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Report Publishers: Mariuca Georgescu, Diana Viola
Report Directors: Karen Xi, Carla Verdera Mateu
Report Coordinator: Matthew Fsadni
Senior Editor: Louis Haynes
Editor: Patrick Burton
Graphic Design: Miriam León

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South Africa is truly open for business and is a great place to work. We want to see international investors come and drive forward the economy together with South African companies and South Africans.

In the past, this economic growth did not bring job creation or transformation for South Africa. This is why, as a nation now, we are focused on inclusive growth and transformation through the reflection of the nation’s demographics in a more equitable participation, from the ownership, management and control perspectives. There is a strong recognition within the country that the voice of black business, as reflected in our participation at national conferences and events, must also be portrayed within international structures.

To reach this point, we must work in a collaborative and unified manner to lobby the government and the private sector to implement policies in order to see this transformation take place in the country. However, this transformation is not only about the CEOs and executive committees of leading companies but extending throughout the entire business value chain.

The Black Business Council is a critical organization, not only in South Africa as the voice of black business but also on the continent and even globally, through the role we play within the BRICS Business Council. Our dream is to have a transformed and inclusive economy, and this objective is a constant process that has been going on since the legacy of apartheid. If we are not happy with the status quo, we need to speak as one voice, and with this, we will bring South Africa into a new era, both from a societal and business perspective.

Kganki Matabane,
CEO, Black Business Council
Whilst South Africa is blessed with many mineral resources, the one which we do not have to any extent is oil and we have very little gas, unless the tight gas in the Karoo can be developed. An explanation for this situation is that to date very little comprehensive exploration has been done in the offshore blocks, originally for political reasons and more recently because of the low oil price and lack of certainty in policy for the sector.

With the rise in oil price and a new focus on policy issues, exploration should become more attractive. Many of the offshore blocks have been let so it will be interesting to see when the companies that have these blocks begin their exploration campaigns. Increased activity and hopefully some exciting discoveries will attract more interest in the opportunities in this sector in South Africa which will provide an excellent and well needed stimulus to the economy.

Although the natural gas resources in South Africa are not significant yet, SASOL has over time developed a gas network in the Gauteng region and down to the kwaZulu Natal coast using gas from their process at Secunda as well as gas from the Pande-Temane fields in Mozambique.

With this infrastructure in place, together with the recent major gas discoveries in northern Mozambique and the recognition of the need to move to a lower carbon energy sector, there is a growing interest in making natural gas a greater part of the South African energy mix. In the first instance this is likely to be by means of LNG imports.

Notwithstanding the lack of upstream activity, South Africa has an active oil refining and marketing sector which provides the fuel required to keep the country’s economy working. There are interesting changes taking place in this sector with old players moving out and new players moving in. Also, there is a strong drive to see more local player participation in the Industry and some level of transformation has taken place especially at the ownership level. Whilst this process has started, the Government is keen to see it extending further.

It is a pleasure to support this first edition of Inside Oil & Gas that focusses on South African oil and gas as it will provide information that will help to give more people an improved understanding of the opportunities in the oil and gas sector in South Africa.

We look forward to the increased interest and investment in this important sector.

B A Statham
Chairman, South African National Energy Association
South African Member Committee of the World Energy Council
JOIN THE CONVERSATION

South Africa

Additional full-feature interviews from our South Africa 2018 Report can be accessed on EnergyBoardroom, the premier website for C-Level executives, consultants and state actors in the oil and gas sector, alongside hundreds of exclusive interviews featuring the main movers and shakers of the industry, free country reports and sector insights supplemented by the latest news from global markets.

AMPLIFIED CONTENT

TOKOLOGO LEKGETHA
Co-Founder and Executive Director, Borutho Group, South Africa

DAVIDE ANDREANI
General Manager, Mammoet Southern Africa

KHWEZI TIYA
Head of Oil and Gas, Standard Bank South Africa

THABISO MAGEZA
Director, LNG Tech, South Africa

IN BRIEF

@SaldanhaBayIDZ
Thanks @EnergyBoardroom for the opportunity to share some of our achievements to date and visions for the future.

