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With intelligently engineered solutions across the Electrification, Automation and Digitalization value chain, Siemens continues to drive economies and enable prosperity across Africa. Shaping societal transformation and creating value for society through innovative technology - That’s ingenuity for life!
2018 was a truly interesting and important year for South Africa and for German companies in South Africa. I would like to mention a few important developments:

- The start of the first term of office of State President Cyril Ramaphosa with great expectations for his tenure. We hope the positive energy that began flowing will give the necessary push for structural changes and urgently needed economic growth. The State of the Nation Address on 20 June, 2019 gave some indication of his cabinet’s tasks in the near-term. The German–South African business community expects concrete action to follow the announcements.
- The paralysis in implementation of the national infrastructure development plans throughout 2018 must give way to forceful implementation.
- The fight against corruption, graft and nepotism is one of the most urgent priorities for the new government. Those responsible for the loss of state funds must be held responsible. These funds must be recovered and used to implement economic recovery. However, South Africa needs and deserves more than ‘over-the-counter’ medicine. We are aware that certain areas need painful and bitter measures. Determined action in all departments of government, on a national, provincial and municipal level is needed to put the country on a growth path again.
- GDP grew by only 0.8% in 2018. Figures showing negative growth of 3.2% in the first quarter of 2019, signal the risk of slipping into a persistent recession.

The German business community remains committed to working closely with its South African partners to create a better economic environment. However, we demand from government that fair and structured processes are followed, in line with the rule of law in a democratic country. Anything else will put the trust of foreign and local investors at further risk and in turn impede any initiative of the president to attract new investment.

BILATERAL TRADE
South African–German trade relations showed remarkable resilience throughout the year. The total trade volume for 2018 was around 17 billion euro: German exports to South Africa totalled 9.1 billion euro and South African exports to Germany, 7.9 billion euro.

CHAMBER MEMBERSHIP
Our membership remains at around 600 members in total. As at 31 May, 2019 we had 547 paid-up members, the remainder consist of strategic partners, which are non-paying, non-voting members.

EVENTS
The Chamber hosted around 50 events in the last 12 months, with close to 3,000 participants. The events were workshops, seminars etc., and social events such as the Ball of Hope in Cape Town. A highlight was the Business Round Table on the occasion of the visit of German Federal President Dr Steinmeier at the end of 2018.

Our Western Cape representative office has had another busy year, especially in terms of delegations. About 100 members in the Western and Eastern Cape region rely on Anja Tambusso-Ferraz and her team for support in the business environment.

The branch offices of the Chamber in Durban, Maputo (Mozambique) and Lusaka (Zambia) work as support offices for the main office in Johannesburg. A highlight in 2018 was the activities around water management in Zambia. Our colleague in Zambia organised a number of events in cooperation with the German Water Partnership and our local partners.

REPRESENTATIONS
The Chamber has represented the Free State of Bavaria since 2007 and, effective 1 June, 2019, took over representation of the Free State of Thuringia and of the Federal State of Baden-Wuerttemberg for South Africa. Anja Tambusso-Ferraz from our office in Cape Town will serve as the representative for Thuringia with the help of Alexa Gerrard from the Johannesburg office. Frank Aletter will be the representative for Baden-Wuerttemberg, with support from Kathrin Geisler.

ZIMBABWE
The Chamber is currently evaluating whether or not to establish an office in Harare, Zimbabwe, where political and economic developments in the country are challenging to say the least.
COMPETENCE CENTRES

The Competence Centre: Sustainable Energy, based in our Cape Town office, continues to work for member companies active in the field of renewable energy and energy efficiency.

The Competence Centre: Mineral Resources, established in June 2014, arranged a number of workshops, conferences and delegation trips in Southern Africa and Germany. The centre is run by René Zarske and Gerard Mohapi. A recent highlight was a delegation trip to mining companies in Zimbabwe.

The Competence Centre: Water Management, was established in our Cape Town office. René Schieritz is responsible for the centre. Its work will focus on all water management related topics.

Bilateral trade promotion is important to us in terms of South African business in Germany. The Trade Fairs Department supported corporate exhibitors and visitors attending and exhibiting at German Trade Fairs.

Digitalisation or Industry 4.0 has become a focus of Chamber activity. A newly established working group headed by Marc van Pelt is actively involved in forging partnerships between German and South African companies in this field.

THANKS

I would like to express my gratitude to the Federal German Ministry of Economic Affairs and Energy and to the DIHK for their support, organisationally and financially. A special thank you also to the German Embassy, to Ambassador Dr Martin Schäfer, Deputy Ambassador and Head of Economic and Global Affairs, Dr Rüdiger Lotz and their team for the support and great cooperation throughout the year.

I want to thank all members of the Senior Council and the Directorate for their support in the past year. Thank you also to management and staff of the Chamber for their support. Last, but certainly not least, thank you to all our members and friends. Thank you very much for your attention.

SABINE DALL’OMO
President, Southern African-German Chamber of Commerce and Industry
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For further information visit bmw.co.za/3 or contact your nearest BMW Dealership.
Thank you Ms Dall’Omo for the opportunity to report on the Chamber’s financial situation in 2018.

INCOME
Total revenue in 2018 was 23,775 million rand, compared with roughly 22 million rand in 2017. The average exchange rate was 14.83 rand to the euro. Surplus for the year (before finance charges) was 1,844,000.00 rand. The BMWi/DIHK (Deutscher Industrie-und Handelskammer) contribution was 5,755 million. Including key management costs and reimbursement of Germany Trade and Invest, the subsidy was 11,355 million rand. The Chamber’s income is generated mostly through services and membership fees:
• General services department: 14.26 million rand
• Trade fairs department: 16 million rand
• Membership fees: 2.181 million rand

EXPENSES
• 42.6% personnel related – salaries and wages: 10,135 million rand.
• Running costs of four offices (Cape Town, Durban, Johannesburg and Maputo): 16% or 3.8 million rand.
• Motor vehicle and travel expenses: 6% or 1.41 million rand.
• Chamber functions and events: 2.8% or 670,000 rand.
• Other expenses (trade fair and general services expenses, fluctuations in exchange rate etc.): 24.85% or 5.9 million rand.

We don’t expect any big surprises in the expenditure outlook in 2019.

2019: IMPORTANT DEVELOPMENTS
• There is growing German political interest in developments in Africa. The establishment of our competence centre for water management is an example.
• The Chamber will increase its engagement in the field of automation and Industry 4.0 – a focus of the Competence Centre: Industry. We are directing more resources into this field which is becoming increasingly relevant for the Chamber and its member companies.
• The Chamber will continue its involvement in sourcing semi-finished and finished products from SSA for German companies as reported last year. In 2017, we sent a delegation of 13 companies from South Africa to the congress of the organisation BME for sourcing in Berlin.
• The Federal Ministry of Economic Affairs has agreed to support a skills expert at the Chamber whose main task is to develop skills development programmes by adding new modules to our long-standing CATS programme in the field of logistics and hospitality. Amelie Volk has been appointed to this position and joins Isabella Hlabangu and the rest of the CATS team.

THANKS
I would like to thank all members of the Directorate and Senior Council. A special word of thanks goes to our President, Sabine Dall’Omo. It has been a great pleasure to work with you as the Chamber President. A big thank you to the German Ambassador, Dr Martin Schäfer; Head of Global and Economic Affairs, Dr Rüdiger Lotz; Alexander Salomon, Head of the Economic Department; and the whole team at the German Embassy. We have worked together extremely well.

To all our members, for their involvement in and support of the Chamber – thank you.

Last, but certainly not least, I would like to thank my colleagues at the Chamber for their hard work and dedication to our efforts.

MATTHIAS BODDENBERG
Chief Executive Officer
Southern African–German Chamber of Commerce and Industry
## Statement of surplus and other comprehensive income

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th></th>
<th>2017</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td>23,775,631</td>
<td>1,844,990</td>
<td>65,493</td>
<td>-9,042</td>
</tr>
<tr>
<td><strong>Net income before finance charges</strong></td>
<td>1,844,990</td>
<td>65,493</td>
<td>-9,042</td>
<td>1,910,434</td>
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<tr>
<td><strong>Finance income</strong></td>
<td>65,493</td>
<td></td>
<td>47,280</td>
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<tr>
<td><strong>Finance expenses</strong></td>
<td>-9,042</td>
<td></td>
<td>-9,042</td>
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<tr>
<td><strong>Net income for the year</strong></td>
<td>1,910,434</td>
<td></td>
<td>642,804</td>
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### Revenue: 2018 vs 2017

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<th></th>
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<th>2017</th>
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</thead>
<tbody>
<tr>
<td><strong>Subsidies excl. key management personnel costs</strong></td>
<td>5,755,624*</td>
<td>5,849,519*</td>
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<tr>
<td><strong>Trade Fairs</strong></td>
<td>1,976,778</td>
<td>1,203,540</td>
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<tr>
<td><strong>Services</strong></td>
<td>14,260,065</td>
<td>12,035,430</td>
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<tr>
<td><strong>Membership Fees</strong></td>
<td>2,181,345</td>
<td>2,090,015</td>
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<tr>
<td><strong>Other</strong></td>
<td>67,913</td>
<td>53,105</td>
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</table>

### Expenditure: 2018 vs 2017

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personnel &amp; related expenses excl. key management costs</strong></td>
<td>10,135,625</td>
<td>9,927,931</td>
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<tr>
<td><strong>Office running expenses</strong></td>
<td>3,808,756</td>
<td>3,496,509</td>
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<tr>
<td><strong>M/vehicle- &amp; travel expenses</strong></td>
<td>3,496,509</td>
<td>1,408,685</td>
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<tr>
<td><strong>Function &amp; representation expenses</strong></td>
<td>1,563,040</td>
<td>1,118,045</td>
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<tr>
<td><strong>Cost of sale &amp; other expenses</strong></td>
<td>669,269</td>
<td>653,355</td>
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### Revenue outlook: January to May 2019

<table>
<thead>
<tr>
<th></th>
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<th>2017</th>
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<tbody>
<tr>
<td><strong>BMW Subsidy</strong></td>
<td>10,371,773</td>
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<tr>
<td><strong>Trade Fairs</strong></td>
<td>317,543</td>
<td>317,543</td>
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<td><strong>Services</strong></td>
<td>3,625,858</td>
<td>3,625,858</td>
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<tr>
<td><strong>Membership Fees</strong></td>
<td>2,181,345</td>
<td>2,181,345</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>26,511</td>
<td>26,511</td>
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### Expenditure outlook: January to May 2019

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personnel &amp; related expenses</strong></td>
<td>7,472,361</td>
<td>7,472,361</td>
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<tr>
<td><strong>Office running expenses</strong></td>
<td>1,710,653</td>
<td>1,710,653</td>
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<tr>
<td><strong>M/vehicle- &amp; travel expenses</strong></td>
<td>503,943</td>
<td>503,943</td>
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<tr>
<td><strong>Function &amp; presentation expenses</strong></td>
<td>255,456</td>
<td>255,456</td>
</tr>
<tr>
<td><strong>Cost of sale &amp; other expenses</strong></td>
<td>2,502,624</td>
<td>2,502,624</td>
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<tr>
<td><strong>Depreciation training bank charges</strong></td>
<td>374,312</td>
<td>374,312</td>
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# DIRECTORATE 2018-2019

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Company/Role</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRESIDENT</strong></td>
<td>Ms Sabine Dall’Omo</td>
<td>Chief Executive Officer, Siemens Southern and Eastern Africa (Pty) Ltd</td>
</tr>
<tr>
<td><strong>DEPUTY PRESIDENT</strong></td>
<td>Mr Tim Abbott</td>
<td>Chief Executive Officer, BMW South Africa (Pty) Ltd</td>
</tr>
<tr>
<td><strong>ADDITIONAL DIRECTOR</strong></td>
<td>Mr Pfungwa Serima</td>
<td>Group Chief Executive Officer, Metroteq QPL Logistics (Pty) Ltd</td>
</tr>
<tr>
<td><strong>ADDITIONAL DIRECTOR</strong></td>
<td>Dr Klaus Eckstein</td>
<td>CEO, Bayer Southern Africa</td>
</tr>
<tr>
<td><strong>VICE PRESIDENT</strong></td>
<td>Mr Franz-Peter Falke</td>
<td>Geschäftsführer Gesellschafter der Falke Gruppe, Falke KGaA</td>
</tr>
<tr>
<td><strong>IMMEDIATE PAST PRESIDENT</strong></td>
<td>Mr Molefe Seth Phalatse</td>
<td>Chairman, Institute For Global Dialogue</td>
</tr>
<tr>
<td><strong>ADDITIONAL DIRECTOR</strong></td>
<td>Mr Jens Papperitz</td>
<td>Managing Director, B. Braun Medical</td>
</tr>
<tr>
<td><strong>EX OFFICIO</strong></td>
<td>Mr Matthias Boddenberg</td>
<td>Chief Executive Officer, SA–German Chamber of Commerce &amp; Industry</td>
</tr>
</tbody>
</table>

# SENIOR COUNCIL 2019-2020

<table>
<thead>
<tr>
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<th>Name</th>
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</thead>
<tbody>
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<td>Chief Executive Officer, SA–German Chamber of Commerce &amp; Industry</td>
</tr>
</tbody>
</table>

# HONORARY MEMBERS FOR LIFE OF THE SENIOR COUNCIL

- Mr Terry Bowman
- Dr Klaus Döring
- Mr Fritz Keller
- Mr Christoph Köpke
- Mr Leo Röhrig
- Dr Roland Zimmermann
The Southern-African German Chamber of Commerce and Industry (SAGCCI), in partnership with the Black Business Council and Business Unity South Africa was proud to host a Business Roundtable and Business Cafe on the occasion of the State Visit of the President of the Federal Republic of Germany, President Frank-Walter Steinmeier. This is the first official visit to South Africa undertaken by a German president, since the visit of then Federal President, Johannes Rau, in 2002.

The event served to appraise President Steinmeier and his delegation of the economic environment in South Africa and also provided an opportunity for discussions with members of the SAGCCI’s Directorate and Senior Council, many of whom are industry leaders in South Africa. The venue was the Turbine Hall in bustling Newtown, Johannesburg.

The morning began with a presentation on the South African business climate to the delegates by SAGCCI CEO, Matthias Boddenberg. Upon the arrival of President Steinmeier, delegates and other guests enjoyed light refreshments, before heading to the roundtable.
Key points of discussion included challenges and opportunities for German investors in South Africa, as well as how to go about strengthening business ties between the Germany and South Africa – a subject that was fleshed out later that week in President Steinmeier’s meeting with South African president, Cyril Ramaphosa.

Energy among the guests remained high as the roundtable transitioned into the Business Cafe with South Africa’s Minister of Trade and Industry, Dr Rob Davies, and Germany’s Federal Secretary, Dr Ulrich Nussbaum. Both gave invigorating and insightful addresses in the Turbine Hall’s Glasshouse. Guests were then invited to gather at different points of the room for focused discussions around industry sectors, such as finance, automotive, mining, energy, machinery, and infrastructure, while enjoying a hearty lunch.

South Africa and Germany have always been close trade partners; Germany was South Africa’s third-largest global trading partner in 2017. Germany is also one of South Africa’s largest foreign investors – over 600 German companies have established subsidiaries and/or production facilities in the country.

Events like this strengthen cooperation and dialogue between the South African and German private sectors – ties both countries value greatly. This state visit could prove truly invaluable in building ever-stronger economic ties between the two nations.

This first official event of the year has become a firm favourite with staff and members and is the ideal opportunity for engagements and networking. Most importantly, however, it gives members and interested stakeholders insight into the previous year’s undertakings and upcoming projects for the new year.

In attendance was Sabine Dall’Ormo, president of the Chamber, members of the senior council, Chamber staff and professional associates representing various industries.

Chief executive officer of the Chamber, Matthias Boddenberg, said the positive economic mood fostered by the election of Cyril Ramaphosa as president of the ANC and the country had declined during the last quarter of the year as the country experienced an economic downturn. He said one of the reasons for this was the mounting debt accumulated by state-owned entities, which he said could lead to a further downgrade of South Africa’s credit rating.

Boddenberg was followed by the head of the CSR and Training Competence Centre, Isabella Hlabangu, who gave an overview of the year’s projects and announced the development and progress of the mechatronics training in cooperation with institutions such as the Automotive Industry Development Centre (AIDC), Sedibeng Technical and Vocational Education and Training (TVET) College and the Department of Higher Education and Training (DHET). The 3½-year mechatronics technician course will be run in accordance with the German training system. Particular attention will be afforded to training young people from Gauteng townships. merSETA – the Manufacturing, Engineering and Related Services Sector Education and Training Authority – will certify the local degree and is involved in the process from the outset; DIHK certifies the international degree.

René Zarske, Head of the Competence Centre: Mineral Resources (CCMR) highlighted their participation in the second German Day at the Mining Indaba in Cape Town together with the German Federal Institute for Geosciences and Natural Resources (DERA). The topic was Insights & Developments along the Value Chain: German Expertise for the Raw Materials Sector. The CCMR’s report on Health and Safety in the Mining Industry is due for publication in September 2019.

After the presentations, members networked over a traditional South African braai. Many members commented on how much they enjoyed the casual atmosphere, which made it easier to make new contacts and business connections.
THE CHAMBER'S renowned annual fund-raiser, the Ball of HOPE, was held on Saturday, 18 May, 2019 at the Westin Hotel, Cape Town. Approximately 300 guests from various companies and affiliated stakeholders attended in support of the cause to improve the lives of children and their families in the Western Cape.

This year’s theme was Hope around the World. Guest speakers included the Consul-General of the Federal Republic of Germany, Matthias Hansen and Elelwani Pandelani, who spoke on behalf of Nedbank, our principle sponsor. Master of ceremonies for the evening was the ever-popular and charming award-winning TV presenter, singer and actor, Katlego Maboe. Guests were entertained by renowned local celebrities and enjoyed fantastic local and international food prepared by the Westin Hotel’s executive chef.

HOPE Cape Town strives to improve the quality of life of children and families affected by HIV, social challenges and related conditions and assist them to reach their full potential.

ABOUT HOPE CAPE TOWN
In 1999, the Rev. Fr. Stefan Hippler, was approached by doctors from the Tygerberg Academic Health Complex to investigate a supportive solution for the care and treatment of HIV-positive children. Extensive consultations together with Dr Monika Esser, Head of Immunology at Tygerberg Hospital, led to the establishment of the first dedicated ward for the tertiary care of HIV-positive children, the G7 Ithemba Ward for Infectious Diseases. October 2001 saw the official opening of the Ithemba Ward and the simultaneous launch of HOPE Cape Town as a registered non-profit organisation.

By securing private donors, HOPE Cape Town provided lifesaving antiretroviral treatment to children, at the time not freely available in South Africa. In 2007, the last HIV-positive children receiving HOPE-sponsored treatment were transferred to public care when the South African government started free ARV-rollout to all age groups.

Today, HOPE Cape Town still plays a vital role in the fight against HIV and AIDS. HOPE provides the communities it serves with health education and treatment support in partnership with provincial and local municipal health structures, and other non-profit and community-based organisations. HOPE also has strategic partnerships with various universities in Germany, and the German AIDS Foundation.

SA-GERMAN CHAMBER INVOLVEMENT
The Chamber opened its regional office in Cape Town in February 2000 when HOPE was in its initial phase. ARVs were not available and many children were dying from AIDS-related illnesses. The Cape Town Regional Office assisted in finding strategic partners for the support and financial assistance to get the project started. In 2001, the Chamber co-organised the first Ball of HOPE, which subsequently became the official annual ball for the Western Cape office.
Out of Africa, for the World

Building on its rich manufacturing heritage in South Africa, Mercedes-Benz South Africa is celebrating 25 years of manufacturing the C-Class from its award-winning plant in East London, Eastern Cape.

Mercedes-Benz
Out of Africa, for the World.

Building on its rich manufacturing heritage in South Africa, Mercedes-Benz South Africa celebrates 25 years of manufacturing the C-Class from its award-winning plant in East London, Eastern Cape.
HIGHLIGHTS IN 2018 AND 2019

On 12 September, 2018 Dan Plato, formerly Western Cape MEC for Community Safety, addressed Chamber members on Safety and Community Based Safety Initiatives in the Western Cape, at the Premier Hotel in Sea Point. Mr Plato currently serves as Executive Mayor of the City of Cape Town.

