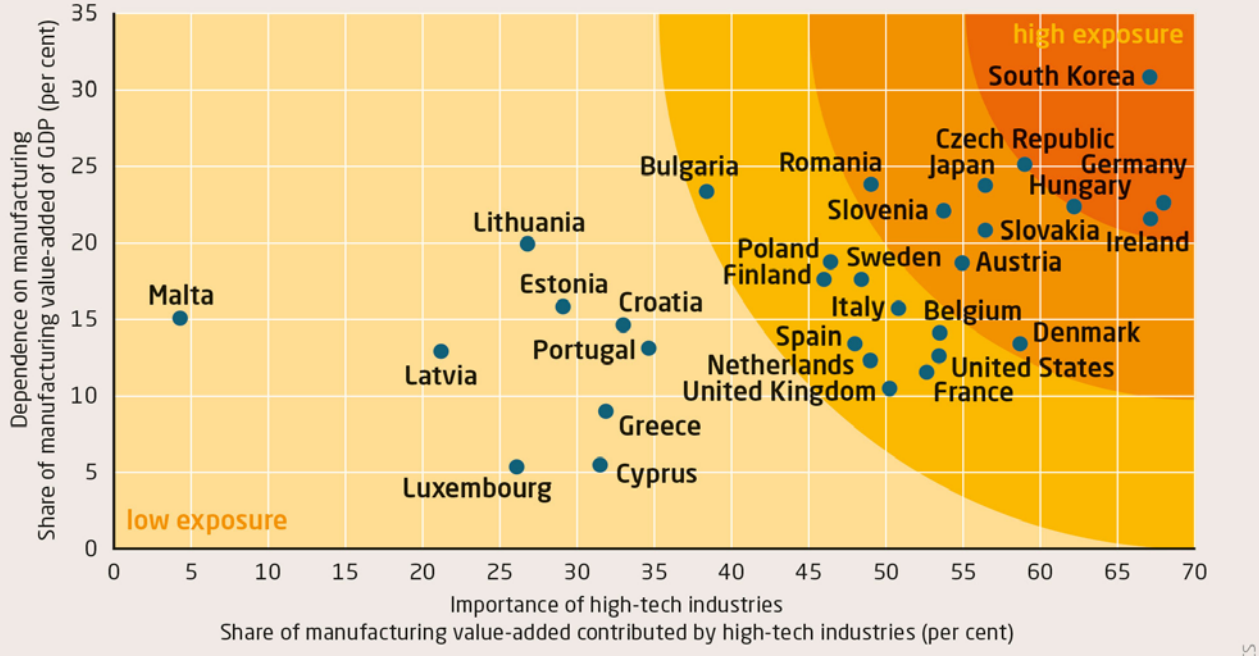
But even considering the limits of the strategy, there is no reason for complacency in advanced economies. Despite its weak spots, "Made in China 2025" is a reflection of China's sophisticated and strategic industrial policy. The strategy will rapidly increase the global competitiveness of key Chinese companies, selectively targeting the most important industries of the future. Made in China 2025 is a forceful and smart challenge to the leading economies of today. European and U.S. decision makers in politics and business will have to provide equally smart answers to this challenge.

The full version of the MERICS Paper on China is available at:

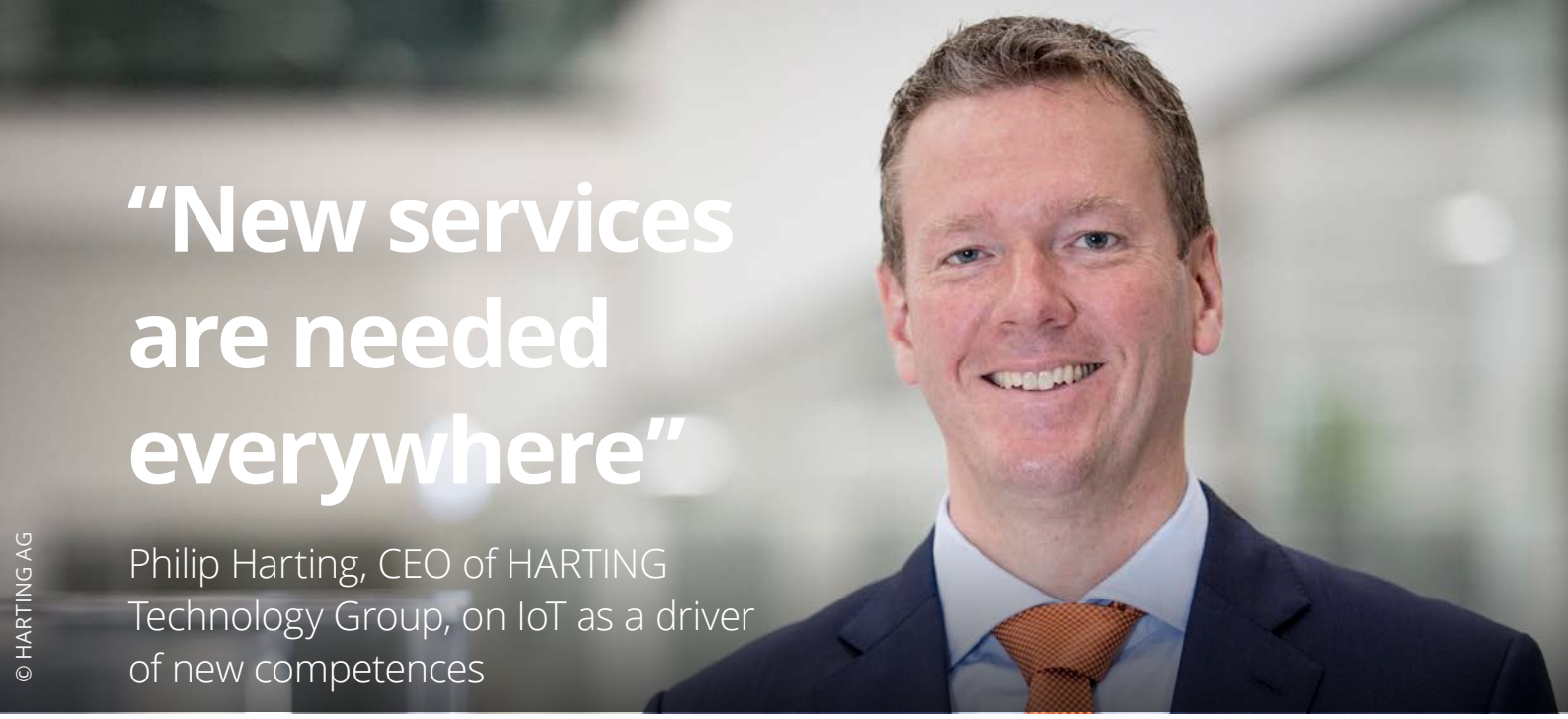
Jost Wübekke et al. / MERICS:
"MADE IN CHINA 2025"
www.merics.org/de

Under Pressure: Industrialised countries will feel the heat of Made in China 2025

Vulnerability of select industrial countries to Made in China 2025



Source: MERICS



“New services are needed everywhere”

Philip Harting, CEO of HARTING Technology Group, on IoT as a driver of new competences

Mr Harting, have you counted up the number of Hannover Trade Fairs you’ve exhibited at?

I don’t know exactly how many times I have been, but I have been attending the Hannover Messe as an interested visitor for 30 years and for 12 years I have always been there in my role as a manager.

How important is the Industry 4.0 impetus of the Hannover Messe for your company on the international markets?

It is hard to underestimate the boost to innovation which Industry 4.0 has given to German industry: it drives growth and increases competitiveness. I 4.0 represents a real opportunity for HARTING as a global technology group to financially manage the growing complexity by means of a global production network, increasing number of variants and decreasing life cycles. As a pioneer of I 4.0, HARTING can likewise demonstrate and consolidate its technological leadership on the international markets. As an information exchange and showcase for technological innovation, the Hannover Messe is a very important part of this.

What is your strategy on the international markets?

The changes brought about by digitisation are a global phenomenon, creating huge demand internationally for solutions to integrate industrial production in all business applications. New services are needed everywhere. With our smart connectivity approach, in addition to our established plug connectors, which will still be relevant in future, customers will be able to access solutions which provide plug connectors with communication-enabled additional functions in the context of the IoT.

What efforts and changes does this require in the company?

Components too are changing and becoming solutions with additional customer benefits thanks to smart functionalities. It is therefore very important for us to offer our customers a high-performance spectrum of solutions. Conventional components occupy an important place in this spectrum. In many cases this is also characterised by I 4.0 requirements. For instance our Han-Modular® constitutes the backbone of the smart factory, as it can be used ultraflexibly to plug in modules. The MICA, which can perform diverse production tasks – from energy consumption recording to retrofitting for example, - is an open, modular solution which can be used in a variety of ways. We are collaborating on the MICA.network in connection with new business models. This obviously requires us to develop new competences and leads to substantial changes being implemented in the company.

> “IoT obviously requires us to develop new competences and leads to substantial changes in the company

Französische Unternehmen öffnen sich für Industrie 4.0

Welle neuer Technologien verunsichert noch | Pilotprojekte bringen Licht ins Dunkel

Text: Marcus Knupp, Germany Trade and Invest, Paris

Die in Deutschland unter dem Schlagwort Industrie 4.0 zusammengefassten Innovationen in der industriellen Fertigung stehen seit dem Frühjahr 2015 in Frankreich unter dem Titel Industrie du Futur (Industrie der Zukunft) auf dem Programm. Hohe mediale Präsenz, Förderprogramme für Teilaspekte wie die Einführung von Robotern und die intensive Beschäftigung mit der Thematik haben seither zu einer deutlichen Sensibilisierung bei den Unternehmen geführt.

Das Eis scheint gebrochen. Nach Jahren eher skeptischer Zurückhaltung, insbesondere bei den kleinen und mittleren Unternehmen (KMU) in Frankreich, die unter anderem einen deutlichen Rückstand in der Automatisierung der Produktion zur Folge hatte, ist die Industrie der Zukunft im Herbst 2016 in aller Munde. Mehr als jedes zweite Unternehmen hat mittlerweile eine Strategie zur Digitalisierung aufgestellt, wie eine Umfrage im Auftrag des Wirtschaftsmagazins Usine Nouvelle im Dezember zeigte. Ein Viertel gab an, bereits kommunizierende Produktionsmaschinen im Einsatz zu haben. Nach Einschätzung von Experten werden in den kommenden drei Jahren zahlreiche Unternehmen mit Pilotprojekten starten. Mit einem Zeithorizont von fünf bis zehn Jahren wird es dann zu einer breiteren Anwendung kommen.

Bereitschaft zum Engagement steigt

Das praktische Beispiel trägt oft mehr zum Erfolg bei als hoch

aufgehängte Programmatik. Französische Industrieunternehmen sind zwar recht experimentierfreudig bei Produktinnovationen, wollen in der Produktionstechnik aber lieber „auf Nummer sicher gehen“. Begriffe wie Industrie 4.0 („etwas komplett neues“) oder Industrie der Zukunft („das kommt irgendwann mal“) bauen bei weniger involvierten Entscheidern eher Schwellenangst auf, während es in vielen Fällen um die schrittweise Einführung von Neuerungen geht, wenn auch auf mehreren Feldern gleichzeitig, denn die Digitalisierung betrifft den gesamten Prozess.

Französische Industrieunternehmen sind zwar recht experimentierfreudig bei Produktinnovationen, wollen in der Produktionstechnik aber lieber „auf Nummer sicher gehen“.

In diesem Sinne zeigen Pilotprojekte die Möglichkeiten zur effizienteren Produktion, sei es durch kollaborierende Roboter, additive Fertigungsverfahren, erweiterte Realität, die Erfassung und Verarbeitung großer Datenmengen („big data“) oder eine vollautomatische Werkslogistik. Im September 2016 öffnete beispielsweise am Technologiestandort Saclay südöstlich von Paris das Innovation Center for Operations (ICO), geleitet durch die Boston Consulting Group, das französischen Industriebetrieben bei der Einführung der neuen Technologien helfen soll.

Diese haben mittlerweile eine recht klare Vorstellung davon, was sie von den innovativen Fertigungsverfahren erwarten. In der erwähnten Umfrage nannten über 50% der Befragten eine Steigerung der Produktivität, Erhöhung der Wettbewerbsfähigkeit und bessere Kundenorientierung, die damit noch vor der besseren Nutzung von Daten auf den ersten Plätzen liegen. Als wesentliches Hindernis bei der Einführung wird neben Finanzierungsengpässen und Unsicherheiten bei der Amortisierung der Investitionen an erster Stelle der Widerstand der Mitarbeiter gegenüber einschneidenden Änderungen genannt.

Bausteine für das Zusammenspiel

Die Befragung zeigte auch, dass die Komplexität der Konzepte und deren tatsächliche oder empfundene Unausgereiftheit sowie die fehlende Kenntnis der speziellen digitalen Anwendungen noch erhebliche Hemmschwellen sind. In der Tat gehören zur Industrie der Zukunft zahlreiche Komponenten im Hard- und Softwarebereich, deren Zusammenspiel erst den vollen Effizienzgewinn ermöglicht. Ein gemeinsames Auftreten, wie es die Unternehmen Phoenix Contact, Sick, Festo, SAP, SEW Usocome, ifm electronic und Movilitas auf der Messe Smart Industries im Dezember 2016 in Paris organisiert haben, kann bei potentiellen Kunden zum Verständnis beitragen.

Wichtig dürfte dabei auch sein, darauf deuten die Erwartungen und Befürchtungen aus der Befragung hin, Technologien nicht als Teil eines etwas nebulösen Gesamtprogramms Industrie 4.0 anzubieten, sondern als Lösungen auf konkrete Problemstellungen im Unternehmen. Sollen beispielsweise Angebote innerhalb weniger Stunden auf Basis realer Informationen der im Unternehmen verfügbaren Ressourcen erstellt werden (enterprise resource planning, ERP), müssen hierzu Daten zu einsatzbereiten Mitarbeitern sowie über Maschinen, Werkzeuge, Rohmaterialien, Transportkapazitäten etc. erfasst, aufbereitet und zusammengeführt werden. Dazu werden zahlreiche Sensoren, Kommunikationssoftware, bei mehreren Standorten Cloud-basierte Programme samt Verschlüsselung benötigt, Modellierungs- und Simulationssoftware sowie eine intelligente Lager- und Logistikverwaltung. Der mögliche Effizienzgewinn sollte dabei ebenso deutlich kommuniziert werden wie das Ineinandergreifen der einzelnen Komponenten.

Initiative für kooperierende Roboter

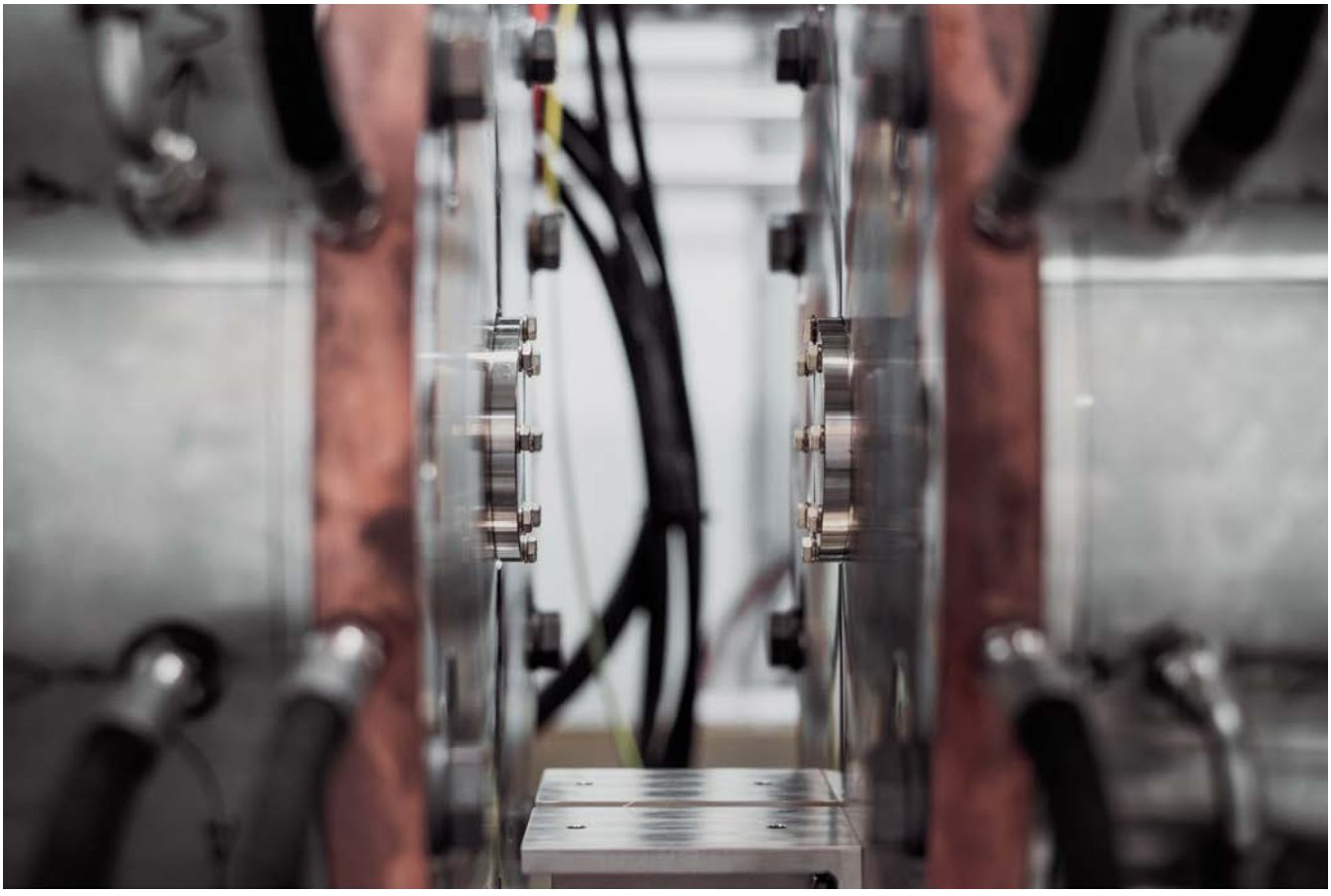
Eine andere Art von Ineinandergreifen kündigt sich mit dem Einsatz kooperierender Roboter an, also Maschinen, die einen menschlichen Arbeiter direkt physisch unterstützen. Beide lassen sich so flexibler und vielseitiger einsetzen. Die Industriefachverbände FIM und Symop, das angeschlossene Forschungsinstitut Cetim und das Normungsinstitut der mechanischen Industrien, UNM, sehen hier einen wichtigen Baustein für die Entwicklung der Industrie in Frankreich, wie sie in einem gemeinsamen Statement im Dezember 2016 feststellten.

Anwendungen auf diesem Gebiet sollten daher gefördert und unterstützt werden. Ein Beispiel ist die Integration eines gemeinsam mit Cetim und dem Distributor von Robotersystemen Sysaxes entwickelten Roboters in die Produktion beim Elektronikhersteller EINEA. Laut Firmenaussage stellt die Verwendung von kollaborativen Robotern in der Montage eine Alternative zur Verlagerung manueller Tätigkeiten an andere Standorte einerseits und zur vollständigen Automatisierung andererseits dar. Letztere lohne sich für Aufgaben mit geringerer Wertschöpfung in kleineren Betrieben oft nicht. Techniken wie der „robot d’assemblage collaboratf pour l’électronique“ (RACE) können diese Prozesse flexibler machen und die Produktivität erhöhen.

Italien stellt nationalen Plan für Industrie 4.0 vor

Investitionsanreize stehen im Vordergrund

Text: Robert Scheid, Germany Trade & Invest, Mailand



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Die italienische Regierung hat Ende September 2016 einen nationalen Plan für die Industrie 4.0 vorgestellt. Im Fokus des Plans stehen öffentliche Anreize für private Investitionen und Forschungsaktivitäten, der Ausbau des Breitbandnetzes sowie die Themen Bildung und Sensibilisierung der Gesellschaft für die Industrie 4.0. Die Regierung will die Rahmenbedingungen verbessern und die Digitalisierung der italienischen Industrie vorantreiben.

Das Thema Industrie 4.0 gewinnt in Italien an Bedeutung. In den vergangenen Jahren haben vor allem einzelne Regionen Fördermaßnahmen ergriffen, um die Digitalisierung der Industrie voranzubringen. Mit dem neuen Plan „Industria 4.0“ sollen jetzt die Rahmenbedingungen auf nationaler Ebene verbessert werden.

Insgesamt sind 13 Mrd. Euro öffentliche Mittel vorgesehen. Das Paket soll in das Haushaltsgesetz für das Jahr 2017

einfließen, einzelne Maßnahmen könnten im Rahmen der Verhandlungen geändert werden. Die italienische Förderpolitik setzt branchenübergreifend mit Steuervergünstigungen an. Der Grund dafür ist die Tatsache, dass die italienische Unternehmensstruktur vorrangig von kleinen und mittelständischen Firmen geprägt ist.

Unternehmen werden branchenübergreifend gefördert
Für Unternehmen in Italien sind insbesondere die Investitionsanreize wichtig. Die 2016 eingeführte erhöhte Abschreibungsmöglichkeit („superammortimenti“) von 140% für den Kauf oder das Leasing von Produktionsgütern soll verlängert werden. Auch Dienstfahrzeuge können zu 120% abgeschrieben werden. Jetzt kommt eine neue Abschreibungsregelung für Investitionen in die Digitalisierung oder in Energiesparmaßnahmen hinzu: Entsprechende Ausgaben können laut „iperammortamenti“ zu 250% geltend gemacht werden. Das gilt vorerst aber nur für Investitionsgüter, die 2017 erworben und spätestens bis Mitte 2018 geliefert werden.

Vor dem Hintergrund der neuen Fördermöglichkeiten erwartet die Regierung eine deutliche Zunahme der privaten Investitionen von 2017 bis 2020.

Nachdem die Bruttoanlageninvestitionen im Laufe der Wirtschaftskrise stark rückläufig waren, ist zwar im Jahr 2015 eine Trendwende eingetreten, doch diese war mit einem Plus von 0,8% sehr schwach.
Vor dem Hintergrund der neuen Fördermöglichkeiten erwartet die Regierung eine deutliche Zunahme der privaten Investitionen von 2017 bis 2020. Die öffentlichen Mittel, die sich auf 13 Mrd. Euro summieren, sollen über ihre Hebelwirkung private Investitionen in Höhe von 24 Mrd. Euro initiieren.

Über die Investitionsanreize hinaus wird auch die Forschung und Entwicklung (FuE) gefördert. Unternehmen können Steuererleichterungen für FuE-Ausgaben von bis zu 20 Mio. Euro erhalten. Zudem will die Regierung mit Steueranreizen erreichen, dass das investierte Wagniskapital bis zum Jahr 2020 auf 1 Mrd. Euro steigt.

Das stagnierende Produktivitätsniveau ist ein Kernproblem der italienischen Wirtschaft, es konterkariert die internationale Wettbewerbsfähigkeit der Industrie. Hier setzt die Regierung neue Anreize. Sie gewährt Prämien, wenn die Lohnentwicklung an den Produktivitätsfortschritt gekoppelt wird.

Breitbandnetz wird ausgebaut
Die digitale Infrastruktur ist eine wichtige Voraussetzung für die Industrie 4.0. Hier hat Italien erheblichen Nachholbedarf. Laut EU-Kommission liegt das Land gemessen am Zugang zum Breitbandinternet mit einer Geschwindigkeit von mindestens 30mbit/s auf dem vorletzten Platz in Europa. Vor diesem Hintergrund strebt die Regierung an, bis 2020 alle Haushalte mit der Netzwerktechnologie Next Generation Access (NGA) zu versorgen. Zudem sollen die Hälfte der Unternehmen bis dahin Zugang zu einem 100mbit/s Anschluss haben.

Um dieses ehrgeizige Ziel zu erreichen, sind öffentliche Investitionen im Umfang von 6,7 Mrd. Euro vorgesehen. Hinzu kommen private Investitionen des Telekommunikationsunternehmens Telecom Italia und des Energiekonzerns Enel in Höhe von 6 Mrd. Euro.

Neue Kompetenzzentren entstehen
Was das Thema Bildung und Industrie 4.0 betrifft, stehen die technischen Universitäten im Mittelpunkt. Hier sollen an den Universitäten von Mailand, Turin, Bari und Pisa erste Kompetenzzentren für bis zu 200.000 Studenten entstehen. Hinzu kommen mehr als 1.000 neue Promotionsstellen für die Industrie 4.0. Insgesamt werden 340 Mio. Euro für Universitäten und Berufsschulen bereitgestellt. Weitere 355 Mio. Euro sind für die Digitalisierung der Schulen sowie die Vernetzung der Schulen mit Unternehmen vorgesehen.

Sensibilisierungsbedarf hoch
Während das Thema Industrie 4.0 in Deutschland bereits seit einigen Jahren virulent ist, ist das 4.0-Bewusstsein in Italien - vor allem bei vielen Kleinunternehmen - noch kaum ausgeprägt. Vor diesem Hintergrund plant das italienische Wirtschaftsministerium Informationsveranstaltungen im ganzen Land. Der Industrieverband Confindustria wird „Digital Innovation Hubs“ einrichten, um Unternehmen für das Thema zu sensibilisieren.

Vereinigtes Königreich rüstet sich für die digitale Zukunft

Briten wollen fünfte Mobilfunkgeneration entwickeln | Beim Netzausbau gibt es Nachholbedarf

Text: Annika Pattberg, Germany Trade & Invest, London

Bei der Anwendung internetbasierter Alltagslösungen gelten die Briten bereits als Trendsetter. Nun will sich das Vereinigte Königreich fit machen für die nächste Digitalisierungsrunde. Bei der Entwicklung und Einführung der fünften Mobilfunkgeneration (5G) strebt die britische Regierung die Weltmarktführung an.

