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BETWEEN TWO CONTINENTS

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Afrika-Verein

– YOUR GATEWAY TO GERMAN INDUSTRY

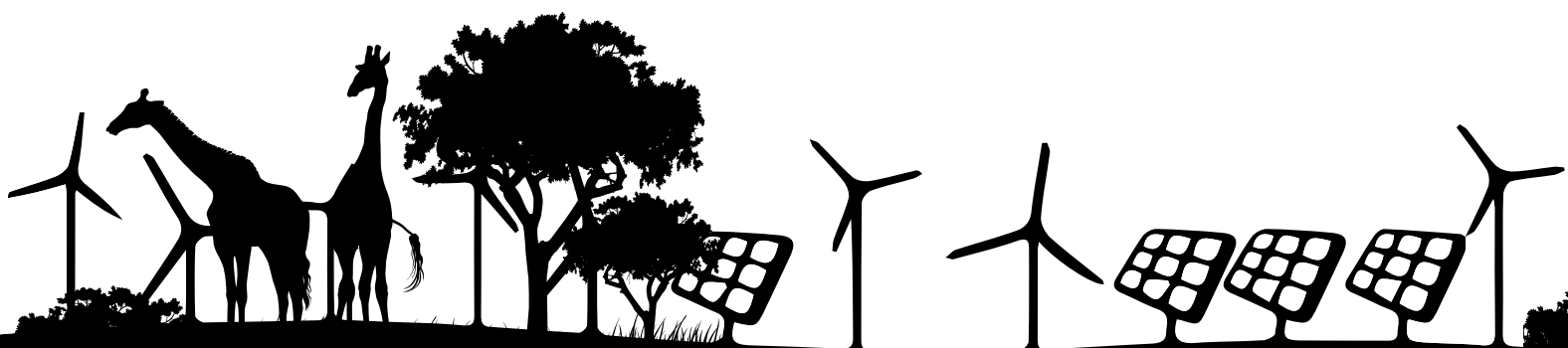


Christoph Kannengießer
CEO, Afrika-Verein

The Afrika-Verein (German-African Business Association) looks back on 80 years of experience as a foreign trade association. Our competent team of experts provides a first port of call for anyone in business or politics interested in German-African business relations. We represent over 500 German companies and institutions with a business interest in Africa. Through its well-established networks, our association promotes exchange between German and African representatives from all areas of industry and every size of business. By consulting, facilitating contacts and providing information, we not only help German companies expand their business in Africa, we help decision-makers arrive at a new perception: Africa as a continent of opportunity.

One of our key aims in Germany is to promote a differentiated understanding of Africa and its opportunity-oriented policies. The Afrika-Verein has become a trusted, competent point of contact for businesses and politicians alike and our over 20 board members bring together expertise from every sector of the German economy. Through political dialogue, we actively contribute to paving the way for the successful involvement of German businesses in Africa. We facilitate encounters between German and African decision-makers through conferences and meetings in Germany, and through business trips, trade fair appearances and conferences in Africa.

Our overriding aim concerning African markets is to make German companies better known and to help them build local contacts. Our network in Africa works in close cooperation with political and economic decision-makers to ensure that the two-way flow of information is up-to-date and reliable at all times. To support this work, this brochure supplies insights about which German sectors are particularly suited to meet African investment needs. You will find details on sectors of the German economy with successful export track-records and ways in which German expertise can best be applied to help further fruitful investment and business relations with Africa.





“WE ARE A BRIDGE BETWEEN GERMAN BUSINESSES AND AFRICAN MARKETS.”

Dr Stefan Liebing
Chairman, Afrika-Verein

German companies are considered global players. Compared to other regions, however, their level of activity in Africa remains expandable. How do you account for this?

The problem is primarily the perception of Africa in Germany. German companies in search of growing markets first look to Asia. The message that many African markets now have equal or even more promising growth stories to offer has not yet reached all those concerned. Many small and medium sized enterprises are likely to consider activity in Africa to be too risky, not least because the continent is often still associated with a lack of political stability. Poor infrastructure is also sometimes seen as a further deterrent – even though its improvement and expansion offer fascinating opportunities for German industry. Of course, there are also political constraints. Development cooperation from Germany and the EU, for example, should focus more effectively on supporting the local economy and promoting activities of international companies in Africa.

German companies seem to be particularly well suited to serve growing markets in Africa. What can Africa most benefit from?

First and foremost, of course, Africa will gain advantages from working with Germans in those sectors that have traditionally been the foundation of German business. German companies offer special strength in the areas of mechanical engineering, chemical industry and plant construction. We have also placed strong emphasis on the ICT sector – an area experiencing rapid growth in Africa. Whether by expanding broadband access or by developing solutions in the fields of e-government or electronic payment methods – technology “made in Germany” can offer a big contribution to this growth. The same is true for the energy sector. Africa is perfectly suited to make use of photovoltaic and geothermal energy – fields in which German companies have set the standards. I also see great potential in the areas of agribusiness, the chemical and pharmaceutical industries, as well as medical technology.

What does Afrika-Verein do to bring more German companies to the African continent?

We see ourselves as a bridge between German businesses and the 54 countries of the African continent. We demonstrate to our member companies the possibilities and opportunities of the various African markets and we represent their interests. We organise country- and sector-specific meetings and delegation visits to Africa, we support German businesses at local trade fair appearances and put them in touch with local contacts. On top of this, we maintain a close dialogue with German and African political representatives, because everything from direct investment to export, to project-specific business requires a sound political framework. Just think of financing methods, guarantees or double-taxation agreements.

What does Afrika-Verein hope to achieve by promoting African markets – increased profits for German businesses or something more than that?

Of course we want German companies to take full advantage of the opportunities offered by African markets. But we also want their activities there to be sustainable and to provide jobs and training opportunities in the respective countries. German businesses are internationally recognised for their high standards regarding quality, education, environmental protection and social sustainability. African states appreciate this. We must and shall live up to this trust. We believe the cooperation between our African partners and German companies is going to be of mutual benefit.



A photograph of two men in safety gear (yellow hard hats and high-visibility green vests) standing on a rocky outcrop in a quarry or construction site. The man on the left is looking down at something in his hands, while the man on the right is holding a clipboard and looking towards the background. The background shows a large, excavated area with some vegetation and a clear sky.

As African economies grow and German suppliers find new export markets, cooperation benefits both partners.

German-African

ECONOMIC RELATIONS

In the past ten years, Africa's importance to Germany as an external trade partner has significantly increased as German companies have become alert to the fact that a large share of the world's fastest-growing economies can be found in Africa.

Currently, German companies hold investments in Africa worth EUR 10 billion. What is more, over 800 German companies employ 200 000 people locally in Africa and generate annual revenue of EUR 31.6 billion. In the last five years alone, German-African export trade has increased by 35 % to EUR 42.8 billion.