The highlight of 2019 was a visit from the President of the Federal Republic of Germany, Frank-Walter Steinmeier accompanied by a 15-member business delegation that attended various meetings facilitated by the manager of our Cape Town office, Anja Tambusso-Ferraz, and her team. High-profile meetings took place at InvestSA and Wesgro with then Western Cape MEC of Economic Opportunities, Tourism and Agriculture, Beverly Schäfer; Tim Harris, CEO of Wesgro; Ambassador Jadick Saffer (InvestSA – DTI) and Annelize van der Merwe (InvestSA – DTI). Joanmariae Fubbs, director of the Portfolio Committee on Trade and Industry hosted a meeting in Parliament for the German business delegates. A networking event with several start-up companies was organised by Silicon Cape at Workshop17.

The Cape Wine Show (12–14 September, 2018) hosted by Wines of South Africa (Wosa) prompted a visit by Géraldine Leverd, senior project manager for ProWein at Messe Düsseldorf and Josh Gu from Messe Düsseldorf China. The regional team met with several wine producers in the region on this occasion.

The regional office Back-to-Work Lunch on 31 January, 2019, hosted at the Swiss Club in Green Point, was yet another fantastic networking event for some 100 members and partners of our Chamber.

Vice-President of the Deutsche Bundestag (German Parliament), Wolfgang Kubicki, visited Cape Town on 26 February. Discussions arranged by the Chamber and the German Consulate took place at the Invest SA One-Stop-Shop with Western Cape government minister, Beverley Schäfer (Minister of Economic Opportunities) Tim Harris, CEO of Wesgro, Yaw Peprah and Salman Kajie (Wesgro) and Roderick Thyssen from the Department of International Relations in the provincial government.

In March 2019, the Competence Centre: Water Management was established at the Cape Town regional office in response to an increasing demand for business services in the southern African water sector. It aims to promote bilateral private sector cooperation between Germany and southern African nations and generate urgently needed innovations and investment in the local water sector. An initial task is to establish a strong network and working group to contextualise and guide Chamber activities in this capacity.

The Chamber organised and coordinated a business delegation from Germany Trade & Invest in the Cleantech Sector from 6 to 8 March, 2019. Individual B2B meetings as well as discussions with the Green Building Council of South Africa were arranged.

In the months leading up to the sixth South African democratic elections, the Chamber, in collaboration with the Konrad Adenauer Foundation, hosted pre-election talks on the 7 March, 2019 at the Premier Hotel in Sea Point. This event gave members and business leaders in the Western Cape an opportunity to interact with leaders from various political parties regarding their policies. The meeting of the Chamber’s Directorate and the Senior Council also took place in Cape Town on 7 March.

The Chamber, in partnership with Rand Merchant Bank (RMB) and the Hanns Seidel Foundation (HSF) hosted a business breakfast titled Where to Invest in Africa on 11 April, 2019, at the FNB Portside Building in Cape Town. Guest speakers included Celeste Fauconnier (Sub-Saharan Africa Economist for the Global Markets Research team at RMB), Dr Jakkie Cilliers (Head of the African Futures and Innovation Programme, Institute of Security Studies), Lea Heidemann (Regional Coordinator, Southern Africa, SAGCCI) and Dr Friedrich Kaufmann (Mozambique Representative, SAGCCI).

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As of 1 June, 2019 the Cape Town Office became the official South African representative of the LEG Thüringen (Economic Development Agency of Free State of Thuringia). The representative office will promote expansion and deepening of economic cooperation between Thuringian and South African companies and organisations and existing economic relations in South Africa.

A business networking event in collaboration with the British Chamber of Business in Southern Africa and the French South African Chamber of Commerce and Industry was hosted on 6 June at ENSafrica in Cape Town. It turned out to be a vibrant, well-attended function, much praised by the participants.

From 9 to 11 July, LEG Thüringen had an official stand at analytica Lab Africa at the Gallagher Convention Centre in Midrand. Participating companies from Thuringia made excellent contacts with potential agents and partners to support them in entering the South African market.

**ACKNOWLEDGEMENTS:**
We would like to extend our special appreciation for their ongoing support, assistance and co-operation to:

- The Provincial Government of the Western Cape – special acknowledgements go to Roderick Thyssen from International Relations, who always goes the extra mile for us when it comes to facilitating meetings, programmes and discussions with our German visitors and delegations in the political and economic field.
- The German Consulate General Cape Town – one could not wish for a better working relationship! We are indeed grateful for such an outstanding cooperation and friendship with our diplomatic representatives.
- Wesgro has been a tremendous point of contact and co-operation partner for our Chamber over the years – particular gratitude goes to Yaw Peprah and Salman Kajie for always making the impossible possible, even on short notice.
- Last, but not least, we thank our members in the Western Cape for their ongoing support.
The Durban regional office was established in 2012 and is responsible for the KwaZulu-Natal (KZN) provincial market with a focus on food and agriculture machinery and recycling and waste management. The office also offers business support and services related to the industrial and consumer goods manufacturing sector, harbour industry, and trade fair representation.

The Chamber’s regional office in Durban, headed by Danilla van Jaarsveldt since September 2018, moved to Umhlanga, north of Durban, at the end of 2018 and has also extended its services. The Food and Agriculture and Waste Management and Recycling competence centres, as well as representation of Koelnmesse, the trade fair in Cologne, are now based at this office.

KwaZulu-Natal (KZN) offers many business opportunities. Major sectors include industrial manufacturing, harbour economy, food and agriculture, as well as water and energy. The Chamber works to strengthen and extend its networks within the region to provide the best possible support for bilateral business relations in KZN. This includes networking and information events, service provision, and support of business delegations.

STAKEHOLDER ENGAGEMENT ON MOZAMBIQUE

The Chamber hosted a stakeholder engagement on Mozambique in February 2019, in cooperation with the Mozambique office and Beluluane Industrial Park. The first speaker, Lester Bouah, Executive Manager: Export Development and Promotion at Trade and Investment KwaZulu-Natal, informed the audience about opportunities for companies from KZN to do business in Mozambique. Dr Fritz Kaufmann, the Chamber’s representative in Mozambique, gave an overview on German business in Mozambique. Adrian Frey, Managing Director of Beluluane Industrial Park introduced the industrial park to the audience and pointed out various business opportunities. Dr Ernesto Mafumo, Provincial Director of Industry and Commerce: Maputo Province, focused on the potential of Maputo Province and links with KZN. Natalie Tenzer-Silva, Director of Dana Tours, spoke about corporate and leisure travel opportunities to Mozambique.

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GERMANY TRADE AND INVEST DELEGATION

The Chamber hosted a delegation from Germany Trade and Invest in March 2019. Although the delegation only visited Johannesburg and Cape Town, the Chamber made sure KZN was included. Donnée Kruger, Manager of the Gauteng Office of Trade and Investment KZN was invited to address the delegation and informed them about the investment opportunities in the province. The keynote speaker, Gary Bell, Chairman of Bell Equipment, spoke about South African business solutions made in Germany.

LISTINGS EVENT

The Chamber’s Food and Agriculture Competence Centre, in cooperation with the German Export Association for Food and Agriproducts (GEFA) Exportservice hosted a listings event with Shoprite Holdings from 23 to 24 May, 2019 at the Sheraton Hotel, Frankfurt Airport. Buyers from Shoprite Checkers, Renaldo Phillips (senior buyer) and Armand van Heerden had an opportunity to view and taste products showcased by 24 German food companies.

At an information event on 23 May, Danilla van Jaarsveldt gave the companies an overview of the South African retail industry. Phillips introduced Shoprite Holdings and Chris Ammer from Globalvegs gave advice on South African labelling regulations.

PRE-ELECTION TALKS IN DURBAN

The SA German Chamber, together with the Konrad Adenauer Foundation (KAS) held pre-election talks on 6 March in Durban, KZN. Representatives from the four top political parties in KZN informed the wider bilateral business community about their economic policies and interacted with the audience.
While South Africa is still the major market for the German business community in southern Africa, other SADC countries are increasingly becoming the focus of potential business activities and bilateral relations. The German Chamber receives many requests related to the whole SADC region and has appointed a Regional Coordinator to secure the necessary support.

The Regional Coordinator coordinates the Chamber’s work with affiliated and associated institutions in the region, oversees the regional offices, and establishes and strengthens business networks within the SADC area. Activities of the Regional Coordinator include regular exchanges with Southern African and German embassies, local chambers of commerce, business associations, government and related institutions, as well as German and international organisations in the countries.

INFORMATION AND NETWORKING
It is the aim of the Chamber to host an increasing number of events that provide information and a networking platform related to the SADC markets. In 2019, the chamber conducted sessions focused on the markets of Zimbabwe, eSwatini (Swaziland), Zambia, Mozambique and others. Cooperation partners were local counterparts, for example, chambers and investment promotion agencies. Some sessions will be followed up with corresponding business delegations visiting the countries.

BUSINESS DELEGATIONS
Namibia was the target country for numerous business delegations in 2019. With a focus on different industries, like renewable energy and water, the German Chamber benefited from the extensive local network.

An important group hosted in February 2019 was a business delegation to Namibia, accompanied by the Thuringian Minister for Economic Affairs, Science and Digital Society. The opening ceremony of a branch of a Thuringian company was the highlight of the trip.

NEW MARKETS AND FACT-FINDING
Most southern African markets are regularly visited and at the centre of numerous Chamber activities. Nevertheless, some SADC countries are only slowly being discovered for potential business opportunities. This includes, for example, Malawi, where the Chamber conducted a fact-finding mission in 2019 to strengthen their network in the country, and establish the potential for doing business. Infrastructure, energy, healthcare and mining, in particular, present opportunities for German business. Some well-established organisations are already active in the country.

AFRICA-WIDE COOPERATION
The German Chamber in Southern Africa cooperates closely with other German chambers and organisations across the whole continent. Close ties exist especially within the sub-Saharan region. The regional coordinators in eastern, western and southern Africa maintain regular exchanges. Two major events with focus on the whole African region took place in 2019: The German African Business Summit in Ghana, and the Africa Regional Conference in South Africa. These events enable the private sector and supporting organisations to approach the African market with a more regional perspective and aligned strategy.

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Volkswagen’s continued commitment to Africa

Volkswagen is growing its already impressive footprint in Africa after signing the Memorandum of Understanding (MoU) agreements with the governments of Ghana, Nigeria and Ethiopia. This follows the opening of a vehicle assembly facility and a launch of integrated mobility solutions bespoke to Kigali, one of Africa’s most connected cities in June 2018. In December 2016, the first locally produced Polo Vivo – the best-selling production car in Sub-Saharan Africa – rolled off the assembly line in Kenya.

We make the future real.
The SAGCCI Maputo office, the Chamber’s first office outside of South Africa, was established in 2014. This office is responsible for the Mozambican market, with a focus on market development in major industries such as mining, manufacturing, agriculture, energy, logistics, harbour industry, including water and infrastructure development.

**2019 HIGHLIGHTS**

Mozambique is still in the grip of a severe economic crisis with growth rates for 2019 estimated at only 1 to 2%. Hidden public debts of nearly two billion USD are still unresolved or under renegotiation and former finance minister, Manuel Chang, is in South Africa awaiting a decision on whether he is to be extradited to Mozambique or the US.

Despite the legal problems, the confidence of the international donor community is slowly recovering but it has nevertheless had serious macroeconomic impacts.

To add to the country’s woes, central and northern Mozambique were hit by two cyclones in early 2019 leaving hundreds of people dead, infrastructure destroyed anddim agricultural prospects for the next season.

There is nevertheless light at the end of the tunnel. Hostility between Frelimo and Renamo forces in central Mozambique ended when an agreement between the two parties was reached. Renamo’s demands for decentralisation and political participation in the provincial governments as well as integration of its armed forces into the public military were granted. The peace is stable with Renamo participating in all elections (national elections 15.10.2019). Inflation slowed down in 2018 and we are positive that fiscal consolidation will continue and help the local economy.

All this is supported by the announcement of the final investment decision by the US-led group of one of the gas fields, Anadarko, to invest around 23 billion USD to export liquid gas from Mozambique in the near future. This will obviously help the economy to stabilise and reactivate.

In September 2018 the international Maputo Trade fair (Facim) was attended by eight German companies and featured a German pavilion that was visited by the Mozambican president, Filipe Nyusi, and most of the country’s ministers.

Trade between Germany and Mozambique also shows positive development increasing to more than 300 million euro. New bigger investments from the German side are unfortunately not known, but the graphite exports to Germany picked up and will be an important export product for Mozambique in the future with aluminium and coal.

Road shows in Germany and South Africa, such as those at IHKs Bonn, Nürnberg, Stuttgart, Munich and Cape Town will continue, in order to keep the German business community informed about the potential and opportunities of Mozambique. A cooperation agreement was signed by IHK Stuttgart with the Chamber of Commerce in Mozambique (CCM), with first planning missions in September 2019.

Our European working platform, the European Business Club (EBC), was transferred into a legally recognised association, now called EuroCAM and operates as an information platform, and organiser for events as well as a facilitator for dialogue with the government. A dialogue channel to assist foreign direct investment (FDI) in Mozambique is being prepared with the Ministry of Industry and Commerce (MIC).

New contacts for the Senior Expert Service (SES) were made and experts were sent to assist farmers in the north of the country as well as local universities. The AHK office in Maputo continued as member of the board of Cultural Institute Mozambique-Germany (CCMA), which is associated with the Goethe-Institut in Johannesburg.

Since the Maputo office is supported by the BMZ-financed ExperTS programme, which is especially dedicated to development policies and activities, the cooperation with GIZ and with other agencies of the German Development Cooperation was and is an important factor in the successes of the Maputo office over the course of the last year and will continue. Worth to mention is a joint IT project with GIZ which is aiming at preparing young people form the “creative industries” to prepare themselves for future start-ups.

Our “jour-five”-Business Table, which has been successfully established for guests and local businesses, continued in Maputo during the year with guests from South Africa and Germany. On the first Wednesday of each month, the interested parties within the business community meet at popular garden restaurant, Meia Tigela in the city centre of Maputo. Everybody is welcome!
THE YEAR AHEAD

We are confident that 2019/2020 will bring further progress. The economic performance of Mozambique – and opportunities for German companies – will depend heavily on future energy prices, ongoing oil exploration and the further investment decisions of the big oil, gas and coal companies in Mozambique. A first important investment decision was taken and is a very positive signal for others to follow.

We are looking forward to the new Maputo Trade Fair, the 2019 FACIM edition, in the first week of September 2019, where Germany will again have its own pavilion with the confirmed participation of 11 German companies.

The EuroCAM will continue to organise local events and we hope to finally operationalise our FDI assistance platform – called PAIE – together with the Ministry of Industry and Commerce (MIC). The major objective is to advocate for FDI and create a capable task force together with MIC to address the day-to-day problems of foreign investors.

As we concluded last year a comprehensive study about trade and investment decisions of German companies in the lusophone African countries, we are looking forward to the follow-up activities and new facilitating instruments together with our colleagues from AHK Lisbon.

The cooperation with GIZ and ExperTS programme will continue and we will have a second round of IT Trainings and start up coaching for young creative people together with our Goethe Centre in Maputo. This time even with a component incorporating the AHK São Paulo in Brazil.

LUSAKA, ZAMBIA

The SAGCCI Lusaka office was established in 2016, and was the second southern African office established outside South Africa. The Lusaka office is responsible for the Zambian market with a focus on market development in major industries that include mining, agriculture, energy, water and infrastructure development.

Lena Charlotte Mueller took over responsibilities as representative in mid-June. Together with the Water Competence Centre in Cape Town, the Lusaka Office is organising a delegation of German companies to Lusaka, Kitwe and Ndola supported by the market development programme of the Federal Ministry of Economic Affairs and Energy.

For the first quarter of 2020, the office is planning a delegation trip to Germany together with the Competence Centre: Renewable Energies and the export initiative for energy and the Federal Ministry of Economic Affairs and Energy. For the second half of 2020 the second Zambian–German Economic Forum is planned in Lusaka.

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Economic conditions in Zimbabwe have become more and more difficult. Inflation has regained momentum to the extent that government is no longer publishing official figures. Unofficial figures indicate that the inflation rate is about 170%. The poor bear the brunt of skyrocketing prices of basic commodities.

Power cuts have an impact on daily life and business productivity is badly affected. Increasing use of generators results in additional costs. Many companies are struggling to survive. This situation will worsen if the level of Lake Kariba becomes too low to feed the turbines for power generation. Additional power is being purchased from South Africa and Mozambique. There is also a severe shortage of fuel and long queues at petrol stations are a common sight.

Finance minister, Mthuli Ncube announced in his Mid-Term Budget Review on 1 August that the economy will contract by 3.2% in 2019. This figure has, however, already been revised to above 5% by the International Monetary Fund (IMF). Some experts expect an even worse scenario.

Cyclone Idai devastated large parts of the Eastern Highlands in March 2019 and drought added to the economic woes.

On the monetary side some measures were taken. In February 2019 an interbank forex market was introduced whereby the real-time gross settlement (RTGS) dollar could be traded against the US dollar. This measure was long overdue as until then the RTGS dollar was officially on a par with the US dollar even though, on the parallel market, the currency was traded at about 1:4.

On 24 June, 2019 introduction of the new Zimbabwe dollar as the only legal tender resulted in a sharp rise of the official exchange rate. The multicurrency regime which had been in place since the beginning of 2009 to thwart hyperinflation was abolished. The US dollar is still used as a parallel currency for many transactions.

In expert circles there are serious doubts that the preconditions for introduction of a new currency are in place, as the market will have no confidence in the new Zim dollar; there will also be a high risk of hyperinflation.

Poor economic conditions have caused a great deal of frustration and dissatisfaction among the working class as salaries have not kept pace with rapidly increasing prices.

In January 2019 demonstrations turned violent after a sharp increase in the fuel price, with vandalising of property and looting of shops. The government reacted with brute force by deploying the army which used live ammunition and killed a number of demonstrators. In August 2019 the police used inappropriate force on demonstrators in the streets of Harare. There are also reports of intimidation and arbitrary arrests of opposition members, civil society activists and artists.

The Southern African–German Chamber of Commerce and Industry has continued efforts to act as a bridge between Zimbabwean and German businesses. Major events included:

- A briefing session with German businesses in Johannesburg, with the German ambassador, a representative of Zimbabwean industry and German business people active in Zimbabwe,
- A 12-person German delegation to explore the mining sector.

These events indicate that there is still interest from Germany. However, it appears that a major engagement of German companies will take some time. What is needed is trust, and here there is still a long way to go.
Honorary representative, Walter Engelmann, has been based in Frankfurt since an office was established there in 2016 to represent the Southern African–German Chamber of Commerce and Industry (SAGGCI) in Germany.

In 2018, the honorary representative presented our chamber at a number of South Africa seminars at German Chambers of Commerce and Industry (IHKs) and other organisations in Germany. The highlight was Hamburg in May 2018 because Cape Town is the official partner of the Hamburg Harbour Festival.

The Frankfurt Office supports our growing presence in Germany. As trade always is two-way and not a one-way street the Frankfurt Office organised the programme for two successful South African outbound missions to Germany in 2018. It was managed and supported in close cooperation with Head Office. The Representative also accompanied these two delegations in Berlin, Düsseldorf and Frankfurt and observed a number of new business contacts for the members of the delegation. Furthermore, the meetings in Germany supported the mutual understanding between South African and German businessmen. In this regard the representative met exhibitors of South African pavilions – headed by DTI – at international trade fairs in Germany. Regularly he receives phone calls and visitors from small and medium enterprises in Germany – raising a large variety of different business questions concerning the business ties and problems in trade relations between southern Africa and Germany. In this regard he acquired a customer for the chamber service office-in-office. The representative would like to thank the South African Embassy in Berlin as well as the entire team of our chamber in Johannesburg, Cape Town and Durban for their support and cooperation.