Digitalisierungsprojekte sollen britische Produktivität steigern

In seinem ersten großen Statement zum Staatshaushalt (Autumn Statement) machte der neue britische Finanzminister Philip Hammond die geringe Produktivität seines Landes zum Kernthema. Da zudem sämtliche Wirtschaftsinstitute aufgrund des geplanten EU-Austritts für die nächsten Jahre

Digitalisierungsprojekte der britischen Regierung *)

Projekt	Investitionswert in Mio. GBP (£)	Bemerkung
Digitale Kommunikation: ultraschnelle Breitband-verbindungen und Versuchsprogramme für die 5. Mobilfunkgeneration (5G)	1.000	Teilfinanzierung über den „National Productivity Investment Fund“; Zeitraum: 2017/18 bis 2020/21
Digitale Signaltechnologie für Züge	450	
CAV-Testinfrastruktur	100	Testinfrastruktur für verbundene und autonome Fahrzeuge (CAV)
Smart ticketing	80	Intelligente, elektronische Fahrkarten für Pendler

**) 1 GBP (£) = 1,1757 Euro (Bank of England-Tageskurs vom 22.12.16)*
Quelle: Autumn Statement 2016

ein schwächeres Wirtschaftswachstum prognostizieren, will der Finanzminister die Wirtschaft unter anderem mit Digitalisierungs-, Transport- und Infrastrukturinvestitionen unterstützen.

Regierung will 2017 eine 5G-Strategie veröffentlichen
Investitionen in Höhe von 1 Mrd. GBP beziehungsweise umgerechnet rund 1,1757 Mrd. Euro sieht Hammond allein für den Ausbau ultraschneller Breitband-Verbindungen und Versuchsprogrammen für die nächste 5G-Mobilfunktechnologie vor. Auf Details zur geplanten Entwicklung der fünften Mobilfunkgeneration will die Regierung in ihrer 5G-Strategie eingehen, die im Frühjahr 2017 veröffentlicht werden soll.

Autonome Fahrzeuge werden profitieren
Klar ist schon jetzt, dass die noch nicht existierende 5G-Telekommunikationstechnologie nicht nur den ultra-schnellen Austausch gigantischer Datenmengen zwischen individuellen Nutzern ermöglichen soll, sondern auch zwischen Objekten. Ein Anwendungsbereich für 5G sind zum Beispiel internetgesteuerte, autonome Fahrzeuge. Hammond sieht in seinem Budgetplan 100 Mio. GBP (rund 117,57 Mio. Euro) für Testvorhaben für verbundene und autonome Fahrzeuge (connected and autonomous vehicles, CAV) vor. Bereits in den vergangenen Jahren fanden auf der britischen Insel Tests und Testfahrten für führerlose Fahrzeuge statt. Das erste im Vereinigten Königreich entwickelte fahrerlose Auto wurde der Öffentlichkeit im Februar 2015 in Greenwich präsentiert.

Auch der Schienenverkehr soll fit für die digitale Zukunft werden. In seinem Budgetplan sieht Hammond 450 Mio. GPB (rund 529 Mio. Euro) für neue Signal-Technologien vor. Weitere Investitionen plant Hammond für intelligente Fahrkartensysteme (smart ticketing). Wer den öffentlichen Personennahverkehr in London kennt, weiß, dass die eigentlich uralte U-Bahn mit einem hochmodernen Ticket-System ausgerüstet ist, welches für die Passagiere “mitdenkt” und automatisch den richtigen Betrag von der elektronischen Fahrkarte abbucht. Hammond will smarte Ticketsysteme in anderen großen Städten nun mit 80 Mio. GBP (rund 94 Mio. Euro) fördern.

Google, Apple, Facebook und IBM investieren
Dass die Regierung die Digitalisierung fördert, dürfte ganz besonders Technologie-Firmen wie Google, Apple, Facebook und IBM freuen. Alle vier Konzerne hatten vor dem EU-Referendum am 23.6.16 Investitionen auf der britischen Insel geplant und wollen weiterhin an ihren Vorhaben festhalten. IBM plant vier neue Daten-Zentren auf der Insel. Apple will seine Zentrale in ein ehemaliges, jetzt denkmalgeschütztes Kohlekraftwerk in London-Battersea verlegen, welches derzeit für 8 Mrd. GBP (rund 9,4 Mrd. Euro) restauriert und umgebaut wird.

Dass die Regierung die Digitalisierung fördert, dürfte ganz besonders Technologie-Firmen wie Google, Apple, Facebook und IBM freuen.

Das Bestreben der Regierung, 5G-Weltmarktführer zu werden, ist nicht völlig neu. Bereits im März 2016, also mehrere Monate vor dem EU-Referendum, hatte der damalige Finanzminister George Osborne die National Infrastructure Commission (Nationale Infrastruktur-Kommission) beauftragt, zu prüfen, was notwendig sei, damit das Vereinig-

te Königreich Weltmarktführer bei der Entwicklung der fünften Mobilfunkgeneration wird. Die Kommission kam in ihrem im Dezember 2016 veröffentlichten Abschlussbericht unter anderem zu dem Ergebnis, dass die Regierung unbedingt jetzt handeln müsse, um die digitale Zukunft des Landes sicherzustellen.

Weiterhin großer Nachholbedarf bei 4G-Verbreitung

Aus dem Bericht der Nationalen Infrastruktur-Kommission wird aber auch der noch bestehende enorme Nachholbedarf beim Ausbau des 4G-Netzes deutlich, beispielsweise in Zügen und auf Autobahnen. Einerseits sind die Briten zwar durchaus führend im Bereich Internet der Dinge (Internet of things). Doch wer schon mal in ländlichen Regionen wie beispielsweise an der Küste von Cornwall unterwegs war, weiß, dass es in einigen Orten nicht einmal möglich ist, eine Textnachricht (SMS) zu verschicken. In dem jüngsten internationalen Ranking zur weltweiten 4G-Verbreitung der Research-Firma OpenSignal von November 2016 liegen die Briten auf Platz 54, weit hinter Peru und Georgien (Deutschland: Platz 58).

Interesse an Industrie 4.0 ist vor allem im Automobilsektor sehr groß

Eine immer noch vergleichsweise geringe Rolle spielen im Land der ersten industriellen Revolution Industrie 4.0-Lösungen für den Produktionssektor. Unter anderem beim Industrieverband EEF und ganz besonders beim Automobilverband SMMT hat das Interesse am Thema Industrie 4.0 in den vergangenen zwei Jahren aber deutlich zugenommen.

AHK organisierte Industrie 4.0-Reise nach Deutschland

Die AHK Vereinigtes Königreich organisierte im Herbst 2016 eine Industrie 4.0-Unternehmerreise für britische Firmen nach Deutschland. „Die britischen Unternehmen waren stark von den Entwicklungen im Bereich Industrie 4.0 in Deutschland beeindruckt. Einige denken bereits über weitere Besuche bei deutschen Firmen und über Kooperationsmöglichkeiten nach“, berichtete die Projektleiterin der Unternehmerreise, Jana Toon.

Internetadressen

Überblick Digitalisierung Vereinigtes Königreich
www.gtai.de/GTAI/Navigation/DE/Trade/Maerkte/Dossiers/Trends/Digitalisierung/Land-UK/trend-land-uk.html

Industrie 4.0 im Vereinigten Königreich
www.gtai.de/vk-industrie4.0

Digitalisierung im britischen Automobilsektor
www.smmt.co.uk/industry-topics/digital-manufacturing

AHK Vereinigtes Königreich
http://grossbritannien.ahk.de/

Manufacturing Technology Centre (MTC)
www.the-mtc.org

Industrieverband EEF
www.eef.org.uk

OpenSignal-Studie zur weltweiten 4G-Verbreitung
https://opensignal.com/reports/2016/11/state-of-lte

© rob-bye

Nokia Headquarter © pikkuanna

Finnlands Digitalszene bewegt sich

Unternehmen sind hochspezialisiert | Unkomplizierte Partnersuche in Netzwerken

Text: Marc Lehnfeld, Germany Trade & Invest, Helsinki

Voraussichtlich im Mai 2017 wird in Finnland die neue Regierungsstrategie zur Digitalisierung der Wirtschaft veröffentlicht. Die Regierung setzt dabei verstärkt auf die Internationalisierung seiner Internet of Things-Unternehmen (IoT). Damit öffnet sich auch ein Fenster für deutsche Unternehmen, die von der IKT-Stärke der finnischen Firmen profitieren möchten. Die Deutsch-Finnische Handelskammer bietet mit einer Digitalisierungspartnerschaft Anknüpfungspunkte.

Für deutsche Unternehmen lohnt sich der Blick in den digitalisierten Norden, denn während in Deutschland die „Industrie 4.0" vor allem vor dem Hintergrund der Digitalisierung von Produktionsprozessen betrachtet wird, entwickeln finnische Unternehmen Produkte und Dienstleistungen mit dem breiteren Verständnis eines industriellen Internets. Der Großteil der finnischen Firmen im industriellen Internet entwickelt vor allem Kommunikationstechnologie sowie IT-Hard- und Softwarelösungen.

Die Spezialisierung der Unternehmen ist hoch und reicht zum Beispiel von IoT-Software (Iwa Labs, CyberLightning, Process Genius) oder der Datensicherheit (F-Secure, Bittium) über Cloud-Lösungen (Tieto, Elisa), Big Data-Analysen (ionSign,

Analytics Cloud, Avarea, Bigdatapump) und Predictive Maintenance (Distence, CollectiveCrunch) hin zur Netzwerktechnik (Nokia, Tosibox). Außerdem existieren einige Hersteller von Automatisierungstechnik wie Etteplan, Fastems oder die Niederlassung der deutschen Firma Beckoff Automation. Auch IoT-Anwender beteiligen sich an Projekten, wie zum Beispiel der Hebezeughersteller Konecranes und das Energieunternehmen Fortum.

> „Finnische Unternehmen stehen Digitalisierungslösungen durch das industrielle Internet sehr offen gegenüber."

Digitalisierungspartnerschaft der Deutsch-Finnischen Handelskammer

Kooperationsinteressierte Unternehmen können sich unter anderem an die im bilateralen Handel etablierte Deutsch-Finnische Auslandshandelskammer (DFHK) wenden. Zusammen mit dem Deutschen Industrie- und Handelskammertag (DIHK) und der finnischen Zentralhandelskammer (Keskuskauppakamari) schloss die DFHK bereits 2016 eine Digitalisierungspartnerschaft, um deutsche und finnische Unternehmen in der Industrie 4.0 und der Automatisierung, aber auch zu den Themen Cleantech und e-Health zusammenzubringen. Gelegenheit zur Vernetzung mit finnischen Anbietern und Entwicklern von Industrie 4.0-Lösungen bietet der Deutsch-Finnische Digitalisierungssummit, der am 5.10.17 in Dortmund stattfindet.

Finnische Unternehmen offen für Digitalisierung

Ein Beispiel für die deutsch-finnischen Aktivitäten im industriellen Internet ist das 2016 gegründete Unternehmen CollectiveCrunch. In dem Start-up entwickeln die Gründer Rolf Schmitz und Jarkko Lipponen intelligente Wartungsprognosemodelle, die Wetterdaten mit Sensordaten kombinieren und unter anderem in der Forstindustrie oder im Bergbau eingesetzt werden. CollectiveCrunch profitiert mit seinen Büros in Deutschland und Finnland von den Standortvorteilen in beiden Ländern. Laut Schmitz sprechen für Finnland die einfache Firmengründung, der unkomplizierte Zugang zu Fördermitteln und ein Personalkostenvorteil bei Softwareentwicklern.

„Aus deutscher Sicht beeindruckt mich das technische Verständnis und die Innovationsbereitschaft der Entschei-

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dungsträger in finnischen Unternehmen“, erklärt Schmitz. In Espoo liegt das Büro des deutsch-finnischen Start-ups sowohl in unmittelbarer Nähe zum Campus der technischen Aalto-Universität als auch zu den Einrichtungen des staatlichen Forschungsinstituts VTT. Beide sind wichtige Akteure bei der Entwicklung von Industrie 4.0-Lösungen. VTT ist nahezu in allen Netzwerken und Forschungsprogrammen zum industriellen Internet aktiv. Das Institut ist damit eine zentrale Anlaufstelle, um Forschungskonsortien in der Industrie 4.0 zu bilden. An den Konsortien sind oft auch die Forscher der Aalto-Universität beteiligt, die einen Industrial Internet Campus eingerichtet haben und dort mit Großunternehmen wie Nokia, Konecranes und Elisa zusammenarbeiten.

Treffpunkt Finnish Industrial Internet Forum

Die zentrale Netzwerkorganisation zum industriellen Internet ist das Finnish Industrial Internet Forum (FIIF, www.fiif.fi) mit rund 260 Mitgliedsfirmen und -organisationen. Die drei bis viermal im Jahr stattfindenden Jam Sessions bieten auch ausländischen Unternehmen eine Plattform. Grundsätzlich sind finnische IoT-Unternehmen ausgesprochen offen und am Austausch interessiert.

Ein weiterer Ansprechpartner für die Partnersuche ist die finnische Exportförderagentur Finpro. Mit dem Programm „Capitalize your knowledge“ unterstützt die staatliche Initiative rund 40 finnische IoT-Unternehmen bei der Suche nach Geschäftspartnern in Deutschland. Finpro kann auch interessierte deutsche Firmen mit finnischen Partnern verbinden. Gleiches gilt für den Finnland-Pavillon auf der Hannover Messe.

Kurze Entwicklungszyklen bei IoT- Projekten

Ein großer Akteur in Finnlands industrieller Internet-Szene ist der im Land marktführende Telekommunikationsanbieter Elisa Oyj. Das Unternehmen bietet digitale Industrielösungen wie Remote Monitoring, virtuelle Fabriksteuerung, Predictive Maintenance und Tracking Solutions an. Nach eigenen Angaben erwirtschaftet das Unternehmen damit aber noch keinen wesentlichen Anteil am Konzernumsatz, der 2016 insgesamt rund 1,6 Mrd. Euro ausmachte. Allerdings steigt die Nachfrage nach Dienstleistungen zum industriellen Internet.

Elisa entwickelt nicht alle Produkte und Anwendungen selbst, sondern greift auch auf ein Cluster von Unternehmen und Forschungseinrichtungen zurück. „Wir sind dadurch in der Lage, dem Industriekunden bereits innerhalb von Wochen maßgeschneiderte IoT-Lösungen zu liefern“, erklärt Markku Hollström, Vice President Elisa Industrial IoT. „Allerdings setzt die schnelle Entwicklungszeit voraus, dass das Unternehmen schon über einen automatisierten Prozess verfügt, in dem auch Sensoren verbaut sind.“
Elisa zeigt anhand von Referenzprojekten, dass IoT-Lösungen kommerzialisierbar sind: So verfügt das Energieunternehmen Fortum über eine von Elisa und Process Genius entwickelte digitale 3D-Echtzeit-Abbildung verschiedener Kraftwerke, die zum Beispiel den Wartungsbedarf von Anlagenteilen überwacht. Für den Schiffsmotorenhersteller Wärtsilä kombinierte Elisa Echtzeit-Positionsdaten von Schiffen mit den CRM-Daten des Herstellers, um den Wartungsservice zu verbessern. Mit dem Start-up Emergence wurden in einem Pilotprojekt schwimmende Seezeichen mit solarbetriebenen Ortungsgeräten ausgerüstet.

Internetadressen

Deutsch-Finnische Handelskammer
www.dfhk.fi

Finnish Industrial Internet Forum (FIIF)
www.fiif.fi

Aalto Industrial Internet Campus
http://aiic.aalto.fi/en/

Finpro “Capitalize Your Knowledge”
www.exportfinland.fi/web/eng/industrial-internet

Messen und Konferenzen

Finnland-Pavillon auf der Hannover Messe, Halle 16, Stand D 10, 24.-28.04.17 in Hannover
www.hannovermesse.de

Konferenz “Manufacturing Performance Days 2017”, 29.-31.05.17 in Tampere
www.mpdays.com

Deutsch-Finnisches Business Forum ”Industrie 4.0”, 5.10.17 in Dortmund
www.dfhk.fi

Zulieferer-Messe “Alihankinta 2017”, 26.-28.11.17 in Tampere
www.subcontractingtradefair.com

Arild, New HQ in Kista, Stockholm

Schweden will sich als Testfeld für Industrie 4.0 positionieren

Gute wirtschaftliche Voraussetzungen | Vernetzte Industrie wird vorangetrieben

Text: Heiko Steinacher & Romy Helm, Germany Trade & Invest, Stockholm

Die vierte industrielle Revolution birgt für Schweden großes Potenzial. Dank der vielen hier ansässigen Softwarefirmen könnte sich das Land schon bald als Testmarkt für Innovationen der Industrie 4.0 präsentieren. Im Januar 2016 hat die Regierung in Stockholm einen Handlungsplan mit 45 Maßnahmen beschlossen, die zu einer smarten, digitalisierten Industrie beitragen sollen.

Schweden bietet gute Voraussetzungen, traditionelle Branchen des verarbeitenden Gewerbes zu digitalisieren und zu vernetzen,und das nicht nur aufgrund seiner Industriestruktur. Auch weiche Faktoren begünstigen in dieser Beziehung das nordische Land. Ein internationaler Benchmark des Fraunhofer-Instituts für Produktionstechnologie zur Digitalisierung der Industrie hebt in dem Zusammenhang die in Schweden weit verbreiteten flachen Unternehmenshierarchien, die flexible Arbeitskultur und die technikaffine Bevölkerung hervor. Der Arbeitgeberverband für Unternehmen in der technischen Industrie (Teknikföretagen) hat gemeinsam mit mehreren Hochschulen eine Vision für die Produktion in Schweden im Jahr 2030 entwickelt. Die strategische Innovationsagenda zielt auf eine verstärkte Nutzung digitaler Technologien in der schwedischen Verarbeitungsindustrie durch kooperative Forschungsförderung.

Schwedens Warenexport stammt zur Hälfte aus der Produktion der rund 3.800 Mitgliedsunternehmen des Verbandes. „Wir haben daher ein großes Potenzial, Verbesserungsmöglichkeiten im Fertigungsprozess zu identifizieren und dafür neue Lösungen zu entwickeln“, sagt Cecilia Warrol, die Direktorin des von Teknikföretagen koordinierten, strategischen Innovationsprogramms Produktion2030. Volvo Cars zum Beispiel will die Zeit vom Entwurf bis zur Serienreife eines Modells bis 2020 auf 20 Monate verkürzen.

„Schwedische Industrieunternehmen sind darauf fokussiert, sich im Rahmen der Digitalisierung entsprechend zu optimieren und neue Technologien und Prozesse einzuführen. Auch wissen wir aus Kundengesprächen, dass innovative schwedische Softwarefirmen gern stärker mit deutschen Technologieanbietern und Industrieunternehmen zusammenarbeiten würden“, ergänzt Ninni Löwgren Tischer, Abteilungsleiterin bei der Deutsch-Schwedischen Handelskammer in Stockholm.

Innovationsprogramme weisen die Richtung

Mit Produktion2030 werden verschiedene Forschungs- und Innovationsprojekte gefördert, zum Beispiel mit Fokus auf Automatisierung in der Qualitätskontrolle und cloudbasierte Servicelösungen für eine vorausschauende Wartung vernetzter Produktionssysteme. Jedes Projekt im Rahmen des von der staatlichen Forschungsbehörde Vinnova unterstützten Programms wird mit 500.000 Schwedischen Kronen (skr; knapp 53.460 Euro, 1 Euro = 9,3535 skr im Jahresdurchschnitt 2015) kofinanziert. Mindestens ein industrieller Partner muss sich ebenfalls an der Finanzierung beteiligen. Interessenten können sich zwei Mal pro Jahr für Fördermittel bewerben. Über das Programm wurde auch eine nationale Forscherakademie für Produktion eingerichtet. Weitere Aktivitäten sind geplant, um kleine und mittelgroße Unternehmen ebenfalls in die Projekte einzubinden.

In einem weiteren Forschungsprojekt, XPRES (Excellence in Production Research; Gemeinschaftsinitiative der Königlich-Technischen Hochschule Stockholm (KTH), der Hochschule Mälardalen MDH und der Forschungsgruppe für industrielle Erneuerung und nachhaltige Entwicklung Swerea), kooperieren Wissenschaftler eng mit Unternehmen wie Scania, Volvo CE, Sandvik, ABB und dem Rüstungskonzern Saab. Gemeinsam wollen die Partner eine Plattform für Produktionsforschung entwickeln und neue intelligente Produktionsmethoden finden.

Im Bildungsbereich sind deutsche Partner bereits auf dem schwedischen Markt aktiv. So führt das Innovationszentrum für Industrie 4.0, ein deutsches Start-up aus Diplom-Ingenieuren mit langjähriger Industrieerfahrung sowie ambitionierten Jungunternehmern, mit dem schwedischen Forschungsinstitut SP bereits verschiedene Aktivitäten im Schulungs- und Softwarebereich durch. Geplant ist unter anderem, gemeinsam ein systematisches Schulungsprogramm zu Industrie 4.0 in Schweden zu etablieren. Auch mit der Universität Jönköping will das Start-up künftig kooperieren.

Politik reagiert mit Verzögerung

Beobachter kritisieren, dass es in Schweden noch zu wenig politisches Engagement für eine Neuorientierung auf die Industrie 4.0 gebe. Dabei könnte Schweden laut einem Bericht der Boston Consulting Group mit der richtigen Digitalisierungsstrategie bis zu 250.000 neue Jobs schaffen.

Ende Januar 2016 hat die Regierung in Stockholm einen Handlungsplan mit 45 Maßnahmen beschlossen, die zu einer smarten, digitalisierten und automatisierten Industrie beitragen sollen. „Wir wollen mehr Testbeds in Schweden sehen – unabhängig davon, ob es um die Kfz-Industrie geht, die vernetzte Fahrzeuge testet, oder um 5G-Tests im Bergbau“, sagte Schwedens Wirtschaftsminister Mikael Damberg gegenüber der Tageszeitung Svenska Dagbladet. Damberg zufolge sollen 250 Mio. skr investiert werden, um gemeinsam mit der schwedischen Industrie die vernetzte Produktion voran zu treiben. Weitere 250 Mio. skr sind für ein Umwelt- und Technikpaket vorgesehen, um nachhaltige Produktionsweisen zu fördern.

Schwedische Industrieunternehmen sind darauf fokussiert, sich im Rahmen der Digitalisierung entsprechend zu optimieren und neue Technologien und Prozesse einzuführen

Der hohe Stellenwert, den die Zukunftsstrategie Industrie 4.0 in Schweden genießt, lässt sich auch daran erkennen, dass sich während der Almedalsvecka 2016 (Almedalen-Woche), Schwedens größtem Polit-Ereignis Anfang Juli in Visby auf Gotland, rund 300 Seminare, Podiumsdiskussionen und Debatten dem Thema Digitalisierung widmeten. Wie bereits im Vorjahr, als das Thema Digitalisierung dort noch gar nicht auf der Agenda stand, kamen 2016 nach ersten Schätzungen erneut rund 35.000 Besucher. Mit über 3.800 war die Anzahl der Veranstaltungen noch höher als im Jahr 2015.

Slowakei setzt auf intelligente Produktionsbasis

Konzept für Digitalisierung der Industrie | Im regionalen Vergleich viel Nachholbedarf

Text: Gerit Schulze, Germany Trade & Invest, Bratislava

Die Slowakei hat ein Konzept zum Aufbau einer intelligenten Produktion verabschiedet. Damit reagiert die Regierung auf die Herausforderungen von Industrie 4.0. Geplant ist, die starke Industriebasis im Land zu halten und durch den Einsatz digitaler Technologien zukunftsfähig zu machen. Die Startbedingungen sind allerdings nicht besonders rosig. Im Vergleich zu anderen Volkswirtschaften der Region hinkt die Slowakei bei der Entwicklung hinterher.

Die Slowakei hat einen der höchsten Industrieanteile an der Wirtschaftsleistung in Europa. Rund ein Viertel der Bruttowertschöpfung entfällt auf das verarbeitende Gewerbe, wo vor allem der wachstumsstarke Fahrzeugbau dominiert. Umso wichtiger ist es für das Land, sich dem globalen Trend zur Digitalisierung, Vernetzung und Automatisierung der Produktionsprozesse (Industrie 4.0) anzupassen.

Doch erst relativ spät verabschiedete die Regierung Ende Oktober 2016 das „Konzept einer intelligenten Industrie für die Slowakei“. Laut dem Dokument will Bratislava die Industrie „mit Hilfe neuester technologischer Entwicklungen“ umformen und zukunftsfest machen. Das

Konzept enthält allerdings kaum konkrete Maßnahmen und Meilensteine.

Einige Vorhaben wie die Erhöhung der Forschungsausgaben und die Verbesserung des Ausbildungssystems sind auch ohne die fortschreitende Digitalisierung der Produktion dringend nötig, um international wettbewerbsfähig zu bleiben. Denn innerhalb der EU gilt die Slowakei lediglich als „moderater Innovator". Bei Patentanmeldungen, Ausgaben für Forschung und Entwicklung (FuE) oder bei der Anzahl der Promovierenden aus Nicht-EU-Ländern befindet sich das Land unter dem europäischen Durchschnitt. Laut Eurostat gab die Slowakei 2015 rund 1,2% ihres Bruttoinlandsproduktes für FuE aus. Das war zwar ein neuer Rekord, doch der Mittelwert in der EU liegt bei über 2%.

Laut dem Konzept für eine intelligente Industrie will der Staat Unternehmen besonders bei der Entwicklung neuer Technologien und energieeffizienter Materialien finanziell unterstützen. Dabei sollen EU-Mittel aus den Strukturfonds und dem Programm Horizont 2020 (Förderung von Forschung und Innovationen) helfen. Schlüsseltechnologien wie der Aufbau des 5G-Mobilfunknetzes (Datenraten von bis zu 10 Gigabit pro Sekunde), Cloud-Lösungen, additive Fertigung (3D-Druck), Robotik und Sensorik, Nanotechnologie sowie künstliche Intelligenz können mit staatlicher Kofinanzierung rechnen. Produktionsbetriebe und ihre Zulieferer sollen enger kooperieren und über leistungsstarke Netzwerke verbunden werden.

Als eine Pionierbranche sieht die Regierung den Logistiksektor an, wo schon jetzt Lösungen für Industrie 4.0 realisiert werden.

Logistiksektor spielt eine Schlüsselrolle

Als eine Pionierbranche sieht die Regierung den Logistiksektor an, wo schon jetzt Lösungen für Industrie 4.0 realisiert werden. Besonders die Autoindustrie und der schnell wachsende Onlinehandel sorgen für Innovationssprünge in der Beschaffungslogistik (unter anderem Just-in-sequence-Verfahren, also die pünktliche Anlieferung von Bauteilen in einer bestimmten Reihenfolge).