@energyboardroom
We are here to stay - Pierre-Yves Sachet, CEO of @TotalSAfrica @Total #transformation #oilandgas #southafrica #Africa #SA #downstream #upstream

@energyboardroom
#exclusive - Fundamentally, the country needs to progress to a situation where there is equality of all races and groups - @KgankiMatabane #CEO of @BlackBCouncil #SouthAfrica #transformation #Africa #EqualityForAll #equalitynow

@energyboardroom
If investors are looking for markets with high single digit returns, #Africa is going to be able to offer this to them well into the #future - Jurie Swart, #CEO of AlIM @OldMutualSA @OldMutualZW @OldMutualNam #SouthAfrica #infrastructure #energy #invest @InvestSAGauteng
Preface

South Africa has historically been one of Africa’s economic powerhouses, boasting abundant mineral resources, primarily coal, gold, platinum and manganese. With roaring growth rates of five to seven percent in the 2000s, South Africa was classed as one of the five major emerging ‘BRICS’ economies, along with Brazil, Russia, India and China in 2011. However, the aftereffects of the global financial crisis began to hit South Africa hard following the 2010 soccer World Cup, which was hosted in the country. Along with a spate of corruption scandals tainting then-President Jacob Zuma’s rule, the country saw a decline of economic fortunes, which continued well into 2017, including multiple sovereign ratings downgrades. The unemployment rate currently stands at 26.5 percent with GDP growth only recovering in Q4 2017 to reach 3.1 percent following the arrival of new president, Cyril Ramaphosa.

At the same time, the country must be understood against its larger context: the African continent. The final frontier for oil and gas, Africa holds eight percent of the world’s oil and gas reserves, most of which are vastly underexplored and underexploited. While West African countries like Nigeria have always dominated African oil and gas, in the past half-decade, East Africa has emerged as an unlikely petroleum power with a series of significant discoveries in Tanzania, Uganda and Mozambique. While the fall in oil price in 2015 has hurt investments globally – with Africa being significantly affected as a result of the higher extraction costs as companies have chosen to spend their limited capital in countries with proven resources and favorable fiscal terms – there remain attractive opportunities. New discoveries are mushrooming seemingly every other month.

This ‘black gold’ rush is ultimately spurred on by the inevitable realities of the continent’s energy demographics. BP Energy Outlook 2015 projects Africa’s energy needs to grow by 88 percent from now until 2035, eclipsing the global average of 37. Recent blips in South Africa’s growth aside, its positioning at the vanguard of the continent’s development has been built on its robust fundamentals of finance, human resources, legal and geographic strength. Now bolstered by the right leadership, and with the right energy policies hopefully to come, the outlook for South Africa will hopefully see an upward trajectory towards growth and prosperity.
SNAPSHOT IN FIGURES
Production, Consumption & Trade

TOTAL PETROLEUM AND OTHER LIQUIDS PRODUCTION AND CONSUMPTION (2016)

Source: EIA

TOTAL NATURAL GAS PRODUCTION AND CONSUMPTION (2016)

Source: EIA

SOUTH AFRICA’S CRUDE OIL IMPORTS BY COUNTRY OF ORIGIN (2016)

Total crude oil condensate imports were 416,000 barrels per day.

Source: EIA
SNAPSHOT IN FIGURES
Natural Endowments & Energy Mix

PETROLEUM EXPLORATION AND PRODUCTION ACTIVITIES IN SOUTH AFRICA

TOTAL PRIMARY ENERGY CONSUMPTION IN SOUTH AFRICA (2016)

Source: EIA

Oil 22%
Natural Gas 4%
Coal 70%
Nuclear 3%
Renewables <2%

Source: Petroleum Agency SA
While Africa accounted for only nine percent of world oil output and less than six percent of gas production in 2016 - a relatively small proportion of global hydrocarbons production - international oil and gas companies are investing exuberantly on huge projects on the continent in anticipation of major discoveries to be found in the ‘final frontiers.’ From the Cayara Offshore Profond exploration by BP and Kosmos in Senegal to the fantastic Zohr gas discovery in Egypt, held by ENI, BP and Rosneft, and the Coral South FLNG Project in the Rovuma Basin in Mozambique, billions of capex have been sunk into the continent over the past few years. There is even speculation that, driven primarily by huge gas reserves in Mozambique, Nigeria, Angola and Tanzania, Sub-Saharan Africa will outpace Russia as a global gas supplier by 2040 through an anticipated production of about 175 bcm/yr.