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The Competence Centre: Industry assists German and South African companies and members of the Southern–African German Chamber of Commerce and Industry (SAGCCI) with developing business in southern Africa and Germany. The focus is on market entry support, providing networking platforms and market information, and actively shaping the framework for doing business in the Fourth Industrial Revolution environment.

**AHK WORK GROUP INDUSTRY 4.0**
The SAGCCI has established a work group on Industry 4.0 with members that range from industry leaders in automation and digitisation to manufacturers and end-users. For the best results and impact, representatives are drawn from research institutions, business associations, and ministries, as well as members of the Presidential Commission on Industry 4.0.

Germany’s work on Industry 4.0 development began about five years ago with a focus on connections in the value chain from suppliers, via production, to the end user. Innovative start-up companies, as well as companies in the digitalisation and telecommunication space are also included. The German Ministry for Economic Affairs has since taken the lead with the Industry 4.0 Platform which includes relevant stakeholders. German companies focus on sensor implementation, installing the correct IT system and developing a concept on using collected data efficiently. The industry is currently exploring 5G mobile internet connectivity, 3D-printing and the development of new robotic applications.

The long-term advantage of Industry 4.0 is production of goods according to individual needs, at mass-production costs. For example, a sports shoe can be designed by the end-user with various digital processes and then 3D printed at a low cost. Another example is timely after-sales service of machinery equipment: use of machines can be supervised elsewhere but delivery of spare parts or maintenance can be done in real time, or very close to it.

South Africa is exposed to Industry 4.0 through a variety of international investors that compete with global companies, as well as local, export-orientated companies. South Africa is also more open to digital solutions than Germany, for example. The banking sector is a good example of this. However, due to weak economic development in recent years and political uncertainty, many companies have not invested in development of their manufacturing facilities needed to stay competitive on the global market and to attract future investors. Another relevant aspect is training of staff and the preparation of future employees currently in the schooling system.

**TRADE FAIR REPRESENTATION**
*Messe Düsseldorf, Messe München, Messe Berlin and Koelnmesse*
The SAGCCI Trade Fairs department supports visitors and exhibitors who would like to attend our representative shows. We also provide additional support by arranging extras like VIP tours and B2B meetings on request.

When the SAGCCI was nominated as the representative for Messe München in the SADC region we employed two new staff members to support this role. Messe München is one of the leading exhibition organisers worldwide with more than 50 trade shows for capital goods, consumer goods and new technologies. Every year, over 50,000 exhibitors and around three million visitors take part in more than 200 events at the exhibition centre in Munich, at the Internationales Congress Center München (ICM) and the Veranstaltungszentrum München (MOC) and other venues abroad. Together with its subsidiary companies, Messe München organises trade shows in China, India, Brazil, Russia, Turkey, South Africa, Nigeria, Vietnam and Iran. Messe München has a global presence with a network of associated companies in Europe, Asia, Africa and South America and around 70 representations in over 100 countries.
When heart meets business. Every new encounter has a certain vibrancy. Global players and local heroes find themselves inextricably drawn to one another. New perspectives open up and the world feels somehow enlarged. And business finds the one it’s been looking for:

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Organizer of the German pavilions of

- AFRICA HEALTH 12 – 14 May 2020 Johannesburg, South Africa
- MINING INDABA 3 – 6 February 2020 Cape Town, South Africa

and (co-)organizer of

- pacprocess mea 9 – 11 December 2019 Cairo, Egypt
- plast alger 9 – 11 March 2020 Algier, Algeria
- printpack alger 9 – 11 March 2020 Algier, Algeria
Messe München arranges five of its leading trade fairs in South Africa, including IFAT Africa which focusses on water, sewage, refuse and recycling, held in conjunction with Analytica Lab Africa and Drinktec. The SAGCCI organised a delegation from four SADC countries to visit IFAT. Participants gained valuable insights into the themes covered by IFAT and its co-hosted exhibitions. The Chamber also welcomed and assisted exhibitors from the Federal State of Thuringia.

Together with CRU and supported by a Messe Düsseldorf sponsorship, the SAGCCI organised the Africa Wire, Cable and Tube 2019 at Emperors Palace in November 2019. The conference provided a platform for key industry players to expand their understanding of Africa’s wire, cable, tube and pipe industries and explore investment, production, and trade, as well as supply chain of raw materials and finished products in the African environment.

We are excited about a new pilot project, funded by the OIIZ (Gesellschaft für Internationale Zusammenarbeit). Two delegations will visit the K and Medica trade fairs to be held at Messe Düsseldorf in October and November 2019. The aim of this project is to create an SADC-based supply chain of goods into Germany.

Finally, to promote Messe Düsseldorf’s EuroShop 2020 (the world’s no.1 retail trade fair), the SAGCCI held an information session and press event at the newly launched Mercedes Benz showroom in Sandton on 3 September, 2019. Elke Moebius (Global Head Retail and Technology for Messe Düsseldorf and Director of EuroShop), Ulrich Spaan (Senior Vice President, EHI Retail Institute) and Justin Hawes (Managing Director, Scan Display) shared their expert knowledge on the latest global retail trends, what visitors can expect to see at EuroShop, and insider tips for those traveling to the trade fair from South Africa. EuroShop will be held from 16 to 20 February, 2020.

For several years the SAGCCI has been representing Messe Berlin’s InnoTrans, the industry’s leading international trade fair, in southern and western Africa. In 2018 InnoTrans had 3,062 exhibitors from 60 countries and occupied the entire Berlin exhibition grounds; 153,421 trade visitors from 149 countries filled the 41 exhibition halls, outdoor display and track area as well as the bus display. Four South African exhibitors took part in this prestigious event. The next InnoTrans is scheduled for 22–25 September, 2020.

The SAGCCI also represents Koelnmesse, an international trade fair and exhibition centre in Cologne. With around 80 trade fairs covering about 25 sectors and over 2,000 conferences annually, Koelnmesse is one of Germany’s largest trade fair organisers and with 284,000 m² exhibition floor area, third-largest by area.

Koelnmesse’s key areas of expertise are Global Competence in Food and FoodTec, with trade fairs such as Anuga and ISM, Global Competence in Furniture, Interiors and Design (examples are imm cologne and ORGATEC) and Digital Media, Entertainment and Mobility, which addresses future-oriented themes at events such as gamescom, photokina and DMEXCO.

Since January 2019, representation of Koelnmesse has been extended to its subsidiary offices in China, Brazil, India, Dubai, Japan, Thailand and Singapore. The following trade fairs are now represented by the SAGCCI: yummex Middle East, Dubai, ANUFOOD Brazil, ANUFOOD China, Annapoorna – ANUFOOD India, Wine & Gourmet Japan, gamescon Asia and THAIFEX. Anuga, the leading trade fair for the global food and beverage industry will take place from 5–9 October 2019 in Cologne. South Africa will be represented at the trade fair with a National Pavilion.

REPRESENTATION OF BADEN-WÜRTTEMBERG AND THURINGIA

The SAGCCI was recently been awarded two new South African representations: the Free State of Baden-Württemberg and the Free State of Thuringia. These business relationships will generate an income stream for the SAGCCI and strengthen bilateral ties between South Africa and Germany.

Baden-Württemberg is located in the southwest of the Federal Republic of Germany with Stuttgart as its capital. With 11 million inhabitants in 2017, it is Germany’s third most populated state and one of the leading economic and innovative regions in Germany and Europe and Germany’s largest exporter. In 2018, Baden-Württemberg’s GDP was 511 billion euro.

Thuringia is the ideal innovation hub and business location. It is in central Germany, in the heart of Europe, with excellent traffic connections, 280 million consumers in an 800 kilometre radius and about 10,000 scientists conducting research in close cooperation with businesses at more than 40 institutes and universities. ■
MINING & MINERAL RESOURCES

The Competence Centre: Mining and Mineral Resources (CCMR) is a key contact point for German companies in southern Africa and is aligned with the Resources Strategy of the Federal Republic of Germany. The CCMR is active in southern African countries such as the Democratic Republic of the Congo, South Africa, Zambia and Zimbabwe – markets that have the potential to contribute to the security and diversity of the German resource supply chain and will attract German technology, products and services. The CCMR is a part of the German Mining Network, an international platform for German companies and institutions dealing with mineral resources.

In February, the CCMR set up a booth with Deutsche Rohstoffagentur (DERA) at the 2019 Mining Indaba in Cape Town. The second German Day at the trade fair was organised to promote the German mining network in the region and provide a platform for the German business community. This years’ topic was Insights and Developments along the Value Chain: German Expertise for the Raw Material Sectors. Dr Thomas Gäckle from the Federal Ministry of Economic Affairs and Energy officially opened the German Day, an integral part of the Mining Indaba. The next German Day is planned for February 2020 in Cape Town.

The CCMR attended various conferences and exhibitions in the SADC region as well as overseas in Germany, Canada and Brazil. In 2019, the CCMR expanded its network and strengthened relationships with local organisations, institutions, ministries and private companies. The centre’s service portfolio has grown; an increasing number of companies are reaching out for services like market studies, business partner searches and special reports. In May 2019 eight German companies participated in a mining delegation to Zimbabwe and learnt more about the mining industry in this landlocked southern African country. The CCMR also published articles in various local mining magazines promoting German technologies in the mining industry of southern Africa.

THE HEALTH AND SAFETY PROJECT

German companies are heavily invested in the mining industry in southern Africa; German products and technology are widely used at all levels in day-to-day operations. This calls for a commitment to health and safety from companies in this profitable value chain.

The Health and Safety Project confirms the commitment of German companies to the wellbeing of workers, their families, communities and wider society. The project supports South Africa’s target of eliminating injurious and fatal incidents by 2020 and aims to project this target to the rest of southern Africa. The CCMR is facilitating a Mine Health and Safety Project in the Southern African Development Community (SADC). The first phase was to identify the most progressive mining legislation in the region, technologies from Germany to support health and safety on mines and leading mining practices implemented in South Africa as documented by the Minerals Council of South Africa. These were included in Health and Safety on South African Mines: A best practice report, with content from ISSA Mining, a profile of Lesotho and interventions by BASF after the Marikana incident of 2012. The publication is free of charge and available at the CCMR in Johannesburg.

During the second phase of the project in 2019, the CCMR hosted five seminars and workshops in Botswana, South Africa and Lesotho. Another five workshops and seminars are planned for 2020 in Zambia and Namibia, among others. The CCMR is facilitating the workshop series in cooperation with the Mining Industry Association of Southern Africa (MIASA), the Minerals Council of South Africa and ISSA Mining. The CCMR is impressed by the number of participants who attended the workshops and is looking forward to the next project phase in 2020.

OUTLOOK

The CCMR plans to conduct more excursions, seminars and workshops in all focus countries and looks forward to expanding its network and providing German companies with first-hand information from the ground to ensure successful business operations in the mining industry in southern Africa.

Health and Safety on South African Mines: A best practice report is available free of charge from the CCMR in Johannesburg.
DRC MINING WEEK
LUBUMBASHI 2019

CCMR BREAKS NEW GROUND
WITH FIRST GERMAN
PAVILION

The DRC is a key market for German mining suppliers in the Southern African Development Community (SADC). Mines in the DRC have shown much interest in Germany’s durable and sustainable state-of-the-art technologies. Germany is also in a position to transfer mine-specific knowledge gained from its long mining tradition, the world’s oldest mining universities and more than 250 years of mining know-how. The CCMR has excellent relationships with academic mining spheres in Germany and in South Africa. In particular, Wits Mining Institute, based at the University of the Witwatersrand in Johannesburg, is contributing valuable knowledge to the SADC.

In the years the CCMR has been attending DRC Mining Week in Lubumbashi it has become an important industry event in southern Africa. The CCMR’s successful facilitation of the mining roadshow to Zambia and the DRC in October 2018, in cooperation with VDMA Mining and our network in the mining industry of the DRC, were reason enough to intensify the German presence in this attractive market environment and initiated new trade fair territory with the first-ever German Pavilion at DRC Mining Week from 19 to 21 June 2019. The German Pavilion was implemented by Messe Düsseldorf and VDMA Mining.

Exhibitors presented a wide range of mining technologies, such as industrial drive solutions, processing technology, conveyor belts, industrial rubber, hydraulic backfilling systems, mechanical engineering, magnetic and sensor-based sorting and separation as well as welding consumables. Mining technology is in high demand in DRC mining markets; Germans are thus very interested in continuing the existing business and developing new contacts in this country.

Preparations and stand construction for the German Pavilion were adapted to local conditions, combined with cautious expectations on the part of the participating companies. However, the organisation on site, the quality, and the number of visitors and contacts were convincing right from the beginning. The trade fair and the high-ranking conference attracted approximately 3,500 participants. In addition to Germany, national pavilions of South Africa, Zimbabwe, France and Great Britain were also represented on the fair ground.

The German exhibitors received political support from German Ambassador, Thomas Terstegen, who supported the companies, together with Honorary Consul, Oliver Meisenberg. Acceptance and encouragement of the official reception of the German ambassador exceeded all expectations and showed that there is a great affinity to Germany in DRC. The CCMR is in contact with the German Embassy and the Consul in Kinshasa discussing further events around the DRC Mining Week 2020. The first German Pavilion at the DRC Mining Week 2019 was rated very successful by all participants and a repeat in 2020 is definitely on the cards.

LEFT: German mining solutions were in high demand at the German Pavilion at the DRC Mining Week in Lubumbashi 2019.
The Competence Centre: Sustainable Energy (CC:SE) aims to support businesses from Germany and Southern Africa, who seek to participate in the dynamic regional markets for sustainable energy solutions. As a networking and advisory platform, the CC:SE offers market intelligence, support in market development, market entry as well as expansion, and access to relevant stakeholders in the southern African power sector. The CC:SE is supported by the ExperTS programme of the Federal Ministry for Economic Cooperation and Development (BMZ).

CHANGING ELECTRICITY MARKETS

Southern African electricity markets are changing. Almost all electricity sectors in the SADC are characterised by escalating power tariffs, diversified power generation and distribution models, emerging independent power producers as well as dwindling hegemonies by state-owned utilities. Consequently, a need for revised roles by traditional stakeholders has arisen. These new roles must be accompanied by a renewed understanding of their raison d’etre (reason for being) and business models, as increasing number of players become active in the market.

In this changing market environment the CC:SE is progressively getting involved in activities geared towards the development of the sustainable energy market. Thus increasing the opportunities for private sector participation. A prime example of market development is the continued promotion of Solar Heat for Industrial Processes (SHIP) via the Solarpayback project. In March 2019, as part of Solarpayback’s support activities, a SHIP South Africa Enabling Report was released, including an economic analysis for solar heat usage in industry. The analysis outlines financial viability of SHIP in South Africa, where the food and beverage industry shows great potential. The Enabling Report can be accessed via the Solarpayback website: www.solar-payback.com.

Another undertaking by the CC:SE that addresses the need to create opportunities for private businesses, are the support activities for the development of the hydrogen market in South Africa, as well as fuel cell (HFC) applications. Beginning October 2018 the CC:SE has been advising the South African–German Energy Partnership, coordinated by the GIZ, as well as relevant South African government departments, on the design of support mechanisms and funding structures for HFC.

Besides its advisory role the CC:SE has also continued its collaboration with the Energy Partnership to strengthen the involvement of private sector stakeholders in the partnership and ensure that concerns by businesses are taken into account at the level of the bilateral government-to-government relations.

MARKET INFORMATION AND BUSINESS LINKAGES

In line with its mandate, the CC:SE has compiled freely accessible market studies on decentralised renewable energies in South Africa, Namibia, and Botswana. These market studies are available from the CC:SE and can also be accessed on the ‘Energy Solutions Made in Germany’ website: www.german-energy-solutions.de. Besides the market studies the CC:SE has also hosted information events, either as workshops or webinars, on South Africa, Zimbabwe, Zambia, and Madagascar, with the aim of providing market-related facts and knowledge to private sector stakeholders.

As part of the business linkage activities in 2018/19 the CC:SE took a delegation of German renewable energy and energy efficiency businesses to Namibia. The business meetings during this delegation illustrated how escalating energy prices in the region translate to sustainable energy solutions that are financially viable. This impacts on growing market opportunities specifically in the area of embedded generation and industrial energy efficiency.

The CCSE team would like to thank all our partners for their support and cooperation. We are looking forward to our continuous collaboration.

Please do not hesitate to contact us if you are interested in tapping into the southern African energy markets. You are welcome to make use of our network and services.

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South Africa is battling a high youth unemployment rate; according to statsSA, 55.2% of 15- to 24-year-olds, including young graduates, are unemployed. The Southern African–German Chamber of Commerce and Industry (SAGCCI) provides dual vocational training programmes that focus on the needs of companies to provide industry-specific vocational training that makes students more employable. The Competence Centre: Training is tackling this challenge in cooperation with the advisory and coordinating body the Education and Training Advisory Committee, which is made up of German companies, and local institutions and organisations.

TRAINING AND CSR

TRAINING – BUSINESS ADMINISTRATION, MECHATRONICS & LOGISTICS

This year, the Business Administration vocational training, which has been running since 1985, was complemented by a new mechatronics training programme. Sixteen young South Africans began the 3½-year programme, working towards the German Mechatronics Certificate as well as the South African Trade Test Red Seal Certificate. A key aspect of the vocational training is its 70% work-integrated training which takes place at the Automotive Industry Development Centre (AIDC) in Rosslyn and at nine host companies including Bosch, Siemens, Festo, Thyssenkrupp, Supreme Springs, Bosch Rexroth, Buehler, KHS, and Feltex.

South Africa is often seen as the gateway to the rest of southern Africa, especially in the logistics sector, which has many international and German stakeholders. Due to the strong German presence in logistics there is enough demand to expand the Chamber’s training portfolio. German-South African dual vocational training for logistics is being developed with the aid of the German Federal Ministry for Economic Affairs and Energy’s (BMWi) Skills Expert programme. In collaboration with the Education and Training Advisory Committee for Logistics, headed by spokesperson, Ralf Schneider, Managing Director of Senator International; deputy spokesperson, Sebastian Heine, Chief Delegate of Kerry Logistics the training will start in 2020.

PARTNERSHIPS

A strength of the Chamber has always been its network and partnerships with the benefits of Chamber services, including training and education. The memorandum of understanding (MoU) signed in May with GIZ emphasises the creation of employment-oriented, demand-driven training.

Another exciting partnership is Porsche Aftersales Vocational Education (PAVE) for which we joined forces with Porsche to provide quality training for the automotive industry.

The 2019/2020 cooperation with Bayerisches Bildungswerk (bbw) and Sequa are also adding value to our dual vocational training programme through their ‘responsibilities into practice’ approach. To introduce demand-oriented occupational training in mechatronics the bbw invited South African Institutions to a delegation trip to Munich in November. The delegation included representatives from Ekurhuleni West College, Sedibeng TVET College, AIDC, Tshwane North College, the Quality Council for Trades and Occupation, National Artisan Moderation Body, merSETA, and DHET.

CHANGES IN THE CC: TRAINING TEAM

Training Office Administrator, Boitumelo Mokgosi and Skills Expert, Amelie Volk are the newest members of the competence centre team. With Head of CC: Training, Isabella Hlabangu, and Operations Manager, Taurai Gumbo, this young, dynamic team aspires to transform the learning sphere.

OUTLOOK

The CC: Training looks forward to commencement of logistics vocational training in 2020 and plans to expand the dual vocational programmes into the tourism sector. Train the Trainer (Ausbildung der Ausbilder) courses will also take place in 2020. CC: Training looks forward to exciting collaborations with the industry, bridging the unemployment gap in southern Africa step by step. Please contact us if you are interested in training services.

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The Competence Centre: Water Management (CC:WM) aims to develop water sector business linkages between Germany and the Southern African Development Community (SADC). In so doing, the centre will promote German-SADC cooperation and knowledge exchange. The main roles of the competence centre, which is based in Cape Town, include the following: to offer advisory services to SADC water-sector actors and provide a hub for information and relevant services to the industry’s network, to promote cooperation and communication between partners and provide a platform for networking and information exchange.

The new Competence Centre: Water Management (CC:WM), opened in 2019 and got off to a running start. This exciting initiative is partly subsidised by the German Ministry of Economics and Energy (BMWi) and aims to promote the bilateral exchange of technology and know-how between Germany and southern Africa in water management, encompassing the entire water value chain from source to wastewater treatment.