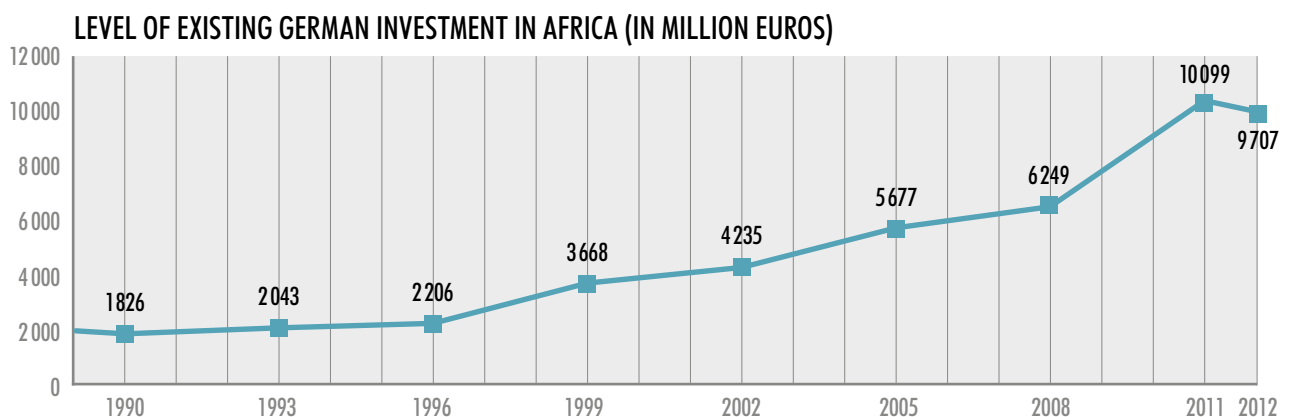
Transport commodities, machinery and chemical products made up the biggest share of goods exported from Germany to Africa. In reverse, Germany overwhelmingly imports African raw materials and energy products: together these account for more than 75 % of all imports. Other African sectors that play an important role for German imports include the manufacturing industry, tourism and agriculture. Among the 54 countries on the continent, Germany's most important external trade partners are South Africa, Egypt, Algeria, Morocco, Tunisia and Nigeria. Admittedly, Africa is currently responsible for only 2.0 % of Germany's overall external trade volume and therefore a rather small trade partner – despite the gains. This, however, could soon change.

A PERFECT FIT

Economic growth has benefited from the increasingly stable political conditions in wide parts of Sub-Saharan Africa. These, in turn, stimulated a socio-economic change. The rapid expansion of the middle classes in African society has gone hand in hand with continuing urbanisation. These developments further the demand for German consumer goods, which stand out in terms of quality. For example, German automobile exports to Africa increased by 150% to EUR 1.6 billion between 2002 and 2012. With the right initiatives, Africa is also well placed to profit from German direct investments, not least because many of its countries already provide the necessary "skills mix" to make local investments work sustainably.

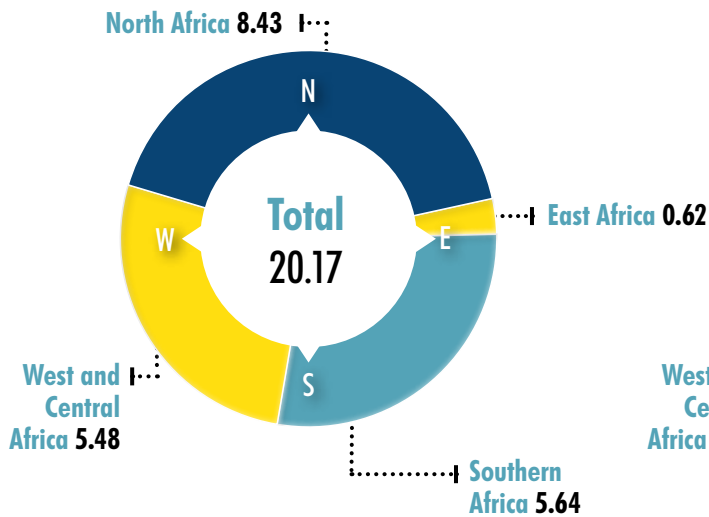
Eventually, Germany can play a crucial role in African companies' efforts of to expand globally. Vera Songwe of the Brookings Institution's Africa Growth Initiative comments: "Germany should be Africa's manufacturing gateway to Europe and its pathway to a sustainable productivity in enhancing the industrialisation process." //

GERMAN INVESTMENT IN AFRICA IN FIGURES

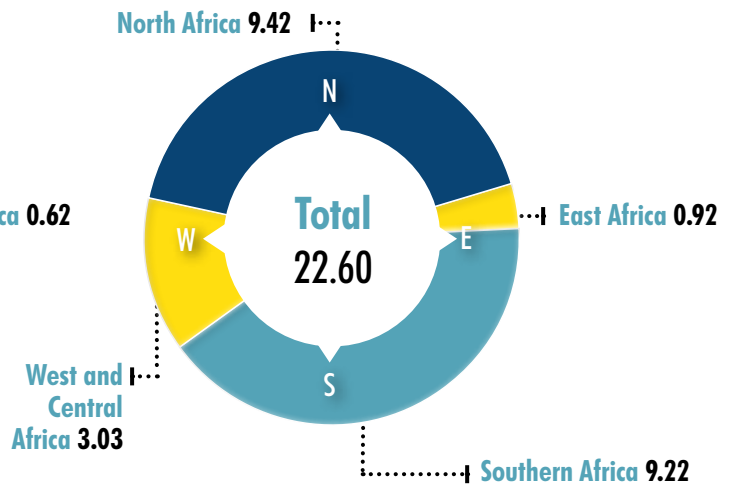


GERMAN-AFRICAN TRADE RELATIONS IN FIGURES

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EXPORTS TO AFRICA 2014 IN BILLION EUROS



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Home and Away

— GERMANY'S SUCCESS SECTORS

Success starts at home. Companies and sectors exporting to new markets need a solid domestic base. A review of Germany's core economic sectors demonstrates the country's main strengths: a tradition of expertise and a forward-thinking attitude.

What makes German companies remarkable? Their quality of service and workmanship, cutting-edge technology, their adherence to high social and environmental standards and an export-oriented business environment: these characteristics distinguish German companies of all sizes. Small and medium-sized enterprises (SMEs) form the backbone of the German economy, making up over 98% of all registered companies and employing around two thirds of Germany's workforce. This economic structure lends itself to a high degree of specialisation: medium-sized German companies are often the world market leaders in their specialist fields. These "hidden champions" are good news for international customers as they work to exacting standards and deliver top quality goods and services. Though not always the cheapest option at first glance, they deliver an attractive package deal which offers excellent value for money in the long run: quality goods, comprehensive service including aftercare, training for staff and a high level of local value creation.

GERMAN QUALITY

Topping the list of German goods for export are cars, machinery and chemicals – all of which are also key products on the domestic market. The automobile industry in Germany generated a total revenue of over EUR 380 billion in 2014 and currently employs over 770 000 people. Machinery and plant construction is of similar importance, with revenue of over EUR 200 billion per year. This sector is highly diverse, ranging from machines for infrastructure projects to land technology. Agricultural engineering is another strength segment of the German economy, as well as machinery for food processing and food technology. The high-quality machinery and technological knowhow produced by this segment is exported all over the world, with land technology exports valued at around EUR 7 billion in 2010. The sector's strong links with Germany's thriving chemicals industry are also apparent: the production of fertiliser, pesticides and other plant protecting agents is another traditional strong suit. The chemicals industry also includes industrial chemicals as well as consumer products. Its total domestic value lies at over EUR 190 billion annually and it employs 440 000 people.