What makes the game even more interesting is its dynamism, with new stars jostling to steal the spotlight on a regular basis. Mozambique rose to prominence in 2012 when 85 tcf of natural gas was found in the Rovuma basin. In 2015, it was Kosmos Energy’s 15 tcf find in the Tortue field in offshore Mauritania and Senegal, and in December 2017, ExxonMobil’s oil find in Block EG-06 put Equatorial Guinea back on the map. Ophir Energy is expected to make a Final Investment Decision (FID) for its Fortuna FLNG project, this year, after securing Asian financing. Given the vastness of the continent, there are still ample opportunities for enterprising players.

However, even with oil price breaking past USD 60, African producers still have to operate with caution given that the break-even oil price for many African countries still lies uncomfortably beyond that, be it Ghana at USD 67, Equatorial Guinea at USD 76 or Nigeria at USD 80. In particular, this affects countries - primarily in East Africa - with fledging hydrocarbons industries. However, the final piece of the puzzle driving hydrocarbon activity is the huge demand forecasted for the so-called Dark Continent, with BP Energy Outlook 2035 projecting Africa’s energy demand to grow by 88 percent by 2035, far outstripping the global average of 37 percent.

At the southernmost tip of the continent lies South Africa, a country of huge unrealized - some might say missed - opportunities. With upstream activities having stalled since the proposed amendments to the Mineral and Petroleum Resources Development Act (MPRDA) in 2014 which scared investors off in part due to onerous free carry requirements and the suggestion that the Minister of Energy appropriate assets determined to be nationally strategic, the only production in the country comes from the state-owned PetroSA’s declining fields near Mossel Bay. Promises of the publication of a revised MPRDA have been floated over the past few years, but with a new government in place, industry is perhaps finally optimistic that normal activity can resume. This is most evident in the recent spate of newcomers to the country’s upstream sector, from Qatar Petroleum’s acquisition of a 25
percent stake in Total’s offshore Exploration Block 11/12B to regional player Africa Oil’s acquisition of a 25.2 percent equity interest in UK-based Impact Oil and Gas, which holds exploration assets in South Africa, to India’s last private oil producer, Vedanta Resources, having taken some exploration licenses off the west coast. If all the stars align, 2018 may well be the year a new dawn breaks on the South African upstream industry.

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**STRANDED GAS OPPORTUNITIES IN SUB-SAHARAN AFRICA, SASOL 2017**

(Number of stranded gas discoveries)

(SIZE INDICATES RELATIVE VOLUME)

Source: IHS

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Original page: page 10, www.energyboardroom.com

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South Africa Oil & Gas 2018 11
Niall Kramer, CEO of the South African Oil & Gas Alliance (SAOGA), shares his insights on the huge potential within the South African oil and gas industry and his fervent hope for the country to capitalize quickly on this opportunity.

**EBR:** What have been some of the major developments you can highlight in your past two years as CEO of the South African Oil & Gas Alliance (SAOGA)?

**NIAALL KRAMER (NK):** In the past few years, some things have changed in the South African energy sector – most crucially, the potential for LNG imports – yet in very important respects, absolutely nothing has changed because of policy gridlock. We are still in talks on talking about drafting policy for what is probably the biggest possible silver bullet for the South African economy in terms of growth, productivity and jobs. Economic growth has to exceed population growth to seriously start addressing employment needs. This means that South Africa needs six percent growth over 20-odd years to see the kind of job creation and national development it wants.