Water supply and wastewater treatment and associated products and services – residential water heating, domestic fittings and irrigation, etc. – are in dire need of attention across the sub-continent. The water sector is chronically under-invested, with ailing infrastructure and few technological innovations. The region is facing twin pressures of population growth and climate change that constrain ability to maintain adequate supply: we have seen the impact of being under-prepared for extreme climatic events in the case of the Cape Town drought. On the other side of the sub-continent, climatic extremes have demonstrated the havoc too much water can wreak: floods from cyclones Idai and Kenneth caused serious damage along the east coast of southern Africa – some of the poorest countries of the region.

Erratic rainfall patterns and extreme weather events mean “business-as-usual” management of water resources is no longer sufficient to supply and secure a developing economy. Although the statement ‘Water is Life’ is clichéd it still rings true. Tackling challenges facing the water sector should not be country-specific: climatic events do not conform to political boundaries, and increased regional cooperation is needed to adequately manage water resources. Beyond this, international cooperation in the form of technology and knowledge exchange will build societies and systems resilient to climate change.

It’s an exciting time to launch an initiative to promote private sector collaboration between economic powerhouse Germany and the developing nations of southern Africa. The private sector is typically a strong driver of innovation – exactly what is needed in the fields of, inter alia, water and wastewater treatment, hydrological and meteorological monitoring, wastewater reuse and the exploitation of alternative water resources. Concomitantly, this need for collaboration and innovation creates niche market opportunities for German SMEs in the southern African water sector.

Challenges and barriers to doing business in Africa remain. Not least of these is the capacity of local government institutions to procure and finance new technologies from foreign companies. The CCWM assists companies in overcoming the barriers of entering a new market through insider knowledge, a strong network and technical expertise so that mutually beneficial agreements can be achieved to boost local capacity with economic and environmental benefits.

In the short time since its inception, the CC:WM has enjoyed a positive response from engaging with other institutions. In partnership with the German Water Partnership e.V., CC:WM completed a water sector delegation to Namibia and South Africa, financed by the BMWi with delegates from a range of German SMEs active in the water sector, with technologies from efficient residential irrigation to wastewater sludge disintegration. The centre has also signed an agreement with CiZ to adapt Brazilian training for industrial water managers to southern African conditions. The centre has been warmly received by Chamber members and stakeholders in the local water sector and have shown their enthusiasm for collaboration projects currently being explored. Private sector, government, and non-governmental stakeholders have indicated their willingness to form a working group to guide the centre’s future activities.

The CC:WM will expand the Chamber’s competencies in the green economy and environmental technology. As a world leader in GreenTech and CleanTech, Germany is well-positioned to provide the technology and expertise to develop the green economy of southern Africa. With expert advice, local knowledge and excellent contacts the CC:WM is the first point of contact for environmentally and socially responsible trade and will make a unique contribution to a more sustainable, resilient and wetter future for the region.

Water Management Competence Centre:
021 422 5577
A GREENER FUTURE
Although technological innovations abound – from pumping stations to water treatment solutions – water supply and sanitation systems have changed very little since the first Roman engineer dreamt up the aqueduct. Usable water is transferred from a source (a dam, river or aquifer) to the user (residential, agricultural or industrial), often through a number of processes that involve treatment processes or temporary storage. After use, wastewater is (hopefully) treated to an appropriate quality before being discharged into the environment. For centuries, this has been a highly linear process. Faced with twin demand- and supply-side pressures of population growth and climate change, the water sector is finally showing signs of a paradigm shift.

René Schieritz, former Project Manager, Water Management Competence Centre

The shift is increasingly evident in South Africa. A national drought in 2015, followed by the worst drought in recorded history for the City of Cape Town from 2016 to 2018, had alarm bells ringing. Decision-makers at national and local levels have realised the urgent need to rethink the way we use our water resources towards a more efficient and circular model. This article will look at three key aspects of strengthening resilience and unlocking the water sector value chain.

ALTERNATIVE SUPPLY
South Africa’s population is growing, resulting in an increasing demand for water resources for domestic and economic purposes. Concurrently, rainfall is expected to become more scarce and erratic during climate change conditions. Currently, most of our water is supplied by dams, which are not only directly dependent on rainfall but also subject to evaporative losses. In Cape Town, where the psychological effects of drought were most widespread, future water supply plans now include desalination and managed aquifer recharge (MAR). The former is entirely independent of rainfall (if expensive) while the latter provides a storage mechanism that avoids evaporative losses.

DEMAND MANAGEMENT
Capetonian households experienced demand-management measures in the form of water restrictions during the drought. The media campaign for water-use kick-started a flurry of water-savings tips that were shared by the community. Most of these were low-tech recommendations for household savings that proved remarkably effective in staving off the looming water crisis. Increasingly now we see the development of high-tech water-saving technologies from low-flush toilets to subsurface irrigation mats. Implementing these technologies, however, is proving challenging since household retrofits are expensive. Economic incentives for uptake of such technology is low – particularly as the tech is often developed for high-income countries, where the price of water is considerably higher than in South Africa.

WASTE WATER REUSE
Reusing waste water is not a radically new concept. In Namibia, the city of Windhoek has been practicing direct potable reuse (that is, recycling waste water into the drinking water supply) for over 50 years, and the city currently supplies more than a quarter of its current demand with recycled waste water. Direct potable reuse isn’t the only way that waste water can be used, however. Not all water use requires potable quality – irrigation is an example where effluent waste water can be used without additional treatment. Another class of non-potable water – stormwater – can also be made available for certain uses. In South Africa, stormwater is frequently heavily laden with contaminants from rooftops, parking lots and street surfaces. Runoff from informal settlements is often far worse, owing to a lack of adequate sanitation.

However, promising work is being done to make contaminated water useable; the Water Hub, an initiative of the Future Water Institute, is a research space in Franschoek, Western Cape dedicated to using ecological processes to treat heavily contaminated stormwater. These processes aim to add value to the treatment processes through, for example, hydroponic production that generates a product while cleaning contaminated water.
THE WATER VALUE CHAIN

Typically, development of water resources follows three sequential steps:

1. Supply-side management: New supplies are discovered, developed and exploited;

2. Demand-side management: As no new feasible supply options become available, demand is managed to improve water use efficiency; and

3. Value-add: As water-use becomes more efficient, value-per-drop has to be optimised within the larger system by reusing wastewater, etc.

These three steps form Ohlsson’s screw, a conceptual model developed by Leif Ohlsson,1 describe how societies can iteratively improve the management of their water supply. For example, the use of waste water or storm water is a de facto exploitation of a henceforth untapped alternate supply. Currently, in South Africa, this supply is still an alternative supply option. As it becomes more developed and demand for the resource grows, demand management interventions will be employed (e.g., more efficient irrigation). Finally, ways for improving the value-add will need to be employed (e.g., hydroponic cultivation with primary treated effluent).

As the paradigm shifts, technologies that enable the turning of Ohlsson’s screw will be in increasing demand. Increasingly, innovative projects are supporting the transition of our water usage towards a more sustainable and circular model. In Cape Town, wastewater re-use projects have been initiated. This year, South Africa’s first solar-powered desalination plant has been launched. The Water Hub is conducting cutting-edge research in uniquely South African conditions. These developments highlight the emerging opportunities for innovative, creative and locally-appropriate technological solutions to build a resilient water sector in South Africa.

1 Ohlsson’s screw, as depicted by Leif Ohlsson and Anthony Turton. Full paper available at: https://www.soas.ac.uk/water/publications/papers/f1le38562.pdf

ABOVE: The different phases of water management can be envisaged as the turning of a screw. At each stage of social adaptation to water scarcity, the need for input of social resources is higher. The turning of the water screw represents an oscillation between a first order scarcity of the natural resource water; alternating with a second-order scarcity of the social resources required to successfully adapt to the first-order water scarcity.
South Africa has a well-developed electronics sector comprised of importers, distributors and refurbishers. Many major original equipment manufacturers (OEMs) have local offices and have been active in the process to establish an extended producer responsibility mechanism to deal effectively with the waste generated by their product. The public consultation process has been ongoing for several years with discussions starting first between e-waste recyclers and manufacturers, followed by discussion with government and other interested parties. It culminated in three separate plans submitted to government for consideration. Two of these plans deal with information and communications technology (ICT) and grey and white goods while a third deals with lighting equipment.

The electronics sector has organised itself into two groups: the South African Waste Electrical and Electronic Enterprise Development Association (Saweeda) and the E-waste Recycling Authority (ERA). Both have prepared and submitted Industry Waste Management Plans (IndWMPs) to the Department of Environment (DEA).

The ERA plans aim to set up integrated e-waste collection that includes establishment of a national e-waste management authority or Producer Responsibility Organisation (PRO) to implement the plan and help the Waste Bureau regulate stakeholders involved in the generation, recycling and disposal of waste electrical and electronic equipment (WEEE).

Similarly, Saweeda’s plan will establish a PRO and a product registry and regulations to ensure compliance with legislation, promoting the WEEELABEX standards to ensure quality e-waste management in South Africa.

The lighting sector was requested to prepare a separate plan to manage mercury-bearing lamps. The Illumination Engineering Society of South Africa (IESSA) and its members have been part of this process. Lightcycle SA was established as a non-profit PRO to establish a national network to collect end-of-life lamps for sustainable recycling. The PRO submitted their plan to the Department of Environmental Affairs (DEA) on 6 September, 2018 and are awaiting review and approval by the Minister of Environmental Affairs. There are two recyclers active in the country, Reclite and eWasteAfrica. Both companies are members of Saweeda.

The European Union WEEE directive defines Electrical and Electronic Equipment (EEE) as ‘equipment which is dependent on electric currents or electromagnetic fields in order to work properly and
Electrical and Electronic Equipment is equipment which is dependent on electric currents or electromagnetic fields in order to work properly and equipment for the generation, transfer and measurement of such currents and fields and designed for use with a voltage rating not exceeding 1,000 volts for alternating current and 1,500 volts for direct current. – *European Union WEEE directive*

**20,000–100,000**
The number of units PC refurbishers import annually

**14 million+**
Units of computer equipment sold in South Africa in 2008

**1,129,000–2,108,000**
Tons of potential e-waste stored in South African households

**85,000**
Tons of e-waste generated by a tenth of South African households

- 62% white goods
- 18% consumer electronics
- 20% ICT

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According to import and e-Waste data for some Electrical and Electronic Equipment (EEE) products for 2003–2007 produced by Advanced Tropical Environment (ATE) (2012), 98,800 tonnes of electronics were sold between 2003 and 2007, of which 405,600 tonnes are estimated to be in use with an estimated e-waste generation of 59,650 tonnes.

The DEA, in 2017 Operation Phakisa Chemicals and Waste Economy submitted that e-waste generated from government sources could account for as much as 45% of ALL South African e-waste that is currently recycled, followed by businesses and households.

Studies conducted by Bob and Padayachee in 2015 suggest that most of the e-waste (85%) is produced by the public sector and government.
Effective disposal of potentially harmful material in end-of-life electronic products also presents the opportunity to generate revenue through recycling and recovery of valuable materials like gold, silver, aluminium and copper. According to the World Economic Forum, e-waste is globally the fastest growing waste stream. Research shows that generation of e-waste is highest in the IT sector, followed by the banking, financial services, and insurance sectors. Electronic devices are constantly evolving. Society has become so captivated by having the latest and greatest technologies that we simply discard old equipment as opposed to recycling it. The e-waste Association of South Africa (eWASA) estimates that the country produces approximately 332,000 tonnes of e-waste a year and the Department of Environment, Forestry and Fisheries (DEFF) estimate is about 360,000 tonnes.

It is said that e-waste makes up to 5% to 8% of municipal solid waste in South Africa but it is growing at a rate three times faster than any other form of waste according to the South African e-waste Alliance. In South Africa, most e-waste ends up in landfills or is exported to countries with larger capacities. Although semi-formal e-waste recycling facilities do exist, South Africa’s e-waste problem is worsening as a consequence of a lack of recycling infrastructure and inadequate financial support.

The Department of Environment, Forestry and Fisheries conducted a Delivery Lab on the Chemicals and Waste Economy as part of the Operation Phakisa for five weeks. Participants from the private sector, academia, NGOs, and various government departments came together to identify high impact initiatives to create new jobs, to contribute to GDP growth and reduce the harmful impact of chemicals and waste on the economy.

Four work streams were defined which together include 20 initiatives that drive the Phakisa objectives, with more than 3,000 specific implementation activities (3-feet plans). Each work stream followed a structured process, including setting clear visions and aspirations for growth and transformation in their sectors; analysing the issues and challenges standing in the way of those aspirations; initiatives to unlock growth and change; and milestones, plans, budgets and required legislative changes to implement each initiative.

One of the initiatives of the Chemicals and Waste Economy Phakisa is to unlock government electronic waste stockpiles. The purpose of the initiative is to undertake a quantification study for the amount of e-waste stockpiles available in various government departments and state-owned entities. The output will facilitate transformation and growth of the sector in the existing recycling and material beneficiation architecture in South Africa.
CHEMICALS AND WASTE ECONOMY
PHAKISA MUNICIPAL E-WASTE (INITIATIVE 7)

To facilitate this initiative, the delivery unit will:
• Set up an interdepartmental committee.
• Implement e-waste levies and industry tariffs.
• Consider extended producer responsibility industrial arrangements for the sector.
• Amend legislation for licensing.
• Quantify e-waste stockpiles in various national and provincial departments as well as in municipalities that have legacy stockpiles.

The Delivery Unit: Chemicals and Waste Phakisa is implementing an e-waste project in collaboration with Samsung for a period of six months, from September 2019 to February 2020, to determine the feasibility of introducing the e-waste programme on government premises. Staff in DEA Head Offices in Pretoria have been requested to drop their redundant electric devices (i.e. old phones, tablets, chargers, remote controls etc.) in a box placed at the entrance of the building. The project had an immense response from staff and within a week the boxes were overflowing with used electronic devices, cables and batteries. The second phase of this project will involve rolling out mini-containers to collect and store much bigger electronic and electrical waste such as TV sets, decoders, microwaves and larger cable plugs.

E-waste volumes are expected to increase significantly in the future, yet we still face challenges at the level of consumer awareness, collection, recycling processes, and the disposal of e-waste amongst others.

Derrick Chikanga, senior telecoms analyst, Africa Analysis, says South African waste management companies are recycling e-waste but the lack of public awareness on the need for effective disposal remains a major challenge to the industry as a whole. Brazilian specialist in environmental law, Dr Arthur Mendes Lobo says ‘more needs to be done to generate public and industry awareness and efforts need to be made to address and factor in the costs of e-waste recycling and disposal to those businesses engaged in the electronics environment.’

DEPARTMENT OF ENVIRONMENT, FORESTRY AND FISHERIES AND SAMSUNG

DEFF and Samsung Electronics South Africa have teamed up with projects that include piloting of e-waste projects linked to initiatives of the Chemicals and Waste Economy Phakisa, sharing information on education and awareness raising initiatives, and exploring electronic waste management solutions and best practices to handle electronic and electrical waste.

Samsung Electronics South Africa through its Equity Equivalent Investment Programme, aims to contribute to the Department of Trade and Industry’s Black Industrialist Programme by establishing a black-owned e-waste business that operates across the full value chain (collection, beneficiation, pre-processing, dismantling) and support e-waste management awareness campaigns in partnership with the South African government.

The DEFF will be responsible for ensuring proper implementation and enforcement of environmental legislation as well as minimising environmental degradation and in particular implement sustainable programmes related to waste management and recycling linked to Operation Phakisa: Chemicals and Waste Economy.

For more information: wmmethi@environment.gov.za

More needs to be done to generate public and industry awareness and efforts need to be made to address and factor in the costs of e-waste recycling and disposal to those businesses engaged in the electronics environment.

DR ARTHUR MENDES LOBO, ENVIRONMENTAL LAWYER, BRAZIL
Renewable energies in South Africa are poised to expand in coming years. Although policy is already geared towards strengthening renewables, the sector will receive a boost under President Cyril Ramaphosa mainly because of the electricity supply crisis. However, political and social resistance (e.g. from employees in the energy sector and coal mining) against the expansion of renewable energies is to be expected. The government will try to prevent further weakening of the state-owned electricity supplier, Eskom. With the expansion of an independent energy supply and a shift of middle-class households and businesses to self-sufficiency, Eskom, as well as cities and municipalities, are losing revenue.

At the end of 2018 and in February and March 2019, energy utility, Eskom, plagued by allegations of corruption and mismanagement, was forced to rely on load-shedding to maintain power generation. Completion of the two power plants with a nominal output of 4,800 MW (Kusile) and 2,400 MW (Medupi) is delayed and construction costs have tripled. Eskom's debt to the equivalent of 26 billion euro.

The Integrated Resource Plan 2018 (IRP 2018), which is still in its draft form, will determine energy policy planning. The plan is to generate 6,484 MW through photovoltaic (PV), 300 MW with concentrated solar power (CSP) and 9,462 MW with wind power by 2030. In 2018, the International Renewable Energy Agency (Irena) installed 2,559 MW of PV and 2,094 MW of wind capacity. Deviating from the Integrated Resource Plan (IRP) Irena's analysts indicate 400 MW of installed CSP capacity in 2018.

In 2016, coal accounted for around 85% of total electricity generation, at more than 203 terawatt-hours. By 2030, it is expected to fall to around 65%. At just over two terawatt-hours, solar power accounted for only 0.9% of electricity generation. According to the IRP, however, this figure is expected to rise to 7% by 2030 when the government expects just under 22.5 terawatt-hours from PV and CSP plants.

Wind power is in strong competition with the solar industry and by 2030 is expected to increase to just under 45 terawatt-hours, which will account for 14% of electricity generation.

With the decommissioning of old coal-fired power plants and without (rather unlikely) expansion of coal-fired power capacity by private investors, the coal-fired power ratio could fall even further. Whether and how much the discovery of new natural gas deposits 275 km from Mossel Bay will affect the future energy mix, is currently difficult to determine.
Eskom, which relies on coal-fired electricity generation, is soon to be split into three independent areas – transmission, generation and system – which will weaken its monopoly.

**BIG CITIES WANT A SHARE**

Because the sale of electricity purchased from Eskom contributes significantly to the revenue of cities and municipalities, their interest in changing the electricity regime is less than enthusiastic. Nevertheless, some cities (e.g. Cape Town, Johannesburg and Nelson Mandela Bay) are challenging Eskom’s monopoly over distribution, with plans to obtain electricity directly from IPPs or to transfer electricity from IPP power plants to the consumer (electricity wheeling). At the end of April 2019 the city of Johannesburg declared that it would enter into a contract with an independent generator to prevent power outages.

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**MARKET ORGANISATION**

**PRIVATE INVESTORS IN DEMAND**

State-owned entity Eskom produces just under 92% (45 gigawatts) of power-plant capacity. Independent power producers (IPPs) hold approximately 4 gigawatts of rated power. The IRP provides for the strengthening of IPPs. To a smaller extent, cities and municipalities also have power plant capacity.

Eskom not only has the monopoly over power generation; it also owns the transmission grid and controls 59% of the distribution grid. The rest is accounted for by cities and municipalities, which buy electricity from Eskom and sell it to end-users at a surcharge of up to 30%. Consumers are not free to choose their electricity supplier. For about 46% of South African households, regulated electricity is fed into the public grid with a nominal output of up to one MW. Feed-in is regulated by municipalities and cities.

Private sector involvement in electricity generation is only possible if they are registered as IPPs. Power purchase agreements (PPAs) must be negotiated with the offtaker and are not standardised. There is no wholesale electricity available.

Eskom’s problems have resulted in government having to fill gaps in electricity supply, and dependence on foreign investors. Eskom relies on public-private partnerships (PPPs) as part of a tendering programme – the Renewable Energy Independent Power Producers Programme (REIPPPP) – for large-scale grid-connected renewable energy systems. In the REIPPPP tendering process, successful bidders receive grid access and enter into a 20-year PPA with Eskom.