Weitere Anwendungsfelder für digitale Technologien sieht das federführende Wirtschaftsministerium in den Städten (smart cities), bei der intelligenten Verkehrssteuerung und im Energiesektor (smart grids, smart buildings). Als erste Schritte will die Regierung eine Plattform für intelligente Industrie schaffen, den Ist-Zustand in den wichtigen Branchen analysieren und Aktionspläne erstellen.

Der Fortschrittsbericht der EU zur Digitalisierung von Wirtschaft und Gesellschaft (sogenannter DESI-Index) zeichnet für die Slowakei ein recht negatives Bild. Das Land belegte 2016 beim Ranking der 28 Mitgliedsstaaten Platz 21. Das war sogar ein Platz schlechter als im Jahr zuvor, der Abstand zum EU-Durchschnitt hat sich vergrößert.

Die slowakischen Unternehmen werden in dem Bericht ermuntert, die Möglichkeiten digitaler Technologien besser zu nutzen. Damit könnten sie Effizienz und Produktivität steigern und zugleich neue Kundenkreise erschließen. Besonders beim elektronischen Informationsaustausch, bei der RFID-Nutzung (kontaktloses Identifizieren und Lokalisieren von Objekten) oder von sozialen Netzwerken seien die Firmen noch zu wenig engagiert.

Negativ bewerteten die Autoren der Digitalisierungsstudie auch, dass 14% der Haushalte keinen Zugang zum Festnetz-Breitband haben, das Zugriffsraten von mindestens 30 Mbit/s ermöglicht. Europaweit sind nur 3% der Haushalte davon ausgeschlossen. Bratislava müsse die vorhandenen EU-Fonds besser nutzen, um die Versorgung im ländlichen Raum zu verbessern, heißt es in dem Bericht. Die Regierung muss nach EU-Vorgabe spätestens 2020 flächendeckend Internetverbindungen von mindestens 30 Mbit/s gewährleisten.

Weltwirtschaftsforum kritisiert Gesetzgebung zu Netzthemen

Im Networked Readiness Index des Weltwirtschaftsforums (WEF) lag die Slowakei 2016 auf Rang 47 von 139 untersuchten Volkswirtschaften. Im regionalen Vergleich schneidet die Tatra-Republik ebenfalls schlecht ab: Deutschland: Platz 15, Tschechien: 26, Polen: 42, Ungarn: 50. Der Bericht untersucht die Innovationssprünge auf dem Weg in eine digitale Wirtschaft.

Das WEF kritisiert vor allem die ineffiziente Rechtsprechung und Gesetzgebung zu Netzthemen. Auch die Ausbildung von IT-Spezialisten wird negativ eingeschätzt. Allerdings gehörte die Slowakei 2016 laut WEF zu den beiden Ländern, die den größten Sprung nach vorn gemacht hatten. Gelobt wurden die Anstrengungen, digitale Technologien für eine effizientere Verwaltung einzusetzen. Pluspunkte gab es außerdem für sinkende Nutzergebühren für Breitband-Internet und für besseren Zugang zu Onlinediensten.

IKT-Sektor in Zahlen

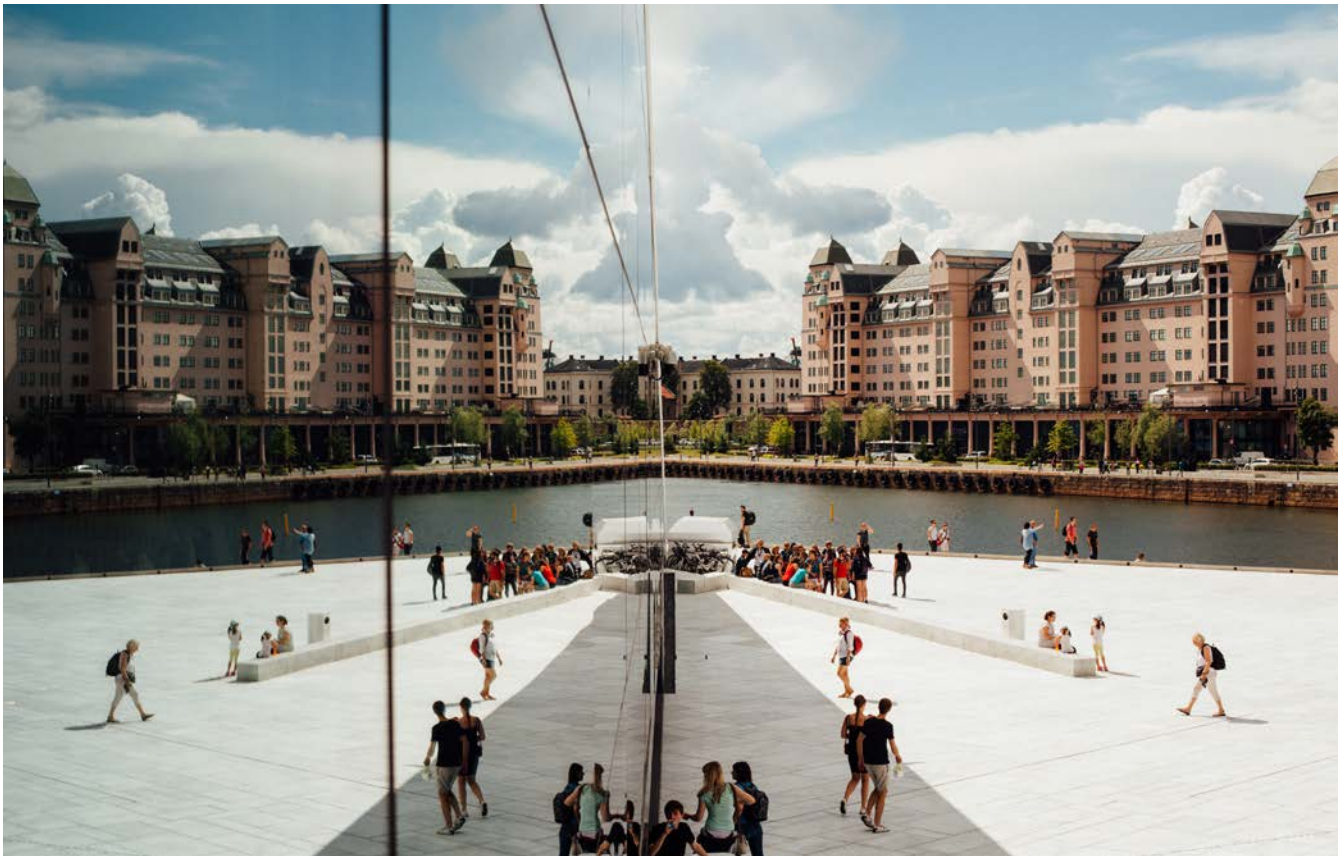
Indikator	Slowakei	Tschechische Republik	Deutsch-land	EU-28
Bruttowertschöpfung (2015 in Mrd. Euro)	2,8	7,6	131,6	428,1
Bruttowertschöpfung (Veränderung gegenüber 2014 in %)	2,7	7,3	4,9	3,3
Anteil an landesweiter Bruttowertschöpfung (2015 in %)	4,0	5,1	4,8	4,6
IKT-Spezialisten (in 1.000, 2015)	68,1	184,6	1.465,6	7.727,0
IKT-Spezialisten (Veränderung gegenüber 2014 in %)	4,3	9,8	3,4	3,4
Anteil der IKT-Spezialisten an landesweiter Beschäftigung (2015 in %)	2,8	3,7	3,7	3,5

Quellen: Eurostat, Slowakisches Statistikamt

Norwegen sieht Industrie 4.0 als große Chance

Roboterdichte gering | Unternehmen holen ausgelagerte Produktion zurück

Text: Heiko Steinacher, Germany Trade & Invest, Oslo



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Das Interesse an der Zukunftsstrategie Industrie 4.0 ist in Norwegen groß. Zwar ist der Anteil des Verarbeitungsgewerbes an der Bruttowertschöpfung mit gut 8% relativ gering, doch besteht sowohl in der Politik als auch in der Wirtschaft eine hohe Bereitschaft dazu, Industrie-4.0-Lösungen voranzubringen. Einsatzmöglichkeiten für digitale Zukunftstechnologien bietet auch der in Norwegen dominierende Offshore-Öl- und Gassektor. Es gibt bereits zahlreiche Kooperations- und Forschungsprojekte.

Norwegen sieht in dem Konzept Industrie 4.0 große Chancen, sich komparative Wettbewerbsvorteile zu verschaffen beziehungsweise solche auszubauen. Das Forschungsinstitut SINTEF hat vor einigen Monaten die Auswirkungen des technologischen Wandels auf die norwegische Wirtschaft untersucht und dabei sieben Schlüsseltechnologiebereiche identifiziert, die den Weg in Richtung vierte industrielle Revolution ebnen sollen: neue Werkstoffe, Mikro-, Nanoelektronik, Photonik, industrielle Biotechnologie, Software und fortgeschrittene Herstellungsverfahren.

Norwegens Roboterdichte lag im Jahr 2013 (aktuellere Angaben zu Redaktionsschluss nicht verfügbar) laut der International Federation of Robotics (IFR) erst bei 40 pro

10.000 Industriebeschäftigten. Dänemark und Schweden kamen auf 150. Während sich die Neuverkäufe pro Jahr in Schweden bei 900 bis 1.000 Stück bewegten, seien es in Norwegen nur 80 bis 120, verlautet es aus Branchenkreisen. Das sowie der starke Fokus auf der Öl-/Gas- und Schiffsindustrie eröffnen viel Potenzial für den Einsatz digitaler Technologien.
Doch gibt es für deren Einsatz in der norwegischen Industrie bereits jetzt eine Fülle von Beispielen. So hat der Hersteller von Flüssigerdgas-Zylindern Hexagon Ragasco seine Produktion mit Ausrüstungen von Siemens vollautomatisiert. Auch an den Hersteller von Leergutrücknahmeautomaten Tomra und den Produzenten von Isolationsmaterial aus Glaswolle Glava lieferten die Münchener Hochtechnologieausrüstungen.

Kongsberg Automotive hat die Produktions- und Montageprozesse in seinem Werk in Raufoss, in dem jährlich rund 70 Mio. Kupplungen hergestellt werden, stark automatisiert. Das Chemieunternehmen Borregaard hat ein Hightech-Betriebszentrum, von dem aus 15 Fabriken ganzheitlich gesteuert werden. Der Produzent von Aluminiumgussteilen Benteler Automotive Farsund nutzt 3D-Druckverfahren zur Herstellung von Sandkernen und Formwerkzeug.

Werft holt Produktion nach Norwegen zurück und automatisiert sie

Es gibt noch eine Reihe weiterer norwegischer Firmen, die ebenfalls 3D-Drucker einsetzen, darunter Möbelhersteller sowie Architekten- und Konstruktionsbüros, die ihre Kunden bei der Produktentwicklung und im Industriedesign unterstützen. Vor allem die Möbelindustrie setzt viele Roboter ein, aber auch Teilehersteller für die Kfz- und Luftfahrtindustrie, die Landwirtschaft sowie die Öl- und Gasindustrie. Das Schiffbauunternehmen Kleven Industrier hat die Rumpfproduktion wieder aus Polen zurückgeholt und fertigt diese nun in Modulbauweise an seinem Stammsitz in Ulsteinvik. Zur Automatisierung der Produktion dort hat das Unternehmen in den letzten Jahren hohe Summen in neue Roboterschweißanlagen investiert.

Angesichts des anhaltend niedrigen Ölpreises sehen Fachleute auch im Rahmen von Erschließungsmaßnahmen in der Offshore-Öl- und -Gaswirtschaft große Chancen durch weitere Digitalisierungsschritte. Effizienzverbesserungen und Kostensenkungen seien unter anderem in der Seismik beim Auffinden neuer Quellen (verbesserte Datenverarbeitungs- und Speicherkapazitäten), beim Monitoring von Bohrvorgängen (präzise Messwerte in Echtzeit durch verbesserte Sensortechnik) sowie zur Früherkennung wichtiger Instandhaltungsmaßnahmen und Vorhersage von Marktentwicklungen (Predictivity-Software) möglich.

Zahlreiche Forschungsprojekte werden dafür sorgen, dass sich die Einsatzmöglichkeiten von Industrie-4.0-Technologien in den nächsten Jahren erweitern. Im Rahmen des NAP-Projekts zum Beispiel wird an Lösungen für eine Null-Fehler-Fertigung in den Bereichen Automation und Autonomie gearbeitet. An dem über das Innovationsprogramm des norwegischen Forschungsrats (BIA) finanzierten Projekt nehmen fünf Partner teil: GKN Aerospace, Nammo Raufoss, Benteler Aluminium Systems, SINTEF Teknologi og Samfunn und SINTEF Raufoss Manufacturing.

Zahlreiche Forschungsprojekte werden dafür sorgen, dass sich die Einsatzmöglichkeiten von Industrie-4.0-Technologien in den nächsten Jahren erweitern.

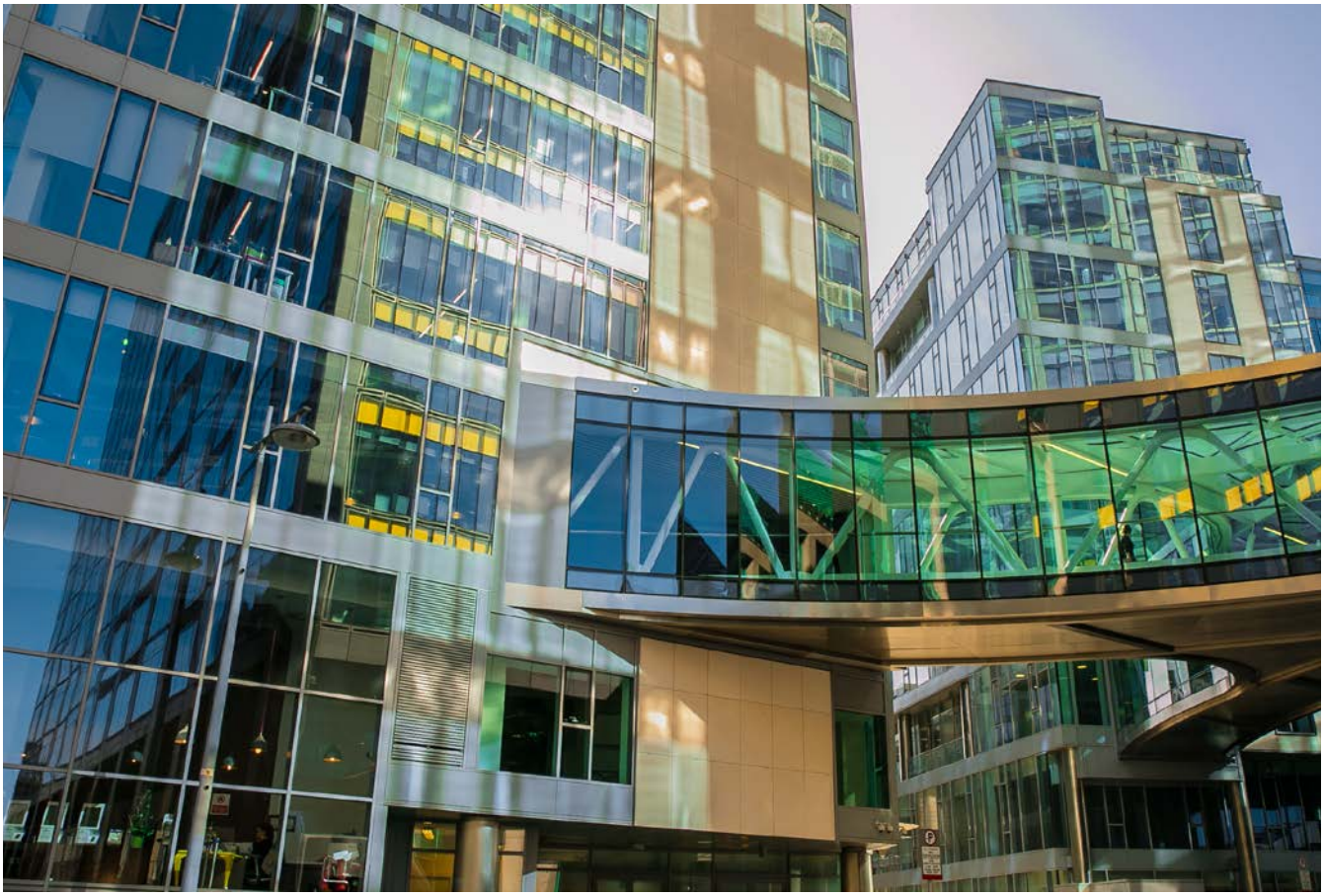
Am SFI Manufacturing, einem interdisziplinären Zentrum für forschungsbasierte Innovationszentren zur Fertigung hochwertiger Produkte, beteiligen sich 13 Partner aus der Industrie, darunter dieselben, die auch im NAP-Projekt engagiert sind, sowie mehrere Hochschulen und Forschungs- und Entwicklungs(FuE)-Institute, darunter die Technisch-Naturwissenschaftliche Universität NTNU in Trondheim und die Hochschule in Gjovik. NAP und SFI Manufacturing sind nur zwei von vielen FuE-Projekten mit Automatisierungsbezug.

Das von der Universität Agder geleitete Future-Robotics-Projekt dient vor allem dem Aufbau von Kompetenzen in den Bereichen Robotik und Automation. Dafür werden Cluster und Branchennetzwerke gebildet, die eng mit Forschungseinrichtungen zusammenarbeiten. „Wir werden uns mit nationalen und internationalen Stakeholdern vernetzen, vor allem im Rahmen der EU-Initiative PPP Robotics“, sagt Soren Kragholm, der Manager des Projekts. An der Initiative beteiligen sich alle sechs in der südnorwegischen Region bestehenden Industriecluster und Netzwerke, das sind GCE NODE (http://gcenode.no), Eyde (www.eydecluster.com), Arena Digin (http://digin.no), Sorlandsporten Teknologinettverk (www.sortek.no), SINPRO (www.sinpro.no) und Lister Alliance (http://listeralliance.no).

Irland investiert kräftig in Industrie 4.0

Öffentliche Hand unterstützt 48 Innovationszentren

Text: Torsten Pauly, Germany Trade & Invest, Dublin



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Bei der digitalen Vernetzung von Produktions- und Vertriebsprozessen hat Irland weiterhin großes Potenzial und hohen Bedarf. Bei der IKT-Infrastruktur und der Nutzung von Internet, Clouds und sozialen Netzwerken liegt Irland über dem EU-Durchschnitt. Zudem spielen Industrie und IKT-Sektor eine starke Rolle, meist dank internationaler Investoren. Forschungsschwerpunkte sind Medizintechnik, Datensicherheit, Energie, Materialforschung und digital verlinkte Agrarwirtschaft.

Irland hat sich beim Thema Digitalisierung/Industrie 4.0 in Europas Spitze etabliert. Viele namhafte Konzerne wie Intel, Dell, Infinite oder Vodafone entwickeln in Irland Lösungen zur Vernetzung von Waren und Dienstleistungen. Darüber hinaus sind die fünf weltweit führenden Cybersicherheitsanbieter dort tätig, so Irlands öffentliche Investitionsförderagentur IDA. Preisbereinigt ist der irische IKT-Sektor 2015 um 12,8% und im ersten Dreivierteljahr 2016 um 9,8% gewachsen, jeweils gegenüber derselben Vorjahresperiode. Zudem ist der Beitrag der IKT-Branche zur gesamten irischen Bruttowertschöpfung mit 8,1% (2015) im internatio-

nalen Vergleich sehr hoch. Auch die Bedeutung des verarbeitenden Gewerbes ist sehr hoch, wobei in der Industrie die Pharma-, Chemie-, Elektronik- und Medizintechnikproduzenten besonders wichtig sind.

Unternehmen und Universitäten kooperieren

Insbesondere in Dublin, aber auch in anderen irischen Zentren wie Cork, Limerick und Galway entwickeln sich zahlreiche Cluster mit vielen Start-up-Firmen. Diese befinden sich oft in direkter räumlicher Nähe zu den Universitäten und sonstigen öffentlichen Forschungseinrichtungen.
Allein 48 Innovationszentren hat etwa das irische Wirtschaftsministerium 2015 aufgelistet. Diese sind in sechs übergreifenden Themenschwerpunkten tätig: IKT, Gesundheit und Medizin, nachhaltige Ernährung, Energie, verarbeitendes Gewerbe beziehungsweise Materialforschung sowie wirtschaftliche Dienstleistungen. Darüber hinaus existieren private Initiativen wie das Guinness Enterprise Centre (www.gec.ie) in Dublin, wo mehr als 175 Start-up-Firmen in einem Gebäude neben der gleichnamigen Brauerei arbeiten.

Auch internationale Studien unterstreichen Irlands gute Position an der Schnittstelle von Industrie und IKT. So räumt ein EU-Vergleich von Roland Berger Irland die nach Deutschland, Belgien und den nordischen Staaten besten Voraussetzungen für Industrie-4.0-Entwicklungen ein. Das Davoser Weltwirtschaftsforum führt Irland in seinem weltweiten IT-Report 2016 unter 143 Ländern auf Rang 25 und bei der Qualifikation der Arbeitskräfte an neunter Stelle.

2,8 Mrd. Euro für den Ausbau des Breitbandnetzes

2016 hatten 98% aller irischen Unternehmen mit zehn oder mehr Mitarbeitern einen Breitbandanschluss. Diese Rate liegt über dem EU-Mittel (94%). Im selben Jahr hatten 86% aller Haushalte Breitbandzugang ins Internet (EU-Durchschnitt: 83%). Ende 2020 werden alle irischen Regionen vollständig an das Breitbandnetz angeschlossen sein. Von 2016 bis 2020 erhalten 757.000 postalische Adressen, 1,8 Mio. Einwohner, 80.300 Bauernhöfe und 63.400 sonstige Wirtschaftssubjekte einen Breitbandzugang. Die Mindestgeschwindigkeit soll dann 30 Megabyte pro Sekunde (Mbps) beim Herunter- und 6 Mbps beim Hochladen betragen. Um dieses Ziel zu erreichen stellt die Regierung in ihrer Broadband Intervention Strategy insgesamt 275 Mio. Euro bereit. Weitere 2,5 Mrd. Euro sollen kommerzielle Anbieter im selben Zeitraum investieren.

Der flächendeckende Ausbau der IKT-Infrastruktur ist wegen der teilweise geringen Bevölkerungsdichte besonders teuer. In der Republik Irland lebten 2014 im Schnitt 68 Menschen auf einem Quadratkilometer, was weniger war

Internetindikatoren in wichtigen irischen Wirtschaftszweigen (Anteile in %)

Sektor	Beitrag zu irischer Bruttowertschöpfung (2014)	Unternehmen mit Breitband (2016)	Unternehmen mit Breitband und CRM (2015) 1)	Unternehmen mit Breitband und ERP (2015) 2)
Verarbeitendes Gewerbe, darunter	21,1	97,0	28,0	38,0
Chemie, Pharmazie, Raffinerien, Gummi-, Kunststoffverarbeitung	9,7	96,0	35,0	63,0
Handel (inklusive Kfz)	10,7	99,0	37,0	31,0
Verkehr, Lagerei	3,5	97,0	18,0	15,0
IKT	10,5	99,0	66,0	47,0
Freiberufliche, wissenschaftliche und technische Dienstleistungen 3)	5,0	99,0	44,0	22,0
Sonstige wirtschaftliche Dienstleistungen	5,6	97,0	38,0	20,0

1) Customer Relationship Management; 2) Enterprise Ressource Planning; 3) Rechts-, Steuer-, Unternehmensberatung, Wirtschaftsprüfung, Architektur-, Ingenieurleistungen, Forschung und Entwicklung, Werbe- und Marktforschung, sonstige freiberufliche, wissenschaftliche und technische Dienstleistungen
Quelle: Irisches Statistikamt CSO

als im EU-Mittel (117 Menschen) oder in Deutschland (227 Personen). In Irlands Westen bewohnten 2014 sogar nur 32 Personen einen Quadratkilometer. Somit hat auch die Rate der Haushalte mit Internetzugang 2016 zwischen 82% im Grenzgebiet zu Nordirland und 91% im Raum Dublin geschwankt.

Unternehmen in Irland nutzen Clouds öfter als in anderen vielen EU-Ländern

In Irland herrscht eine hohe Aufgeschlossenheit gegenüber Internetchancen. Die Bedenken sind gering. Dies spiegelt sich in einer verbreiteten und rasch steigenden Nutzung wider. So haben 36% der irischen Unternehmen 2016 Cloud-Dienstleistungen erworben, während es EU-weit nur 21% waren. Zudem führten 2014 etwa 30%, und damit die meisten der irischen Unternehmen die keine Clouds nutzen, fehlendes Wissen als Grund hierfür an. Weitere 21% verwiesen auf die Kosten. Nur jeweils 16% nannten dagegen Sicherheitsbedenken beziehungsweise Unsicherheit bezüglich Speicherort der Daten als Ursache, und für 14% sind ungeklärte Rechtsfragen entscheidend. EU-weit haben 28% der Unternehmen Sicherheitsbedenken, 26% wegen des Speicherortes und 25% wegen der Rechtslage.

Internetnutzung in der irischen Wirtschaft (Anteil an allen Unternehmen 2016 in %)

Erwerb von Cloud-Dienstleistungen, darunter	36,0
.zum Speichern von Dateien	27,0
.zum E-Mail-Verkehr	26,0
.für die Office-Software	18,0
.als Unternehmensserver	17,0
.für Finanz- oder Buchhaltungsprogramme	13,0
.für CRM-Programme *)	11,0
Nutzung von sozialen Medien	67,0
Erstellung von Unternehmensblogs	33,0
Nutzung von Webseiten, die Multimediainhalte teilen	23,0
Nutzung von Wiki-basierten Wissensangeboten	8,0

**) Customer Relationship Management*
Quelle: Irisches Statistikamt CSO

Starkes Wirtschaftswachstum lässt Investitionen in die Höhe schnellen

Begünstigt wird die Entwicklung von Industrie 4.0-Investitionen und Innovationen auch durch die, trotz der Brexit-Unsicherheiten, weiterhin robuste irische Gesamtkonjunktur.

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Laut Prognose der EU-Kommission vom Februar 2017 soll die Wirtschaft im Gesamtjahr preisbereinigt um 3,4% und damit in der Eurozone nach Luxemburg und Malta am drittstärksten wachsen. Dabei sollen die irischen Ausrüstungsinvestitionen 2017 noch überdurchschnittlich um 6,0% zulegen.