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The construction sector is a major driver of economic growth in Germany.



ENERGY

Germany is committed to the promotion of renewable energy production, energy efficiency and sustainable development, known as the “Energiewende” (the energy transition). The Renewable Energy Sources Act (EEG) was passed in 2000 and focused on the commercialisation of energy from renewable sources. Germany is a world leader in energy-efficient technology. It has so far been able to meet its target shares of renewable energies, as energy from renewable sources covered 27% of the country’s gross energy consumption in 2014. Future targets remain ambitious: Germany aims for renewable sources to provide over 80% of its energy by 2050. However, electricity from conventional sources still plays a very significant role. Brown coal, for example, accounts for 43% of the total gross electricity and German energy companies have developed modern extraction and treatment systems to process it with maximum efficiency. The energy sector includes highly specialised companies across the value chain. Photovoltaic (PV) has become one of the most important renewable sources of energy in Germany, providing 6.1% of the country’s gross energy consumption. Bioenergy (produced using

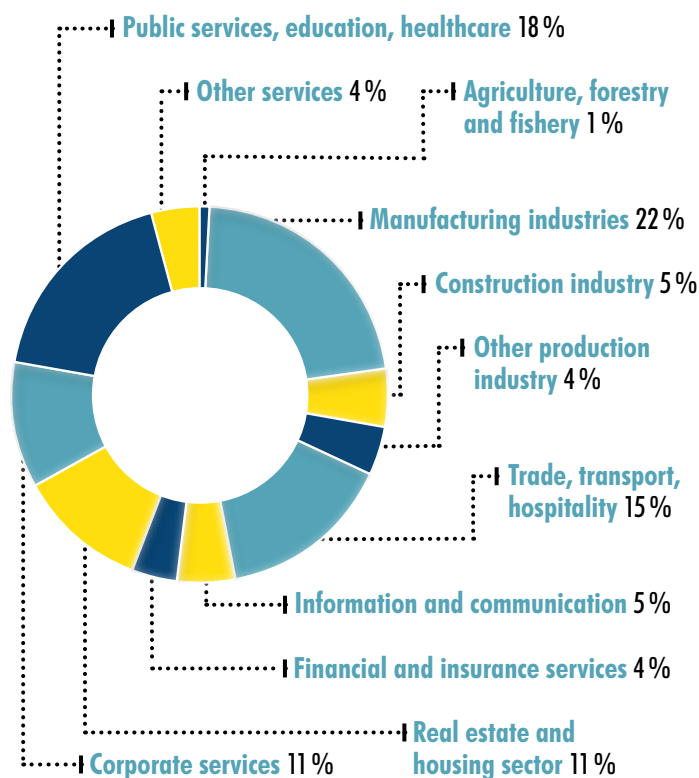
biomass, which includes any biological material derived from living or recently living organisms such as plant residue) contributed 7% of Germany’s gross energy consumption in 2014.

BUILDING SUCCESS

About 10% of Germany’s GDP is annually spent on construction projects – in 2013, this amounted to EUR 270 billion. It is a large and growing sector, subdivided into the main construction industry and the finishing trade. In Germany alone, these sectors consist of over 300 000 companies, the vast majority of which are SMEs. Construction is a major source of employment with 800 000 direct employees. These figures are testament to an impressive record of growth, but the industry is also known as a driver of innovation. Recent years have seen a particularly successful sub-sector emerge where the construction industry has worked in collaboration with research and development to deliver solutions to more stringent environmental standards and energy requirements. The success of the German construction sector goes far beyond national borders. In 2012, some 577 German construction firms were active in other countries,



GROSS ADDED VALUE BY SECTOR IN GERMANY 2014



Source: Statistisches Bundesamt

generating total revenue of EUR 24.4 billion – a healthy increase of 8.4% compared to the previous year. Nigeria's largest construction firm, Julius Berger, has German roots and numerous German engineering service providers such as Gauff, Fichtner and Lahmeyer are involved in large-scale construction projects throughout Africa.

CUTTING EDGE ICT

The Information and Communication Technology (ICT) sector is a crucial factor in Germany's economic success. Its annual global revenues amount to EUR 228 billion. The innovative solutions provided by the sector reach far beyond its immediate products and services and are a driving force in many other industries. The German Federal Ministry for Education and Research even named the ICT sector as the country's "primary motor of innovation", giving rise to an estimated 80% of all innovations throughout the economy. ICT and telecommunication services make up the bulk of the industry and account for 75% of the value created by the sector. In total, the ICT sector in Germany is a growing industry with over 75 000 companies and around one million employees.

Germany's ICT industry is highly successful globally, ICT hardware and consumer electronics exports alone amounting to a value of EUR 31.4 billion in 2014. It is also a global leader in ICT security products and services. Market leader in enterprise software, SAP is a German multinational ICT company reporting a high level of international success. Headquartered in Baden-Württemberg, SAP has 130 regional offices worldwide. Its subsidiary SAP Africa has around 700 employees, serving over 2 700 active customers across the continent. In the coming years, SAP has large-scale investment plans for Africa, where it plans to invest over EUR 450 million by 2020. //

A large photograph showing several construction workers in blue uniforms and white hard hats working on a complex metal scaffolding structure against a light-colored building facade. The workers are positioned at different heights, some standing on horizontal beams and others reaching up.

Constructing THE FUTURE

Building quality infrastructure underpins Africa's economic development like no other sector. With investment partnerships, consultancy and engineering expertise, German companies are already playing a key role in this important undertaking.

Functioning infrastructure is indispensable to the overall economic development of Africa. Without transport and logistics hubs or adequate energy supply, even the most rapid economic growth quickly reaches its limits. This risk is particularly pertinent in Sub-Saharan Africa, where the lack of quality infrastructure poses a serious threat to cross-sectoral investments. Inadequate transport links, especially inland, often lead to extremely high transportation costs.

Several major public and private sector projects for the development of quality infrastructure have been initiated in recent years. One of the largest is the African Union's Programme for Infrastructure Development in Africa (PIDA), supported by the African Development Bank. Infrastructural development is also in the interest of Africa's trade partners, and many are actively taking part, both as investors and as contractors.

German construction companies often act as project consultants.

GERMAN ENGINEERING FOR AFRICAN DEMAND

German companies can play a vital role in the expansion and improvement of African infrastructures, thanks to their technical expertise and highly skilled human resources. Analysis by the Afrika-Verein has identified four key areas in which German companies are particularly well equipped to cater to the development needs of African infrastructure: the general construction sector; mechanical engineering; the supply of technical equipment and the construction of transport hubs such as air- and seaports. German businesses can supply products and expertise, as well as acting in the role of contractor for the overall execution of a project. One of the leading suppliers of cement for road construction, for example, is the HeidelbergCement Group, which has been active in Africa since the 1960s.



GAUFF



COMPETENCE IN INFRASTRUCTURE

- WATER
- WASTE WATER
- ENERGY
- TRANSPORT
- FINANCING

In addition, German businesses take the lead in engineering consultancy for large-scale projects. Flagship enterprises such as GAUFF Engineering and Bilfinger are already active on the continent (see information box). As a knowledge-based economy with huge investments in education, research and development, a major advantage of Germany's engineering and construction firms is the technical expertise of their staff. For ongoing projects, a rise in employment of local workers and knowledge transfer through long-term cooperation are further benefits.