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**POWER GENERATION CAPACITY 2018 (IN MEGAWATTS)**

<table>
<thead>
<tr>
<th></th>
<th>Coal</th>
<th>Nuclear</th>
<th>Hydropower</th>
<th>Pump Storage</th>
<th>Photovoltaic</th>
<th>Wind</th>
<th>CSP</th>
<th>Gas/diesel</th>
<th>Other$^2$</th>
<th>Decentralised$^2$</th>
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<tr>
<td>MW</td>
<td>3,912</td>
<td>1,860</td>
<td>2,196</td>
<td>2,912</td>
<td>1,474</td>
<td>1980</td>
<td>300</td>
<td>3,830</td>
<td>499</td>
<td>n/a</td>
</tr>
<tr>
<td>% share</td>
<td>72.9</td>
<td>35.5</td>
<td>4.1</td>
<td>5.4</td>
<td>2.7</td>
<td>3.7</td>
<td>0.6</td>
<td>71</td>
<td>0.7</td>
<td>n/a</td>
</tr>
</tbody>
</table>

1) Cogeneration, biomass and electricity from landfills, etc. 2) Production for own use. Mostly on the basis of renewable energies and without (relevant) feed into the national grid. This category is not integrated into the target planning and distribution as per energy source.

*Source: Draft Integrated Resource Plan, 2018*

**ELECTRICITY GENERATION BY ENERGY SOURCE IN GIGAWATT HOURS, 2016**

<table>
<thead>
<tr>
<th></th>
<th>Coal</th>
<th>Natural gas</th>
<th>Nuclear</th>
<th>Diesel</th>
<th>Water</th>
<th>Wind</th>
<th>Solar</th>
<th>Pump Storage</th>
<th>Waste material</th>
</tr>
</thead>
<tbody>
<tr>
<td>GWh</td>
<td>203,054</td>
<td>75,736</td>
<td>12,306</td>
<td>4,007</td>
<td>783</td>
<td>2,126</td>
<td>2,151</td>
<td>2,943</td>
<td>2,073</td>
</tr>
<tr>
<td>% share</td>
<td>85.7</td>
<td>3.2</td>
<td>5.2</td>
<td>1.7</td>
<td>0.3</td>
<td>0.9</td>
<td>0.9</td>
<td>1.2</td>
<td>0.9</td>
</tr>
</tbody>
</table>

*Source: Statistics South Africa, 2018*

---

**2,559**

Megawatts of photovoltaic energy installed by IRENA in 2018

**2,094**

Megawatts of wind energy installed by IRENA in 2018

Eskom, which relies on coal-fired electricity generation, is soon to be split into three independent areas – transmission, generation and system – which will weaken its monopoly.

---

**BIG CITIES WANT A SHARE**

Because the sale of electricity purchased from Eskom is seen as a significant source to the revenue of cities and municipalities, their interest in changing the electricity regime is less than enthusiastic. Nevertheless, some cities (e.g. Cape Town, Johannesburg and Nelson Mandela Bay) are challenging Eskom’s monopoly over distribution, with plans to obtain electricity directly from IPPs or to transfer electricity from IPP power plants to the consumer (electricity wheeling). At the end of April 2019 the city of Johannesburg declared that it would enter into a contract with an independent generator to prevent power outages.
MARKET OPPORTUNITIES

TENDERS FOR LARGE-SCALE PROJECTS PENDING
At the beginning of June 2018, Minister of Energy, Jeff Radebe announced plans to release the terms and conditions of a bid for round 5 of the REIPPPP – renewable energies with a nominal output of 1,800 MW and an investment volume of USD 2.4 billion to 3.0 billion. The call for tenders, which was expected in November 2018, has not yet been issued. The course will be set for the expansion of plants from 1 to 10 MW, especially after the elections on 8 May 2019 and conclusion of the IRP expected in 2019.

It is not yet known how the call for tenders will be divided in terms of wind and solar (PV and CSP). According to current planning, which has been delayed for more than two years, the call for tenders by the REIPPPP programme for 2,459 megawatts of PV, 200 megawatts of CSP and 1,023 megawatts of wind has not yet been issued.

In April 2018, 27 REIPPPP projects were approved for implementation. The Ministry of Energy had already praised the successful bidders for the 2015 tenders rounds 3.5 and 4 in 2016. The tenders with a project value of around EUR 3.4 billion include 12 PV plants (318 MW), numerous wind turbines (1,363 MW) and a 100-MW CSP plant.

FALLING PRICES FOR SOLAR FARMS
In the REIPPPP programme, remuneration for solar projects dropped from EUR 0.277 per kW-hour in 2011 to EUR 0.056 per kW-hour in the fourth round of 2015. On the other hand, the cost of the incomplete Medupi and Kusile coal-fired power stations skyrocketed, mainly due to mismanagement and corruption. There have also been price increases for coal-fired power under IPP. Here, the more expensive credit financing drives the cost of production.

The evaluation procedure for offers in the REIPPPP programme takes into account 70% of the offered price per kW-hour and 30% assessment criteria for the economic development contribution. These include, but are not limited to, aspects of employment contribution, local content, shares of the black population in property, and their participation in management.

HIGH GROWTH IN ROOF SYSTEMS IN THE COMMERCIAL SECTOR
Between 2010 and 2015, REIPPPP experienced a high degree of dynamism in large-scale IPP projects based on renewable energies. Tenders under the REIPPPP projects were halted in 2015. A significant increase is to be expected in PV systems for self-sufficiency, especially in the commercial sector in the form of roof systems for shopping centres or in agriculture.

According to the South African Photovoltaic Association, in March 2019, 1 gigawatt of PV capacity could be connected to the grid within 12 months. At present, operation of around 500 projects, each with 1 to 10 MW of capacity has been blocked. Since the installation of PV roof systems of up to 1 MW is often carried out in the grey area, only estimates of the installed PV capacity of roof systems (without REIPPPP) are possible. These are widely divergent and are expected to a maximum of 700 MW.

With the increasing proportion of renewables in the electricity grid, energy storage is becoming increasingly important. Solar thermal energy is still poorly developed as a roof system and in the industrial sector. Individual projects in the context of solar thermal heating are particularly possible in food processing.

MARKET BARRIERS

CONSUMER ELECTRICITY PRICES STILL LOW
Despite future increases in consumer electricity prices of around 15% annually, expectations are not too high. The average electricity price in 2018 after increases in previous years was 8 eurocents per kW-hour. Last but not least, money scarcity for homeowners and credit conditions are holding back expansion.

ADMINISTRATION SLOWS THINGS DOWN
Since November 2017, projects below the 1 MW threshold could be registered due to the announced drafting of a basically simpler registration procedure with the National Energy Regulator (Nersa) as of April 2019. Nevertheless, roof systems are likely to continue to be installed in the grey area. The interest in the supply of electricity to the public grid by private individuals is often low due to technical and bureaucratic problems. Registration of the larger projects up to 10 MW is on hold due to the incomplete energy plan (as of April 2019).

LOCAL INDUSTRY STRUCTURE

LOCAL CONTENT REQUIREMENTS HAVE SUPPORTED THE SOLAR INDUSTRY
The tendering criteria of REIPPPP have favoured the establishment of local production. The prescribed minimum limit for PV plants with a participation of local production increased from 35% in the first round to 45% in round four. The companies Sunpower, Jinko Solar, Solairedirect and ArtSolar have invested in the field of module production. SMA and ABB have production facilities for inverters. However, manufacturers have suffered from Eskom’s refusal to conclude PPAs with the successful bidders of the REIPPPP round four. Therefore, the suppliers SMA and ABB had to close their plants. At times, around 200 companies were active in the solar hot water market segment. After the elimination of the grant programmes, their number has been significantly reduced.
SELECTED SOLAR PROJECTS IN SOUTH AFRICA

<table>
<thead>
<tr>
<th>Project name (technology) and Location</th>
<th>Performance (MW)</th>
<th>Company</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sirius Solar PV Project One, Upington, Northern Cape</td>
<td>75</td>
<td>Scatec Solar</td>
<td>Start of construction third quarter 2018; Grid connection end 2019</td>
</tr>
<tr>
<td>Dyason’s Klip 1 and 2, Upington, Northern Cape</td>
<td>2x75</td>
<td>Scatec Solar</td>
<td>Start of construction 3rd Quarter 2018; Grid connection end of 2019</td>
</tr>
<tr>
<td>Greefspan PV Power Plant Number Two solar park, Greefspan, Northern Cape</td>
<td>55</td>
<td>African Infrastructure Investment Managers</td>
<td>Start of construction in September 2019; Completion approximately in November 2020</td>
</tr>
<tr>
<td>Waterloo solar park, Vryburg in North West</td>
<td></td>
<td>African Infrastructure Investment Managers, juwi</td>
<td>Start of construction 1st Quarter 2020</td>
</tr>
</tbody>
</table>

Source: Research by Germany Trade & Invest 2019

MARKET DRIVERS

- Over-indebtedness of the state electricity supplier, power failures and rising production costs of coal have put expansion of renewable energies on the political agenda
- New tender round for 1,800 MW of renewables announced
- Falling costs for photovoltaic systems and electricity storage

MARKET OBSTACLES

- Strong coal lobby at state-owned energy utility Eskom and from mining
- Power distribution from the state grid is an important source of for cities and municipalities
- Electricity prices remain low by international standards

Source: Analysis by Germany Trade & Invest; © 2019 Germany Trade & Invest
Sustainable Power Generation (SPG) is a South African clean energy company based in Cape Town that specialises in the intelligent packaging of clean and renewable power generation equipment. This young business started in 2016 and operates in two divisions, namely SustainPower - providing gas-to-power generation solutions for biogas, landfill gas, natural gas; and SustainSolar - specialising in flexible, containerised rapid deployment solar power generation solutions for mini-grid, hybrid and remote off-grid applications. The company designs and manufactures its turn-key power generation equipment by converting regular shipping containers into “power-houses”, which safely store all the components of the gas-to-power or solar power generation systems. Sustainable Power Generation (SPG) is gaining momentum in providing a sustainable, turn-key, decentralised approach to on-site power generation in the developing economies of Africa.

Founded by Tobias Hobbach, a German citizen who made Cape Town home seven years ago, SPG grew under the wealth of financial management and business strategy experience he had accrued during the ten years he spent working in Japan, Germany and South Africa for one of Germany’s leading car and truck manufacturers. His passion for Africa, his enthusiasm for entrepreneurship, and his love of the planet are the driving forces behind the establishment of SPG. Tobias holds a Master of Science degree in International Business from the University of Gavle in Sweden, and a Diplom Betriebswirt from Hochschule Mainz in Germany.

Ames Martin, co-founder and Chief Operating Officer, was the Regional Business Development Manager of Sub-Saharan Africa for one of the world’s largest oil and gas service companies prior to starting SPG with Tobias. Ames’s extensive experience in the management of projects involving maintenance and delivery of large equipment packages throughout the developing world, and over 12 years of experience in oil and gas operations in the US, south-east Asia, and Africa, bring insight and direction to SPG’s operations.

**GAS-TO-POWER**

Under the SustainPower brand, SPG designs and manufactures biogas and natural gas power generation solutions for on-site continuous and standby power supply. With a special focus on combined heat and power (CHP) technology, SustainPower’s systems reach up to 90% efficiency by using waste heat from the gas engines for hot water, steam, or cooling production, eliminating the need for other sources of energy such as coal and diesel. Compact and modular, the containerised gas generator sets are designed to withstand harsh African conditions and promise outstanding performance and longevity thanks to industry leaders and OEM partners like MAN and Motortech, coupled with South African engineering and packaging. SustainPower’s product offering of gas gensets and CHPs for continuous power supply ranges from 100 kW to 500 kW of electrical power output per 20-foot container and up to 2 MW per 40-foot system. In the product range of gas standby generators, SustainPower offers super-silent, clean solutions for domestic and small businesses from 8 kW to 20 kVA and commercial and industrial gas back-up generators up to 500 kVA.

**SOLAR POWER**

In 2018 SPG launched its new brand, SustainSolar, which offers a range of rapid deployment solar systems for off-grid, mini-grid, and hybrid solar applications targeted at rural African destinations.
‘OUR FOCUS IS ON PROVIDING EXCELLENT QUALITY AND DURABILITY IN OUR PRODUCTS, SO THAT THE CONTAINERISED SYSTEMS LAST LONG AND STAND UP TO THE RIGOROUS DEMANDS OF REMOTE LOCATIONS.’

The SustainSolar product suite includes the 10-foot Sustain Flex™, 20-foot Sustain Compact™ and 40-foot Sustain Extended™ which cover a range of 6k Wp to 80 kWp of solar PV capacity with Lithium-Ion battery storage of up to 200 kWh. All SustainSolar solutions are preassembled, configured turnkey solar PV solutions that come with all the tools and components required for an off-grid or hybrid solar PV plant to be installed quickly and easily at the most remote locations.

CONTAINERISED, MODULAR SUSTAINABLE POWER

To SPG, ‘intelligent packaging’ means ‘high-quality, and simple to install and maintain’; and is the big difference between SPG’s approach and the status quo. Containerisation makes the power plants easy to transport, no matter how remote or challenging the destination, and very quick to deploy, reducing installation time by up to 70%. The preconfiguration and testing of all components also minimises on-site commissioning risks and costs. The modular nature of the system design allows the mini-grid of a project to grow with demand and provides the option of packing the equipment back into the container and moving locations if necessary. This is a special strength of the Sustain Flex™ model, which is built to be as mobile and flexible as commonly used diesel generators for temporary applications such as disaster management or moving mining, construction, or peacekeeping sites, just to name a few.

“We design, engineer, build and test everything in Cape Town before shipping, using world-class components and technology partners,” says Tobias. ‘Our focus is on providing excellent quality and durability in our products, so that the containerised systems last long and stand up to the rigorous demands made by their remote locations.’

ABOVE: The solar power mini-grid (SUSTAIN COMPACT™) installed by SPG at Sokola Village School in the remote mountains of Northern Malawi.
COMBINED HEAT AND POWER AT LEADING SOUTH AFRICAN BEVERAGE GROUP

A large beverage group with roots in South Africa, opted to go greener by converting their biogas at the effluent treatment plant into heat and electricity. A combined heat and power (CHP) unit from SustainPower was installed recently in a bid to make the plant energy-neutral in the short-term, and energy-positive in the future. Their effluent treatment plant is designed to produce up to 100m³ per hour of high-grade biogas with methane levels consistently hovering around 90%.

The decision to install a CHP, which harvests the mechanical energy from the generator and the thermal energy from the combustion process, comes from their desire to reach their energy sustainability goals.

SustainPower installed the SP-550-BG-CHP, which provides up to 450kWh of electrical power and has 500kW of thermal energy available for use in the plant process. The time from equipment landing on-site to the point of power production was only three days.

FIRST SUSTAINPOWER OFF-GRID SOLAR HYBRID SYSTEM IN SOUTH SUDAN

SustainSolar successfully installed the first off-grid solar-battery-hybrid power system at Eye Radio, a leading radio station in South Sudan’s capital Juba. This USAID funded project, developed by AECOM International, incorporated a temperature controlled, rugged SustainSolar 20-foot container containerised PV storage solution built and delivered with pre-installed, SMA solar and battery inverters and BYD batteries. This turn-key solution helped to reduce the installation time on-site and ensures that the operation is safe and tamper-proof.

Thanks to the new solar powered battery system, the radio station is no longer dependent on its old diesel generators as its primary power supply. With the significantly reduced running time of the diesel gensets, the fuel savings alone will lead to a speedy payback of the hybrid-storage system. This also serves as proof of concept that solar and battery systems not only offer a sustainable renewable energy solution, but also make financial sense for most diesel powered off-grid operations that are so frequently found across Africa, and elsewhere.

CONTACT SPG

www.sustainpower.co.za
info@sustainpower.co.za
SustainSolar recently installed a solar power mini-grid (SUSTAIN COMPACT™) at Sokola Village School in the remote mountains of northern Malawi. The mini-grid was sponsored by the Peachtree Church from Atlanta in the US. It was part of a larger project to add a girls dormitory to the school to increase access to education and make class attendance safer and easier for young women.

The SUSTAIN COMPACT™ took four weeks to reach Sokola by truck from Cape Town across Zimbabwe and Mozambique to Northern Malawi. Within three days of the team’s arrival, it was producing electricity, thanks to its preconfiguration and turnkey design. The rapid-deployment mounting structure, which is adjustable for uneven ground levels and requires no foundation but is built to withstand the wind pattern of the region, took only a day to assemble without special or motorised tools.

The containerised solar system has an initial photovoltaic capacity of 6 kWp and 10 kWh of lithium-ion battery storage, with future expansion capability built into the system design to allow the power supply to grow with demand. The AC electricity is distributed across the entire campus, which includes classrooms, teachers’ houses, an admin building and the newly built dorm, and is the first mini-grid in Malawi using market-leading technology from Tesvolt batteries and SMA inverters, both German manufacturers.

This top-quality equipment, built into the rugged and secure SUSTAIN COMPACT™ turn-key container, comes with an extended lifetime, and guarantees safe and reliable electricity for decades to come. Beston Ntepa Gama, owner and MD of BNG Electrical Services, Peachtree’s preferred electrical contractor said, ‘The SustainSolar system is the highest quality solar package I’ve installed in Malawi.’

Many of Peachtree’s technical students gained hands-on experience with the installation of the SUSTAIN COMPACT™. Following the installation, John Faridan, SustainSolar’s lead engineer, held a free advanced training session in which he went into detail about solar system design, integration, testing, installation, and maintenance.

Ames Martin, Head of Operations who lead the project, said, ‘We want to do more work like this. Projects like the Sokola project are the reason we started Sustainable Power Generation. We have more projects lined up for Malawi and we are making headway into bringing sustainable, clean power to Sub-Saharan Africa.’

Rick Armstrong from Peachtree had this final word about SustainPower: ‘This is the solution that exactly fits our vision and mission in Malawi. We couldn’t be more pleased with the speed, efficiency, and excellence of workmanship we’ve seen from the SustainPower team, as well as the high quality of their product. This will make a difference in many peoples’ lives for many years to come.’
KSB Pumps and Valves, operating out of Activia Park, Germiston, is part of the KSB group, one of the world's largest manufacturers of industrial pumps, valves and related systems. With a company history that dates back to 1871 in Germany, the KSB Group is one of the most experienced pump manufacturers worldwide.

Since 1959, KSB Pumps and Valves South Africa has brought the group's extensive expertise and portfolio of world-class products to the Local Irrigation, Water Transfer and Treatment, Water Supply and Sewage, General Industry, Chemical and Petrochemical Industry, Mining and Construction markets.

We are one of the largest KSB manufacturing entities outside of Germany and France, and proudly hold the KSB MBK quality certificate. This certificate is issued to KSB manufacturing sites within the group which are accredited to produce the KSB range of world products for distribution worldwide. This noteworthy accolade underscores the quality processes within our facilities and is a testament to our local manufacturing capabilities.

This combined with the group's unparalleled expertise makes KSB Pumps and Valves a leading pump and valve manufacturer in the local South African market.

Setting the Standards for 60 years.
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KSB Pumps and Valves (Pty) Ltd • www.ksb.com/ksb-za • Tel: +27 11 876 5600
ECONOMIC DEVELOPMENT: GRADUAL RECOVERY EXPECTED

Despite losses compared to 2014, South African President, Cyril Ramaphosa emerged stronger in the 2019 general election, with his ruling ANC party winning 57.5% of the vote. High on Ramaphosa’s agenda is the fight against corruption which resulted in systematic looting of the state during the tenure of his predecessor, Jacob Zuma.

Greater confidence in the country’s leadership, foreign investment and exports from industry, such as motor vehicles, will accelerate economic recovery in 2019. Real growth could be stronger than the predicted 2.5% in the case of a successful 2020 reform policy. In the case of economic reforms, resistance from the state economic sector, the trade unions close to the state and from the ANC, i.e., from its own party, is to be expected. Moreover, shrinking fiscal margins and low commodity prices are holding back.

A number of state-owned enterprises are practically insolvent and need to be restructured. The public supplier Eskom is ailing; further power outages are a significant risk.

Uncertainties about the ANC’s decision to include the possibility of expropriation of land without compensation in the Constitution will continue to be relativised.