Kontaktanschriften

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isa@ibec.ie | www.software.ie

Deutsch-Irische Industrie- und Handelskammer
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Industrieroboter finden in Russland wenige Abnehmer

Einsatz erfolgt vorrangig zum Präzisionsschweißen

Text: Ullrich Umann, Germany Trade & Invest, Moskau

Eine breitere Anwendung von Robotertechnik in der Industrie verhindern derzeit drei Faktoren: hohe Importkosten, teure Kredite und gesunkene relative Lohnkosten. Gerade der letztgenannte Sachverhalt macht die Ablösung von Arbeitskräften durch Roboter wenig attraktiv. Auf 10.000 Industriearbeiter kommen zwei Industrieroboter in Russland. Damit befindet sich das Land innerhalb der BRICS auf dem letzten Platz - zusammen mit Indien. In Brasilien sind es fünf Roboter und in der VR China sowie in Südafrika 24 Roboter.

Erklärt wird der geringe Grad des Robotereinsatzes unter anderem damit, dass sich Russland in den 1990er Jahren ein ganzes Jahrzehnt lang im wirtschaftlichen Niedergang befand. Damit hat das Land den weltweiten Anfangstrend schlicht und ergreifend verpasst. Der Abstand zu den führenden Industrienationen wurde bis heute nicht einmal annähernd aufgeholt. In der aktuell kritischen Wirtschaftslage wird der Rückstand sogar noch größer, verstärkt durch westliche Sanktionen auf Dual-Use-Güter und Finanzsanktionen.

Russland stellt keine Industrieroboter her

Gegenwärtig werden in Russland 300 Roboter pro Jahr verkauft, vorwiegend an Betriebe des Fahrzeugbaus. Damit hält Russland eine Absatzquote am Weltmarkt für Industrieroboter von 0,17%. Zugleich gibt es keinen einzigen Hersteller in Russland, der Robotertechnik ausschließlich für zivile Anwendungen anbietet, erst recht nicht serienmäßig. Die Importabhängigkeit bei Industrierobotern beträgt somit 100%.

> **Auf 10.000 Industriearbeiter kommen zwei Industrieroboter in Russland. Damit befindet sich das Land innerhalb der BRICS auf dem letzten Platz - zusammen mit Indien.**

Eine Industrie zur Herstellung ziviler Robotertechnik gibt es in Russland also nicht. Es existieren nur vereinzelte Initiativen. So forschen Firmen an der Mechanik, andere an Steuerung und Elektronik, und wieder andere entwickeln Software. Anders sieht es in der Herstellung von Robotern für militärische Zwecke aus. Hierfür fließen Gelder für Forschung und Entwicklung sowie Produktion vom Verteidigungsministerium. Davon profitieren auch zivile Anwendungen, zum Beispiel in der Raumfahrt.

Robotertechnik für die Raumfahrt

Beim Zentralen Forschungsinstitut für den Maschinenbau, FGUP ZNIImasch am Standort Koroljow, gibt es ein Laboratorium für Weltraumroboter. Gearbeitet wird hier aktuell an einem Marsmobil, das sich am US-Rover Curiosity, der 2012 auf dem Mars ausgesetzt wurde, orientiert. Vor Kurzem bekam das Institut von der Raumfahrtbehörde Roskosmos den Auftrag, einen Roboter für Außenarbeiten an Weltraumstationen zu entwickeln. Zwei weitere zivile Promotions- und Entwicklungszentren für Roboter befinden sich in Skolkovo im „Robo Center" (bei Moskau) und in Kazan im sogenannten „Navigator Campus" (Republik Tatarstan).
Die Nationale Assoziation der Teilnehmer am Markt für Robotertechnik (NAURR) hatte im Juli 2016 auf der Industriemesse „Innoprom" in Jekaterinburg eine Konferenz zu Robotertechnik ausgerichtet. Auf dieser wurden weitere Gründe genannt, warum die Produktion von Industrierobotern in Russland nicht anspringt. Genannt wurde der leistungsschwache Maschinenbau, zolltechnische Hindernisse beim Import von Komponenten, die unzulängliche Finanzierung, fehlende Fachkräfte und die geringen Absatzaussichten für russische Robotertechnik im In- und Ausland.

Systemintegratoren machen sich auf den Weg

Erste Anfänge im Engineering und bei den Systemintegratoren sind in Russland aber gemacht. Diese planen und arbeiten ausschließlich mit importierter Robotertechnik. Ein Beispiel ist der Systemintegrator Solver aus Woronesch, der seine Kunden bei der Automatisierung der Produktion unterstützt.
Dabei sind die Auswahl und Installation von Robotertechnik beim Kunden eingeschlossen. Erst vor Kurzem hat Solver Robotertechnik von ABB (vollautomatisierte Linie Shell-O-Matic) und von Kuka (KR500, KR60, KR16) beim Hersteller von Flugzeugmotoren und Gasturbinen für die Energiewirtschaft, OAO Aviadvigatel, in Perm aufgestellt.
Im vergangenen Jahr 2016 besuchten Vertreter der deutschen Kuka AG den russischen Lkw-Hersteller Kamaz in Nabereshnye Tschelny (Republik Tatarstan), um den Einsatz von Industrierobotern im neuen Kabinen-Presswerk und in der Motorenfertigung (soll bis Ende 2018 modernisiert werden) zu besprechen.

Fonds Rusnano Sistema finanziert Direktinvestitionen in Robotertechnik

Erste Anfänge gibt es auch bei der Projektfinanzierung. Der Investitionsfonds AFK Sistema und der Staatskonzern Rosnano legten einen Fonds für Direktinvestitionen mit einer Finanzausstattung von 100 Mio. US$ unter der Bezeichnung „Rusnano Sistema" auf. Der Fonds soll zunächst für sieben Jahre bestehen und Projektträger aus den Bereichen Mikroelektronik, Energieeffizienz und Robotertechnik mit Finanzhilfen zwischen 5 Mio. bis 20 Mio. US$ pro Vorhaben ausstatten.

Agentur für die Förderung des Technologietransfers gegründet

Eigens für die Förderung des Technologietransfers aus dem Ausland wurde 2016 die Agentur für technologische Entwicklung (russisch: Agenstwo technologitscheskogo raswitija) ins Leben gerufen. Auf dem Anfang September 2016 in Wladiwostok abgehaltenen „2. Östlichen Wirtschaftsforum" haben die Agentur für technologische Entwicklung (ATR) und die New Energy and Industrial Technology Development Organization (NEDO) aus Japan ein Kooperationsabkommen unterzeichnet. NEDO stellte dabei ausdrücklich Hilfe bei der Entwicklung der Robotertechnik in Russland in Aussicht - durch FANUC Robotics, den japanischen Marktführer für Automatisierungstechnik und Robotik. Kooperationen mit anderen Ländern hat die Agentur ebenfalls ausgehandelt oder bereitet sie vor.

Kontaktanschriften

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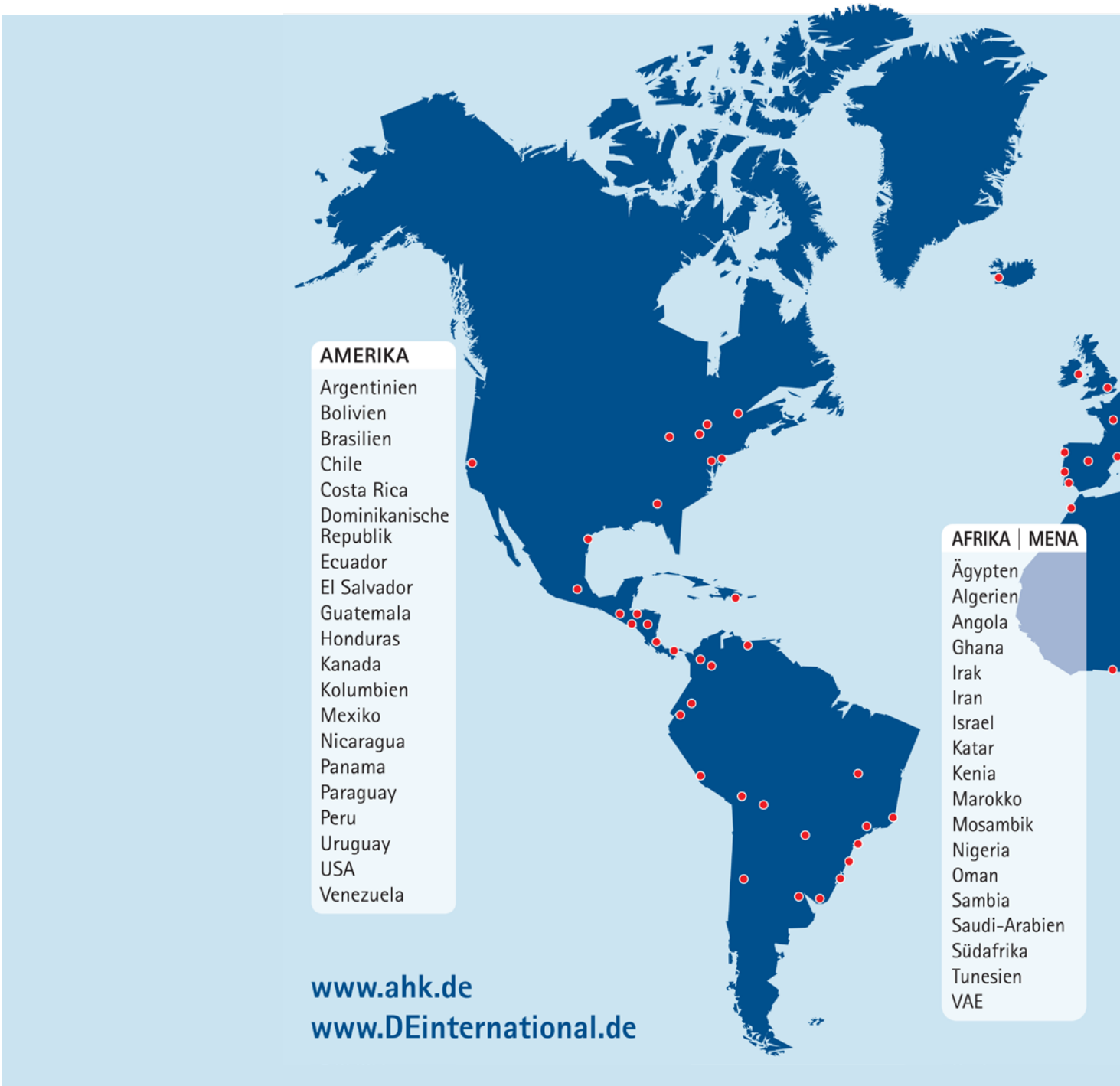
Business-Centre Zvenigorodka, 4. Etage
Tel.: 007/495/981 5000
vn@robotunion.ru | http://robotunion.ru/

Auslandshandelskammern:
Globale Präsenz, lokale Expertise

Während „Integrated Industry“ für eine immer engere, grenzüberschreitende Vernetzung zwischen Industrien, Technologien, Unternehmen und Kunden steht, bauen einzelne Staaten auf eine zunehmende Abschottungspolitik. Beim Schritt in das Ausland stehen neue Geschäftschancen dadurch oftmals teils schwer kalkulierbaren Unsicherheiten, wie sich verändernden Handelsbedingungen, gegenüber. Die Deutschen Auslandshandelskammern (AHKs) sind insbesondere kleinen und mittleren Unternehmen verlässliche Partner beim Erkennen und Minimieren solcher

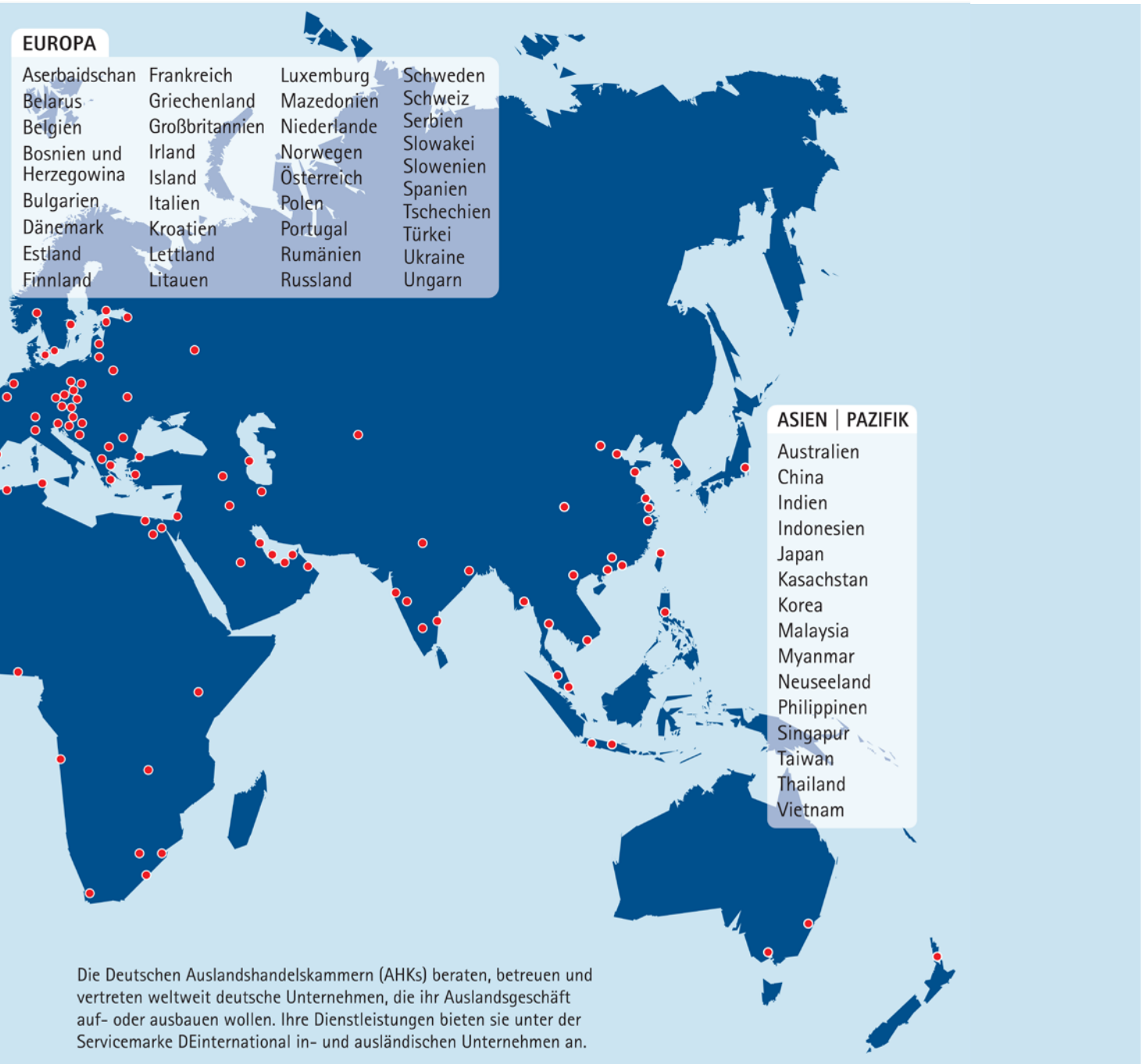


Risiken. Gezielte Rechts-, Steuer- und Zollauskünfte helfen u.a. dabei, Hemmnisse frühzeitig zu identifizieren und erfolgreich zu überwinden.

Das weltweite AHK-Netzwerk bietet Unternehmen an mehr als 130 Standorten in 90 Ländern mit individuellen Marktanalysen, Geschäftspartnervermittlungen sowie Services zur Firmengründung passgenaue Lösungen bei jedem Internationalisierungsschritt an. Gleichzeitig kennen die AHKs die neuesten Geschäftschancen, Wachstumsbranchen und besten Investitionsgelegenheiten auf ihren Märkten. Die meisten von ihnen verfügen zudem über branchenspezifisches Knowhow wie beispielsweise in erneuerbaren Energien, Rohstoffen oder auch bei den Themen Industrie 4.0 und Innovation. Über ihre Kunden und Mitgliedsunternehmen besitzen die AHKs einen guten Draht zu lokalen Clustern und Unternehmensnetzwerken.

Von diesem Wissen und den Verbindungen können Sie als Unternehmen profitieren. Nutzen Sie die Gelegenheit, die Veranstaltungen der AHKs zu besuchen und sich mit den Marktkennern in der Investment Lounge auszutauschen.

AHK



Die Deutschen Auslandshandelskammern (AHKs) beraten, betreuen und vertreten weltweit deutsche Unternehmen, die ihr Auslandsgeschäft auf- oder ausbauen wollen. Ihre Dienstleistungen bieten sie unter der Servicemarke DEinternational in- und ausländischen Unternehmen an.

Partner vor Ort:
Regionale Märkte im Blick

Polen: Dynamik in Zukunftsbranchen

Das Handelsvolumen zwischen Deutschland und Polen hat im Jahr 2016 die Marke von 100 Mrd. Euro überschritten. Insbesondere die industriellen Branchen des Maschinen- und Anlagenbaus, der Kraftfahrzeugbereich und chemische Erzeugnisse prägen die engen Handelsbeziehungen. Standortvorteile wie die motivierte und hochqualifizierte Arbeitnehmerschaft machen Polen darüber hinaus zu einem attraktiven Investitionsstandort. Als Partnerland auf der Hannover Messe kann das Land einem internationalen Publikum zeigen, welche oftmals unerkannten Potenziale in ihm stecken. Schließlich ist Polen schon lange keine verlängerte Werkbank mehr. Gerade in Zukunftsbranchen finden sehr dynamische Entwicklungen statt, beispielsweise beim Thema Digitalisierung. Als AHK unterstützen wir daher auch bei der Zusammenarbeit mit polnischen Start-ups.

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Michael Kern, AHK Polen

Saudi-Arabien: Know-how für die Diversifizierung

Die Diversifizierung der saudischen Wirtschaft stellt eines der größten Zukunftsvorhaben des Landes dar. Mitte 2016 veröffentlichte das Königshaus die bemerkenswerte ‚Vision 2030', die einen nachvollziehbaren Plan zur Neuausrichtung der Wirtschaft darstellt. Die Rahmenbedingungen für lokale sowie ausländische Investitionen, wie eine gut ausgebaute Infrastruktur und weiterhin geringe Energiekosten, bleiben positiv. Durch steigende Konsumausgaben und eine dynamische Bauindustrie entsteht das Wachstum außerdem zunehmend in der Privatwirtschaft und ist nicht mehr so stark vom Staat abhängig. Das ist gut für deutsche Unternehmen - denn immer da, wo Industrien aufgebaut werden, kommen deutsche Maschinen, Anlagen sowie Know-how ins Spiel. Da das Transformationsprogramm der Regierung insbesondere auf die Förderung des heimischen Mittelstandes abzielt, ergeben sich zudem zahlreiche Kooperationsmöglichkeiten, zu denen wir gerne beraten.

©Delegation Saudi-Arabien

Oliver Oehms, Delegierter der Deutschen Wirtschaft für Saudi-Arabien, Bahrain und Jemen

Singapur: Drehkreuz für die ASEAN-Region

Als die wirtschaftliche Metropole in der ASEAN-Region ist Singapur dank der verlässlichen politischen und rechtlichen Gegebenheiten ein bevorzugter Ausgangspunkt für deutsche Unternehmen in Südostasien. Singapur ist weltoffen, englischsprechend, frei von Korruption und bietet neben Rechtssicherheit ein hohes Maß an Effizienz und eine exzellente Infrastruktur. Firmengründungen gehen innerhalb weniger Tage vonstatten und durch umfangreiche Investitionen in Forschung und Entwicklung hat Singapur eine hohe Innovationskraft.

Der Stadtstaat ist Drehkreuz für die gesamte ASEAN-Region und darüber hinaus in Asien-Pazifik. Singapur gilt als Leitmarkt mit Ausstrahlungskraft auf die umliegenden Länder und hat vielfältige „Blaupausenfunktion": Normen, Gesetze, Innovationen oder auch internationale Verträge wie z. B. Freihandelsabkommen, die hier entwickelt werden, gelten als Benchmark.

© AHK Singapur

Dr. Tim Philippi, AHK Singapur

Auslandshandelskammern auf der HANNOVER MESSE 2017

Algerien
Aserbaidschan
Belarus
Belgien und Luxemburg
Brasilien - Porto Alegre
Brasilien - São Paulo
Bulgarien
China - Guangzhou
China - Beijing
China -Shanghai
China - Hongkong
Taiwan
Ecuador
Estland
Lettland
Litauen
Finnland
Frankreich
Ghana
Indien
Iran
Italien
Kanada
Kenia
Korea
Kroatien
Mexiko
Niederlande
Norwegen
Österreich
Philippinen
Polen
Rumänien
Russland
Saudi-Arabien
Singapur
Slowenien
Spanien
Südafrika
Thailand
Tschechien
Tunesien
Türkei
USA - Atlanta
USA - Chicago
USA - San Francisco
USA - New York
VAE
Vietnam

DIHK-Veranstaltungen auf der HANNOVER MESSE

Montag, 24. April 2017

11:30 – 13:00 **Workshop USA (1): Chancen und Risiken auf dem US-Markt unter der neuen US-Regierung,** AHKs USA New York & San Francisco, CR 1

15:00 – 17:00 **Industrie 4.0 / AHK Korea Workshop,** AHK Korea, VIP-Room

15:00 – 17:00 **Workshop USA (2): Chancen und Risiken auf dem US-Markt unter der neuen US-Regierung,** AHKs USA Süd & Mittlerer Westen, VIP-Room

16:30 – 18:00 **Potenzialmarkt Südkorea & Yellow Sea Free Economic Zone,** AHK Korea, CR 1

Dienstag, 25. April 2017

10:00 – 12:00 **Automatisierung und Industrie 4.0 in den Baltischen Staaten,** AHK Baltische Staaten, VIP-Room

10:00 – 12:00 **Impulse Neue Märkte - Neue Möglichkeiten: Umwelttechnologien in Ostafrika,** Delegation Kenia, CR 1

10.00 – 13.00 **Iran Forum** (IHK Hannover, DIHK, UNIDO), Forum 1

15:00 – 16:45 **Chancen in der Industrieautomatisierung in Polen** (GTAI + DIHK), Forum 2

14:30 – 16:30 **Perspektiven für ausländische Investoren in Bulgarien,** AHK Bulgarien, CR 2

Mittwoch, 26. April 2017

10.30 – 12.30 **ASEAN in 2017: Taking new opportunities through trade policy** (DIHK, Nds. MW & Staatskanzlei, TÜV Nord AG), Forum 1

13:00 – 15:00 **Polish-German Startup Forum,** AHK Polen, VIP-Room

Donnerstag, 27. April 2017

09:30 – 13:00 **Networking Event Oil and Gas Industry,** Öl & Gas Cluster der AHK VAE etc., Forum 1

Investment Lounge
Halle 3, Stand H31/6

www.ahk.de
www.DEinternational.de

Industrie 4.0 to change the landscape of innovation

Germany Trade & Invest to guide investors to the new ecosystems

Integrated Industry: Creating Value' is the slogan under which more than 5,000 companies will be presenting their concepts at this year's Hannover Messe. That the word 'integrated' should be used with such prominence is indicative of just how many different sectors Industrie 4.0 has come to encompass over the past few years. Where once the concept may just have applied to a vision of fully automated and intelligent manufacturing systems, Industrie 4.0 now ropes together big data, the internet of things, robotics, energy, additive manufacturing, artificial intelligence, virtual reality, augmented reality... the list goes on.

While we do not know how far the concept can push back the boundaries of possibility, we are able to gauge an idea of the values Industrie 4.0 has created. An emphasis on R&D in Germany, with Industrie 4.0 the basis for much of it, has created a company landscape teeming with innovative small-to-medium enterprises researching specific niches of the digital and industrial economy. As these companies discover new systems, learn more about stretching resources and integrating new technologies, immense value and opportunity is created. In Germany, we are already beginning to see and feel the effects of our efforts to support better and more efficient manufacture; over and since the turn of the year we are seeing a significant improvement in trade figures and receiving record levels of factory orders.

Small companies focusing on R&D do not survive for long without investment and/or support funding. Germany's federal government has made it a priority to ensure that these small-to-medium enterprises are given the funding and time to develop their concepts and research fields thoroughly. A number of clusters have been created in a variety of industries. A vast well of funds is available to prospective investors, comprising tax breaks, low interest and long-term loans, cash assistance for local recruitment and Euro-for-Euro support.

Germany Trade & Invest (GTAI) assists prospective investors find the right location and right partners, and to serve as a one-stop shop for all possible questions an investor could have about Germany and its investment landscape. At the Hannover Messe our booth will be manned by our team of experts who can answer all of your questions about Germany as a business location.

Furthermore, on the opening Monday GTAI will host a panel discussion preceded by a keynote speech from Germany's State Secretary for Economic Affairs and Energy Matthias Machnig.

©GTAI

The panel will examine how new technologies and innovative start-ups are shaping the manufacturing of the next generation, asking how do they contribute to Germany's manufacturing strength? Will they help Germany stay ahead in manufacturing in the years to come? What are Germany's industrial behemoths doing to harness their energy and creativity? And why are highly innovative foreign companies investing in Germany?

GTAI:
25 April, 3pm. - 4.45 pm.,
Global Business & Markets
Hall 3, Business Forum 1, Stand H32

Unlimited potential
for innovation in Poland

Enterpreneurship and openness in one the most dynamic economies

Poland's potential is created by the Poles themselves. As a society of young people, we are well known around the world for our entrepreneurship, innovation, hospitality and openness. History has shown that Poles are not afraid of change and that they are willing to take on new development challenges, including those in the economic sphere. So far, the competitiveness of the Polish economy has been determined primarily by low costs and flexible exchange rates. This helped Poland to get through the global crisis without recession and to ensure continued economic growth. This strategy has worked well for 25 years (since 1989), but is now becoming exhausted. This is not enough for Poland to join the world's most dynamic economies.

Young startups as a competitive advantage

And while Poland is slowly climbing the ladder of innovative world economies, it seems that it is now much more innovative than analyses, reports or rankings would suggest. This is often the result of the way innovation is measured. In such rankings, micro-entrepreneurs are not included, and their level of in-

novation is also very high. On the other hand, it is true that companies do not realise that many types of changes, even marketing changes, are also innovative and those changes do not require significant investment. Poland strives to increase the competitiveness of its economy and this can be achieved by increasing efficiency and innovation. These will be the foundations of a new competitive advantage.