Whereas a few decades ago German construction firms usually offered the entire range of construction services (giving rise to the largest Nigerian construction company, Julius Berger), these days German companies often specialise in a particular area of construction, engineering services or machinery. Current examples include the architectural design of the largest mosque in Algiers as well as three football stadiums for the World Cup in South Africa. Modern transport infrastructure in Algeria, Mosambique and South Africa also bears the label Made in Germany.

Quality products and technical know-how enable German companies to provide excellent infrastructure solutions at the best price. In a global context of falling prices for raw materials, accumulated savings surpluses give many German corporations the stability to provide financial solutions to clients with budgetary constraints. //



Gabon: Port-Gentil –
Omboué Road



Mozambique: Maputo
Bridge and Link Roads

CASES ON THE GROUND: GAUFF ENGINEERING

With neither a solid earth-bed nor a quarry along the proposed route, the road construction project linking Port Gentil to Omboué was described as “the road of the impossible” by Gabonese President Ali Bongo Ondimba. The project had been judged unfeasible by previous engineering companies. Since the beginning of exploitation of oil in the 1960s, the city of Port-Gentil with its oil extraction facilities has been crucial to the economy of Gabon. Without a road linking it to the hinterland, however, workers and supplies had to reach the city by air or by sea, greatly increasing the production costs for companies. Under the construction supervision of GAUFF, the 94 km road project is now partially complete and its delivery will take place in 2018. GAUFF Engineering has contributed significantly to the local economy by hiring 2000 local workers.

As the client, Maputo Development Corporation (Maputo Sul) charged the Chinese enterprise “China Road and Bridge Corporation” (CRBC) with the construction of the bridge. GAUFF as internationally acting consultant was engaged to perform construction supervision and quality control. By 2017, the project aims to have completed the construction of the largest suspension bridge on the continent, giving access to the international seaport of Maputo. The overall construction project including adjacent link roads will span 170 km, linking Maputo to one of the premier tourist destinations of the region, Ponta do Ouro, as well as creating a shorter corridor for the Maputo-Durban Axis.

► More information: www.gauff.net ◀

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TAKES CENTRE-STAGE

A shift in demographics and growing economic stability are deciding factors for the new direction of healthcare systems across Africa – and for potential investors.

Two dominant trends are currently observable in the African healthcare sector, both with profound consequences for future investment patterns in the medical technology and pharmaceutical sectors.



German medical technology is becoming part of African healthcare infrastructure

The first is that increasing economic stability has led to a sharp rise in healthcare spending. The expansion and improvement of public healthcare systems is now a policy priority in many African countries and spending levels are expected to continue to rise. Though in many countries the level of healthcare provision is still comparatively low, there is major public investment in building hospitals and other healthcare facilities. Import rates for medical technology

and equipment for this new healthcare infrastructure remain high throughout the continent. Demand continues to rise, especially in Nigeria and in South Africa, which imports a typical 90% of its medical technology.

A SHIFT IN FOCUS

The other major trend is the rising demand for medicines and equipment to treat chronic, non-communicable diseases (NCDs). Urbanisation and a growing middle class are facilitating the growing prevalence of cancer, diabetes, cardiovascular and respiratory diseases. Malaria, on the other hand, has been in decline for several years. Though infectious diseases such as human-immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS) and parasites continue to pose a major public health challenge, studies predict that Africa will experience the greatest increase in deaths related to NCDs over the course of the next ten years. In countries such as Algeria, Morocco and Tunisia, this trend has already radically altered the pharmaceutical industry with an increase of 70% in demand for treatment for NCDs.

German companies are already well-placed to cater to both industries, having long-standing ties with various African nations. German pharmaceutical companies are established in northern Africa and South Africa with several hundred local employees. Medical technology exports from Germany to Algeria in 2014, for example, included electro-diagnosis machines, X-ray machines, computer tomography and sterilisation equipment at a total value of EUR 28 million. The high quality of their products and technical expertise in training local staff has made German medical companies a valuable partner to local authorities. For instance, Münchner Medizin Mechanik supplied equipment, training and support to the Adamawa German Medical Center in Nigeria. Prevalent among the German pharmaceutical companies in Africa are Bayer, Merck and Boehringer Ingelheim, as well as several smaller companies. The length of their local establishment is a real advantage in a highly diverse and complex market. //



Florian Witt
Regional Head Africa, Commerzbank

The African financial services sector is experiencing rapid change, not least due to the development and use of cutting edge mobile banking technology. Commerzbank has been active on the continent for 60 years, helping to shape the financial services landscape. Head of Region Florian Witt explains some of the most interesting trends.

INTERVIEW

What are the characteristics and experiences that help Commerzbank achieve success in Africa?

We have always taken a differentiated approach to Africa. We know that the continent consists of 54 countries, each of which should be considered individually. We have long observed the real economy and are fully aware of the impact of 1 billion people, the transformation in living conditions and the steady growth of the middle classes. Two factors in particular are key to Commerzbank's success here: our highly trained, qualified staff – professionals from the various African countries – and our seven local offices across Africa. That kind of know-how is invaluable.

Which services are particularly in demand in Sub-Saharan Africa?

How would you characterise the spectrum of services you offer and who are your main clients?

At Commerzbank, our focus is on financial institutions, central banks, states and public authorities. We don't have any private or individual business clients. We think local banks are better placed to carry out risk assessments for local businesses – however, we do provide local banks with the resources to finance external trade. We are experiencing a high level of demand for safeguarding- and sales financing instruments for exports and investments in Africa from our German, European and Asian business clients. Based on our risk appetite, we are able to provide these instruments in numerous African countries.

How has private banking developed over the last years?

How would you assess demand in the field of mobile banking and which services do you offer in this area?

Though our main focus lies elsewhere, we keep a close eye on developments in the private banking sector. One especially remarkable feature is the concept of "leapfrogging" – skipping certain steps of a development process. Banks in Nigeria, for instance, are not investing in a network of branch offices, as apps enabling the convenient use of mobile banking have been around for years. In that regard, Europe was slower off the mark. In a few years, mobile banking will be commonly used for more complex banking processes such as liquidity management. Commerzbank is supporting this development through an active dialogue with local banks.

What challenges are "typical" of the African financial services sector? Which areas are most in need of development?

We have witnessed a lot of positive development over the last 20 years. From a macro-economic perspective, many countries have exemplary monetary policies, such as the Francophone countries, Nigeria, southern Africa, Morocco or Tunisia. Banking supervision has also been reinforced in countries such as Nigeria, which has led to noticeably greater stability in financial services. Crises haven't disappeared entirely, but the risk is now much lower. The focus is increasingly on money laundering, corruption and the financing of terrorism. They are the African financial sector's upcoming challenges. We have seen significant progress being made in Nigeria – whereas Angola and Algeria still have a lot of work to do in these areas. Commerzbank is increasingly taking on the role of consultant – especially for central banks.

What opportunities does the African financial sector offer German companies?

And conversely: what makes German companies good investment partners for Africa?