The economically broadly diversified South Africa offers good investment opportunities in energy, the environment and industry. Partnerships with South African companies can also be used to tap into neighbouring countries.

It is unclear how poverty and extremely unequal income distribution are to be tackled; they could be a significant growth risks. Neither the trend in governmental industrial policy nor the programme to strengthen black business owners and other black groups (Black Economic Empowerment) have been able to reduce these social contradictions. Another obstacle is neglected education and training.

INVESTMENT: PRIVATE INVESTMENTS ARE ON THE RISE, GOVERNMENT INVESTS LESS

In 2019, gross fixed capital formation will grow at 2%, only slightly faster than the economy as a whole. While government investment has declined by more than 50% in recent years, private investment is expected to grow. Thanks to increasing international confidence, a strong dynamics are forecast, particularly in foreign direct investment in renewable energies, steel, chemicals, motor vehicles and natural gas.

By contrast, the gross fixed capital formation of South African state-owned enterprises fell by 12.5% in 2018 compared to the previous year. Weak public investment is also expected in the coming years. Among others, the electricity producer Eskom, the rail and port operator Transnet and the national airline SAA are heavily indebted and need to be restructured.

CONSUMPTION: SLIGHT RECOVERY

Consumer spending is expected to pick up in 2019 and 2020 as the economy recovers. Private consumption is expected to increase by 2 to 2.5% in the two years. High unemployment of officially 27.1% (end of 2018) and inflation of around 5% limit more consumer spending. Inflationary pressures are being exerted by rising electricity tariffs and rising prices for staple foods due to weaker harvests.

Despite the appreciation of the South African Rand after the elections, it remains relatively weak and increases import costs compared to previous years. This is offset by a weak world market price for oil and price wars among producers and traders.

FOREIGN TRADE: EXPORTS SUPPORT GROWTH

In the first two months of 2019, German exports to South Africa increased by 22% compared to the same period in 2018 when they had dropped by 4.7% compared to the previous year. At more than 9 billion euro, South Africa accounted for more than 68% of German sub-Saharan exports in 2018.
BP Oil SAPREF Refinery Upgrade 1 billion Investment announced

As part of an investment programme for the next 10 years, BP Southern Africa plans to upgrade the Sapref refinery (capacity 180,000 barrels per day) www.sapref.com
South African exports are expected to increase by around 1.5% and 2% in 2019 and 2020, respectively. Especially for industrial products, a greater boost is expected; new models (among others at Mercedes, BMW, VW) and the weak rand are factors. The important export concessions under the US African Growth and Opportunity Act (AGOA) are not yet available.

Due to capital transfers and payments under the South African Customs Union (SACU), South Africa will run a current account deficit of around 3.5% of GDP in 2019, despite goods surpluses. With a good resource supply for metal ores and a high self-supply coverage for food and energy, the deficit remains manageable.

SECTOR SURVEY

MECHANICAL ENGINEERING: DEMAND FOR NEW MACHINES IN THE MINING SECTOR
The mechanical engineering sector is strongly focused on mining and construction with moderate activity in areas such as pumps and valves, agriculture and food and packaging. With productivity falling and accidents on the rise, there is an urgent need for Industry 4.0 in gold and platinum mining which will benefit South African mechanical engineers and German suppliers alike. There is, however, resistance due to feared job losses.

CHEMICAL INDUSTRY: MOVEMENT IN INVESTMENT IN REFINERIES
Investments in oil refineries are overdue if gasoline and diesel imports do not increase. Saudi Arabian company, Aramco is negotiating with the government to build a refinery and petrochemical plant totalling USD 10 billion. Astron Energy has plans to invest in its refinery in Cape Town and BP has stated it will invest around USD 1 billion in the modernisation of the Sapref refinery and its petrol station network between 2019 to 2023. It is unclear to what extent the offshore gas field, Brulpadda, will stimulate future expansion of the petrochemical industry.

ENERGY INDUSTRY: SUPPLY CRISIS Pushes RENEWABLES
Over-indebtedness of the state-owned power company, Eskom, blackouts, and an increase in the cost of coal electricity have placed expansion of renewable energies on the political agenda. The government has announced a new 1,800 MW round of tenders for large-scale renewables in public-private partnerships. Requirements for domestic production shares (local content) will support the South African industry. For private individuals and companies, rapid growth in photovoltaics can be expected. Bureaucratic hurdles are still slowing things down. In addition, electricity tariffs remain low by international standards.

CONSTRUCTION: CRISIS IS SLOWLY OVERCOME
The construction sector has been unable to recover from the downturn following the 2010 World Cup. This once proud industry is threatened by bankruptcies and the loss of expertise. It also suffers from overcapacity, defaulting payers and a lack of orders. The investment climate for the construction sector is expected to improve only gradually. A growing dynamism in urban development projects is to be expected, especially in the large metropolitan area of Pretoria-Johannesburg. President Ramaphosa has promised to invest more in infrastructure.

HEALTH ECONOMY: MEDICAL TECHNOLOGY
MARKET IS STILL GROWING
Private hospital operators are implementing investment plans with a focus is on radiology and oncology. In 2019, sales of medical technology from Germany are expected to increase by around 8 to 10%. By 2020, the investment cycle for private hospitals is likely to fade. Government plans to spend around USD 2.7 billion on health infrastructure which is regarded as overly optimistic by local experts. Financing the announced national health insurance is likely to be difficult. The private sector fears a high degree of bureaucracy and loss of quality.

MINING: SECTOR LAGGING BEHIND POTENTIAL
Mining got off to a weak start in 2019 but demand for copper, iron ores and coal – around 24% of the value-added in mining – could still pick up. With many mines at the end of their life cycle, the prospects for gold and platinum remain unclear. Vedanta commissioned the Gamsberg zinc mine in March 2019.

Although general conditions for mining have improved significantly since 2018 risks have increased as a result of the recent resurgence of discussion on black equity stakeholder participation in the broad-based Black Economic Empowerment, rising electricity prices and power outages.

AGRICULTURE: MARKET FOR AGRICULTURAL MACHINERY STABLE
Due to the weak performance of the left-populist opposition party, the Economic Freedom Fighters (EFF) in the elections in May 2019, the debate about the expropriation of land without compensation should continue to falter. Industry experts expect investment in agricultural machinery to increase again. Low rainfall during the sowing season and a weak South African rand, however, are slowing down the market.

Germany is the most important supplier of tractors, with a share of 20%, ahead of the US. For other agricultural equipment, Germany follows the US.
FOOD INDUSTRY: DECLINE IN DEMAND FOR MACHINERY
Despite the burden on consumers, food processing increased moderately in the first quarter of 2019. Investment is likely to pick up again from mid-2020. The development of intelligent production systems and new packaging concepts using recycled materials (e.g., PET bottles) are of increasing importance.

In 2018, German exports of machinery for the food industry fell by 25% compared to the previous year, at 24.5 million euro. Nevertheless, Germany remains by far the most important supplier ahead of Italy and China.

METAL INDUSTRY: CHINESE PLANNING A STEEL COMPLEX
Unfavourable conditions and cheap steel imports have been increasing in the metal industry for more than a decade. South Africa is well resourced with metal ores, and the African market offers excellent sales potential. After declines in the first quarter of 2019, a moderate recovery in the metals industry is expected.

Chinese investors signed contracts in July 2018 for the construction of a USD 10 billion metal complex in Musina-Makhado, in Limpopo province to produce stainless steel, ferrochrome and silicon-manganese. The project includes a coal-fired power plant.

AUTOMOTIVE SECTOR: CAR EXPORTS INCREASING
VW and BMW plants, in particular, are driving strong car exports in 2019 and 2020, following investments in new models. Other motor vehicle manufacturers are following suit. Although domestic demand for passenger cars is declining, demand for trucks is growing moderately.

Collective bargaining rounds in mid-2019 will increase the strike risk. The government plans to increase local content for black business owners from 37% to 60% by 2035. The African consumer market has the greatest potential for expansion, although mass importation of vehicles is still blocked.

ENVIRONMENTAL TECHNOLOGY: WATER TREATMENT INCREASINGLY URGENT
Investments in wastewater treatment have been criminally neglected. In the future, more capital is expected to flow into this area. The investment requirement is well over 1 billion euro. However, scarce public funds do not allow for large-scale projects.

Among other things, government is investing around 20 million euro in a wastewater treatment plants on the Vaal River. Cape Town plans to spend 342 million euro on desalination, mobilisation of groundwater and water treatment in the next ten years. Landfill space is becoming scarce and contamination from gold mining is problematic.

Schauenburg Systems is a leading developer of Proximity Detection Systems for mining and industrial applications.

First manufactured South African high tech camera with Artificial Intelligence, specifically designed for mine safety/traffic management, allowing for event management and video logging.

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ECONOMIC PROSPECTS

The International Monetary Fund (IMF) expects real growth of 0.4% and 2.9% for 2019 and 2020 respectively – a moderate recovery. By contrast, the Economist Intelligence Unit (EIU) is forecasting declines of 4.5 and 4.8%, for the same periods.

The main reason for slow recovery is the elevated level of debt servicing which in 2018 alone devoured around USD 12.4 billion – around 12.6% of GDP. Debt repayment and interest rates will be similar in 2019 but from 2020 it is expected that these will be halved. Government spending will shrink by 20% in 2019. The Angolan state, with its central role in consumption and investment, is the main engine of growth.

Oil production is falling due to a lack of investment and increasingly exhausted fields. Even if the decline stops, oil production will not recover quickly. Despite encouraging steps to make the sector more attractive to investors, Angola remains one of the economies that are unilaterally focused on oil exports.

Although negative growth in agriculture is expected in 2019, due to adverse weather conditions, production is expected to increase slowly but steadily in the following years. Diversification and privatisation efforts include projects such as fisheries, food processing, the building materials industry and the energy sector.

Improvements in infrastructure – albeit slow – are accompanied by expansion of local and regional trade. However, the construction sector as a whole and the development of infrastructure, in particular, are likely to gain momentum as soon as GDP improves. In 2021, the promotion of diamonds will stimulate growth.

INVESTMENT: BUSINESS OPPORTUNITIES FOR PRIVATE INVESTORS

Following a three-year recession, hope lies mainly in foreign private investment with opportunities in mining, agriculture and the energy sector. Nevertheless, only modest investment growth is expected for 2019 and 2020 because of poor development of agriculture and manufacturing. Corruption and bureaucracy will continue to hamper growth in the medium term. State-owned economic operators continue to exercise influence, albeit to a lesser extent.

Reforms initiated by President João Lourenco (in power since September 2017) include a competition law, abolition of the participation of national partners in foreign investment and liberalisation of capital movements. The government has also unbundled and partly privatised the state-owned energy company, Sonagol.

CONSUMPTION: POPULATION SUFFERS LOSS OF INCOME

Private consumption will not increase until 2021. Due to the weak national currency (Kwanza), the average inflation rate for 2019 and 2020 will exceed 17%. Currency dynamics will undermine anti-inflation measures such as price caps for staple foods. Weak growth restricts consumption; even the IMF’s more positive forecasts remain problematic as the Angolan population is growing by 3% a year.

Loss of income is a source of social conflict: poverty and unemployment rates are still high. Overall, demand for durable consumer goods is limited to the capital Luanda, which has a population of 7.7 million. Until 2015 per capita income rose, especially in metropolitan areas. Poverty in rural areas is more dominant (58% of the population) than in urban areas (19%).

FOREIGN TRADE: FOREIGN TRADE BALANCE REMAINS POSITIVE

Oil production, which fell in 2019, will reduce exports by more than 10%. Angola exports consist almost exclusively of oil (2018: 89.6% of total exports) and natural gas (6%). A third export, diamonds (2.8%), is expected to increase significantly.

The positive trade balance projected in 2020 underlines Angola’s fundamentally strong external economic position. Its main customers are China and India.

Angola is the third-largest economy in sub-Saharan Africa after South Africa and Nigeria. Angola was ninth biggest importer of goods from Germany in 2018; South Africa (EUR 9 billion), Nigeria (EUR 865 million) and Kenya (EUR 370 million) were the top importers in the region in that period. German exports to Angola in 2018 totalled EUR 137 million.
**KEY ECONOMIC DATA**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2018 1)</th>
<th>2019 2)</th>
<th>Comparative data Germany 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP (nominal, USD billions)</td>
<td>98.7</td>
<td>88.8</td>
<td>4,000.5</td>
</tr>
<tr>
<td>GDP per capita (nominal, USD)</td>
<td>3,305</td>
<td>2,792</td>
<td>48,269</td>
</tr>
<tr>
<td>Population (millions)</td>
<td>30.8</td>
<td>31.8</td>
<td>82.9</td>
</tr>
<tr>
<td>Exchange rate (annual average 1USD = Angolan Kwanza)</td>
<td>308.6</td>
<td>340.8</td>
<td></td>
</tr>
</tbody>
</table>

Sources: IMF, German Federal Bureau of Statistics

**FOREIGN TRADE (USD MILLIONS)**

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports</td>
<td>14.5</td>
<td>15.8</td>
<td>+9.0</td>
</tr>
<tr>
<td>Exports</td>
<td>34.6</td>
<td>40.8</td>
<td>+17.9</td>
</tr>
<tr>
<td>Balance of trade</td>
<td>20.1</td>
<td>25.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: EIU

**SWOT ANALYSIS**

**Strengths**
- Urgently necessary reforms are implemented
- Successes in the fight against corruption
- Solid external position due to continued oil revenues
- Continuous expansion of infrastructure (especially energy and transport routes)

**Weaknesses**
- Strong dependency on oil sector
- Low level of development
- Corruption as well as inefficient administration and justice
- Debt settlement burdens economy.

**Opportunities**
- Investments in barely developed mineral deposits
- Investments in the high potential of agriculture
- Reduces corruption improves business climate

**Threats**
- World market prices for oil and natural gas remain weak
- Oil production continues to fall
- Private investments are not starting up
- Social conflicts

**SELECTED MAJOR PROJECTS**

<table>
<thead>
<tr>
<th>Project</th>
<th>Investment amount (USD)</th>
<th>Project Status</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxeu Kimberlite Project</td>
<td>1,000 million</td>
<td>Test drilling</td>
<td>Diamond mine in Luanda Sul province, planned production per year: 10 million carats. Joint venture of Endiama and Alrosa</td>
</tr>
<tr>
<td>Calulo Cabaca Hydro Power Project</td>
<td>4,500 million</td>
<td>Planning, completion by 2022</td>
<td>Hydroelectric power plant on Kwanza River for 2,770 MW; construction by China Gezhouba Group Corporation (CGCC)</td>
</tr>
<tr>
<td>Baynes Hydropower Project</td>
<td>1,300 million</td>
<td>Planning</td>
<td>600 MW hydropower plant on the Kunene River, joint project with Namibia</td>
</tr>
<tr>
<td>Fertiliser plant in Soyo</td>
<td>2,000 million</td>
<td>Under construction</td>
<td>2 million tons a year; commissioning end of 2020; execution: Danish Group Haldor Topsoe <a href="http://www.topsoe.com">www.topsoe.com</a></td>
</tr>
<tr>
<td>Porto Barra do Dande</td>
<td>1,500 million</td>
<td>New call for tenders planned</td>
<td>Relief port for Luanda; contract revoked by the Lourenço govt. due to charges of corruption <a href="http://www.portoluanda.co.ao">www.portoluanda.co.ao</a></td>
</tr>
<tr>
<td>Porto de Caio</td>
<td>780 million</td>
<td>Under construction; new call for tenders planned</td>
<td>Deep-sea port for the Cabinda oil region; concession agreement with operator Caioporto suspended due to suspected corruption, China Road and Bridge Corporation likely to retain the contract <a href="http://www.portocaio.com">www.portocaio.com</a></td>
</tr>
<tr>
<td>Luanda International Airport</td>
<td>3,800 million</td>
<td>Construction until 2019</td>
<td>New airport 40 km outside the city centre (Bom Jesus)</td>
</tr>
<tr>
<td>Angola-Zambia Oil Pipeline</td>
<td>5,000 million</td>
<td>Planning</td>
<td>Pipeline to transport 100,000 barrels of oil from Sonaref Lobito oil refinery</td>
</tr>
</tbody>
</table>

Sources: gtai research, press reports

**Area**
- 1,246,700 km²

**Population**
- 32.1 million (2017)

**Population growth**
- 3.3%

**Official language**
- Portuguese

**Capital**
- Luanda

**GDP growth**
- 0.7%

**President**
- João Lourenço

**Ease of doing business**
- 173/190 (2017)

**Currency**
- Angolan Kwanza

Sources: World Bank, World Fact Book
SECTOR SURVEY

Although the economy has opened up to private investment, opportunities are hampered by limited financial resources and slow development.

CHEMICAL INDUSTRY: REFINERY PROJECTS IN THE PIPELINE

Although it is Africa’s second-largest producer of oil, Angola can meet only 20% of its fuel needs. Plans for the construction of the Lobito (200,000 barrels a day) and Soyo (110,000 barrels a day) refineries which was suspended in 2016 have commenced. A consortium (United Shine and Sonaref) was awarded the contract for the construction of a refinery in Cabinda (60,000 barrels per day) at the end of 2018 and Eni has been commissioned to modernise the Luanda refinery (65,000 bpf). Angola is discussing the construction of a nitrogen plant with Russia.

ENERGY INDUSTRY: OPPORTUNITIES FOR GERMAN COMPANIES

To increase the percentage of households connected to the grid from 37% to 60% by 2025, installed capacity will have to increase by about 3,500 megawatts. Upcoming major projects are the construction of the Caculo Cabaca dam (2,170 MW) and expansion of the gas-fired power plant in Soyo by 500 MW. Additional hydropower plants (including micro-plants) and decentralised solar projects are also planned. Regulation of public-private partnerships has improved and there are opportunities in the expansion of the power grid.

CONSTRUCTION: SECTOR AT LOW LEVEL

There are delays in construction projects due to financing shortages in the public sector. There is a focus on harbour and rail construction. Housing construction is stagnating with the exception of a satellite city project (USD 500 million) implemented by Turkish company, Onsan. The unprecedented construction boom between 2006 and 2014 spurred on by reconstruction after the civil war and high oil incomes was marred by excessive project costs, massive corruption and poor quality.

HEALTHCARE INDUSTRY: A NEGLECTED SECTOR COMES INTO FOCUS

The recession in recent years has plunged the healthcare sector, already underserved in comparison with countries with similar incomes, into a serious crisis. Although government is clearly willing to take action persistently low state income prevents big leaps. There is a need for hospital capacity, doctors, medicines and vaccines with a focus is on maternal care, newborns and epidemiology. A military hospital and other health projects are being promoted.

AGRICULTURE: PRIVATISATION OF STATE FARMS

In 2017 and 2018, foreign investment projects in the agricultural sector by China, Brazil and France were implemented for corn, soy, vegetables, fruits and sugar. Government plans to privatise large state farms. At present, only 10% of agricultural land is farmed due to a lack of farmers and rural infrastructure. Government is striving to expand domestic fish processing.

MINING: METAL ORES OF INTEREST

Angola is attractive to international investors because of the opening up of a largely unexplored mining sector. Angolan mineral resources include manganese, nickel, copper, gold, rare earths, uranium and phosphate. Gold mining is expected to increase in 2019 and exploration projects for copper (Ozango project), manganese (Kassala-Kitungoz) and rare earths (Longonjo) are underway. Thus far mining has focused on diamonds. Angolan Endiama and the Russian, Alrosa are planning to commission the Luaxe diamond mine for USD 1 billion by 2020.

OIL AND GAS: EXPECTED TO REMAIN LOW

Angola is restructuring state-owned energy company, Sonangol and is enacting new laws to attract investment. Due to years of neglected exploration, it will take time for oil production to increase. More optimistic forecasts predict that production will settle at a low 1.48 million barrels per day by 2021. Rising world oil prices may promote exploration more than expected. Oil production in Angola is predominantly offshore and heavily dependent on world prices due to high costs.
FOOD INDUSTRY: MORE PROJECTS EXPECTED
Although food processing is a priority, aside from beverages it is limited to individual projects. The Italian Cremonini Group and the Swiss-based Webcor Group recently announced investments in meat processing, dairy and fresh produce. Obstacles to development include high operating costs due to high demand for imports, insufficient infrastructure and a lack of skilled workers. Due to low productivity, the use of domestic agriculture is a major challenge.