Poland facing the challenges of Industrie 4.0

Poland has appropriate conditions and social potential to meet the new challenges of the fourth industrial revolution ("Industrie 4.0"). New technologies allow the innovative ideas of young Poles to be transformed into world-class projects. An important element of success is to provide the appropriate environment (ecosystem) for developing and implementing innovative ideas and solutions. The conditions for the development of the Poles' innovativeness are created at all levels of administration (commune, district, province, country). A wide range of support and state aid tools and instruments are also available to entities and institutions from abroad.

Industrial Policy focusing on long-term development

In this new vision of Poland's economic development, based on the Strategy for Responsible Development, special attention is paid to ensuring the long-term development of the Polish economy, based more on knowledge, innovation and technological progress. An important role in the implementation of this concept is played by startups. Startups now seem to be the essence of Polish entrepreneurship, industriousness, independence and resourcefulness in the 21st century. These are the same factors that boosted the Polish economy during its transition, after 1989.

The Start in Poland government programme was launched with a budget of approximately PLN 3 billion. The objective of this is to support startups and to be involved in the development of technological companies and the innovation of large enterprises, including state-owned companies. It is the largest startup support programme in this part of Europe and a new platform for the effective cooperation between Polish science and business. The first instrument of the Start in Poland initiative is the Scale Up programme, whose idea is to combine the potential of creative entrepreneurs that have just set out in business, with the infrastructure, experience and resources of large corporations. The segments with the highest growth prospects in which Poland has a chance to become specialised and win competitive advantage include hybrid car production, intelligent transport, the gaming industry, the internet of things, telemedicine and medical equipment.

International achievements of the ICT sector

The ICT sector in Poland offers investment security and qualified staff, and the support of EU and government institutions allows for the creation of joint service and R&D centres. The conditions prevailing in Poland, such as high internal demand or human resources, make it possible to create distinctive products. This is demonstrated by the international achievements of Polish companies which, thanks to an innovative approach, have successfully developed such niche markets like gaming or in business applications. The space sector is one of the most innovative and technologically advanced areas which is of increasing importance for the European economy, including Poland's. The key advantages of the Polish space sector include the building of stable cooperation between science and industry, developing innovative technologies, and stimulating foreign contacts and cooperation.

©WoitekGurak

Polish scientific research units and universities have many years of experience in space-related activities and considerable achievements in the field, especially in the development of space mission research instruments and elements for satellites, as well as in space data processing. In addition to successful national work, they are actively involved in international cooperation, e.g., by participating in EU projects of the 7th Framework Programme and the Horizon 2020 programme. In terms of project participation, Poland has the best results among the 'new' member states, and it is also ahead of the Scandinavian countries.

Focus on Electromobility

Poland focuses on electromobility and the production of electric vehicles and the development of infrastructure necessary for this type of vehicle is planned, enabling, e.g., the development of ecological public transport in Polish cities (E-bus and electric car projects). As part of the revival of the shipbuilding industry, measures will be taken to modernise the sector and shift production towards innovative projects, like designing the construction of vessels and marine structures (Batory project). The emphasis is also put on the development of services based on the use of drones (Żwirko and Wigura project). Huge potential is also present in the area of modern health solutions, cutting-edge medical equipment (e.g., the Polish medical robot), advanced generic and biosimilar drugs (Biotechnology Development Centre project).

Joint new efforts in the CEE region

The Warsaw Declaration is a document on the promotion of joint projects based on new technologies signed on 28th March by the Prime Ministers of Poland, Slovakia, the Czech Republic and Hungary. The document was signed in Warsaw during the 1st CEE Innovators Summit. Following political declarations, a line financing the joint R&D projects under the Visegrad Fund will be launched.

Poland as the partner country of Hannover Messe is actively involved in the Industry 4.0 process. That is why the theme of its presence is SMART MEANS POLAND. In total, there are around 200 Polish firms present at the fair. It is the most representative delegation of Polish entrepreneurs at the Hannover Fair.

Poland has a national stand of around 1,200 square meters in Hall3 exhibiting the achievements of the Polish economy and where 11 Polish firms present their products. The firms include:

- ML System S.A – producer of new generation photovoltaic cells.
- Solaris Bus & Coach S.A. – global producer of buses, including electric buses.
- Ursus Bus SA – global producer of vehicles.
- Transition Technologies – company offering information and engineering systems for industry, especially power industry.
- Saule Technologies – creator of new technology for the production of flexible photovoltaic cells with perovskites.
- Ekoenergetyka-Polska – producer of charging infrastructure for electric buses and cars.
- DT Poland – producer of modern software.
- Zortrax – producer of 3D printers and printing materials for advanced designs for the industry.
- Medcom – one of the most innovative producers of energy electronic equipment in the world.
- H. Cegielski – Poznań S.A. – a company with more than 170 years of tradition, offering technologically advanced products in such sectors as the power industry, transport, environmental engineering, production of steel structures.
- TMA Automation – company designing and building modern solutions in the field of robotics, automation, mechanics and machine vision.

At the Polish national stand, there are also 8 regions: Lublin, Lubusz, Lesser Poland, Pomerania, Silesia, Swietokrzyskie province, West Pomerania, as well as 5 Special Economic Zones (Łódź SEZ, Kostrzyn-Słubice SEZ, Wałbrzych SEZ, Mielec SEZ, Tarnobrzeg SEZ) and the Office of Technical Inspection. Start ups are also joining the Polish national stand.

A part of the stand's surface has been made available to the Ministry of Science and Higher Education, which presents e.g. the robot Photon. There are also 18 young innovative firms, represented in Hannover, including three firms, awarded with the prize of the Minister of Development and Finance.

SMART MEANS POLAND
PARTNER COUNTRY

Poland: A warm welcome to innovation

The ecosystem of National Key Clusters (NCK):

The NCK is a new instrument of industrial policy in Poland: Currently, there are 16 National Key Clusters operating in Poland. Being a platform for cooperation and exchange of experience, clusters contribute to the development of the competitiveness of the Polish economy.

1. Kraków
Lifescience Krakow Cluster (medicine, biomedicine, medical services, rehabilitation),
http://lifescience.pl/en/

2. Gliwice
MedSilesie Silesian Network of Medical Products (medicine, biomedicine, medical services, rehabilitation)
http://www.medsilesia.com/MedSilesia-Cluster,p67.html

3. Wrocław
NUTRIBIOMED Cluster (food, pharmacy, biotechnology, cosmetics, medicine, chemistry),
http://www.nutribiomed.pl/?locale=en

4. Lublin
ICT Eastern Cluster (ICT, telecommunications),
http://ecict.eu/

5. Kielce
Waste Management and Recycling Cluster (recycling, environmental protection, renewable energy sources),
http://www.klasterodpadowy.com/

6. Kraków
Sustainable Infrastructure Cluster (intelligent energy-efficient and passive construction, building automation and technologies using renewable energy sources),
http://www.klasterzi.pl/en/

7. Gdańsk
North-South Logistics and Transport Cluster (transport, logistics),
http://www.klasterlogtrans.pl/

8. Bydgoszcz
Bydgoszcz Industrial Cluster (manufacture of tools for plastics processing, processing of plastics).
http://www.klaster.bydgoszcz.pl/index.php5?lang=en

9. Rzeszów
Aviation Valley Cluster
http://www.dolinalotnicza.pl/en/

10. Gdańsk
Interizon Cluster
http://en.interizon.pl/

11. Białystok
Metal Processing Cluster, represented by the Innovation and Development Promotion Centre
http://metalklaster.pl/en/

12. Warszawa
Mazovia Cluster ICT, represented by the «Wiedza» Association of Social and Economic Development
http://klasterict.pl/english-version/

13. Dąbrowa Górnicza
Polish Aluminium Cluster, represented by City Consulting Institute Sp. z o.o.
http://www.polskiealuminium.pl/en

14. Białystok
Eastern Construction Cluster, represented by the Polish Consulting Association
http://www.budowlanyklaster.pl/en/

15. Szczecin
"Green Chemistry" West Pomeranian Chemical Cluster
http://zielonachemia.eu/en/

16. Kaniów
The leader of the Silesian Aviation - the Federation of Aviation Companies - emerged naturally, as a result of a real and effective cooperation between 15 private companies
http://en.aerosilesia.eu/

Technology parks and SEZ in Poland: Open space for business

Industrial and technological parks are developmental solutions which have become increasingly popular in Poland. Their facilities are geared toward Polish and foreign entrepreneurs. The strong focus of technology parks on supporting startups is noticeable and in the vast majority of these places, there is a business incubator or technological incubator in operation.

Kostrzyn-Slubice Special Economic Zone
Located in the north-west part of Poland in Lubuskie, Zachodniopomorskie and Wielkopolskie district. Currently there is a total area of 2 165 ha where Potential investors shall receive the support on every phase of their investment and one of the best conditions to start a business in Europe. Not surprisingly,investors who have already joined the Zone (such as Volkswagen Poznań, Phoenix Contact or Teleskop) ave created over 32 thousand new job places and have invested more than 1.7 billion Euro due to tax preferences and new investment areas. there are great opportunities for accessing the technology knowledge from cooperated universities. One of the outstanding parks is located in the capital city of the region, Zielona Góra, where electronic and energetic development are being supported.

Lublin Science and Technology Park
Its core philosophy is to make it easier, faster and more affordable to setup your company, and, in particular, the potential of higher education facilities and academic institutions. It aims at creating favourable conditions for the development of entrepreneurship in the region. The CONNECT Startup Platform is the total training programme for the fresh business owners. Within the framework of this programme Lublin Science and Technology Park team teach everything what the would-be business person should know. Moreover, the Technology Incubator, operating within the Lublin Science and Technology Park, helps beginning entrepreneurs in starting their own business activities. The group of inno-brokers, working in the Lublin Science and Technology Park, focuses on transferring an innovative technology towards regional and nationwide businessmen. The task of the Lublin Design Institute is to promote good practices in the field of visual projects and provide the platform for cooperation between universities, business and designers' milieu in the Lublin Province.

The Scientific-Technological Park of the University of Zielona Góra
Higher education schools (mainly the University of Zielona Góra) conduct highly-advanced laboratory research on behalf of the industry. Today, thanks to support given by regional authorities, 3 parks (scientific, industrial and technological) and 2 research centres have been established which serve as a meeting platform between scientists and entrepreneurs. The parks are located in Nowy Kisielin/ Zielona Góra, Nowa Sól and Gorzów Wielkopolski whereas the research centres in Sulechów. The Scientific-Technological Park provides services to small and medium-sized enterprises in the field of business Incubators.

Science & Technology Park in Opole
Established in November 2012 as an initiative of the authorities of the Opole City. The aim of the institution is to create an appropriate scientific - technological platform and technical resources necessary for the voivodeship of Opole. Science and Technology Park in Opole will be located near Wałbrzych Special Economic Zone, in north-west part of the Opole city. The Institute of Ceramics and Building Materials in Opole is a lasting and important part of the Polish research and development community that combines a high level of scientific research with an implementation of its achievements in the industrial practice. The range of the Institute's research includes the total of technical sciences related to ceramics and glass. Over years of co-operation, a strong bond has developed between the Polish industry of ceramics, glass products and building materials, and the scientific community of the Institute.
www.icimb.pl

Metalchem Industrial Park in Opole
The park concentrated there works to improve the technical and communication infrastructure of Metalchem. Its constituent companies also for cooperate in the promotion of their potential. The main objective in 2017 is to reach the Ministry Certification for 'Key National Cluster'. Park Metalchem is very strongly involved into developing of cooperation with R&D sectors and is absolutely No1 in Opolskie regarding the number of R&D advanced projects (also international).
www.parkmetalchem.opole.pl

The Kędzierzyn – Koźle Industrial Park
The park has the following aims:increase of the social

and economic potential of the commune by providing support for small and medium-size enterprises that create new jobs, increase of the competitiveness of the region, stimulation of regional and local development and increase of the investment attractiveness of the Kędzierzyn-Koźle region. The park is a great place to run industrial, service, logistic and trade businesses since the local authorities have a policy that supports long-term engagement of entrepreneurs (real estate tax exemptions).
http://kkpp.pl/en/o-kkpp/

Science and Technology Park in Opole
S&T Park in Opole is a place of cooperation between science and business, it gives the opportunity to search and implement new technological solutions at the interface of these two worlds. It also creates favorable conditions for the economic and scientific development of the Opole voivodeship through existing aid as well as new initiatives. Pro-innovative companies gain access to specialized research laboratories, advanced ICT environment, high standard office space - necessary to run business.

The Katowice Special Economic Zone
The Katowice Special Economic Zone has acquired over 250 business entities to date. Those entities have invested almost EUR 6 billion and employed over 56 thousand staff. A further jobs were created around the KSEZ. It is situated on an area of over 2614 hectares located in 40 municipalities and is a decentralized zone, which allows you to include practically every investment in the region in its area. The biggest investments in the area are the factories of Opel, FCA (earlier: Fiat), NGK Ceramics, Roca, Guardian and TRW Poland. Within the zone, the BPO/IT business sector (Capgemini, Steria) and R&D services have also been realized.
http://www.ksse.com.pl/

Silesian Technology parks
The regional Technology parks can provide an advanced infrastructure, links with dynamic businesses and research institutions in the region and abroad, access to information and to highly qualified workforce. Parks can help with administrative formalities and guidance during the funding process. The primary function is to support businesses in innovative sectors. All of them cooperate with universities and most of them work with municipal institutions, other technology parks, R&D units and venture capital institutions. http://www.invest-in-silesia.pl/home-2

Krakow Technology Park
Krakow Technology Park's profile deserves attention because of its comprehensive services portfolio, which offers pro-innovative services. KTP, in cooperation with Krakow Airport and EC Group, runs a startup accelerator. This is the result of the Start In Poland programme, which is the largest startup support initiative in Central and Eastern Europe. As part of the first pilot ScaleUp competition, 10 entities out of the 61 applicants were selected.
http://www.kpt.krakow.pl/en/

Multimedia Laboratory
Within the framework of KTP, the Multilab (Multimedia Laboratory) is in operation, offering the possibility of production and postproduction of films, games, advertisements, audiovisual effects using specialised software and film-making equipment. Also, the Cloud Computing Laboratory, an IT platform, enables the use of the IaaS (Infrastructure as a Service).

The Euro-Center Industrial Park
Euro-Centrum Industrial Park is a complex of modern buildings in the form of office spaces, services, conference and exhibition rooms. Park's offer is designed primarily for small and medium-sized enterprises operating in the sector of energy-saving technologies, including IT.

Technopark Gliwice Ltd. Company
The most important aim of „Technopark Gliwice" Ltd. is creation of modern investment venture which is consistent with the European Union, satisfies investors' expectations and which allows young, technically educated people to an economically effective and socially profitable running a business activity and taking advantage of enormous intellectual capability, The Technopark's principal activity is the provision of training and consulting services for small and medium-sized enterprises. Technopark Gliwice is located in the campus area of Gliwice - one of the biggest universities of technology in Poland

ECOPARK in Piekary Śląskie
The mission of PPT EkoPark is creating the centre of implementation of environmental technologies based on recycling, segregation, processing and storage waste.
The main aim of realization of the project is transforming contaminated grounds into proper areas and economical development of the region by assurance of advantageous conditions to start investments. EkoPark has a policy of creating a good investment climate to attract investors implementing innovative technologies.

TECHNOPARK POMERANIA
Technopark Pomerania is based in Szczecin and since 2000 its objective has been to support the development of innovative companies, ICT startups and entrepreneurs in the region. It provides local entrepreneurs with business incubator and support services (incubation and expansion programs, including business mentorship and consulting, PR and marketing) for ICT sector. It offers high-standard office space of over 13,000 sqm in total. Our services also include the largest Data Center in the region. Currently, there are over 60 companies from ICT and knowledge-based sectors with over 500 employees in total.

Lower Silesian Technology Park T-Park
Lower Silesian Technology Park T-Park lies in the south-western part of Lower Silesia in Wałbrzych agglomeration which has area of more than 5,750 km2 and has a population of more than 845,000.
The city is located at a favourable meeting point: only 65 km to Wrocław, 200 km to Prague, 420 km to Warsaw, 390 km to Vienna, and 335 km to Berlin. Key communications junctions, such as crossings with the A4 motorway and the future S3 expressway, are situated 30 km and 15 km from the city, respectively.
www.darr.pl,

Poznań Science and Technology Park
The Poznań Science and Technology Park, is considered to be the first Polish technology park. Technology parks in Poland are created under the patronage of the Association of Polish Innovation and Entrepreneurship Centre Organizers (www.sooipp.org.pl).

YouNick
A unique technology park where people come first – the employer, employee, scientist, and innovation originator. We suppoirt the commercialisiation of innovative projects and research results in the field of biotechnology, as well as medical, IT, chemical, enviromental protection and renewable energy sources industries. The effect of the above is 20 portfolio companies the developement of which is financed by YouNick, several dozen of companies using the infrastructure of the park and more than 600 employees working at its premises. We create a friendly enviroment for people, business and science to develop. Here your potential merges with ours.
www.younick.pl

EU: Innovation for SME

Coupling research and innovation, the European Commission's Horizon 2020 program aims to remove barriers and make it easier for public and private sectors to work together to deliver cutting-edge technology and scientific advancement. Projects featured are supported by the I4MS (ICT Innovation for Manufacturing SMEs) or SAE (Smart Anything Everywhere) program and work within the Digitising European Industry strategy, building sustainable digital ecosystems that foster the competitiveness of SMEs in a global marketplace:

- CloudFlow provides a Cloud Computing infrastructure that allows SME software vendors to offer customers new services.
- CloudSME provides a multi-sided 'Everything-as-a-Service' platform, encompassing end users, ISVs and infrastructure providers.
- CPSELabs funds and supports businesses to perform innovative experiments in Cyber-Physical systems.
- EuroCPS aims to build a platform to enable third parties from any sector to create innovative products around Cyber-Physical Systems.
- Fortissimo works with SMEs to enable them to access the compute resources they need to increase their competitiveness.
- LASHARE aims to share knowledge on the use of laser-based equipment in the manufacturing value chain.
- ReconCell has developed a widely autonomous robotic work cell that allows short, adaptable and affordable changeovers based on user needs.
- SESAME Net is developing a network to promote High Performance Computing competence and expertise for SMEs throughout Europe.

European Commission:
Global Business & Markets
Hall 3, Stand E02

Finland: Green and digital

Southeast Finland offers excellent investment and business opportunities in logistics, digitalization, bio economy and tourism. Google has one of its largest Data Centers in Europe in the area. The densest forest industry hub in Europe can boast of its green opportunities: We have 13 000 islands and 15 000 km of lake shore which form a natural paradise for outdoor tourism. Our location which is between the East and the West offers a market of 10 million people with St. Petersburg only a 2,5-hour drive away. Northern Europe's main railway hub and Finland's leading export/import harbour are located in the area, which makes the region extremely accessible. The area is currently developing a block-chain technology application, including software and hardware tools tailored to logistics operational data transfer. The software enables the operator to reduce cargo transit times.

A reliable stable environment is a backbone for digital development opportunities. The world's leading educational system, R&D Bio economy, offers a rapidly growing network of energy technology and environmental engineering companies, operating in conjunction with research from our local university. The entire bioeconomy value chain is already in place in our area. Southeast Finland is a marketplace with green opportunities.

©tpsdave

Invest in Southeast Finland:
26 April, 10 am. - 11 am.,
Global Business & Markets
Hall 3, Conference Room 1

From Minsk and Kaunas: Wider market perspectives

Two technology parks Belarus together and Lithuania offer a joint solution to overcome obstacles in global trade.

©trolleway

There is only a very limited number of preferential trade agreements in place between the European Union (EU) and third countries worldwide, and certain market entry barriers are used for goods imported from there. The same is true in relation to Eurasian Economic Union (EAEU), which combines five markets of its members – Russia, Belarus, Kazakhstan, Kyrgyzstan, and Armenia. These emerging markets with new united regulations are in a high interest, but still remain unknown for most people. Unions and individual countries globally tend to apply various import tariff and non-tariff entry barriers to the import of goods from other countries with certain interests such as unfair competition due to cost differences or protecting local industries. The issues of tariff and non-tariff barriers improved customer recognition and facilitated the access to the market with a complex solution – the application of COUNTRY OF ORIGIN principle. Great Stone Park and Kaunas Free Economic Zone (FEZ) united their opportunities for better conditions of doing business.

Well-developed infrastructure

Kaunas FEZ is a free trade zone perfectly located in the centre of Lithuania, EU member state at the Eastern border of the Union. The area of 534 ha is conveniently accessible by road, rail, sea and air. The land lots are available for lease and their sizes are always adjusted to the particular needs of any investor. The privately-managed zone already has a well-developed infrastructure, allowing companies to focus on realising their ambitions. Overall, Kaunas FEZ offers free access to more than 500 million consumers market.

Easily accessed from different destinations, Great Stone Park in Belarus is surrounded by Russia, EU, and Ukraine offering free access to the markets of over 290 million consumers. Great Stone Park is located close to the capital of Belarus, 5 min from the international airport, crossed by international highways and railways. 9150 hectares for business, studying and living is more than enough for the population of 200k. There are land plots available for rent as well as private ownership.

Two locations, unique benefits

Therefore, establishing your business in Great Stone Park and Kaunas FEZ will bring you unique advantages:
The „MADE IN EU" principle creates conditions for free access to the EU market and possibly other non-EU markets which have preferential or free trade agreements with the EU.

The "MADE IN EAEU" principle creates conditions for free access to the EAEU market and other markets which have preferential or free trade agreements with the EAEU or Belarus itself. In total, 12 countries are already in the list and agreements with 40 countries are under negotiation.

- TAX INCENTIVES AND SUPPORT – double benefits on customs regimes, duties, taxes and state incentives packages.
- TWO GLOBAL MARKETS are accessed - the EU on one hand and the Eurasia Customs Union on the other. At the same time, the production process can be combined and the production is kept at efficient/effective level.
- CO-LOCATION allows for convenient and easy distribution of production over two locations (Great Stone Park in Belarus and Kaunas FEZ in Lithuania) and serves as the base for the "MADE IN EU" and "MADE IN EAEU" label.
- TWO LOCATIONS AS A STRENGTH – splitting production processes over two locations based on cost effective use of local labour. At the same time, this allows for positioning products as local and subsequently overcoming market specific customer recognition issue, especially related to quality standard perception.
- CONNECTIVITY - access to well-developed international supply chains and local distribution channels.

Great Stone Park has already attracted 8 residents and 12 other investors with total investment amount of over 700 million Euros. Kaunas FEZ has already attracted 24 companies, which pooled over 367 million Euros to the zone. The largest share of investments come from France, Germany and Finland.

In addition to enjoying cultural similarities, Kaunas FEZ and Great Stone Park present a package of benefits that include lo-

gistics, governmental incentives, local labour and speedy set-up. They are both situated conveniently and take advantage of several logistics features, ensuring efficiency and speed:

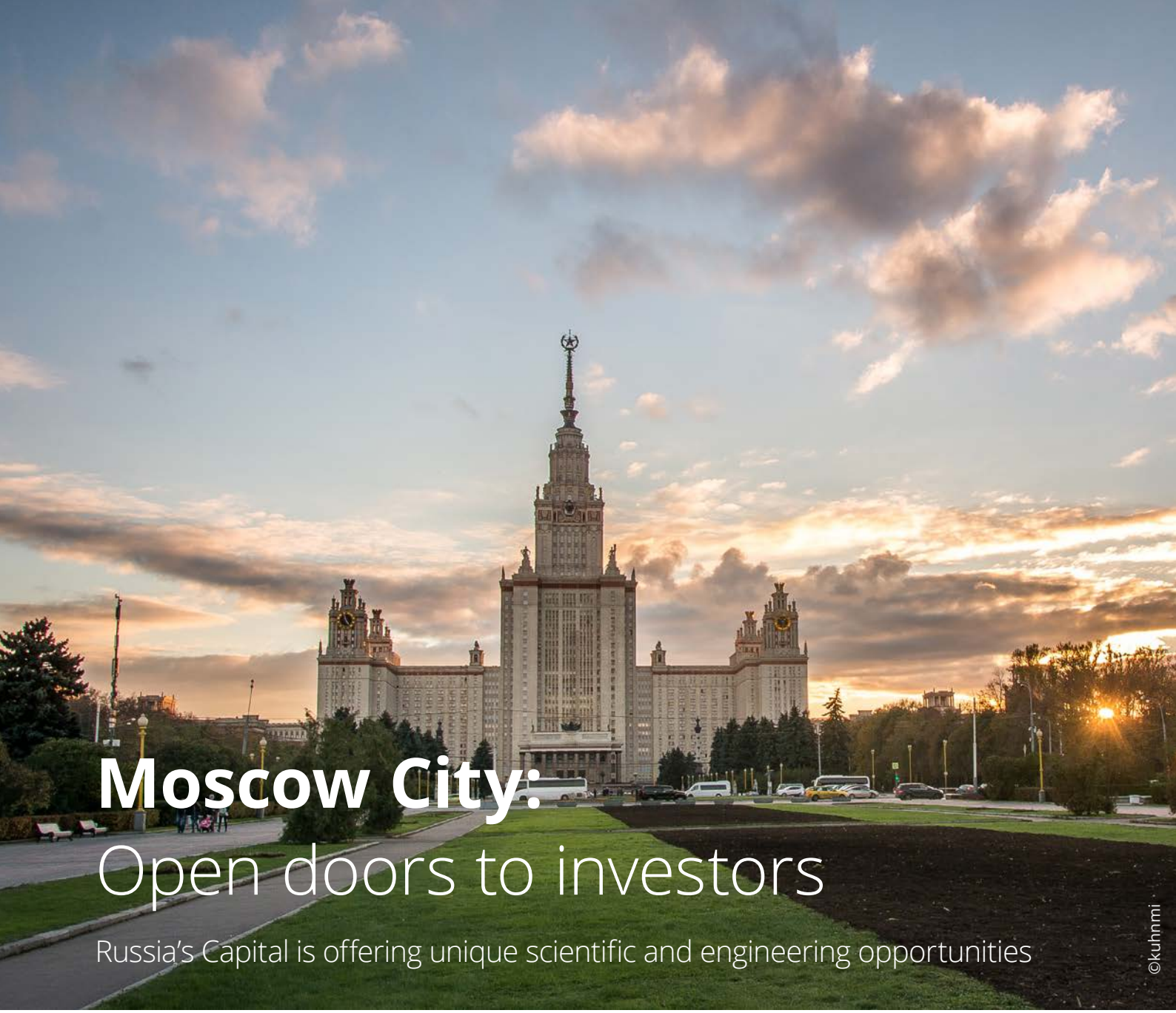
- close proximity of the locations;
- simple zone-to-zone transit procedures;
- easy logistics and already existing efficient supply chains in rail and road freight between Belarus and Lithuania, connecting the two zones;
- possibility to have unified stock control over warehouses in both countries;
- quick transfer of goods and materials within 12-24 hours by road and rail or within 40 minutes by air.