I like to cite the example of FinTech (financial technology) companies, currently a hot topic in the start-up scene in Germany. As a bank, we are very open to business with FinTechs, and often purchase the solutions they develop. In Africa, FinTechs have been around for a long time. Many innovative ideas have originated in this sector, as it offers plenty of opportunities for fruitful cooperation. German companies have a lot to offer, especially in the fields of ICT and hardware. Demand in Africa is particularly high for cash machines, but also for consulting services – both strategic and implementing.



Financial Institutions

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Wind power has huge potential to meet rising energy demands.

18 | 19

Powering Growth

— ENERGY FOR AFRICA

The efficient extraction of energy from renewable and conventional sources is key to meeting Africa's growing energy needs whilst protecting the environment. As world-leading experts in energy technologies, German businesses are best placed to support African countries make the most of their natural resources.

Africa is growing: population and economies are on the up. The effect is an ever-increasing demand for electricity, outstripping the supply capacities of outdated power-plants. In rural areas, the problem is further exacerbated by slow progress in the expansion of supply grids. To meet this demand, German energy companies can offer a broad range of efficient solutions across the spectrum of conventional and renewable energy sources.

FULL-SPECTRUM SOLUTIONS

Spanning this range are energy solutions provided, for example, by Siemens, one of Germany's biggest domestic energy companies. Siemens recently procured contracts for the construction of gas and wind-energy plants in Egypt worth a total of EUR 8 billion. The three gas power stations included in this contract will use the most efficient and modern gas turbines on offer. On the renewable energy side, the Siemens contract includes the construction of twelve wind-parks. The rotor blades for these will be manufactured locally, creating up to 1 000 jobs and training positions in the region.

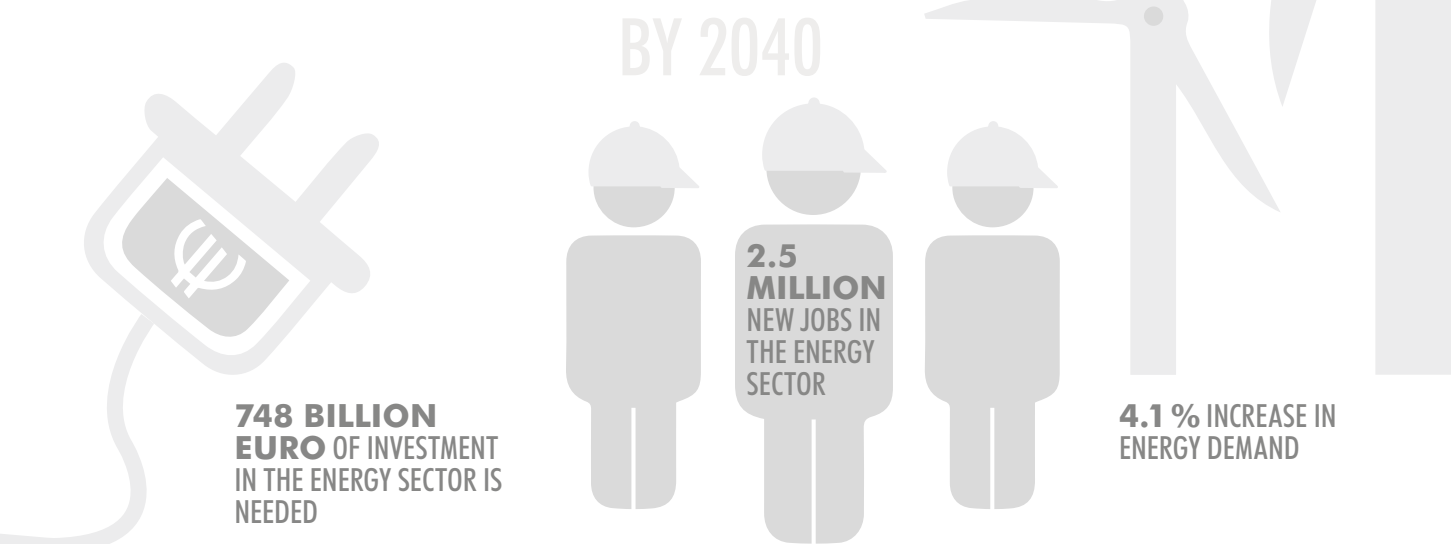
Wind and solar power are two of the most promising sources of renewable energy across the African continent, with favourable climatic conditions in various regions from North to South. Recently, South Africa in particular has massively increased its investment in wind and solar energy generation. In the South African wind energy market, which is currently experiencing strong growth, the German company Nordex was able to achieve a 20% market share. The many hours of sunshine also offer a valuable chance to capture solar energy, for instance through the use of photovoltaic (PV) technology. Headquartered in Germany, the world-leading solar engineering firm SMA Solar Technology recently opened a manufacturing site for its innovative solar inverter technology in South Africa's Western Cape – a growing green energy hub with close ties to the supply chain. The investment will boost the capacity of the solar power industry to help address the country's growing energy crisis, as well as create jobs locally and transfer skills and technology.

Solar energy is far from the only renewable source readily available in Africa. The East African Rift provides ample opportunity for the extraction of geothermal energy. German development institutions such as the kfw bank have been financing its promotion for many years.

Germany is itself an international leader in the efficient extraction and use of conventional and renewable energy and its companies continue to provide some of the most innovative energy solutions to clients around the world.

THE AFRICAN ENERGY SECTOR

The African energy sector to date remains under-developed. However, according to the International Energy Agency, large-scale investment and catching up will take place by 2040. //



Security expertise

INFORMATION TECHNOLOGY SECTOR

Demand is rising sharply for ICT products and services, with an increasing emphasis on security in this booming sector.

Rising purchasing power has led to a boom in the African **Information and Communication Technology (ICT)** sector over the last decade, as more and more consumers make use of online and mobile services. Given the continuing challenges many African countries face in terms of physical infrastructure, the expansion of mobile internet provision is both highly in demand and increasingly economically necessary. Development of the ICT sector is therefore desirable in its own right but also acts as a catalyst for development in other sectors. Demand has risen in particular for online services that call for a high level of IT security, such as online banking and shopping.

Several German providers of ICT products and services are already well-established in Africa. The German software company SAP plans to invest up to EUR 450 million in Africa by 2020. Their cutting-edge technological expertise and security-orientated working methods make German companies well suited to answer some of Africa's primary ICT demands, such as the extension of broadband internet access through the use of submarine cables. The IT consultancy company XCOM has observed high demand in African markets for "ICT firms that can deliver IT solutions, particularly in the financial sector". German companies such as Giesecke & Devrient and Dermalog provide software solutions including secure e-payment methods, finger print ID checks and electronic identity cards tailored to local demands. //

Fertile Ground

FOR AFRICA'S AGRIBUSINESS

Agriculture is Africa's largest sector and has enormous potential for economic development. Balancing the need for profitability with social responsibility and sustainable development remains a pressing challenge.

According to the World Bank, agriculture and agribusiness account for half of GDP across the African continent. A study it commissioned predicts that by 2030, the sector will have tripled its 2010 value – reaching an annual value of USD 1 billion. In order to attain this ambitious target, the entire value chain of agricultural production must be improved through strategically sound investment in both the public and private sectors.