METAL INDUSTRY: AN EMERGING SECTOR
Although the rail network has been extended and improvements have been made to the power supply there is a chronic shortage of finance and weak economic growth. Chinese company CITIC opened a plant for the production of aluminium profiles in May and a smelting plant for aluminium waste is also planned. After a standstill in 2014, construction of an iron profile plant in Huambo will proceed. After prolonged delays Companhia Siderurgica do Cuchi is scheduled to begin operating in 2019 (96,000 tonnes of pig iron).

INFORMATION AND COMMUNICATION INDUSTRY: FURTHER MOBILE LICENSE PLANNED
Only 12% of the country is served by the mobile network. The telecommunications sector is to be opened up to other competitors. In April, the president cancelled a tender for licenses and initiated a new one. Unitel and Movicel dominate the mobile market, with little interference from Angola Telecom. The plan is to privatise 55% of the state-owned company’s shares. In a series of privatisation projects, it is still unclear whether buyers will be found. Airbus is currently building a satellite for Angola.

AUTOMOTIVE SECTOR: SALES CRISIS—NO END IN SIGHT
Car sales have been in a severe crisis since 2015 because of the weak economy, devaluation of the local currency and high interest rates. It is unlikely that more than 2,000 vehicles will be sold in 2019. Russian truck manufacturer Kamaz, Hyundai and Chinese producers are discussing terms.

ECONOMIC PROSPECTS

In Botswana, real economic growth of around 4.4% is expected for 2018, after 2.4% in 2017. An important reason for the higher rate is the fact that closure of the BCL state-owned coal mine in October 2016 was included in the national accounts in 2017. There was also an increase in government spending before the October 2019 elections. With high financial reserves and low debt levels, the expected budget deficit of 4.4% represents only a minor risk.

In addition to increased government spending, sustainable factors for growth of more than 4.5% are on the horizon in the medium term. Copper mining, for example, is gaining momentum. World market prices have stabilised; according to experts, global declines in production are expected due to the conversion of some megamines from surface to underground mining. Coal mining will also increase for (modest) export and electricity generation. Mining of the battery mineral, manganese, may be promoted. Growth in the tourism sector is also expected.

The export of diamonds, the country’s most important source of foreign currency, is developing slowly. Debswana, Botswana’s largest mining company, will need to downsize production due to global supply surplus. Canadian producer, Lucara Diamond Corporation, which specialises in rare diamond types, has announced increases in revenues.

Botswana is one of the most successful countries in Africa in terms of per capita income and development criteria such as governance, rule of law and macroeconomic stability. However, high incomes from the export of commodities have encouraged a one-sided economy which lacks diversification.

INVESTMENTS: MINING AND POWER PLANT CONSTRUCTION PICKING UP

Gross fixed capital formation is expected to grow by more than 3% in 2018 and 2019 whereafter they are likely to be even higher. State capital goes to the construction of housing, roads and schools, as well as to electricity. Increasing investments in the mining sector are likely to be sustained into 2020. Mowana Copper Mine is expanding its capacity and copper-silver production in the Khoemacau mine has resumed. It is also being discussed to get the BCL copper mine up and running again.

In the construction of power plants, projects could be implemented within the framework of public-private partnerships. Over the next five years, investment in diamond mining will be necessary to maintain the current level of production. Implementation of the regional megaprojects Trans-Kalahari Railway and Port Techobanine Inter-Regional Heavy Haul Railway is less likely

CONSUMPTION: HIGH PER CAPITA INCOME

Although consumer demand is expected to grow by around 3.8% before the elections in October 2019, rising import costs are preventing success. About 44% of formal employees are employed by the well-resourced state. High salaries and the resulting wage pressure in other sectors ensure stable consumption and have led to the formation of an affluent middle class.

The cities of Gaborone and Francistown account for the more densely populated east of the country where there are many shopping malls. Choppies, Botswana’s local supermarket chain, is expanding into the region. The consumer goods market is limited by a small population of only 2.2 million. High revenues from commodity exports block expansion of labour-intensive industries, and there is high unemployment (officially 17 to 18%). Agriculture is predominantly in subsistence mode.

FOREIGN TRADE: POSITIVE PERFORMANCE

Botswana is the world’s most important diamond but at USD 3.95 billion diamond exports in 2017 decreased by 19% compared with 2016. Sales in 2018 and 2019 are also likely to be weak. In coming years, copper and coal exports will increase. Botswana imports almost all its food and industrial products. High import prices and weak exports will reduce trade surpluses to less than USD 200 million per annum in 2018 and 2019. In spite of strong luxury tourism, the services sector makes only small surpluses.

The current balance of performance will show growth of around 5.5% of GDP in 2018 and 2019. In contrast, the share of the current balance of performance surplus in GDP in 2013 to 2017 was 11.6%. Funds received from the Southern African Customs Union (SACU) are recorded as external income and contribute significantly to the balance of performance.
**SELECTED MAJOR PROJECTS**

<table>
<thead>
<tr>
<th>Project</th>
<th>Investment amount (million USD)*</th>
<th>Project Status</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tosoosolo Coal-to-Liquid Plant</td>
<td>2.900</td>
<td>Under construction</td>
<td>Construction of a coal-fired power plant (200 megawatts), solar installations (200 megawatts) and a coal liquefying plant (20,000 barrels per day); Builder: Coalfields Petroleum Botswana (technical: Holland &amp; Hausberger)</td>
</tr>
<tr>
<td>BPC Northwest Electricity Transmission Line</td>
<td>928</td>
<td>Design</td>
<td>Expansion of the electricity grid; Connection to the northwest and north; Builder: Botswana Power Corporation (BPC)</td>
</tr>
<tr>
<td>Sese coal-fired power station</td>
<td>300</td>
<td>Design</td>
<td>Construction and operation of a coal-fired power plant (450 megawatts) for electricity export; Investors: Joint venture Sese, consisting of African Energy Resources Ltd (AFR) and First Quantum Minerals Ltd (FQM)</td>
</tr>
<tr>
<td>Waterberg-Botswana Coal Rail Link</td>
<td>±0.4 billion</td>
<td>Feasibility study</td>
<td>Construction of a coal-fired power plant (600 megawatts) plus corresponding coal mining for electricity export; Investors: Shumba Coal and Mulilo Group</td>
</tr>
<tr>
<td>Mabesekwa Independent Power</td>
<td>n/a</td>
<td>Feasibility study</td>
<td>Construction of a solar power plant (photovoltaic) in Kasane and other sites (200 megawatts) announced; half of the capacity will be connected to the national grid; Kasane has an off-grid share of 50 megawatts; Botswana Ministry of Environment, Natural Resources Conservation and Tourism</td>
</tr>
<tr>
<td>Kasane solar plant</td>
<td>n/a</td>
<td>Design</td>
<td>Construction of a solar power plant (photovoltaic) in Kasane and other sites (200 megawatts) announced; half of the capacity will be connected to the national grid; Kasane has an off-grid share of 50 megawatts; Botswana Ministry of Environment, Natural Resources Conservation and Tourism</td>
</tr>
<tr>
<td>Kgwalque Hill Manganese Mine</td>
<td>100</td>
<td>Exploration</td>
<td>Exploration by Canadian Mining Company Gyanit Metals</td>
</tr>
<tr>
<td>New Hospital, Kazane, northern Botswana</td>
<td>40</td>
<td>Feasibility study</td>
<td>Construction of a hospital (120 beds); Kasane and Kazungula hospitals to be modernised; Builders: Botswana Ministry of Health</td>
</tr>
<tr>
<td>Trans-Kalahari Railway</td>
<td>14,000</td>
<td>Planning</td>
<td>Completion 5 to 7 years; 1,500 km railway line to Walvis Bay in Namibia, for coal exports; construction and operation by private investors</td>
</tr>
<tr>
<td>Port Techobanine inter-regional heavy-haul railway</td>
<td>7,000 to 11,000</td>
<td>Planning</td>
<td>Governments of Botswana, Mozambique and Zimbabwe signed an MoU in 2016 to build a 1,600 km railway line from the planned deep-sea port Techobanine in Mozambique via Zimbabwe to Francistown in eastern Botswana</td>
</tr>
</tbody>
</table>

* Due to high exchange rate fluctuations and unclear data, figures are estimates; Sources: Research by Germany Trade & Invest; press releases

**SWOT ANALYSIS**

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>High financial and macroeconomic stability, good business climate</td>
<td>Strong dependency on the export of commodities, low economic diversification</td>
</tr>
<tr>
<td>Strong state institutions and high political stability</td>
<td>Small market with about 2.25 million inhabitants</td>
</tr>
<tr>
<td>Proximity to the industrial centre, Gauteng (South Africa, 400 km)</td>
<td>High poverty rate, youth unemployment and social inequality</td>
</tr>
<tr>
<td>Profitable commodity deposits (for example, diamonds, copper, coal, gold)</td>
<td>Lack of specialists</td>
</tr>
<tr>
<td>Government plans to diversify the economy and promote manufacturing</td>
<td>Lack of infrastructure for massive bulk goods transport (coal)</td>
</tr>
<tr>
<td>Excellent natural environment for renewable energies</td>
<td>Failing commodity prices with negative macroeconomic effects</td>
</tr>
</tbody>
</table>

**OPPORTUNITIES**

Investment needs in transport routes as well as power generation and distribution
- Rising commodity prices are ensuring investment in mining
- Government plans to diversify the economy and promote manufacturing
- Excellent natural environment for renewable energies

**THREATS**

- Drought and water scarcity can restrict agriculture and mining
- Crises in the region may bring refugee flows into the country

**FOREIGN TRADE (USD MILLIONS)**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2016</th>
<th>2017</th>
<th>% change 2017/2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports</td>
<td>5.9</td>
<td>5.0</td>
<td>-14.8</td>
</tr>
<tr>
<td>Exports</td>
<td>7.4</td>
<td>5.9</td>
<td>-19.4</td>
</tr>
<tr>
<td>Balance of trade</td>
<td>1.5</td>
<td>0.9</td>
<td></td>
</tr>
</tbody>
</table>

**KEY ECONOMIC DATA**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2016</th>
<th>2017</th>
<th>Comparative data Germany 2017</th>
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</thead>
<tbody>
<tr>
<td>GDP (nominal, billions USD)</td>
<td>15.7</td>
<td>17.4</td>
<td>3,702.4</td>
</tr>
<tr>
<td>GDP per capita (nominal, USD)</td>
<td>6,959</td>
<td>7,584</td>
<td>44,791</td>
</tr>
<tr>
<td>Population (millions)</td>
<td>2,25</td>
<td>2,29</td>
<td>82.8</td>
</tr>
<tr>
<td>Exchange rate (annual average, 1 USD = x Pula (P))</td>
<td>10,90</td>
<td>10,35</td>
<td></td>
</tr>
</tbody>
</table>

**Sources:**
- EIU, International Monetary Fund (IMF), Federal Statistical Office
- World Bank, World Fact Book
SECTOR SURVEY

**ENERGY:** BOTSWANA BECOMES AN ELECTRICITY EXPORTER

Three coal mining and conversion projects are currently underway: Mabeseke Coal Independent Power Producer (Kibo Energy, 600 MW), Sese Power Project (First Quantum Minerals, approximately 450 MW) and Lesedi Project (Tlou Energy, methane made of coal seam, 50 or 100 MW). Construction of a solar power plant (100 megawatts) has been announced although its implementation is uncertain, as has the decentralised electrification of 20 villages on a solar basis. With the implementation of the projects and the ongoing modernisation of the Morupule coal-fired power plant, Botswana is developing into a net exporter of electricity.

**CONSTRUCTION:** MEDIUM-SIZED RAIL PROJECTS

The building market is small. In the pipeline are a shopping mall in Francistown and the 135-acre Kgale Lake City in Gaborone. Mega-rail projects for coal transport to Namibia or Mozambique are not up to date and it is more likely that medium-sized projects, such as expansion of connections to South Africa and Zambia will go ahead. Water transfer projects to direct water from the Chobe and Zambezi rivers to the southeast, and from the Zambezi river via Pandamatenga to Gaborone are in the design phase.

**HEALTH SECTOR:**

**CLINICS PLANNED AND UNDER CONSTRUCTION**

Botswana has good basic medical care. The country is heavily affected by HIV and AIDS, malaria and tuberculosis. More difficult cases are usually referred to South Africa. Construction of a public hospital in Kasane (120 beds) is planned and the public Shakawe Primary Hospital (80 beds) and the private polyclinics Sidienga (110) as well as Francistown (150, project status unclear) are under construction. There is a need for training and for dialysis centres. In 2017, Botswana imported medical equipment for around USD 30 million.

**AGRICULTURE, FORESTRY, FISHERIES:**

**LITTLE SUPPORT FOR THE SECTOR**

The share of agriculture is very small, at 2% of GDP and in this water-scarce country, 80% of agricultural GDP is devoted to cattle farming. A portion of the livestock is destined for export and is developing dynamically. The dairy industry is growing strongly from a low starting level. Fish and poultry farming remain potential niches. Budget funds for the agricultural sector have fallen in recent years.

**MINING:** INVESTMENT IN COPPER AND COAL

Rising world market prices promote copper-nickel mining. Currently, the Mowana copper mine is expanding its capacity. More important is the ongoing reactivation of the copper-silver production in the Khoemacau Mine. Coal mining will also increase for (modest) export and electricity generation in the country. Investment in diamond mining will be needed over the next five years to maintain current levels of production. Manganese mining may be pushed forward. With 822 million tons of uranium, Botswana has one of the largest undeveloped uranium deposits.

**FOOD SECTOR:** WEAK MANUFACTURING INDUSTRY

With the planned partial privatisation of the state-owned Botswana Meat Commission and the abolition of its monopoly on cattle exports, more movement is expected in the private slaughter industry and in cattle exports. A strong currency due to high external incomes and a lack of protective tariffs mean that the country can hardly stand up to its strong competition from South Africa, even in food processing. The increasing self-sufficiency of milk requirements improves the conditions for processing dairy products.

**ENVIRONMENTAL TECHNOLOGY:**

**DISPOSAL STILL IN ITS INFANCY**

Successful waste management depends on the implementation of policy. As prosperity and urbanisation increase, the need for disposal of solid waste increases; at this stage 60% is informal. Official landfills are often inadequately equipped and recycling is haphazard, with low quotas. Treatment and reuse of water is in its infancy. An important, technically demanding market is water treatment in mining.
UNPARALLELED SUPPORT

InterGest South Africa offers unparalleled support with its comprehensive range of services and extensive expertise in African markets. From market entry through to the setup, administration, management of subsidiaries and sales organisation, we have the perfect and cost-efficient solution at any stage of your African venture.
ECONOMIC PROSPECTS

In 2019, realistic growth of around 3.4% is expected in Mozambique due to a severe liquidity and confidence crisis that began in 2016. There are however signs that the debt crisis will be overcome. In late 2018, the International Monetary Fund (IMF) praised the progress made in consolidating the economy and steps to reduce high public debt.

If investments in the development of Africa’s third-largest natural gas reserves in the Rovuma Basin increase in mid-2019, growth of around 5% is predicted from 2020; when production starts around 2024, GDP growth is expected to be more than 7%. Whether this will increase development, however, remains uncertain. The high real growth rates from 2001 to 2015, with an annual average of 7.8%, have brought hardly any significant improvement in the economic situation for the majority of the population.

Payment difficulties burden the economy and make it more difficult to finance large-scale projects. In 2012 and 2013, foreign banks apparently lent USD 1.1 billion to shell companies controlled by the State Information and Security Service (SISE). Despite unlawful implementation of state guarantees, the government appears to want to operate the loans, albeit hesitantly, to strengthen the confidence of lenders again which is gradually being achieved. In February 2017, however, Mozambique was unable to service the interest of the only government bond in the amount of USD 727 million. Negotiations to involve creditors in the income forecast from gas seem to be going well. The share of government debt in GDP soared to 121.5% in 2016 (2015: 88.1%). In 2018, it was about 102%.

CONSUMPTION: INCREASE IN SPENDING

Consumer spending will increase by between 4 and 5% annually in 2018 and 2019. Despite progress in poverty reduction in the growth years from 2001 to 2014, Mozambique remains one of the poorest countries in the world. High consumption levels are reserved for well-paid expatriates and a small Mozambican elite. Inflation increased to 19.85% at the end of 2016 from 3.55% at the end of 2015, and then dropped below 6% in 2018 by virtue of tighter monetary policy, moderately rising food prices and a more stable exchange rate. In 2019, the inflation rate is expected to increase to just over 6% because of a weakening metical and reduced energy subsidies. Droughts and floods pose a significant risk to the food price trend.

FOREIGN TRADE: CAPITAL IMPORTS TO INCREASE

With little industry and a small upscale consumer market, demand from Mozambique for German machinery and durable consumer goods is limited. There are opportunities for German companies in the implementation of large scale projects in energy supply and mining.

Mozambique exported coal (35.7%), aluminium (23.3%), natural gas (7.6%) and electricity (7.6%) in 2017. In addition, there are exports of heavy metal sands (4.4%), gemstones and gold. Agricultural exports includes tobacco (6.2%), wood, sugar, shrimp and nuts. Coal and aluminium exports are expected to weaken by around 2022. There are also increased imports of capital goods for the development of gas fields.

The share of the current performance of balance deficit in GDP will increase from 23% to 33% in 2020 and continue to grow. External balance sheets will improve with the export of natural gas. Existing gaps are partly filled by debt relief and development aid.
**KEY ECONOMIC DATA**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2017</th>
<th>2018 *</th>
<th>Comparative data Germany 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP (nominal, billion USD)</td>
<td>12.6</td>
<td>14.6</td>
<td>3,702.4</td>
</tr>
<tr>
<td>GDP per capita (USD)</td>
<td>426-*</td>
<td>481</td>
<td>44,792</td>
</tr>
<tr>
<td>Population (million)</td>
<td>29.5</td>
<td>30.3</td>
<td>82.8</td>
</tr>
<tr>
<td>Exchange rate (annual average, 1 USD = x Metical (MT))</td>
<td>63.5</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

*Estimate; Sources: IMF; Federal Statistical Office

**FOREIGN TRADE (USD MILLIONS)**

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018 *</th>
<th>Change 1st quarter 2019/2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports</td>
<td>5,223</td>
<td>6,104</td>
<td>16.9</td>
</tr>
<tr>
<td>Exports</td>
<td>4,725</td>
<td>5,395</td>
<td>14.2</td>
</tr>
<tr>
<td>Trade balance</td>
<td>-498</td>
<td>-709</td>
<td>–</td>
</tr>
</tbody>
</table>

*Estimate Source: EIU

**SELECTED MAJOR PROJECTS**

<table>
<thead>
<tr>
<th>Project</th>
<th>Investment (million USD)</th>
<th>Project Status</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rovuma Area 1 Gas Field</td>
<td>18,500</td>
<td>Design</td>
<td>Offshore production and liquefaction of natural gas using two LNG plants, each with 7.6 million tons a year; start of funding expected in 2024</td>
</tr>
<tr>
<td>Rovuma Area 4 Gas Field/</td>
<td>6,330</td>
<td>Construction, platform manufactured in Korea</td>
<td>Production and liquefaction of 3.4 million tons of natural gas per year; start of funding expected in 2024</td>
</tr>
<tr>
<td>Coral South FLNG Plant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ncondezi Coal Power Plants in</td>
<td>2,200</td>
<td>EPC contracts scheduled for first quarter 2019</td>
<td>First unit 300 megawatts (MW); five other units for a maximum total of 1,800 MW planned. Investor: Nzonzi (operation of the 1st unit from 2023)</td>
</tr>
<tr>
<td>Tete</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jangamo Mineral Sands Project</td>
<td>1,000</td>
<td>Design</td>
<td>Partnership between Savannah and Rio Tinto. Mining of 600,000 tons heavy metal sand per year; Inhambane province in southern Mozambique; production planned to start in 2020</td>
</tr>
<tr>
<td>Maxixe Provincial Hospital</td>
<td>700</td>
<td>Design</td>
<td>Due to lack of funding construction has not started completion in 2019; awarded by government to Castanheira &amp; Soares Mozambique Ltd.</td>
</tr>
<tr>
<td>Teme 400 MW Power Project</td>
<td>500</td>
<td>Preliminary design</td>
<td>Globelc (part of Temane Energy Consortium) concluded an agreement with Electricidade de Moçambique in July 2018 to develop the project</td>
</tr>
<tr>
<td>Beira Port Essar Coal Terminal</td>
<td>500</td>
<td>Preliminary design</td>
<td>Public-private partnership with Essar Ports (India); 20 million tons a year</td>
</tr>
<tr>
<td>Scatec Solar (PV) Power Plant Project</td>
<td>76</td>
<td>Feasibility study</td>
<td>40 MW (photovoltaic); Mocuba in the Zambezi Region; Scatec Solar (52.5%); KLP Norfund Investments (22.5%) and EDM (25%)</td>
</tr>
<tr>
<td>Trans-Zambezi Rail Project</td>
<td>2,500</td>
<td>Preliminary design</td>
<td>China Railways has proposed construction of a route between Mozambique, Zambia, Malawi and Zimbabwe; first 400 km Shamva (Zimbabwe) to Moatize (Mozambique) and further 900 km through Malawi to the port of Nacala</td>
</tr>
<tr>
<td>Maputo Ports</td>
<td>1,200</td>
<td>Planning/party under construction</td>
<td>Expansion of container terminal to 250,000 TEU underway, next construction phase 400,000 TEU by 2035, 30 million TEU/Year targeted; scheduled implementation is uncertain</td>
</tr>
</tbody>
</table>

**SWOT ANALYSIS**

**Strengths**
- Mineral commodities
- Fossil commodities
- Good agricultural conditions

**Weaknesses**
- Funding gaps
- Weak manufacturing sector
- Unresolved conflicts between former civil war parties
- Persistent poverty
- Corruption

**Opportunities**
- Development of natural gas deposits
- Rising demand for minerals
- Implementation of energy projects

**Threats**
- Falling commodity prices
- Faltering peace process
- Drought and floods

Sources: Research by Germany Trade & Invest; press releases
SECTOR SURVEY

The effects of Cyclone Idai stalled any moderately positive tendencies. The industry developments outlined below will be delayed.