There is a welcoming investment environment in Lithuania as well as in Belarus. While Kaunas FEZ and Great Stone Park have exclusive tax benefits for its investors, there is also a possibility to receive state/governmental/EU/Great Stone Fund/ Silk Road Fund/special bank financial support for:

- construction of the premises;
- procurement of equipment;
- product development;
- staff training.

Kaunas is home to 32 universities, colleges and vocational schools, all of which deliver skilled and unskilled workers to Kaunas and its region. The total labour pool in the area accounts for nearly 300k people. There are 104 universities, colleges and technical schools in Minsk, all of which deliver skilled and high-qualified workers to Great Stone Park and Minsk region. The total labour pool in the area accounts for nearly 2 million people.

Kaunas / Great Stone:
26 April, 3.30 pm. - 4.30 pm.,
Global Business & Markets
Halle 3, Stand H31/8, VIP Room



Moscow City:
Open doors to investors

Russia's Capital is offering unique scientific and engineering opportunities

©kuhnmi

Every modern and educated person would know that Moscow is the capital of Russia. But that's not everything one could say about this city.

Moscow is 870 years old and throughout this time it has always played an important role in the political and economic life of the Russian country and the world. This is a city with a unique and original architecture where three UNESCO World Heritage Sites are located. This is a city with the richest cultural traditions. Over 400 museums keep the historical antiquities evidencing the city's past. Today, contemporary writers, musicians, actors and artists keep up the city's traditions.

But Moscow is also a modern fast-developing big city. The Moscow metropolitan area is populated by 11 mln economically active people. Moscow ranks third among the European cities in terms of consumer spending (over 167 bln euro in 2015). Moreover, Moscow is Russia's industrial development centre. 23 public research centres, 11 national research institutes, over 700 academic and research institutions and over 7,000 industrial companies offer unique scientific and engineering opportunities. Today these are fulfilled in the high-tech industries. Over 700 production facilities have been launched in Moscow during the recent five years.

700
ACADEMIC RESEARCH CENTRES

1000 facilities for innovation

The city's Government has implemented an efficient pro-

gramme to support scientific developments, industrial businesses and high-tech companies and encourage the city's fast economic growth. The total value of the Moscow's 2015-218 targeted investment programme is 19.3 bln euro.

The Government also generously promotes advanced technologies by helping those who create the necessary economic environments. There is Zelenograd, a special economic zone, 28 industrial parks and 24 industrial centres in the city. Today, the innovation development infrastructure includes over 1,000 facilities, such as youth innovation creativity centres, prototyping centres and public use centres. The researchers, developers and engineers may use over 3,500 most high-end equipment units located there.

Zelenograd Special Economic Zone

With an area of almost 160 ha, this zone is located in the city's North-Western administrative enclave, the Zelenograd Administrative District. Companies choosing to locate their production here enjoy significant tax benefits – zero property, land and transportation taxes, decreased profit tax and insurance contributions.

Industrial Parks

The first industrial parks appeared in Moscow at the end of 2012. Today, the equipped premises of the city's 28 industrial parks total 1.9 mln square metres. Over 1,400 high-tech companies have their production located in such parks with over 38,000 employees. Industrial parks' residents engage in biotechnologies, pharmaceutics, robotics, new materials, IT, electronics, aircraft building, automobile industry, chemicals, medical equipment and IP for the city's infrastructure. After a successful start in the Moscow economic environment, many of them become part of the production chains in big Russian consortiums and corporations with multi-year history and provide them with high-end internationally competitive solutions, technologies and products.

1400
HI-TECH COMPANIES

Industrial park residents are granted a zero property tax rate, decreased land lease rates (as low as 0.01% of the cadastral value) and decreases regional profit tax rate (12.5% instead of 17%). Industrial parks' management companies are granted allowances to repay interest under the loans obtained to create and develop their facility complexes.

The total tax and budget payment savings for high-tech companies may amount to 25%. Financial support includes facilitated financing through issuing bank loan guarantees. Moscow's Small Business Credit Assistance Fund has helped businesses to obtain 1.5 bln euro financing during the recent 10 years.

A total of 8,400 different projects have been financed. Moscow's Venture Financing Development Fund and Microfinancing Development Fund also help Moscow-based production companies to raise financing.

Scientific Development Support

Technological development is always backed up by efficient cooperation between science and production. Moscow Government promotes scientific activities among young people by helping them to put their developments in practice. Since 2013 young scientists have been awarded the Moscow Government's award. In 2016, two types of works could participate in the contest: researches and developments. Many of the last year's award-winning 33 projects have attracted Moscow production companies and some of them have formed the basis for new technological solutions for the city's enterprises. Moscow Government issues grants to young scientists who engage in developments with municipal applications.

Industrial Complexes

Facilities qualified as industrial complexes may decrease their profit, property and land taxes and land lease rates. Processing companies which re-equip their productions are granted allowances to reimburse a portion of the interest under loans and credits and lease payments under financial lease agreements.

Industry-Specific Support

Moscow Government supports the industries which are of priority for the city. To be qualified as an industrial complex or an industrial park, lower economic requirements apply for such industries.

Priority Projects Support

Priority investment projects which are of special importance for the city's development also enjoy tax and budget payment benefits after they enter into a special investment agreement with the Moscow Government. Special conditions apply when providing land for large-scale investment projects. In 2016, eight land plots with a total area of 91,951 square metres were provided for constructing production, scientific and innovative facilities without bidding.

Moscow City Government:
24 April, 2 pm. - 6pm.,
Global Business & Markets
Hall 3, Business Forum 2, Stand G31

Russian Export Center:
One-stop shop services for exporters

The Russian Export Center (REC) works with producers across all sectors

Text: Petr Fradkov, CEO Russian Export Center

©remi

The Russian Export Center Group (REC Group) operates as a one-stop shop providing financial and non-financial services for exporters and their overseas partners and customers and, in addition to the Russian Export Center (REC), incorporates EXIAR, Russia's national export credit agency, and Eximbank of Russia.

The REC Group works with producers of non-commodity goods across all sectors. Its customers include developers of innovative security systems and IT-solutions for business and individual users, toy manufacturers, food (including baby food) and cosmetics producers, as well as major industrial enterprises supplying aircrafts, helicopters, train cars, combine harvesters, passenger and commercial vehicles, etc.
Project activities of the REC Group are based on a specialized client service and a comprehensive product line encompassing both financial and non-financial support at all stages of the export life cycle.

The scope of the non-financial support by the REC Group is not limited to simply searching for partners abroad and involves provision of consultations, arrangement of B2B meetings, seminars and business missions, promotion of goods in destination markets, assistance in customs clearance and logistics, legal advice, and also the support of the Russian exporters' participation in major international expos and forums.

In terms of state support, the essential part is to ensure that exporters and their customers have access to a range of financial instruments. Eximbank of Russia, being an integral part of the REC Group, is dedicated to providing credit and guarantee support, which is focused on financing facilities for a foreign buyer granted either directly or via a local bank in the destination country. As a result, the foreign buyer benefits from a comprehensive approach receiving exported goods and the necessary funding to acquire them , which allows for faster and more efficient implementation of an export contract. For that end, we are taking active steps in building partnerships with banks overseas for facilitation of mutual settlements in national currencies, which is critical in the current environment.

Fostering faster and more efficient implementation of export contracts

More than that, as part of a specialized program to support high-tech goods and services, Eximbank of Russia provides loans at more comfortable interest rates with official support. The list of goods and services that qualify for this kind of sup-

port is quite comprehensive and includes products from such sectors as mechanical engineering, aircraft industry, metallurgy, construction and many others. The volume of export supported by the REC Group in 2016 amounted to USD 8,9 billion.

8,9
BILLION USD EXPORT SUPPORTED BY REC

Another company within the REC Group, EXIAR, provides export credit and investment insurance covering risks in foreign trade for the protection of exporters and their clients from losses in case of a risk event occurrence while implementing an export contract. The agency has provided its services for export projects in Germany, Italy, Brazil, Uruguay, Vietnam, Cuba and other countries. Special attention is paid to supporting collaboration with global peers abroad with more than 20 cooperation agreements signed with state and commercial insurers.

Another important track in EXIAR's international activities is its work within international organizations and formats. The agency participates in discussions on export credits and insurance at various international platforms, including BRICS, the Eurasian Economic Union (EAEU), annual meetings of global ECAs' heads, and more. EXIAR interacts on the regular basis with Russian state bodies on the WTO and OECD issues related to state-supported export credits. More so, the agency is an active member of the Berne Union and Prague Club, which combined together constitute the largest informal association of ECAs. In addition, in 2015 EXIAR hosted the first meeting of the heads of BRICS ECAs, as part of wider efforts to broaden cooperation between the agencies. This event paved the way for the establishment of the BRICS ECA Forum and laid the groundwork for regular interaction between agencies, both at the CEO and expert levels.

China, Middle East, latin America: Russia entering new markets worldwide

As it could be seen from the REC Group activities, the markets where the Russian products are particularly in demand are quite diverse and include the CIS, the Asia-Pacific region, , , Latin America, the Middle East, and Europe. In order to enable the activities of the Russian exporters across various export markets and facilitate their access to them, the REC engages in a wide range of activities to promote the Russian goods abroad. For example, in 2016 the Russian Export Center and the Alibaba Group opened the Russian national pavilion on the Tmall Global e-commerce platform. This allowed the Russian producers of cosmetics, electronics, food and beverages, toys, and other goods to enjoy even more popularity on the Chinese market, while giving the Chinese buyers a chance to learn more about the variety of the high-quality Russian goods.

As another project intended for the Russian goods promotion, the REC hosts Russian Gastroweeks, which are a unique series of events involving presentations by Russian food producers, B2B networking, and tastings. Such events have already been organized in India, China, Vietnam, and the UAE, always attracting special interest from local journalists and in business circles. May 18th-22nd, 2017, the Russian Export Center will be holding Russian Gastroweek events in Shanghai and Wuhan (China).

Export activities constitute a crucial part of any country's economy and, to a certain extent, success in exports testifies to the quality of a country's industry. Today, however, top-quality products alone are not enough for foreign trade to be successful and beneficial for all parties – buyers and sellers alike. It is also vital to provide professional, modern, and accessible services to support these deals, meaning both financial and non-financial products. The more up-to-date such a system is, and the more it is capable of adaptating to changing trends and innovations, the more successful it will be in responding to challenges, while assisting exporters and buyers navigate the seas of global trade. To this end, the REC Group utilizes the entire range of modern financial and non-financial support measures for products bearing the "Made in Russia" brand, while continuing to promote the Russian high-tech high-quality environment-oriented products and enhancing partnerships between sellers and buyers.

Russian Export Center:
Global Business & Markets
Halle 3, Stand H23

Petr Fradkov, CEO Russian Export Center

Sverdlovsk region: Russia's industrial heart

The Sverdlovsk region is one of the most dynamically developing Russian regions, where the economic growth rate exceeds the national average. In the national rating of investment attractiveness, the region is among the top three, and ranks second in terms of industrial output in Russia.The basic industries of the Sverdlovsk region are metallurgy, machine building and electric power.

They account for 75% of the shipped goods of its own production, works and services of the industrial complex.The Sverdlovsk region is one of the largest regions of the world in terms of explored and forecasted reserves of minerals. Sverdlovsk region is the third largest transport hub. Koltsovo International Airport is the largest regional airport in the country, from where flights are carried out in 121 directions.In the Sverdlovsk region, major events of a global scale are held on a regular basis, as well as top-level meetings.Annually in July in Yekaterinburg happens the main industrial exhibition of Russia - "INNOPROM".

In 2016, the "Third Russian-Chinese Expo" in Yekaterinburg was the first in Russia. In Ekaterinburg, there are international hotel chains: Hyatt, Ramada, Novotel, Park Inn, Angelo, Hilton. The region is involved in active trade with more than 140 countries. In Ekaterinburg there are 26 consular institutions. 14 cities from 9 countries are partners of Yekaterinburg.

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Tourism Development Centre Sverdlovsk:
Global Business & Markets
Halle 3, Stand G17

MODON: Partner in Saudi-Arabia

MODON has been established in 2001, the Saudi Industrial Property Authority (MODON) is responsible for the development of industrial cities with integrated infrastructure and services; whereas MODON has established industrial cities in various regions of the Kingdom.

MODON is also responsible for creating the ideal environment for growth and development of technology zones in the Kingdom of Saudi Arabia, where MODON is currently overseeing two technology zones and is seeking to earmark further zones towards acquiring the latest technological investments.

MODON also provides several economic advantages and attracting incentives for industrial, technical, service, residential and commercial projects; as competitive annual rent of developed industrial land in some cities prices is just one riyal per square meter. Industrial investors also find attractive financing opportunities offered by government financing funds and banks to lend to industrial projects, as well as other facilities to support exports by providing an export guarantee and Customs exemption for imports of raw materials and machinery.

©pedronet

Saudi Arabia (MODON):
Global Business & Markets
Halle 3, Stand H02

Made in Russia

RUSSIAN EXPORT CENTER

EXIAR
EXIMBANK OF RUSSIA

The Russian export center (REC) is the state institution for export support established with the Russian Government assistance. REC is a "single window" for financial and non-financial support as well as for cooperation with the relevant ministries and institutions. The Russian Agency for Export Credit and Investment Insurance (EXIAR) and Eximbank of Russia were integrated in the group of Russian export center to completely implement the "single window" concept.

REC provides a wide range of services for non-oil companies at all stages of export cycle, cooperates with the public authorities, preparing suggestions for improving Russian business climate in terms of foreign trade activities, interacts with business and expert community, participates in removing economic and administrative barriers and decreasing the number of "system" limitations.

The main services provided by REC include credit, guarantee and insurance support for exporters, foreign partners selection and economic analytics, consulting on customs, certification, as well as organization of the educational project for exporters and providing other types of non-financial support. **www.exportcenter.ru/en/**

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12, Krasnopresnensaya Emb., entrance 9, Moscow, 123610

Hamriyah Free Economic Zone: Inspiring global business

6500 businesses benefit from smart concepts and advanced infrastructure

In business, speed matters. And with Hamriyah Free zone, 60 minutes is all it takes to set up your business and receive your trade license on the spot. Spread across over 22,000 square meters, we are home to over 6,500 businesses with origins in 157 countries. Our world-class facilities include offices, warehouses, factories, executive office suites. We also have on-site over 15 key business services, like banking and auditing firms, currency exchanges, conference rooms, staff accommodation, and more. Uniquely located at the intersection between three continents allowing you to serve a growing market of 1.5 billion people, Hamriyah Free Zone is your gateway to global business.

Hamriyah Free Zone enables businesses to stay ahead of the market with a range of flexible solutions to meet each organization's requirements and deliver solid returns to investors.

Operating your business out of Hamriyah Free Zone has several advantages such as:

- Strategic location to access global markets
- Access to the UAE and GCC markets
- Abundant and inexpensive energy availability
- Access to world-class infrastructure
- Land leasing available for investor development
- Purpose built office accommodation, warehousing and factory units
- Three seaports and international airport
- Favourable and low-cost living options
- Low labour costs

In order to cater the growing demand of Food Products in Local and Regional Market, Hamriyah Free Zone decided to bring in all the required components of Food Trade under one roof Hamriyah Free Zone has launched UAE's First (1st) Food Park with State-of-the art Infrastructure, Facilities and Services on 2nd March 2017 at Gulf Food 2017.

Hamriyah Free Zone's Food Park is a Dedicated Zone of 11 Million Square Feet which is planned and developed keeping in mind the specific requirements of the Food Industry.

Our Food Park consists of array of Prebuilt Warehouses with different Load Capacity ranging from 50 kW to 150 kW; In-built offices and Facilities, enabling the Investors to start their business operations in shortest possible time.

Well Developed Plots of various sizes starting from 2,500 sq. meters, Onsite Labour Accommodation, Serviced Office Spaces and Business Licenses related to Food Industry.

Hamriyah Free Zone also offers Value Added Services such as Food Safety & Quality Training, Certification Services, Project Consultancy, Food Testing & Lab Services through our team of Committed and Dynamic Food Safety Experts of Food Control Department. This department also acts as an Interface between the Food Regulators and Government Authorities for Smooth and Hassle Free Business Operations.

Our Strategic Location, Proximity to Major Markets, Connectivity through Land, Air & Sea, Availability of Abundant Low Cost Energy, Water and Availability of Cost Effective Work Force makes us unique, which provide our valued investors a distinct edge over the competition.

Hamriyah Free Zone's Food Park is much more than Infrastructure and Facilities. We are talking about bringing all the Stakeholders of Food Ecosystem such as Investors, Facilitators, Regulatory Authorities, Supply Chain, Distributors and Most Importantly Customers under one roof.

We are talking about Vibrant Food Community which will Spearhead the Growth of Food Sector in the entire Middle East and Africa Region.

In recent years we have made significant investment in enhancing the infrastructure of Hamriyah Free Zone and we are currently working on major expansion projects such as Hamriyah Free Zone Phase-3 which will further increase the area of Hamriyah Free Zone from existing 22 Sq. Kilometers to around 30 Sq. Kilometers

HFZA: Advantages for investors

- HFZA is the home to the highest number of steel fabrications in UAE
- HFZA is the primary hub for Oil and Gas companies in UAE
- Full company ownership
- Foreign ownership permitted
- Exemption from commercial levies
- Repatriation of capital and profits
- No corporation or income tax
- Variety of licenses, including commercial, service and industrial
- Renewable long-term issues
- No import or export tax

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Hamriyah Free Economic Zone:
Global Business & Markets
Halle 3, Stand G32/

Positive sentiments about investing in GCC

Annual Investment Meeting 2017 in Dubai witnessed a positive view on FDI in the Gulf region

The seventh edition of the Annual Investment Meeting (AIM 2017) which closed on April 4th witnessed a bullish view on the GCC foreign direct investment (FDI) market. Respondents shared positive sentiments about investing in the GCC countries, particularly with twofour54 in Abu Dhabi, which is home to more than 450 Arabic and international media companies; Fujairah Free Zone Authority, an entity of government of Fujairah in the UAE and ITHRAA a leading inward investment export development agency in Oman. It was noted that the respondents had a positive or neutral view on financials and-materials for the two significant zones which collectively make up a share of the GCC economy.

"This conference has helped us to showcase not only Oman, but also opportunities in the country. I represent Port of Duqm which has a refinery coming up. The tourism and shipping sector is booming. Through the annual investment meeting we are looking for investors to invest in our logistics area, and I must admit that the audience that we've met here showcased great interest in our facility. We have met some potential clients and we are confident that in the next couple of weeks we will be able to close some good deals," said Talal Al Barwani, Sales and Marketing Specialist at Port of Duqm.

Fostering sustainable partnerships

The Annual Investment Meeting (AIM) is the Gulf region's premier foreign direct investment event attracting corporate leaders, policy makers, venture capitalists, bankers and consultants from across the world to discuss strategies on attracting foreign investment and connecting businesses and countries willing to engage in sustainable partnerships.

The last day of the high-profile event observed discussions on 'The role of FDI in building physical structure and competitiveness spearheaded by experts in the industry including Datuk Wira Jalila Baba, Former Director General of Malaysian Investment Development Authority (MIDA), Malyasia; Imad Eddine Oubiri, Director – Investment Promotion, RAK, UAE; Neeraj Agarwal, Executive Director, Crescent Enterprises and Executive Board Member, Gulftainer, UAE and Uche Orji, Managing Director and CEO, Nigerian Sovereign Investment Authority, Nigeria. In addition, the global forum also witnessed a discussion on 'Finance and Innovation: The way forward' which was led by Ahmed Qurram Baig, Co-Founder, CISCO Connect, UAE; Jennifer Hansen, Executive Vice President, Global Head of Sales, Strategy and Execution, Saxo Markets, Denmark; Olga Parra, Banking and Insurance Analytics Leader, IBM, UAE and Wai-Lum Kwok, Executive Director, Capital Markets, Financial Services Regulatory Authority, Abu Dhabi Global Market, UAE.

Diversification contributes to investment

It has been noted that the diversification of the GCC's economy, backed by confidence across different sectors including real estate, tourism and banking have contributed towards more foreign direct investments (FDI) influx into the region. "The Annual Investment Meeting has been a great platform to meet and connect with potential investor," said a spokesperson from Fujairah Free Zone Authority.

In recent years, Fujairah Free Zone has witnessed immense growth due to the unmatched opportunities it offers to investors. Located adjacent to the Port of Fujairah, companies established here have easy access to all Arabian Gulf ports, the Red Sea, Iran, India and Pakistan on weekly feeder vessels. Mainline services arrive from Northern Europe, the Mediterranean, Far East and North America on a weekly basis, and services leave twice weekly to the Far East and once a week to North America. Fujairah Free Zone is also close to Fujairah International Airport which the only airport is serving the UAE East Coast as well as northern Oman. A fortunate combination of geographic location, with access to world's major shipping routes, a fine port; airport and streamlined procedures, make the Free Zone of Fujairah an ideal place for business.

The Annual Investment Meeting has pioneered the model of convening the most brilliant strategies to make this platform easily accessible to all potential investors.

Since our first edition, we have supported groundbreaking research and initiatives that transform the investment landscape. This has not only provided scope for a greater synergy between countries, but also helped explore the possibilities of mutual cooperation in this sector," said Dawood Al Shezawi, CEO, AIM's Organising Committee. Held under the theme 'International Investment, Path to Competitiveness; Development', this year's edition of AIM gathered a wide range of visitors throughout three days.

Make in India:
The place to start with

Adani Ports and Special Economic Zone Limited (APSEZ) offering smart services

©FelixDance

Adani Ports remain earnestly dedicated towards supporting the government's 'Make In India' initiative by offering world class service and amenities. The company is India's largest ports developer and operator company. It's ten strategically located ports and terminals represent 24 per cent of the country's port capacity, and remains present on both the west and east coasts of India emerging as a truly pan India player.

The company's ability to build and manage deep draft ports with world-class infrastructure, offer fastest turnaround time for ships and provide integrated logistics solution making APSEZ the most preferred maritime gateway for diversified businesses.

The Mundra Special Economic Zone (SEZ) is India's only and largest port based, multi product SEZ offering an unmatched integrated ecosystem for businesses to flourish. It also offers India's largest port based Free Trade Warehousing Zone to its investors.

Adani Group - dynamism and integrated infrastructure

APSEZ is a part of the Adani Group, a global integrated infrastructure player in key industry verticals - resources, logistics and energy. Under the stewardship of Mr. Gautam Adani, Chairman, the Group has grown with verve and dynamism, and is today amongst the fastest-growing companies in India.

Buoyed by the success, APSEZ is today developing the SEZ in Mundra into India's largest multi-product economic hub. The world's largest automated imported coal terminal sits in Mundra, an asset operated by APSEZ.

APSEZ runs ports in Mundra, Hazira, Tuna-Tekra (Kandla) and Dahej, in Gujarat, Dhamra in Odisha, as well as operating specialized coal-handling facilities at Mormugao in Goa and Visakhapatnam in Andhra Pradesh. The company is currently setting up a container terminal at Ennore in Tamil Nadu and is developing India's first transhipment port at Vizhinjam, Kerala. APSEZ has recently acquired a port in Kattupalli, Tamil Nadu, which the company now runs.

Mundra: Seamless Connectivity

APSEZ offers Cargo handling services at its Ports which involves loading/unloading from ships, moving to the yards, storage, destination movement and allied services. Largely mechanised, all the company's ports have seamless connectivity to national roads and rail networks and have provisions for a major expansion.

Mundra has the advantage of lying across the ocean from the Middle East, Africa and Europe – three of India's biggest trading partners. Location apart, Mundra operates a multi-product, large-format, private SEZ. Mundra is one of a select few ports with handling and storage facilities for crude oil, containers, dry bulk, break bulk, automobiles and liquid cargo. The port is a deep-draft port with 24 berths and two single point moorings. Its container terminals have the capacity to handle 4 million TEUs and the capability of berthing the largest container vessels calling at Indian ports.

Mundra SEZ: Excellent industrial infrastructure

The Mundra SEZ has an integrated offering with a multi cargo port, industrial park, and free trade zone which are robustly supported by excellent industrial infrastructure. Within the zone some of the focus clusters are Engineering, Oil & Gas, Chemicals & Petrochemicals, Textiles, Aerospace & Defence, Electronics Manufacturing Cluster, Food & FMCG, Ceramics and Free Trade Warehousing Zones.

Dahej's strengths include a deep-draft multi-cargo port, in the Gulf of Khambhat, on the Narmada estuary near Bharuch, Gujarat. With two berths, the port has a capacity to handle 20 MMTPA of cargo comprising coal, silica sand, rock phosphate, steel products and project cargo. Dahej has India's first high speed elevated triangular gallery overland conveying system for coal transportation, which reduces dust pollution.

The port at Hazira is a deep-draft facility near the diamond trading city of Surat, Gujarat. It is strategically located to allow global container operators to take advantage of the proposed Delhi-Mumbai Industrial Corridor. The port's sophisticated handling and storage facilities, and capacity to handle 35 MMTPA, allow it to process multiple types of cargo.

The terminal at Visakhapatnam is capable of mooring Panamax vessels, with a capacity to handle 6.5 MMTPA of imported non-coking coal. This facility is well suited to serve customers in south and southeast India.

Tuna Terminal handles all types of dry bulk cargo including coal, fertilisers and agriculture products. Tuna is a fully mechanised, highly automated dry bulk cargo handling facility. Tuna Terminal can easily handle vessels with the deep draft in the Kandla waters.

Mormugao Terminal is a fully mechanised coal handling facility capable of handling Panamax and Capesize vessels.