Efficient land-use is one of the principal challenges, as African soils present inherent difficulties. Land-use practices during the last decades have exacerbated these, with excessive nutrient mining having led to soil fertility nearing dangerously low levels. Whilst coping with growing demand for food and fuel from a rapidly expanding population, African farmers must find a way to optimise the use of land already under cultivation and to extend land usage in as environmentally friendly a way as possible. The challenge is not only an environmental one but also economic: continued investment in a system that is exhausting its own resource base seems paradoxical. "Landgrabbing" is also becoming a major problem, as foreign investors (both public and private sector) buy up or lease vast swathes of African land for agricultural use. The products are then largely exported for consumption in the

investing country. This can put severe strain on local smallholders, as the land they cultivate is often formally owned by the state.

SUSTAINABLE INVESTMENT NEEDED

Governments can address these economic, environmental and societal risks by supporting appropriate sustainable investments in agriculture. German land technology, chemicals and training schemes can offer at least part of the solution. The use of a combination of organic and inorganic fertilisers to ensure a nutrient supply for cultivated soil, for example, is key to countering the risk of soil exhaustion. A consortium led by German company Ferrostaal is currently planning a large-scale fertiliser complex in partnership with the Tanzania Petroleum Development Corporation, boosting the local economy. Bayer Crop Science, meanwhile, has brought a pesticide specifically developed for cotton farming in West Africa to the market and implemented an on-the-ground training scheme with local farmers. Fair production practices and a view to employee welfare are important to German companies such as Otto Group, C&A and Puma, trading partners of the Competitive African Cotton Initiative and its sustainability label "Cotton made in Africa". Recently, new companies such as Amatheon Agri have become active in agriculture, delivering produce from large farms in Sub-Saharan-Africa for sale locally.

With a holistic approach to agricultural development and cutting-edge technology, German businesses are perfectly suited to investment partnerships in African agribusiness. //



German technology facilitates further development in African agriculture.

Good Chemistry

EXPORTS AND INVESTMENT



Africa's growing demand for specialist chemicals – from cosmetics to oil – is increasingly being met by German providers.

Due to its substantial reserves of natural resources, Africa's chemicals industry produces mainly base materials. However, the continent's increasing industrial output and urbanisation have augmented the demand for chemicals and chemical products. Though still a comparatively small proportion of Germany's world-wide chemical exports (just under 2%), the value of chemical exports to Africa has notably increased in recent years, reaching a total value of EUR 2.3 billion in 2014. Demand for German products is set to remain high, particularly in the field of specialist

chemicals (including pharmaceuticals). Especially robust growth in the chemicals sector has been predicted for Angola, Ghana, Morocco and Nigeria. The specialised sectors that are driving this expansion are petrochemicals and fertilizer production, as well as the increased domestic production of cosmetics and generic pharmaceutical products.

Chemicals made in Germany are proving increasingly popular in Africa, with an average increase to exports of 8.7% per year. But exports alone don't represent the whole picture: local investment by German firms is also significant. In 2010, the sum total of German investment in the African chemicals industry amounted to EUR 1 billion – including investments made by all major chemicals producers as well as several SMEs. //

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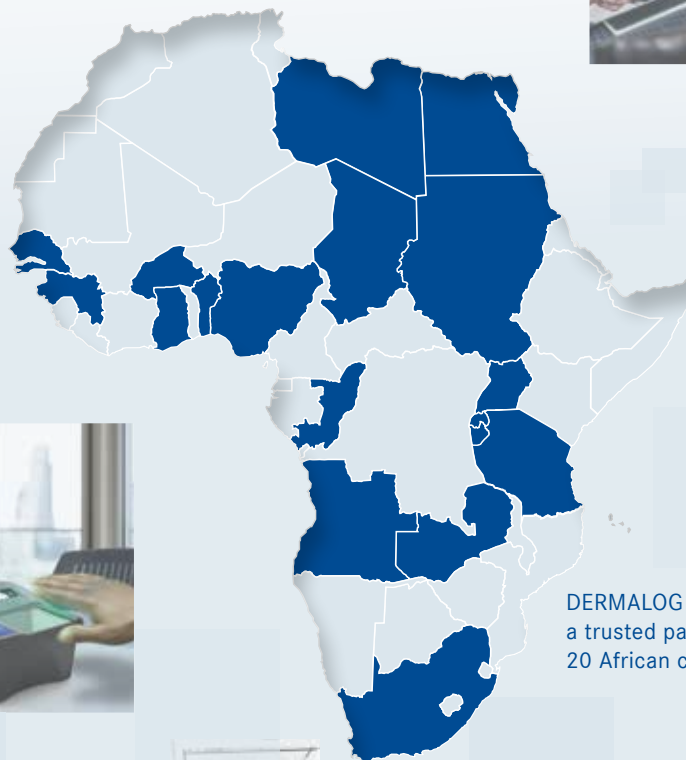
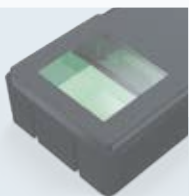
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Local production and assembly plants by German car companies in Africa.

From cars to cosmetics – German products are increasingly popular with African consumers. Retail trade is a sector that encompasses a huge span of economic activity and lends itself to a high level of differentiation between various markets.

Africa is becoming an increasingly important target market for the German automobile industry, with more and more activity by German car manufacturers on the continent itself. Not only are fully assembled cars being delivered to Africa, but many German manufacturers have established local production and assembly plants. Daimler, BMW and Volkswagen all have local presences in South Africa, where demand for quality German automobile engineering is growing. Daimler is also planning to establish an assembly site in Algeria in 2017 and several companies plan to do so in Nigeria. Volkswagen has been operating a production site in Nigeria since summer 2015. These activities bring the added advantage of a boost for local employment and knowledge transfer. The automobile parts and aftercare markets are also seeing healthy development, with Tunisia a popular location for the production of parts such as cable harnesses. Specialist markets for luxury and utility vehicles are also increasingly catered to by German companies.

CONSUMER GOODS

The African consumer goods market requires any potential investors to adopt a differentiated approach. A careful analysis of the potential target market should reflect the great differences in market saturation and local purchasing power across the continent. In many Sub-Saharan states, purchasing power has not risen in line with GDP and many consumers continue to buy primarily essential items. For retailers, this means that food is still the most promising sector for investment in those countries. Berlin-based company Rocket Internet SE, for example, has expanded into several West African countries.

In more mature economies such as South Africa, Botswana and Namibia, the consumer goods sector is at a much later stage of development and German companies can make a mark by providing a broad variety of high quality products to middle class consumers. Beiersdorf, for example, is a company that has long been able to cater to demand for cosmetics and skin care products in various African countries and has a production facility in Kenya, where it leads the market with its core brands Nivea, labello and Eucerin. Small-scale machinery products are also popular. Bosch South Africa, for instance, supplies sought-after products such as power tools and automobile accessories. There is also a growing niche market for high-end goods made in Germany such as Mont Blanc pens or suits by Hugo Boss. //

Machines

FOR PROGRESS



Heavy machinery such as drills are among the most popular machinery imports to Africa

German machines are popular amongst African developers looking for products and services that cater to their specific needs. The growth potential of this expanding area of trade remains very high.

Mechanical engineering underpins much of the industrialisation process and is therefore a vital sector for further economic development in Africa. From large-scale infrastructural projects to consumer goods, good-quality machinery and expertise in its application are essential to the functioning of production chains.