CHEMICAL INDUSTRY:
PLANS FOR PETROCHEMICALS
The large scale production of natural gas starting in 2024 has created good conditions for the petrochemical industry with Chinese–Mozambican plans for natural gas processing. In addition, Royal Dutch Shell has designed a smaller gas liquefaction plant. Nevertheless, the construction of a petrochemical industry from gas production is currently not on the agenda. British Regius Synfuels has completed a feasibility study for the production of diesel and fertilisers from coal at the end of 2018. In early 2019, the Norwegian company, Yara International, opened a fertiliser factory. There could be more projects in this area.

ENERGY INDUSTRY:
POWER PLANTS IN PLANNING
The planning pipeline includes two gas-fired power plants, one in Temane (400 MW) and one in Nacala (250 MW). Coal-fired power plants of independent power generators are planned for Benga (150 to 300 MW) and Tete (300 MW). The Phanes Group (Dubai) is planning three PV systems with 50 to 100 MW. In October 2018, the implementation of an energy plan for the period from 2018 to 2043 was decided. Electricity generation capacity is expected to increase from 2,638 MW to 17,720 MW. Currently, only 28% of the population has a power connection but by 2030, this rate should be 100%.

CONSTRUCTION:
NACALA PORT PROJECT IMPLEMENTATION
Since 2017, debts owed by the state contractor and a lack of orders have weighed heavily on the industry and a wave of bankruptcy is expected. There are plans to expand the port of Nacala and ongoing repair projects for the inadequate road network. The railway line from the Tete province to the planned deep-sea port Macuse, implementation of the Mphanda Nkuva dam with hydroelectric power plant, and the deep-sea port, Techobanine are still in the design phase.

HEALTH SECTOR: DELAYS IN CONSTRUCTION
The construction of district hospitals is behind government’s schedule as is completion of the provincial hospital in Inhambane. International donors withdrew their support following an illegal loan scandal but greater commitment to hospital construction is expected ahead of the elections in October 2019. China has offered support for a new central hospital in Maputo. Mozambique’s only pharmaceutical factory aims to expand production with support from Brazil.

MINING: GRAPHTIE MINING ON THE RISE
Mozambique’s most important mineral resources are coal, iron, mineral sands, graphite and gold. Due to poor infrastructure, however, production costs are high. Graphite, which is used for the production of electrodes, is increasingly being mined. Large-scale mining of mineral sands in Inhambane Province (Mutamba consortium) is expected to begin in 2020. Prospects for the development of new gold mines and rare earths on the border with Malawi are also good.

OIL AND GAS: NATURAL GAS PRODUCTION FROM THE ROVUMA BASIN IS IMMINENT
Mozambique has the third-largest gas reserves in Africa, with deposits in the Rovuma Basin. Eni (25%), the licensee in the Rovuma field with ExxonMobil (25%) and the other shareholders in Area 4, is building a smaller offshore gas liquefaction plant (LNG) for the first production. The investment decision for a large-scale exploitation and construction of an onshore LNG plant is planned for the second half of 2019. With regard to the development of their area (Area 1), Anadarko and its partners will decide in the first half of 2019.

FOOD INDUSTRY: LOW INVESTMENT AND DEVELOPMENT LEVELS
In the present struggling economy, incentives are unlikely in a sector that lacks development. Although it is difficult to set up production, investment in modern equipment may equate to a dominant position in the market.

Anheuser-Busch opened a new brewery in March 2019 and there are isolated investment plans in the meat and poultry industry. The Paris-based Amethis Fund is investing with other investors in milling company, Merec.

METAL INDUSTRY: CONSTRUCTION OF A STEEL PLANT OPEN
Currently under discussion is a project involving Baobab Resources Iron and Steel for production and processing of iron and steel, which includes an iron ore mine and its own power generation. The investment is around USD 900 million.

A programme has been initiated to expand Mozal’s aluminium smelter, which, at more than 550 million tons a year, accounts for around 40% of the country’s industrial added value. In the current economic situation, barely any investment is expected from domestic metalworking companies.
ENVIRONMENTAL TECHNOLOGY: WATER SUPPLY IS CRUCIAL
The recent drought and inadequate network has placed the supply of drinking water high on the central development policy agenda.

International donors support water projects nationwide. So far, the focus has been on the supply of the metropolitan area of Maputo. To supply the population with drinking water and sanitary facilities by 2030, investments of around 2.3 billion euro are needed, according to the Mozambican government. Full funding is not guaranteed. Regulated solid waste disposal is becoming increasingly important.

INFORMATION AND COMMUNICATION INDUSTRY: MODERATE NETWORK EXPANSION
Mozambique is placed in the bottom tenth in global rankings on internet access, network coverage, etc. Development of network infrastructure is largely limited to cities, while data transmission is mainly carried out via mobile communications. Nevertheless, moderate expansion is also to be expected in rural areas. In the cities, Vodacom Mozambique is expanding its 4G network. Huawei and the Mozambican Mcel signed a memorandum of understanding in September 2018 to build a 4G and 5G network. Another competitor is Movitel.

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Email: ZA-contact-za@fuchs.com
www.fuchs.com/za
ECONOMIC PROSPECTS

Due to mine closure, there will be declines in diamond production in 2019. No growth impulses are expected from neighbouring countries Angola and, more importantly, South Africa. A drought is affecting agriculture and domestic electricity generation from hydropower. Government has little financial leeway to counteract this economic decline; much of the pre-2017 growth was due to a barely sustainable spending policy.

If rainfall increases in the second half of 2019, the agricultural sector (especially livestock) can expect a comeback after a stock recovery period. Negative factors will be offset by an increase in the mining of uranium, zinc and possibly copper in 2019 and 2020 although this will strengthen the economy only marginally. The country’s largest uranium mine, Husab, which is controlled by the Chinese, will reach full capacity in 2019.

Diamond mining will pick up in 2022 when a new Debmarine mining vessel is deployed. Notable impulses from the development of lithium mining are expected in a few years. Namibia’s position as a regional logistics location will only become relevant once growth in South Africa picks up.

INVESTMENT: GOVERNMENT TO RESOLVE UNCERTAINTIES

During the Namibia Economic Growth Summit from 30 July to 1 August 2019, government promised improvements in the economic environment. The obligation in the draft New Equitable Economic Empowerment Framework (NEEEF) Bill which envisaged that transactions with the state and licensing of natural resources should include historically disadvantaged population groups in the ownership amount of 25% is to be removed and will now be taken into account within the framework of a points system. The government has also pledged to cut red tape and speed up tenders. The extent to which uncertainties will be reduced will only become clear once the projects have been implemented. According to the conference’s investment committee, serious projects worth USD 1.4 billion had been proposed. Financing shortages in the public sector are likely to significantly limit their implementation. Cross fixed capital formation will pick up again in 2020. Demand in the mining and energy sectors is particularly important here.

CONSUMPTION: RECESSION WILL END IN 2021

With population growth of 1.9% per year and significantly lower growth rates in 2019 and 2020, per capita incomes are expected to fall. An important factor in the slowdown in consumption is the persistent drought, especially in the north of the country, and government spending cuts. Despite lower risks, import prices may rise due to the devaluation of the Namibian dollar, which is linked to the South African rand. The inflation rate will be around 5.5% between 2019 and 2020. With rainfall in the second half of 2019, consumption is expected to stabilise, especially among lower earners. In the first quarter of 2019, already weak sales in wholesale and retail trade decreased inflation-adjusted by 3.4% compared to the same quarter of the previous year. Consumption is only likely to increase noticeably in 2021.

FOREIGN TRADE: PROSPECTS DUE TO RESURGENT DIAMOND EXPORTS

Due to rising uranium exports and weak growth, the balance of goods is expected to generate a surplus due to falling imports. In 2020, a deficit is to be expected, as the mining of rough diamonds will decline and will only increase again in 2022. Income from tourism remains stable. Possible increases in fishing and shipbuilding will not influence trend reversal. In 2019, the external debt ratio of more than USD 7 billion will be more than 50% of GDP.
KEY ECONOMIC DATA

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2018</th>
<th>2019</th>
<th>Comparative data, Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP (nominal, USD billions)</td>
<td>13,8</td>
<td>14,5</td>
<td></td>
</tr>
<tr>
<td>GDP per capita (nominal, USD)</td>
<td>5727</td>
<td>5675</td>
<td></td>
</tr>
<tr>
<td>Population (millions)</td>
<td>2.6</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>Exchange rate (annual average 1USD = Namibian dollar)</td>
<td>0.07605</td>
<td>0.07045</td>
<td></td>
</tr>
</tbody>
</table>

Sources: EIU 2019; Bank of Namibia 2019

FOREIGN TRADE (USD MILLIONS)

<table>
<thead>
<tr>
<th>Year</th>
<th>Imports</th>
<th>Exports</th>
<th>Balance of trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>76</td>
<td>6.3</td>
<td>-12</td>
</tr>
<tr>
<td>2014</td>
<td>8.5</td>
<td>6.0</td>
<td>-2.5</td>
</tr>
<tr>
<td>% change</td>
<td>12.6</td>
<td>-5.6</td>
<td></td>
</tr>
</tbody>
</table>

Source: EIU

SWOT ANALYSIS

Strengths : Weaknesses
Stable political situation : Industrial base very small
Commodity deposits : Dependence on commodity exports
Well-developed institutions : Great social inequality
Good national and regional transport links : Excessive state sector
Fantastic conditions for tourism : High economic dependence on South Africa

Opportunities : Threats
Expansion into a regional handling location : Drought restricts agriculture, power generation and mining
Potential in tourism : The economic situation in South Africa and Angola remains problematic
Investment needs in the energy sector : Austerity and weak growth are fuelling social conflicts
Oil exploration off the coast. : Plans for radical redistribution

SELECTED MAJOR PROJECTS

<table>
<thead>
<tr>
<th>Project</th>
<th>Investment amount (USD)</th>
<th>Project Status</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trans-Kalahari Railway</td>
<td>15,000</td>
<td>On hold</td>
<td>Construction of 1,500 km of railway line from coal fields in Botswana to Walvis Bay, construction and operation by private investors; <a href="http://www.transnamib.com.na">www.transnamib.com.na</a></td>
</tr>
<tr>
<td>SADC Gateway Port</td>
<td>4,470</td>
<td>Planning(under construction)</td>
<td>New construction of a port at Walvis Bay with an area of 1,300 ha. Oil terminal almost completed (as of August 2019); Planned is (among other things) a coal terminal for 100 million tonnes per year, natural gas unloading terminal and a shipyard; <a href="http://www.namport.com.na">www.namport.com.na</a></td>
</tr>
<tr>
<td>Comsar Energy Group</td>
<td>1,500</td>
<td>Planning</td>
<td>16 million tonnes per year of refined oil, power plant with 600 MW, seawater desalination (10,000 cubic meters per day);</td>
</tr>
<tr>
<td>Walvis Bay Power Plant</td>
<td>800</td>
<td>Planning</td>
<td>Xaris Holding is planning a liquefied natural gas terminal for Walvis Bay in combination with a modular power plant of up to 600 MW; <a href="http://www.walvisbaypowerplant.com/the-team">www.walvisbaypowerplant.com/the-team</a></td>
</tr>
<tr>
<td>Norasa Uranium Project</td>
<td>430</td>
<td>Planning</td>
<td>Two large and two small open cast mines; annual production 5.3 million pounds; mining licence granted; <a href="http://www.forysmetals.com">www.forysmetals.com</a></td>
</tr>
<tr>
<td>Marine Phosphate Project</td>
<td>400</td>
<td>Planning</td>
<td>Ecologically controversial phosphate extraction from the seabed, capacity initially 3 million tonnes per year; <a href="http://www.namphos.com">www.namphos.com</a></td>
</tr>
<tr>
<td>Nampower - Power Plant Projects</td>
<td>330</td>
<td>Planning</td>
<td>20 MW Omburu PV Power Project (USD 36 million); 40 MW Ojitikoto Biomass Power Project (USD 135 million); 40 MW Luderitz Wind Power Project (USD 78 million); 50 MW Firm Power (Anixas II) Project (USD 85 million); <a href="http://www.nampower.com.na">www.nampower.com.na</a></td>
</tr>
<tr>
<td>Nampower - Power Plant Projects in power transmission</td>
<td>273</td>
<td>In planning</td>
<td>400 KV Auaas-Cerus (USD 71 million); extension: Windhoek to Otjiwarongo; 400 KV Auaas-kolerboom 2 (USD 126 million); connection: Windhoek to Keetmanshoop; 400 KV Oibib to Oranjemond (USD 76 million); connection: Oibib – Oranjemond (South Africa); <a href="https://www.nampower.com.na">https://www.nampower.com.na</a></td>
</tr>
<tr>
<td>Nampower - Power plant projects within the framework of PPP</td>
<td>116</td>
<td>Planning</td>
<td>20 MW Solar PV IPP Project (28 million U.S. dollars); 50 MW Wind IPP Project (USD 88 million); <a href="https://www.nampower.com.na">https://www.nampower.com.na</a></td>
</tr>
<tr>
<td>Extension of Tsumeb copper smelter</td>
<td>50</td>
<td>Planning</td>
<td>Expansion of capacity from 240,000 to 370,000 tonnes per year; <a href="http://www.dundeeprecious.com">http://www.dundeeprecious.com</a></td>
</tr>
</tbody>
</table>
SECTOR SURVEY

ENERGY INDUSTRY: NAMIBIA STRENGTHENS INDEPENDENT POWER PRODUCERS (IPPs)
The import rate for electricity in Namibia is around 60%. Namibia hopes to reduce this quota to 20% by 2022 using IPPs, which account for 117 MW of the total production capacity of 557 MW (2018). From September 2019, IPPs will be allowed to deliver directly to the customer and investments in renewable energy are likely to increase as a result. Natura Energy is planning a 50 MW solar power plant, state-owned NamPower is planning a 20 MW biomass power plant and Xaris has proposed the construction of a gas-fired power plant (250 MW) at Walvis Bay.

CONSTRUCTION: SLIGHT RECOVERY
The government is spending more money on construction projects again and has promised to protect the local construction industry better. Projects are in social housing, tourism and road construction. Recovering mining is pushing the sector. On completion the development project, Tsumeb Smart City will include hotels, a medical college, a hospital and apartments. The plan is to modernise the airport at Windhoek and the Walvis Bay–Kranzberg railway line (209 km). From 2016 to 2018, the industry has shrunk by almost 70%.

HEALTH ECONOMY: CONSERVATION AS A GOAL
Health spending in the 2019–2020 budget is limited to the purchase of pharmaceutical products, hiring of additional staff, measures to combat the outbreak of epidermics and the maintenance of health infrastructure. Due to the recession in 2017 and 2018, the construction of four new district hospitals, health centres and wards, originally planned for 2023, and modernisation of other hospitals, will be postponed again. Major private hospital operators include Medfam, Pathcare and Medicare.

AGRICULTURE: DROUGHT EMERGENCY DECLARED
At the end of June 2019, the president declared a state of emergency because of the drought which is now into its third year. The government has promised to subsidise the reduction of livestock and restore wells. Much smaller field cultivation is also affected by crop collapses. There are significant funding constraints under the Green Schemes programme, which has so far developed 11 large farms where plots are leased to commercial farmers and small farmers.

MINING: EXPECTED DEMAND BOOSTS SECTOR
With the exception of gold, mining is picking up after a succession of weak years. The world’s second-largest mine, Husab, mainly Chinese-owned, will make full use of its capacity and there are positive signals from the halted uranium mines Langer Heinrich, Norasa and Reptile. Exploration for uranium and copper is underway. Zinc, tin and lead mining as well as ecologically controversial submarine phosphate mining are being discussed. In 2022, seaside diamond mining will increase by 35% and there are plans to increase manganese production.

OIL AND GAS: FAVOURABLE CONDITIONS PROMOTE EXPLORATION
The search for natural gas and oil fields off the coast of Namibia has been in full swing for several years. Major energy companies such as ExxonMobil, Total, Shell and India’s ONGC, as well as smaller companies such as Tower Resources, Tullow Oil, NewAge Energy Algoa and Charton Oil and Gas, are particularly committed. Opportunities for offshore discoveries are considered favourable as are the legal-financial framework conditions. Another topic under discussion is the extraction and conversion of natural gas (initially 475 MW) from the Kudu offshore field. According to majority owner, BW Kudu, technological innovations favour the project.

FOOD INDUSTRY: FISH PROCESSING ATTRACTS INVESTMENT
The Namibian government has set the ambitious target of increasing the volume of locally processed and packaged fish and other marine products to around 40% of catches by 2021/22. At the beginning of 2018, the rate is expected to be 10%. The largest single investment in the area is the Seaflower Pelagic Processing factory in Walvis Bay. Also in Walvis Bay, Hangana Seafood and Tunacor – the largest fishing company in the country – laid the foundation stone for fish processing facilities in April and July 2019.

ENVIRONMENTAL TECHNOLOGY: MAJOR ACTION NEEDED IN THE WATER SECTOR
In German-Namibian development cooperation, water supply plays a special role. One of the most important water projects is modernisation of the water infrastructure for Windhoek. A solar-powered desalination plant at Walvis Bay has been put into operation as part of a pilot project. The construction of desalination plants and the use of fossil water resources are under discussion. In August 2019, the Namibian Government, with German support, launched a new programme for the disposal and reuse of solid waste.

INFORMATION AND COMMUNICATION ECONOMY: SECTOR IS SLOWLY OPENING UP
By far the largest mobile operator is MTC followed by TN Mobil (market share 4.5%). Both providers are state-owned. The plan is to sell shares in MTC. Other key players include Paratus and MTN. The government promotes access to infrastructure sharing. MTN wants to use the network infrastructure of Telecom Namibia for its mobile service. The service provider Paratus uses the well-developed fibre-optic network of the electricity supplier NamPower. In an African comparison, internet penetration is below average.
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Mazars in South Africa has set-up a German Desk to assist German companies at all stage of their corporate development.

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