With 18 meters draft, Dharma is amongst the deepest ports of India and can accommodate super cape-size vessels up to 180,000 DWT. It is an all-weather, multi-user, multi-cargo port with a potential to handle more than 100 MMTPA of dry bulk, liquid bulk, break bulk, containerised and general cargo.

APSEZ has signed an agreement to operate the Kattupalli Port, for serving the growing demand in the vicinity of Chennai. The port will help the trade in the region by seamless connectivity and congestion free alternative.

APSEZ is currently setting up a container terminal at Ennore in Tamil Nadu, which will directly benefit EXIM trade in North Tamil Nadu, Karnataka and Andhra Pradesh. The company has also begun developing India's first mega transhipment port at Vizhinjam, Kerala.

Adani:
Global Business & Markets
Halle 3, Stand J23

EEPC India:
Building global partnerships

EEPC India is the premier trade and investment promotion organization in India. It is sponsored by the Ministry of Commerce & Industry, Government of India and caters to the Indian engineering sector. As an advisory body it actively contributes to the policies of Government of India and acts as an interface between the engineering industry and the Government. Set up in 1955, EEPC India now has a membership base of over 13,000 out of whom 60% are SMEs.

EEPC India organizes a large number of promotional activities such as buyer-seller meets (BSM) – both in India and abroad, overseas trade fairs/exhibitions, and India pavilion/information booths in selected overseas exhibitions to demonstrate the capabilities of Indian engineering industry and to provide the overseas buyers with a true value as propagated by Brand India.

India Engineering Exhibition (INDEE) is EEPC India's own brand and is one of the largest expositions of engineering in the world. This has been happening for the last few decades and is established as the largest and most important showcase for Indian engineering. EEPC India facilitates sourcing from India and boosts the SMEs to raise their standard at par with the international best practices. It also encourages the SMEs to integrate their business to the global value chain.

To encourage building global partnerships with India, EEPC India organizes India Engineering Sourcing Show (IESS), the largest display of engineering products and services every year. This is recognized as the only sourcing event in India – showcasing the latest technologies and a preferred meeting place for global buyers & sellers. This show is also important to encourage foreign investments in line with the newly initiated "Make in India" campaign, by Government of India.

EEPC India:
24 April, 12.30 pm. - 2.30 pm.,
Global Business & Markets
Hall 3, VIP Room

Tianjin's THT:
A base for innovation and hi-tech

The Tianjin Binhai Hi-tech Industrial Development Area stands for state of the art manufacturing

Established in 1988, Tianjin Binhai Hi-tech Industrial Development Area ("THT") was one of the first approved national hi-tech areas by State Council. Facing the Bohai Sea and adjacent to Beijing, THT has Huayuan Science Park, Future Science City·South Section (Bolong Lake Science Park), Future Science City·North Section and Marine Science Park with a total planned area of over 240 km2. In 2016, THT had GDP of 151 billion RMB ($22.04 billion) and a gross output value of 219 billion RMB ($31.9 billion). There were over 1,100 national hi-tech enterprises and 12,460 SMEs. There was an increase of 13,000 patents in 2016. In addition, THT has twelve academicians from China Academy of Sciences and China Academy of

Engineering, 81 people for the Recruitment Program of Global Experts and over 1,000 people with experience of overseas study. These have made THT a major base for scientific innovation, hi-tech industries and talent training in Tianjin.

THT has established a "5+1" industry system: electric vehicle, new energy, new information technology, intelligent equipment manufacturing, marine industry plus modern service industry. The proportion every industry accounts for is shown as: electric vehicle and new energy 21.6%, new information technology 20.7%, intelligent equipment manufacturing and marine industry 13.7%, and modern service industry 24.4%. Electric vehicle: a state-of-the-art complete industry chain is created with whole car design and manufacturing, R&D of batteries, hub motor, recharging system and detection. New energy: The first industrial base with R&D of the state-of-the-art solar thermal power generating and the whole chain has been established. Leading enterprises such as Yingli Solar have ranked the top in the production of PV module. Gamesa, Ming Yang Wind Power, etc., have made the market share in the forefront. New information technology: enterprises including Saigon, Feiteng CPU, Innova, Neokylin, Qisi Tech, GBase, etc., have made up an autonomous-control industry innovation chain. Infrastructures for "cloud computing" and "big data" have been structured preliminarily. Modern service industry: culture & creativity is becoming prominent with typical enterprises such as Cameron Pace Group China, Perfect World, Ledo Interactive, Toutiao.com, etc.

THT GDP OF
22.04
BILLION DOLLARS

Tianjin: The "city of universities"

THT had had 24 national R&D institutes and 165 municipal R&D institutes. Since THT emerged from the core areas of Tianjin University and Nankai University, and it's adjacent to the "city of universities", it has attracted domestic famous universities and institutes to settle, including China Academy of Space Technology, Binhai Industrial Technology Research Institute of Zhejiang University, Military-Civilian Innovation Research Institute of National University of Defense Technology, Institutes of Advanced Technology of China Academy of Sciences, Academy of Military Medical Sciences, the 18th Institute of China Electronics Technology Group Corporation, Tianjin Institute of Pharmaceutical Research, etc. There have been twelve national incubators in THT, among which are more than thirty MakerSpaces. They are classified into four categories: specialized platform, comprehensive service, investment promotion and business start-up tutoring. WISPARK Incubator, a pyramid of four-level incubation system, will make a scientific innovation incubation chain incorporating nursery, incubator and accelerator. Apart from the above-mentioned resources, THT provides an advanced financial service platform for the enterprises: there are 493 financial institutions of different types, including banks, companies for securities, insurance, futures, factoring, financial leasing, private equity investment fund and management, etc.

Start of "Sino-German United R&D Center on Robot"

Sino-British Healthcare Industry Base was established and attracted seven world-leading and on-industrialized bio-pharmaceutical and medical apparatus projects to settle. The projects include a portable home-use in-vitro detector, 3D printing of bio-materials and organs, etc. Besides, THT made cooperation with three corporations and institutions in home and abroad (NAMEF, etc.). THT signed an agreement with RMIT University in Australia and a memorandum of cooperation with Vancouver Economic Commission so as to promote the exchange and cooperation on economy and trade, hi-tech, culture & creativity, etc. Moreover, Israel-Tianjin Project Promotion Office was established. Sino-American, Sino-German, Sino-Japanese and Sino-Korean innovation platforms are being built up, and R&D institutions including "Sino-German United R&D Center on Robot" were introduced. NEVS, an electric vehicle company in THT, assisted in developing Turkish national electric vehicle brand. The R&D center of NEVS and Binhai Solar Thermal International Concerted Innovation Center were initiated. Keyia Electric, Ledo Interactive, Tellyes Scientific Inc., Jinrong Tianyu Precision Mechanism, etc., acquired foreign enterprises and deepened the cooperation.

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THT:
Global Business & Markets
Halle 3, Stand F02

CASIC: Integrated development of hi-tech products in China

As a large state-owned high-tech enterprise directly managed by the Central Government, the China Aerospace Science and Industry Corporation (CASIC). CASIC comprises the headquarters, 6 research academies, 1 research and production base and 15 affiliated units and shareholding enterprises. Its over 600 domestic enterprises and institutions are located throughout China. And the 11 offices and 19 shareholding enterprises overseas cover various countries and regions in Asia, Europe, Africa, North America and South America. Among its over 140 thousand employees, there are many famous experts and scholars, including 8 academicians of the Chinese Academy of Sciences and the Chinese Academy of Engineering and over 200 national science and technology talents. The high-quality young researchers have become the mainstay of the enterprise innovation team. CASIC has various key national labs, technology innovation centers, results incubation centers and a research and production system with complete specialities.

Military-civilian hi-tech products for IT and manufacturing

Focusing on "Overall defence, overall security", CASIC follows the military-civilian integration path with Chinese characteristics. By means of its technology superiority, CASIC takes the strategic measures of "Integrated development of equipment manufacturing industry and information technology industry, Synchronous upgrading of aerospace defence industry and civilian industry", and develops a series of military-civilian integrated high-tech products in information technology and equipment manufacturing fields. The anti-counterfeit tax audit system, Olympic Games security system, South-to-North water transfer simulation system and emergency rescue and support equipment developed by CASIC have been widely used for the national economic and social development, bringing great social and economic benefits.

Following the strategy of "Made in China 2025"

In the recent years, CASIC works actively to adapt to the New Economic Normal, follow the government strategies of "Internet +" and "Made in China 2025", plan and promote the establishment of smart enterprise, private cloud and aerospace cloud network platforms. The "Internet + Smart Manufacture" aerospace cloud network platform, built on the basis of the strong research and manufacture capabilities of CASIC, promotes the formation of the new industry ecosystem of "Internet +", provides Chinese manufacturing enterprises with convenient, efficient, open, useful, effective and adequate online/offline interaction and full-process development environment, trying to enhance the capability and level of Chinese manufacture. CASIC has been graded A in the CEO's performances evaluation by the State Council's SASAC within 8 consecutive years, received "Excellent Performance Prize" in 2 consecutive terms of office and "Technological Innovation Prize" in 3 consecutive terms of office. Furthermore, special prizes in State Science and Technology Progress Award have been offered to CASIC. CASIC also won the 1st place in the machinery manufacturing industry in "2013 Independent Brand Value Evaluation of China's Manufacturing Industry".

China Aerospace Science
Global Business & Markets,
Hall 3, Stand: C30

The Sino-German Industrial Alliance: A Win-win of Cities

Established in April 2016, Sino-German Industrial City Alliance is an international cooperation platform jointly initiated and established by important industrial cities of China and Germany. The Secretariat located at Foshan Sino-German Industrial Services Zone is responsible for daily affairs and several professional committees are responsible for the exchange of specific industries and topics between Chinese and German cities. At present, the Alliance has 22 full member cities (as of March), including 14 Chinese cities (Foshan, Jiangmen, Zhuzhou, Zhaoqing, Jieyang, Yunfu, Jiaozuo, Nanning, Taizhou, Guiyang, Liuzhou, Nanchang, Ma'anshan and Bao'an District of Shenzhen) and 8 German cities (Aachen, Wuppertal, Ingolstadt, Bottrop, tripartite win-win cities[Rüsselsheim am Main, Raunheim, Kelsterbach], Cologne, Nuremberg and Mainz). Investment Promotion Agency of the Ministry of Commerce, China and German Federal Foreign Trade and Investment Agency jointly act as guiding units of the Alliance; China Research Institute of Electronic Information Industry Development (CCID Group) and North Rhine-Westphalia Investment Promotion Agency of Germany jointly act as the consultant unit of the Alliance.

Keeping to the strategic linkage of "Made in China 2025" and Germany's "Industry 4.0", the Alliance adheres to the principle of "openness, innovation, equal consultation, resource integration, and mutual benefits", takes the mission of serving complementary development and innovative fusion among Chinese and German member cities, actively promotes trade contact, merger and technical cooperation between the cities and make great efforts to promote the effective linkage of the two countries in terms of technology, market and capital and achieve the collaborative development of the member cities.

Sino-German:
Global Business & Markets
Halle 3, Stand 18

Chengdu: Reforms to promote SME development

With the theme of "serving for small and medium enterprises and promoting their continuous development", Chengdu Promotion Association of Small and Medium Enterprises has stepped into another stage ever since it was founded, based on the guidelines of "promoting the development of enterprises and being the assistant of government to construct a harmonious atmosphere ". Reviewed the history, we have got many achievements, under the guidelines of relevant government departments and support of enterprises. The quantity of association enterprise has increased quickly, till now up to 1000 members. Nevertheless, those success proved our efforts, now, under the new circumstance, we will stand together with small and medium enterprises to face all kinds of challenges. We will remember leaders' attention and support, which is also our driving force to make progress and get gorgeous achievement in the future with the policy of "further reform promotion"

Our mission is mainly to engage in solving difficulties and problems for small and medium enterprises. We have always provided services of researching on-site, participating in oversea exhibition conference, constructing finance platform, and conveying relevant policies of the government in the first time, which help those enterprises overstep difficulties and got highly commended by them. In the future, we still have a long way to go; we will stick the theme, make pursuit and struggle for development of small and medium enterprises

Hannover Milano Fairs Shanghai
Global Business & Markets,
Halle 3, Stand 04

Investition in beide Richtungen

CIIP vertritt in Deutschland starke Partner aus China und fördert Unternehmen aus beiden Ländern

China und Deutschland kennen bei Investitionen schon lange keine Einbahnstraßen mehr. Daraus hat die Volksrepublik Konsequenzen gezogen: Die China International Investment Promotion Agency (CIIP) fördert und unterstützt potentielle Investoren in beiden Ländern.

Um eine entsprechende Vereinbarung zwischen den Regierungschefs der beiden Länder umzusetzen, wurde die Agentur des Handelsministeriums zur Förderung von Investitionen im Jahr 2014 in Frankfurt am Main als Agency Germany gegründet. Sie arbeitet eng mit der Handelsabteilung der Provinz Zhejiang, der Handelsabteilung der Provinz Jiangxi, Beijing wirtschaftliche und technische Entwicklungszone, mit Tianjin, mit der Wuqing wirtschaftliche und technische Entwicklungszone, mit Yantai wirtschaftliche technische Entwicklungszone sowie der Shijiazhuang High-tech Entwicklungszone und der Regierung der Provinz Jiangsu Taicang zusammen.

Absicht der Regierungschefs war, " in Deutschland eine Förderungsstelle zu gründen, um den chinesischen und deutschen Unternehmen einen Service anzubieten und die Investitionen in beide Richtungen auszubauen." Ziel ist dabei, Beratungskapazitäten für die chinesische und deutsche Wirtschaft aufzubauen und auch eine Chinesische Handelskammer in Deutschland zu gründen. Kurz: Eine Wirtschaftsförderung zu gründen, damit die Investitionszusammenarbeit gefördert werden kann."

Prinzip: Blick auf Europa

Für das deutsche Zentrum als Plattform für die Förderung der Investitionen zwischen China und Deutschland ist ein Prinzip verbindlich: „Basierend auf Deutschland, Blick auf Europa, Service für den ganzen Staat, Priorität für die Partner". Mit dieser Maxime soll eine erfolgreiche Fördertätigkeit für die Investitionen in beiden Richtungen zwischen China und Deutschland entwickelt werden

Arbeitsaufgaben:

- Eine ausländische Unterstützungs- und Serviceplattform für die zunehmende Investitions-Zusammenarbeit nach Deutschland und Europa von den nationalen Provinzen und Städten; Entwicklungszonen und Unternehmen aufzubauen; die bilateralen Informationen für Investitionen und Zusammenarbeit zu sammeln; Service für die Erweiterung der Kanäle zu sichern; Kontakte für Projekte, Planung und Beratung sowie Nachfolgeservice zu leisten.

- Direkte Kontakte zwischen deutschen und europäischen mittelständischen Unternehmen und diesbezüglichen Branchenverbänden aufzunehmen, „eine Förderplattform für die Partnervermittlung in den chinesischen und europäischen mittelständischen Unternehmen" aufzubauen, ein effektives Netzwerk zwischen europäischen und chinesischen Ressourcen zu fördern.

- Deutsche und europäische Unternehmen zu organisieren, die die größte nationale Investions- und Handelsmesse besuchen und Gespräche zur Partnervermittlung zu führen.

- Chinesische Unternehmen zu organisieren, um an den bezüglichen Veranstaltungen für Investitionsförderung in Deutschland und Europa teilzunehmen.

- Beteiligung an der Arbeit der chinesischen Handelskammer in Deutschland, Servicearbeit für die Garantie der Interessen der chinesischen Unternehmen in Deutsch-

land, für Investitionsförderung und für Risikoalarm usw. zu leisten, gesetzmäßiges Interesse von chinesischen Unternehmen zu schützen.

- Werbung für chinesische Investitionspolitik und Investitionsumgebung in Deutschland und Europa zu betreiben, Beteiligung an Entwürfen von Arbeitsplänen von CIIPA für Investitionsförderung in Deutschland und Europa und diesen Plan durchzusetzen.

- Enge Kontakte mit internationalen Wirtschaftsorganisationen und Investitionsförderagenturen in Deutschland und Europa aufzunehmen sowie ihnen einfache und effektive Dienstleistungen für die Verbesserung ihrer Wirtschafts- und Handelskommunikation und der Zusammenarbeit mit China anzubieten

- Professionelle Ausbildung, Untersuchungen und Veranstaltungen für Investitionsförderung in beiden Richtungen zu planen und zu organisieren.

Kooperationsinstitute
共建单位

Shijiazhuang National Hi-Tech Industry Development Zone
石家庄国家高新技术产业开发区

German Office of Tianjin Hi-tech Industrial Park Wuqing Development Area General Corporation (China UDA German Office)
中国武清开发区德国代表处

German Office of Department of Commerce of Jiangxi Province
江西省商务厅驻德国代表处

Taicang Representative Office in Germany
太仓市驻德国代表处

Yantai Economic & Technological Development Area
烟台经济技术开发区

Panjin Representative Office in Germany
盘锦市驻德国代表处

Mianyang High-tech Industrial Development Zone
绵阳高新技术产业开发区

German Office of Changshu New & Hi-tech Industrial Development Zone
常熟高新技术产业开发区驻德国代表处

German Liaison Office (Frankfurt) of Sino-German Industrial City Alliance
中德工业城市联盟德国联络处 (法兰克福)

China International Investment Promotion Agency (Germany)

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Andrah Pradesh: Gateway to ASEAN

With a growth rate of 10.95% during 2015-16 and 12.2% in the first two quarters of 2016-17, Andhra Pradesh has already become one of India's foremost investment destinations and is leading India by example. Andhra Pradesh's vision is to be amongst the three most-developed states of India by 2022; the foremost state in India by 2029, and a top global investment destination by 2050. Andhra Pradesh is already investing in one of the world's most ambitious infrastructure development programmes by adding new ports, airports, railway lines, roads etc. It has also set up over 300 industrial parks spread over an area of 121,655 acres. It has also set up three thriving industrial corridors.

In addition to being ranked No. 1 in the World Bank's Ease of Doing Business index, we are now creating robust ecosystems that rapidly reduce the cost of doing business by channeling investments towards developing infrastructure, technology and enhancing skill development. The labour cost in Andhra Pradesh is the most competent in Asia. Apart from labor, the state also offers a GIS-enabled industrial land bank of 300,000 acres. Andhra Pradesh also leads the country in the implementation of e-Governance. It is the first state in India to have a state-wide enterprise architecture. Its Core CM Dashboard displays real time data across 1500 governance and public service parameters. This means that starting your business in Andhra Pradesh is just a click away. To witness and be part of Andhra Pradesh's growth story, please visit us at J26.

©flickr

India - Andrah Pradesh:
Global Business & Markets
Halle 3, Stand J26

Techcode: Accelerating business growth

Techcode is a key player in industrial innovation in Asia and was founded in 2014. It has partnered with China Fortune Land Development Co., Ltd (CFLD), a leading new industry city operator responsible for more than 40 industrial parks globally and dedicated to guiding entrepreneurs from their first steps to scale manufacturing. Techcode has helped CFLD to source global technological innovation, aiming to build an industry-driven and innovation-driven system to achieve regional industrial upgrading.

Focusing on incubator operations management and dynamic growth of science and technology entrepreneurs, Techcode is dedicated to becoming the No.1 brand in global innovation and entrepreneurship ecosystems.

With incubation systems in Beijing, Shanghai, Shenzhen, Nanjing, Wuhan, Chengdu, Gu'an, Xianghe, Dachang and Jiashan, Silicon Valley, Seoul, Tel Aviv, and Berlin Techcode provides innovators with a global entrepreneurial network. The integration of global innovation resources aims at providing comprehensive service for entrepreneurs.

As of December 2016, two years since its establishment, Techcode has incubated 534 start-ups, which have obtained a total financing amounting to 1.71 billion yuan. Incubated companies have reached a total market value of 37.5 billion yuan with nearly 1,000 patents and have created more than 3,000 jobs. Techcode improves the possibility of entrepreneurship success and accelerates business growth.

©tinto

Techcode:
Global Business & Markets
Halle 3, Stand F32

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Malaysia:
The Profit Center of Asia-Pacific

Malaysia combines a modern environment for production with access to the huge Asian-Pacific growth markets

The country is ranked as a top investment destination by various international organizations and research institutes. Therefore, the Malaysian Investment Promotion Agency (MIDA) presents at Hannover Messe 2017 the chances and provisions for international technology enterprises considering to do business in Malaysia.

Malaysia is a preferable gateway for international industry's supply chains to the market of the ASEAN Economic Community (AEC). The 10-countries association covers 630 million consumers. Furthermore, through ASEAN +1 free trade agreements with China, India and several other countries in the region, Malaysia is perfectly located to reach a total market of 3 billion people in the more and more integrating world's growth region Asia-Pacific.

German entrepreneurs regard Malaysia as one of the most attractive investment locations in the Far East, where 570 manufacturing projects with German participation had been approved last year. These investments totalled USD 12 billion and have created more than 66,500 employment opportunities. However, Malaysia is not seen as a "cheap" location for low-end production, so German and international players have transferred state-of-art production to Malaysia. The country provides a comprehensive and modern business infrastructure, including highly qualified labour at very competitive costs.

The global marketing and communications firm BAV Consulting and the Wharton School of the University of Pennsylvania ranked Malaysia as number 1 best country for Foreign Direct Investments (FDI) in 2017, based on attributes such as corruption, dynamic, economic stability, entrepreneurial, favourable tax environment, innovative skilled labour force, and technological expertise. Not surprisingly, in November 2015, Osram - a global leader in lighting manufacturing based in Germany - announced its expansion plans of €1 billion for the establishment of a new LED chip plant in Kulim, Northern Malaysia.

The Malaysian Investment Development Authority (MIDA) is the first contact to seek comprehensive information about investing and doing business in Malaysia. In Germany MIDA runs offices in Frankfurt (Main) und Munich, but the quickest way to get in touch with MIDA at Hannover Messe is to visit their booth at the Global Business & Markets in Hall 3, H31/11 – nearby the Investment Lounge. Industrial representatives are also invited to participate a Malaysia business presentation at the EURASIAN BUSINESS FORUM, Thursday, 27 April, 10:00-12:00 h, Hall 3, VIP Room.

Malaysia investment opportunities and MIDA at HANNOVER MESSE 2017 promise to conquer most demanding investors with the competitive facilities of a new Asian hub willing for innovative projects. www.asia-pacific.eu.

MIDA:
Global Business & Markets
Halle 3, Stand H31/11

UNIDO focusing on Sustainable Development Goals

The specialized agency of the UN promotes industrial development for poverty reduction, inclusive globalization and environmental sustainability

At the Sustainable Development Summit on 25 September, 2015, UN Member States adopted the 2030 Agenda for Sustainable Development, including a set of Sustainable Development Goals (SDGs), otherwise known as the Global Goals. The SDGs are a new, universal set of goals, targets and indicators that UN Member States are expected to use to frame their agendas and political policies over the next 15 years.

The SDGs follow and expand on the Millennium Development Goals (MDGs), which were agreed by governments in 2001 and expire at the end of 2015. The SDGs will now finish the job of the MDGs, and ensure that no one is left behind.

UNIDO's role in the SDGs

The United Nations Industrial Development Organization (UNIDO), as a specialized agency of the UN that promotes industrial development for poverty reduction, inclusive globalization and environmental sustainability, is determined to take its part in facilitating with the successful implementation of the SDGs in the globe.

The mandate of the Organization, as described in the Lima Declaration adopted at the fifteenth session of the UNIDO General Conference in 2013, is to promote and accelerate inclusive and sustainable industrial development (ISID) to

achieve shared prosperity and environmental sustainability around the world. The concept of ISID is included in the Sustainable Development Goals, namely Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

The targets of Goal 9 include:

- Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all
- Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries
- Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets
- By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
- Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending
- Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing states
- Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities
- Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020

UNIDO's mission echoes SDG-9, but also aligns with all other development goals, including those related to poverty eradication, creating full and productive employment, protecting the environment, achieving gender equality and the empowerment of women and girls.

Mission: Towards inclusive and sustainable industrial development

According to its Lima Declaration, the United Nations Industrial Development Organization (UNIDO) aims to eradicate poverty through inclusive and sustainable industrial development (ISID). UNIDO advocates that ISID is the key driver for the successful integration of the economic, social and environmental dimensions, required to fully realize sustainable development for the benefit of our future generations.

Inclusive and sustainable industrial development means that:

- Every country achieves a higher level of industrialization in their economies, and benefits from the globalization of markets for industrial goods and services.

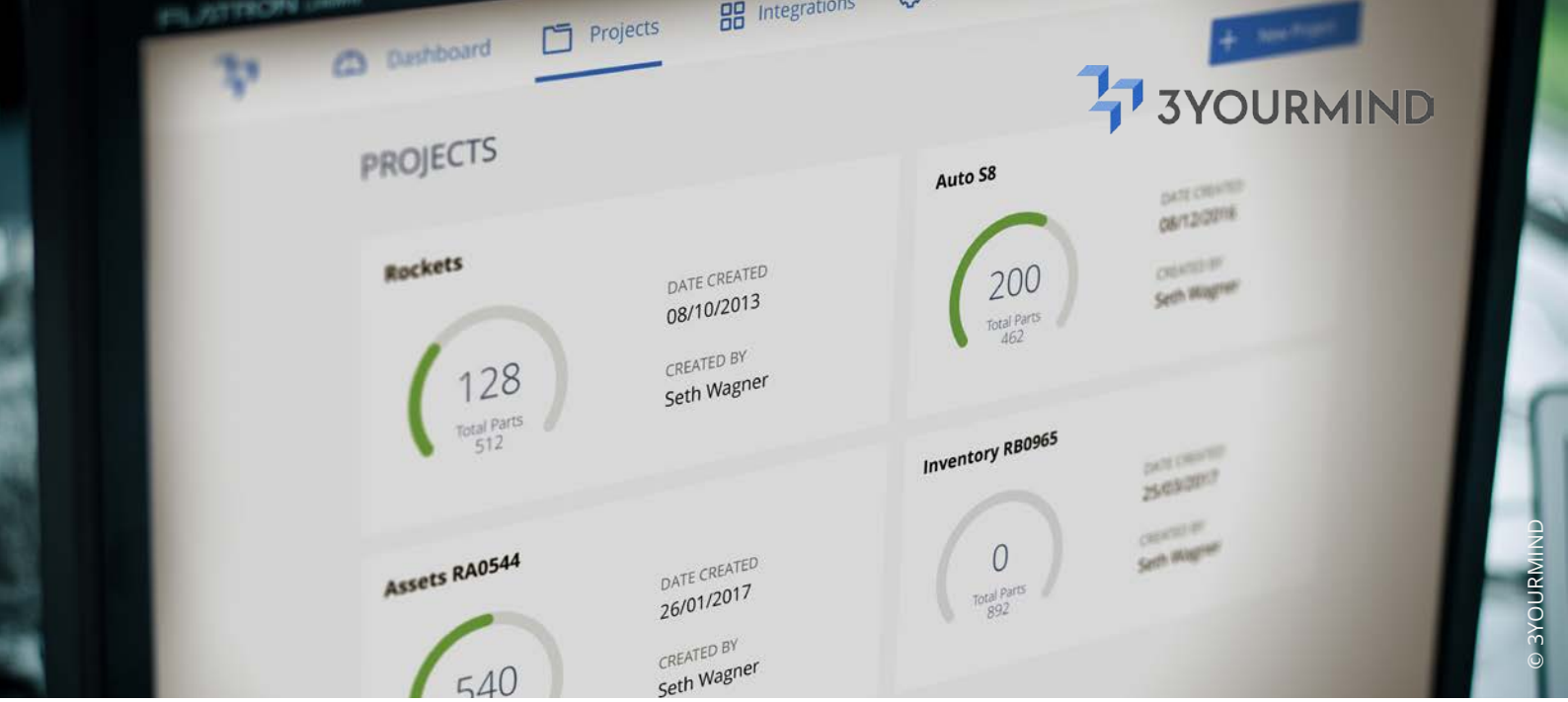
- No one is left behind in benefiting from industrial growth, and prosperity is shared among women and men, young and old, rural and urban dwellers alike, in all countries.