The mechanical engineering sector employs close to one million people in Germany and – with a 16% share of all world trade in machines – the country is the world leader in the field. The turnover generated by German machine exports increased by EUR 90 billion between 1999 and 2014. Meanwhile, mechanical engineering exports from Germany to Africa are also increasing. In 2014, German suppliers delivered machines at a total value of EUR 6.1 billion to African customers. The leading African importer of German machinery is South Africa by a huge distance, followed by Algeria, Egypt, Nigeria and Morocco.

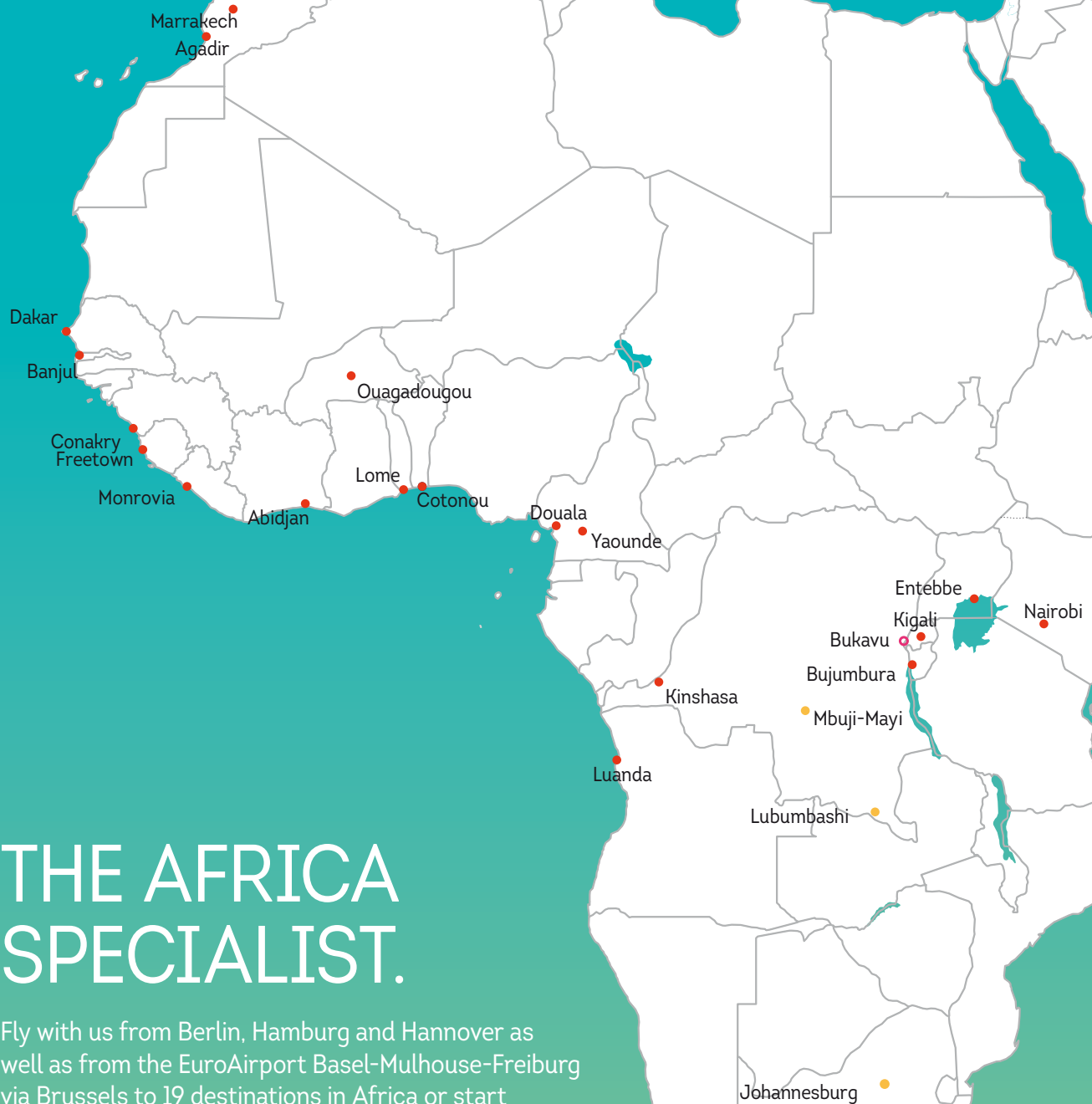
CATERING TO DEMAND

Dr Rheinhold Festge, president of the German Engineering Association (VDMA, Verband Deutscher Maschinen-und Anlagenbau), sees significant trading potential in the African market – particularly in the fields of food processing and packaging machinery, construction machinery and transportation technology.

A keen interest in mechanical engineering services and products could also be seen at the international machinery trade fair, BAUMA AFRICA, which was held in Africa for the first time in 2013, based on the successful BAUMA trade fair held annually in Munich. Close to 15 000 visitors (90% of whom were from the host country South Africa or another African country) came to see the displays provided by over 750 exhibitors from 38 countries. The successful trade fair's second African edition, as Bauma Conexpo Africa, took place in Johannesburg in September 2015 with over 50 German companies as exhibitors. Bauer Maschinen GmbH, for instance, is a mechanical engineering company that specialises in heavy machinery and drilling equipment. The trade show last year was an opportunity for the company to present its specialised products of most interest to African developers: machinery for drilling piles, wells and mines.

Another German provider successfully catering to the African market is Bosch. The company has long been established in South Africa. Aside from smaller-scale machinery in the consumer goods market such as power tools and the automotive aftermarket, Bosch South Africa specialises in packaging tools and technology. Its innovative packaging systems are designed with specific sectors in mind, such as the rapidly growing pharmaceutical industry and food and confectionary industries. //

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Sustainability

AND INVESTMENT

Accelerated economic growth rates in many Sub-Saharan countries are creating their own challenges. Securing environmental and social sustainability whilst maintaining steady growth is a task that public authorities, local businesses and international investment partners can accomplish together.

In some African countries, industry is growing so quickly that the consequences of economic expansion can be both socially and ecologically damaging. An explosion in demand for energy to feed a rapidly growing economy has led some countries to resort to cheap but environmentally damaging and finite sources of fuel. Additionally, the output of waste products across different sectors (from industrial chemicals to household waste) has increased so quickly that provisions for proper disposal and waste treatment have often lagged behind. Both of these developments have caused pollution to skyrocket – threatening lasting consequences for Africa’s valuable natural resources. When Germany faced the same problems four decades ago, it led to a fundamental shift in thinking about the use of resources. Germany has developed into a leading provider of environmentally friendly and resource-efficient technology, which is now in high demand in Africa. German energy companies such as the Eco Innovation Group, Phaesun and Cube Engineering use their renewable energy expertise to offer innovative, sustainable solutions tailored to local demand and conditions.

SUSTAINABLE SOLUTIONS

The high domestic thresholds for ecological standards in Germany mean that many companies offer tried and tested products and services which present innovative, green solutions. German companies often establish local presences and subsidiaries to accompany their long-term investment in Africa, as their business models tend to include on-the-job training of local staff.

German company Strawtec, for example, has grasped the need for low-cost, sustainable solutions in the housing sector as a business opportunity. It uses natural, renewable resources grown locally to manufacture robust “strawboards”. These are used as a building material for mass housing and commercial construction, replacing traditional drywall at no additional cost. The natural wheat straw used as the main structural component in their product acts humidity-regulating in the finished buildings.