- Broader economic and social growth is supported within an environmentally sustainable framework.

- Unique knowledge and resources are combined of all relevant development actors to maximize the development impact of ISID.

The enormous potential of ISID to deliver upon the multi-dimensional aspirations of development has also been recognized by all members of the United Nations, which adopted the 2030 Agenda for Sustainable Development, including SDG-9 "Build Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization and Foster Innovation".

UNIDO:
Global Business & Markets
Halle 3, Stand G23



Automatically Identifying the Ideal Parts for Additive Manufacturing

3YOURMIND is presenting the AM Part Identifier (AMPI) that scans component inventories to determine which parts are optimal for Additive Manufacturing

The Berlin-based company 3YOURMIND was founded with the mission to simplify the processes of Industrial 3D Printing. Last year they established both their Enterprise and eCommerce platform solutions which have been widely adopted by leaders of the industry to enable streamlined production chains. However, they noticed a distinct problem inhibiting a wider adoption of additive manufacturing, Leading producers are managing part inventories with components numbering in the 100,000s, with thousands of new parts being added each month.

The AM Part Identifier (AMPI) is the solution they developed to make it easy for companies to begin with additive manufacturing, and to identify the hidden profitable components throughout their entire databases. Implementing the tool performs an automated analysis to detect the parts that are technologically viable and economically profitable for 3D manufacturing. Once the analysis is complete, the company can view a ranking of all components to help make educated decisions about what parts to focus on.

Optimizing AM from Design-to-Production

Engineers and 3D designers can use AMPI to receive immediate feedback on their newly designed items early in the design process. This allows companies to quickly iterate their designs and maximize their utilization of 3D printing capabilities.

The real potential of additive manufacturing comes from combining the ability to quickly analyze large part databases and then feed the most promising parts directly into 3YOURMIND's established workflow tools. Not only are they beginning with the most suitable 3D components, but they will be specifically verified for printability based on 150 materials and post processes, optimized for 3D printing, and routed to internal and external printing resources with an easy to use cloud based service.

The rapid adoption and demand for 3YOURMINDs innovative platform has allowed the Berlin-based company, to add a US office in San Francisco, CA, and a production center in Wroclaw, Poland. 3YOURMIND is enabling the widespread expansion of additive manufacturing in forward thinking businesses around the world.

3YOURMIND:
Messestand: Halle 2, Stand B33

"With the 3YOURMIND AM Part Identifier, we are enabling companies to utilize 3D Printing to its full extent. For the first time, they can have first-hand knowledge of which parts can be manufactured with additive technologies and what simple redesigns will enable profitable AM production."

Stephan Kühr,
CEO 3YOURMIND

International Partners for new business

Profiles of Global Business & Markets Exhibitors and Partners.

ABU DHABI DEPARTMENT OF ECONOMIC DEVELOPMENT

The Department of Economic Development in the Emirate of Abu Dhabi proposes economic policy and drafting economic plans for the Abu Dhabi in cooperation with concerned government departments and agencies, and submitting same to the Executive Council for approval. The Department proceeds on effecting approved proposals, through the implementation of programs, projects and development initiatives aimed at realizing the Economic Vision 2030 of the Government of the Emirate of Abu Dhabi.

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ADANI PORTS AND SPECIAL ECONOMIC ZONE

Adani Ports and Special Economic Zone Limited (APSEZ), India's largest port developer with a cargo operating capacity of 338.5 MMT operates eight ports and terminals. These are at Mundra, Dahej, Kandla and Hazira in Gujarat, Dhamra in Orissa, Mormugao in Goa, Visakhapatnam in Andhra Pradesh and Katupalli in Chennai. It is currently setting up a container terminal at Ennore and India's first transhipment port at Vizhinjam. APSEZ has been recognised at various forums.

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AERONAUTICAL AND AEROSPACE INSTITUTE OF PUERTO RICO, INC.

The Aeronautical and Aerospace Institute of Puerto Rico (AAIPR) is a non-profit corporate subsidiary of the University of Puerto Rico ascribed to the Aguadilla campus. The AAIPR business concept is based on establishing a comprehensive academic ecosystem that supports the start up of new businesses and job creation in the aeronautical and aerospace industry. AAIPR is the academic partner in the establishment and development of Lufthansa Technik's first Maintenance, Repair and Overhaul (MRO) operation in the Americas. To support the development, growth and expansion of the aeronautical and aerospace industry cluster in Puerto Rico the AAIPR is focused on delivering products and services which provide Academic, Training and Certification Solutions, Specialized Personnel Development Consultancy Services and Targeted and Problem Specific Research and Development.

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AIM

The Annual Investment Meeting aims at bringing together public and private sector leaders across the world at Dubai World Trade Centre. HE Sultan Al Mansouri, the UAE Minister of Economy, welcoming global investors in his opening speech at the 7th Annual Investment Forum in April 2017, underlined the role of AIM as the the world's largest annual gathering on FDI. AIM is held under the patronage of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai.

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ANDHRA PRADESH ECONOMIC DEVELOPMENT BOARD (APEDB)

The Andhra Pradesh Economic Development Board was established to promote economic growth through investments and partnerships. Formed under the Chairmanship of Shri. N Chandrababu Naidu, the Hon'ble Chief Minister of Andhra Pradesh, the board acts as a single point of contact for investments to the state, promotes inter-departmental coordination, conducts project facilitation and appraisal and engages with investors, bodies, associations and think-tanks to promote economic development in the state.

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ASIA-PACIFIC AREA FOR COMMERCE (APAC)

The Asia-Pacific Association of Commerce in Europe is an umbrella organisation to promote cross-border investment and trade in both directions through joint projects with its partners and members. APAC organises and supports trade fair participation, business seminars and trade missions. APAC is supported by various business associations and networks in Europe with links to Asian-Pacific countries.

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CHINA AEROSPACE SCIENCE

China Aerospace Science and Industry Corporation (CASIS) is a large state-owned high-tech enterprise directly managed by the Central Government. CASIS comprises the headquarters, 6 research academies, 1 research and production base and 15 affiliated units and shareholding enterprises.
The high-quality young researchers have become the mainstay of the enterprise innovation team. Focusing on "Overall defense,Overall Security", CASIS follows the military-civilian integration path with Chinese characteristics.

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CHINA INTERNATIONAL INVESTMENT PROMOTION

Wir, als eine Plattform für die Förderung der Investitionen zwischen China und Deutschland in beiden Richtungen, halten uns an das Prinzip „Basierend auf Deutschland, Blick auf Europa, Service für den ganzen Staat, Priorität für die Partner" und leisten die Fördertätigkeit für die Investitionen in beiden Richtungen zwischen China und Deutschland

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EEPC INDIA

EEPC India is the premier trade and investment promotion organization in India. It is sponsored by the Ministry of Commerce & Industry, Government of India and caters to the Indian engineering sector. As an advisory body it actively contributes to the policies of Government of India and acts as an interface between the engineering industry and the Government. EEPC India organizes a large number of promotional activities such as buyer-seller meets (BSM) – both in India and abroad, overseas trade fairs, and India pavilion/ information booths in selected overseas exhibitions to demonstrate the capabilities of Indian engineering industry and to provide the overseas buyers with a true value as propagated by Brand India.

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EUROPEAN COMMISSION

The European Commission, as part of the Horizon 2020

programme, supports the digital transformation of the manufacturing industry in Europe. We present 8 projects working towards this goal: CloudFlow, CloudSME, CPSELabs, EuroCPS, Fortissimo, LASHARE, ReconCell, and SESAME Net. They have teamed up with SMEs to improve the competitiveness of European manufacturing within a global marketplace. The projects are supported by the I4MS and SAE programme in the Factories of the Futures initiative.
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FAUSTTRANSLATIONS.COM

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FOSHAN SINO-GERMAN INDUSTRIAL CITY ALLIANCE

Established in April 2016, Sino-German Industrial City Alliance is an international cooperation platform jointly initiated and established by important industrial cities of China and Germany. At present, the Alliance has 22 full member cities, including 14 Chinese cities and 8 German cities. Keeping to the strategic linkage of "Made in China 2025" and Germany´s "Industry 4.0", the Alliance adheres to the principle of "openness, innovation, equal consultation, resource integration, and mutual benefits", takes the mission of serving development and innovative fusion among Chinese and German member cities.

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HAMRIYAH FREE ZONE AUTHORITY

In business, speed matters. With Hamriyah Free zone, 60 minutes is all it takes to set up your business and receive your trade license on the spot. Spread across over 22,000 square meters, we are home to over 6,500 businesses with origins in 157 countries. We have on-site over 15 key business services, like banking and Auditing firms, currency exchanges, conference rooms, staff accommodation, etc. Uniquely located between three continents allowing you to serve a growing market of 1.5 billion people, Hamriyah Free Zone is your gateway to global business.

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HANNOVER MILANO FAIRS SHANGHAI LTD. ()

With the theme of "serving for small and medium enterprises and promoting them continuous develop", Chengdu Promotion Association of Small and Medium Enterprises has stepped into another stage ever since it was founded, based on the guidelines of "promoting development of enterprises and being the assistant of government to construct harmonious atmosphere". Our mission is solving difficulties and problems for small and medium enterprises..

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LOCAL GLOBAL GMBH

International communication is our competence. Our long-term partners are investment promotion agencies and business associations. We run own business projects for SMEs. We offer a full range of services for marketing & PR, corporate publishing, and conference & exhibition organization.

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MIDA

The Malaysian Investment Development Authority (MIDA) is the first point of contact for companies that are interested in Malaysia as a business destination. MIDA supports foreign companies from the first consultation over the issuing of manufacturing licenses and tax incentives all the way to the launching of the new operation – all completely free of charge! With its two German offices in Frankfurt am Main and in Munich, MIDA is located not far from your company and is always happy to visit you for consultation.

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MOSCOW CITY GOVERNMENT

Moscow, the capital of the Russian Federation, will present its industrial capacities on an exhibition area of over 500 sqm. The visitors will learn about the convenient and business-friendly innovative infrastructure which has been created in the city, and will find out about the supportive measures currently there for high-technology companies. Moscow is open to investors willing to localize their production in the city. The "Made in Moscow" exhibition area will demonstrate a wide array of advanced technologies from the Russian capital's manufacturers. The MatchMaking zone provides an opportunity to meet and negotiate with representatives of Moscow business. Throughout all the expo days, an extensive business programme will be running on the Moscow stand.

Voznesensky pereulok, 22 (5th floor),
125009 Moscow
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RUSSIAN EXPORT CENTER

The Russian export center (REC) is the state institution for export. REC is a "single window" for financial and non-financial support. The main services provided by REC include credit, guarantee and insurance support for exporters, foreign partners selection and economic analytics, consulting on customs, certification and law issues of export activities, as well as organization of the educational project for exporters and providing other types of non-financial support.

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SAUDI INDUSTRIAL PROPERTY AUTHORITY (MODON)

The Saudi Industrial Property Authority (MODON) is responsible for the development of industrial cities with integrated infrastructure and services; whereas MODON has established industrial cities in various regions of the Kingdom. MODON is also responsible for creating the ideal environment for growth and development of technology zones in the Kingdom of Saudi Arabia, where MODON is currently overseeing two technology zones and is seeking to earmark further zones towards acquiring the latest technological investments.

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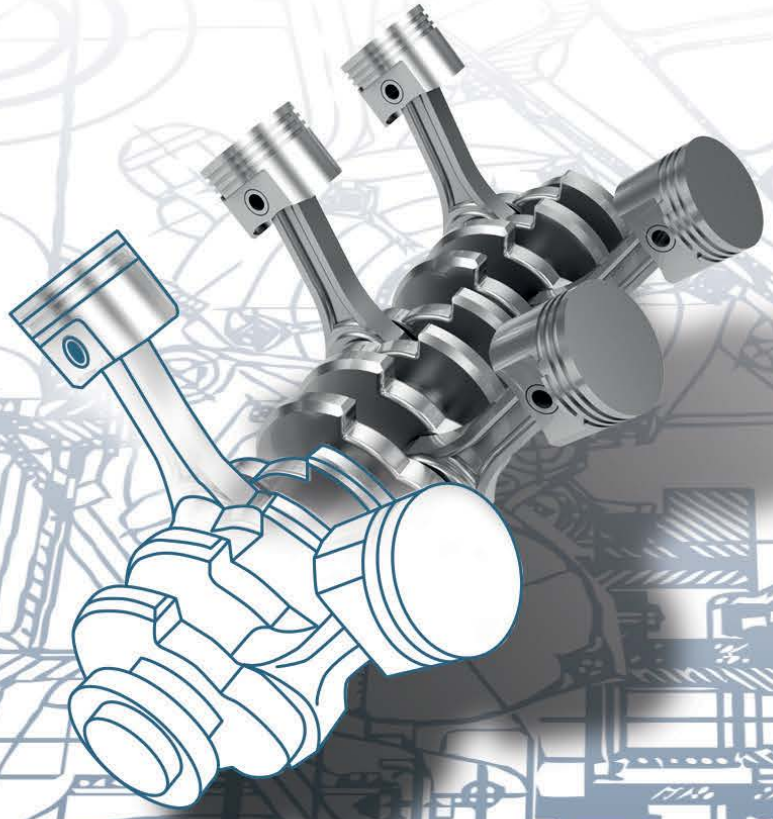

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HUNGARY

18-21. October 2017

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More information and exhibitor's application:
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TECHCODE ACCELERATOR (GERMANY) TCAC

Techcode offers co-working and office spaces, acceleration programs, incubation, and investment to tech startups that want to enter the Chinese market. With our global offices throughout China, Berlin, Silicon Valley, Seoul, Tel Aviv, Helsinki and more to come in 2017, we are dedicated to building the world's leading entrepreneurship ecosystem.

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TIANJIN BINHAI HI-TECH INDUSTRIAL DEVELOPMENT AREA (THT)

Tianjin Binhai Hi-Tech Industrial Development Area (THT) is the National Demonstration Zone approved by the State Council, encouraging independent innovation and business upgrade of hi-tech companies, the unique national Hi-tech Area under the joint management of the Ministry of Science and Technology and the Government of Tianjin Municipality. THT has achieved rapid economic growth and become an innovation and entrepreneurial base for global talents. There are over 10,000 companies in THT.
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The Sverdlovsk region is one of the most dynamically developing Russian regions, where the economic growth rate exceeds the national average. In the national rating of investment attractiveness, the region is among the top three, and ranks second in terms of industrial output in Russia.

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Abu Dhabi Chamber of Commerce	G14
Abu Dhabi Dep. of Economic Development	G14
Abu Dhabi Ports	G14
AD VERBUM	G29
Adani Ports and SEZ	J23
Aeronautical and Aerospace Institute	F04/6
AHK Algerien	H31/6
AHK Aserbaidschan	H31/6
AHK Balitische Staaten	H31/6
AHK Brasilien-Porto Alegre	H31/6
AHK Brasilien-São Paulo	H31/6
AHK Bulgarien	H31/6
AHK Debelux	H31/6
AHK Ecuador	H31/6
AHK Finnland	H31/6
AHK Frankreich	H31/6
AHK Greater China	H31/6
AHK Indien	H31/6
AHK Iran	H31/6
AHK Italien	H31/6
AHK Kanada	H31/6
AHK Korea	H31/6
AHK Kroatien	H31/6
AHK Mexiko	H31/6
AHK Niederlande	H31/6
AHK Norwegen	H31/6
AHK Österreich	H31/6
AHK Philippinen	H31/6
AHK Poland	H32/5
AHK Polen	H31/6
AHK Rumänien	H31/6
AHK Russland	H31/6
AHK Singapur	H31/6
AHK Slowenien	H31/6
AHK Spanien	H31/6
AHK Südliches Afrika	H31/6
AHK Thailand	H31/6
AHK Tschechien	H31/6
AHK Tunesien	H31/6
AHK USA - Chicago	H31/6
AHK USA - New York	H31/6
AHK USA - San Francisco	H31/6
AHK USA - Süd	H31/6
AHK VAE	H31/6
AHK- Türkei	H31/6
AHP International	H31/2
AHP International Inc.	H31/2
AHP Pennsylvania Repräsentanz	F04/5
AIM	G29/1
Andhra Pradesh Pavilion	J26
APAC	H31/11
Appalachian Partnership	F04/2
ATSS	H23
b2fair-Business to Fairs	G03
Baon Dis., Economic Promotion	F18
Belarus, Repräsentanz	H31/6
Bran Systems CC	H27/1
CDNetworks Europe	G23/1
Changzhou National Hi-Tech District	G23/1
Chengdu Aerospace Mould	H04
Chengdu Aluminium Expert	H04
Chengdu Flextronics Mechanical	H04
Chengdu Guibao Science&Tech.	H04
Chengdu Guoxin Metal	H04
Chengdu Hi-P Precision Plastic	H04
Chengdu Homin Technology	H04
Chengdu HTLL Electronical	H04
Chengdu Jing Liang Gong Fang	H04
Chengdu Lianyu Precise Machinery	H04
Chengdu Pavilion	H04
Chengdu Shangming Industrial	H04
Chengdu Shengbang Seals	H04
Chengdu Xihe Radiator	H04
Chengdu Xin Li days Trade	H04
China Aerospace Science	C30
CIIP	F24
Cincinnati, REDI	F04/2
Coreworth Projects	H27/1
CSR Africa	H27/1
Dayton Development Coalition	F04/2
DCW	G23/1
Delegationsbüro Ghana	H31/6
Delegationsbüro Kanton	H31/6
Delegationsbüro Kenia	H31/6
Delegationsbüro Saudi-Arabien	H31/6
Delegationsbüro Vietnam	H31/6
DIHK	H31/6
Ductile Plastics & Extruders	H27/1
ECCIMA/ SPX Iran	G24
ECHO+	G04
EDCs Iraq	G24
EEPC	H24
ELITA	G04
Emirates Global Aluminium	G14

European American Investment	F04/4
European Comission EPCC	E02
Fausttranslations.com	H32/3
FIERGS Rio Grande do Sul	G23
Finpro - Invest in Finland	H27/2
Foshan Sino-German Industrial	F18
Foshan Sino-German Industrial	F24
Gaizhou Ruifeng Chemical	H04
Germany Trade & Invest (GTAI)	H31/7
Global Kinetics	F04/8
Great Stone Industrial Park	H27
Guangzhou Nansha Dev. Zone	F18
Hamriyah Free Zone	G32/1
Higher Coorporation For SEZ	G14
IHK Hannover	H31/1
Ikusasa Green Pty Ltd	H27/1
Imatra Region Development	H27/2
Industrial design studio ART-UP	G04
Intelligence Software	G04
INTRA Services Company	H23
Investment Promotion Agency, Ministry of Commerce P.R. China	F24
Iowa Economic Development	F04/9
Iowa Economic Development Authority European Office	F04/9
Jiangmen Bureau of Commerce	F18
JobsOhio	F04/2
Kaunas FEZ	H27
Kouvola Innovation	H27/2
Lappeenranta, City of	H27/2
LED effect	G04
Liuzhou Municipal Gov.	F18
MagneticGroup	H23
Mandela Bay Shipyard	H27/1
Maoming Bureau of Commerce	F18
MELITTA	G04
MIDA	H31/11
Milandr	G04
Millburg Pty Ltd	H27/1
MODON	H02
Mosambik CPI	G24
Moscow City Government	G04
Moscow Technological Institute	G04
Nanning Municipal Gov.	F18
National Quality Infrastructure	G24
Nextouch	G04
Ningbo Municipal Commission	F24
Open code	H23
OWC	J27/1
Phathost Web Hosting	H27/1
PKS	F18
PLACKART	G04
PLM Ural	H23
Pluribix Pty Ltd	H27/1
Polygon Automation Technology	H04
Premier Media	H32/4
Puerto Rico Dep. State	F04/6
Puerto Rico Industrial Dev.	F04/6
RAKURS-ENGINEERING	H23
Regional Growth Partnership	F04/2
Robot Control Technologies	H23
RTSoft	H23
Russian Export Center	H23
Sales Desk Polen	H31/4
Santander Bank	J27
Schneider Group	H32/1
SDBN Group	H27/1
Shvabe-Moskva	H23
Sichuan Chengfei Integration Tech.	H04
Sichuan Cosmos Precision Mold & Die	H04
Sichuan Huati Lighting Technology	H04
Sichuan MK Servo Technology	H04
Sichuan TengAn Technology	H04
Sichuan Zhongguang Lightning Protection	H04
Signum	G04
Southeast Finland	H27/2
Southern Economic Development Council	F04/7
SPC Corrosion Protection	G04
SPECTRON	H23
SPX Cameroon	G24
SPX-Xi'an	G24
Squire Patton Boggs	G23/1
STRATA Manufacturing	G14
SuperOx	G04
Sverdlovsk Region	G17
Taicang Investment Promotion	F24
Taizhou Bureau of Commerce	F24
Team NEO	F04/2
Techcode Accelerator	F32
Technopark Polyus	G04
Technopolis Moscow	G04
TechnoVotum	G04
TEEMP	G04
Texel	G04
Tianjin Binhai THT	F02
Tuse Applications	H27/1
UAE Ministry of Economy	G14
UNIDO	G24
Unitel Engineering	G04
Vacuum Systems & Electronics	H23
Vibrazii.net	H23
Viphiwe Trading Enterprise	H27/1
VR Concept	G04
Wesermarsch Wirtschafts-förderung	H32/2
YARUS	G04
Zelenograd Nanotechnology Center	G04
Zhuzhou City	F18

“We have to evaluate the global markets”

Dr. Jochen Köckler, board member of Deutsche Messe, on the international perspectives of the HANNOVER MESSE brand

What does it mean now that you manage the HANNOVER MESSE brand worldwide?

We now manage our global portfolio “Industry, Energy and Logistics”, which also includes the CeMAT brand, out of one corporate division. This improves consistency for all aspects of our events, from conception and planning to sales and marketing to the staging itself.

How does this affect the relationship with customers?

It simplifies the relationship for our customers. Whereas previously they may have dealt with numerous departments, now they have a central project team for all events.

Does this also mean that your sales people have to be much more aware of global developments?

HANNOVER MESSE is the world’s leading event for industry, so our sales people have always kept track of global developments. The new alignment enables each sales team to focus more on expanding their knowledge of specific industry sectors such as automation, energy or power transmission and fluid technology.

Does the responsibility for staging your trade fairs outside of Germany remain with the respective subsidiaries?

Yes. We currently organize HANNOVER MESSE Worldwide events in Canada, China, Germany, Italy, Turkey and the United States. Each subsidiary is responsible for managing its respective shows. We provide support out of Hannover – marketing, media relations, advertising, etc. – on an as needed basis.

Are there target markets for HANNOVER MESSE where you see an especially strong or new potential for exhibitors? Any new events that you look forward to?

We continuously evaluate the global market regarding potential for new HANNOVER MESSE events. For example, we recently expanded our portfolio in North America. From 25 to 28 September 2017, we will co-locate five trade fairs – Industrial Automation CANADA, MDA–Motion, Drive & Automation CANADA, ComVac CANADA, parts-2clean CANADA, and CeMAT CANADA – with the Canadian Manufacturing Technology Shown (CMTS). From 6 to 9 November 2017, we will stage Industrial Automation North America and MDA–Motion, Drive & Automation North America parallel to FABTECH at McCormick Place in Chicago. I am very excited to meet the community of our exhibitors again so soon.

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- The first Chinese national comprehensive reform innovation area
- The first free trade zone in North China
- The two-way east-to-west shipping axis of "the Belt and Road"
- The intersection of Bohai River Rim Economic Belt and Beijing-Tianjin-Hebei city group
- GDP exceeded 1 trillion RMB in 2016

THT

Chinese center for industry innovation and manufacturing

- Collecting effective resources, THT prioritizes "two big industries" (New Energy and Electric Vehicle, New Generation of Information Technology) and "two special industries" (Culture & Creativity, Health). By introducing world-class major scientific projects, THT is developing the influence of its own brand and core competitiveness.
- Mature environment for scientific industrialization
- Industry policies for enterprises to grow rapidly

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- 100-Billion-RMB Solar Thermal Industry Group
- 100-Billion-RMB Electric Vehicle Industry Group has taken initial shape
- 100-Billion-RMB New Generation of Information Technology Industry Group is of sound development
- Culture + Technology + Financial Innovation: to make a 100-Billion-RMB Film and TV Culture Industry Chain

National Innovation Demonstration Area

- Future Science City
- Coordination Development Area of Beijing-Tianjin
- National Green Energy Industrialization Base
- National New Industry Demonstration Base
- National Culture and Technology Integration Demonstration Base
- National IPR Park
- National Technology Transfer Demonstration Organization
- Pilot Park of State Administration for Industry & Commerce of the P.R.C.
- National Academy of Cartoon on Network
- National Cartoon Pilot Park

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