Working closely with national decision-makers, local public authorities and African business partners, German investors can play a key advisory role in the formulation of sustainable environmental and social standards. Their on-the-ground business activities and innovative product solutions are an essential part of this process. //

Partnership

FOR INNOVATION

Innovation is essential to keep Africa's economies growing. Whether in the fields of communication technology or agribusiness, creative partnerships between German and African companies continue to bring new ideas and solutions to the market.

Many African countries are experiencing a rapid expansion of their technological sectors and creative industries, potentially invigorating sectors as diverse as agriculture, healthcare and services. The boom has both given rise to and been brought about by a wave of creative new start-ups hoping to offer innovative product solutions.

In recent years, these start-ups have often found a home in so-called innovation hubs. These hubs function as support centres for fledgling businesses and research organisations, often providing shared office space and infrastructure. In regions where there is still a lack of widespread broadband coverage, innovation hubs can offer a practical solution to connectivity. The hubs facilitate creative exchange and act as "business incubators", but also connect academic institutions. Among the best examples are SmartXchange in South Africa, MEST in Ghana, Co-creation hub in Nigeria and iHub in Kenya.

GERMAN IDEAS FOR AFRICA

German companies are among the market leaders worldwide in the field

"AFRICA'S ABILITY TO SUSTAIN ITS CURRENT GROWTH WILL DEPEND LARGELY ON HOW QUICKLY IT WILL BE ABLE TO SHIFT FROM RELIANCE ON TRADITIONAL COMMODITY MARKETS TO **MODERN ECONOMIC STRUCTURES** THAT FOCUS ON **TECHNOLOGY-DRIVEN DEVELOPMENT**. THE FOCUS ON INNOVATION IS EMERGING AS A KEY THEME IN THE AFRICA UNION'S LONG-TERM STRATEGY, AGENDA 2063."

Professor Calestous Juma

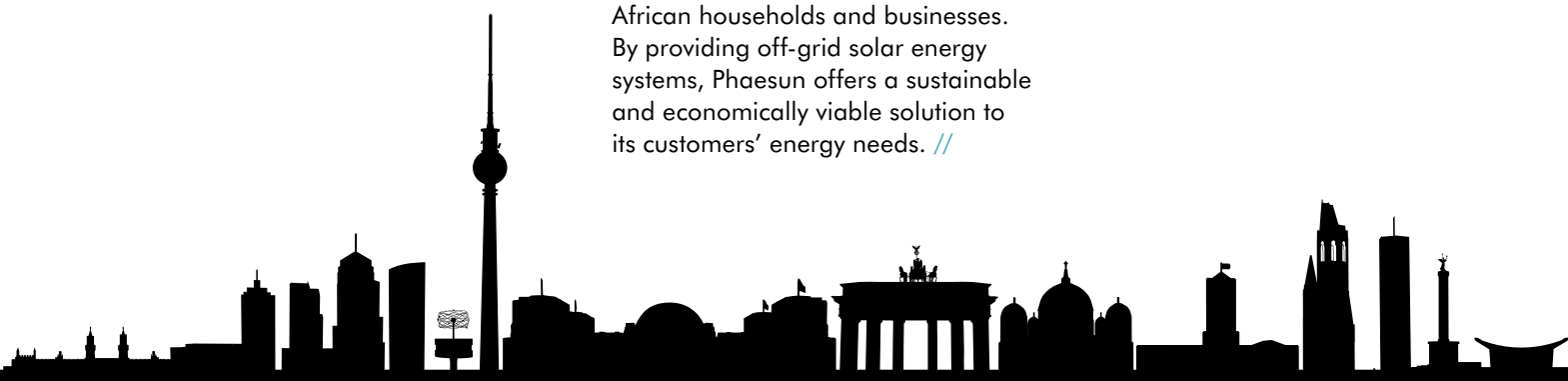
Harvard Kennedy School, chair of the African Union's Committee on Science and Innovation

"GERMAN COMPANIES CAN PLAY A KEY ROLE IN FACILITATING THIS PROCESS WITH THEIR EXPERTISE AND KNOW-HOW. FOR EXAMPLE, MENTORING LOCAL ENTREPRENEURS IN MARKETING, COMMERCIALIZATION AND TECHNOLOGY TRANSFER SO THAT MORE AFRICAN **START-UPS CAN GO ON TO BECOME SUSTAINABLE BUSINESSES**."

Jean Claude Bastos de Morais

founder of the African Innovation Foundation

of innovation and high-end technology. Many of these are already present and active in Africa, with a high level of investment in business cooperation and entrepreneurial partnerships. The German software company SAP plans to invest up to EUR 450 million in Africa by 2020. The region is one of the company's top growth markets globally. In the energy sector, the German company Phaesun has developed an innovative concept of delivering energy independence for African households and businesses. By providing off-grid solar energy systems, Phaesun offers a sustainable and economically viable solution to its customers' energy needs. //



German-style

TRAINING IN AFRICA

The German system of dual education for vocational training is one of the country's main guarantors of quality services and products. Now collaboration with local partners is bringing German-style training to young people in Africa.

For decades, Germany has prided itself on a highly efficient system of training young people to enter the skilled professions. The so-called dual education system combines continued classroom education with on-the-job learning in a two- or three-year apprenticeship. Trainees pursue a programme of studies in specialised vocational schools, where they cover core subjects (such as maths and German) as well as more specialised theory and practical lessons in their chosen profession (such as carpentry or aeronautical technology). The curriculum is set by the vocational

education authorities, which consult the trade and industry bodies to keep qualifications up-to-date. Classroom learning is combined with paid work in a company for two or three days per week. Here, the trainees are shown techniques and applied skills by dedicated mentors. They are fully integrated in the company from the first day, often taking on more responsible tasks as they progress. Companies invest time and resources in their charges' on-the-job training and salaries, with the aim of retaining fully-qualified, integrated and motivated employees.

The system has many advantages for the German economy, as it ensures a steady supply of highly skilled workers to the companies who are able to offer technically advanced products and services. It is also a major contributing factor to Germany's comparatively low rate of youth unemployment.

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A MODEL FOR EXPORT

For a number of years, this model of vocational education has proven to be a popular export. The GIZ (German Corporation for International Cooperation) has been working with the South African government and the German Federal Ministry for Economic Cooperation and Development to deliver a dual education programme since 1995. The latest model is the Basic Entrepreneurial Skills Development Programme (BESD), launched in 2012. This nationwide programme supports enterprises and promotes access to good quality vocational training in the metalwork and construction industries – with an emphasis on ethnic and gender equality among trainees. The German chamber of commerce in southern Africa runs several successful programmes, including book-keeping, accounting and financial administration. Afrika-Verein also supported the establishment of a vocational education programme in Madagascar as a partner of the Hamburg Chamber of Commerce.

Private companies have also developed tailored services to deliver German-style training to African businesses. The business model offered by companies such as the International Training & Support GmbH and the Lucas-Nuelle GmbH allows for adaptation to local priorities and training needs. Both German companies work in close cooperation with their African business clients to put together programmes for trainees supporting the exact development needs and training goals required through modular courses in state-of-the-art education facilities. //

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