We will not have serious growth and especially industrial growth without stable, reliable and affordable energy. The Council for Scientific and Industrial Research (CSIR) released a recent analysis concluding that the most affordable option – and the option of least regret – is renewables mixed with gas. At some 63 cents per kilowatt hour (kwh), the price of renewables is highly compelling. Gas is added to address intermittency, which increases the price slightly.

**EBR:** On another note, South Africa – and in particular the Western Cape – has established a track record of acting as a maritime service hub for much of the continent’s oilfields. How has this sector weathered the drop in oil price?

**NK:** SAOGA was established initially to cater to the needs of the regional marine oil and gas service providers to develop opportunities and support local businesses. The drop in oil price negatively impacted this sector but today, it is at USD 63 and on an upward trend. This is a good price. Looking at the continental E&P map, some of the largest gas finds in history have occurred in Africa in countries like Tanzania and Mozambique. The West Coast has been active in oil production and East Africa’s hydrocarbons sector has recently begun blossoming as well, so we are very well-positioned to service rigs and provide services in both East and West Africa. Our nearest competitors, Canary Islands and Singapore, are around 20-30 days away.

However, without a local Gas to Power and E&P sector, our service providers are simply competing with each other for a declining market. We cannot sustain a service economy based on a declining base. South Africa correctly has the aspiration to become the OG service hub but we need to have our own industry as well and be exploring seriously in our own waters in order to sustainably grow our oil and gas industry.

**EBR:** Given the highly technical and technological demands of the oil and gas industry, is the South African workforce ready to accommodate the growth of a local E&P industry?

**NK:** This is a challenge that we need to address – and at SAOGA, we are already working on a few initiatives to map future skills needs and skills development programs.

South Africa has never had a local large upstream oil and gas industry so one of the biggest challenges is the
A culture of safety and compliance. For outsiders to the industry, the industry’s emphasis on safety may seem silly, for instance, when we talk about holding on to the handrails at all time. In an office environment, that level of strictness may seem redundant but oil rigs are potentially dangerous environments and serious accidents can result from accumulative mistakes and oversights. This needs to be developed. At our ports and facilities, we also need to develop more of a customer service orientation to attract more business.

In general, it also makes sense to develop transversal skills so that South Africans have the flexibility to work in multiple industries. An interesting proposition is that South Africa has a declining mining industry and a potential oil and gas industry in ascent. This gives us the opportunity to move highly-skilled people from one to the other, because there are transferrable lessons and skills. An industry-funded consortium of universities recently executed a project where South African mining equipment and skills were used to drill two-kilometer-deep test holes in the Karoo to see if elements like appetite for safety and ability to handle a high-stress work environment were transferrable. We were delighted that not a single incident occurred.

We need to develop the workforce that can handle the requirements of the global oil and gas industry in order to fully benefit from a local E&P boom.

**EBR:** At the same time, while the regulatory environment is still uncertain, what advice do you have for potential foreign investors looking at South Africa as well as your own members?

**NK:** Among other things, I think we need to work more extensively with our regional neighbors, not just those close to us like Mozambique or Angola, who already have a track record of operating in the hydrocarbons sector, but also countries further away like Egypt or Ghana that set great examples in terms of how to fast-track a robust national hydrocarbons industry. Egypt, for instance, has overcome its own period of socio-economic and political unrest to forge great relationships and trust with international investors, make significant onshore and offshore discoveries, and build an LNG industry within a very short period of time. Ghana has also discovered hydrocarbons, produced them and established significant LNG infrastructure in under a decade since their first discovery, as well as implemented a very disciplined regime of stashing their oil and gas gains into a sovereign wealth fund.

We should not be blinkered in the way we look at our neighbors. Mozambique is looking to have an onshore allocation of gas with the requirement for it to be used in the local economy. But their economy right now may be too small to accommodate that much gas, so there may be opportunities for bilateral agreements and development for us to bring that gas into South African, produce, say fertilizers, and export to the region.

The global industry is often siloed into upstream and downstream, but from a macroeconomic perspective, Africa has 1.2 billion people looking to rise out of poverty. That requires energy. Energy powers development. Africa as a continent has the upstream resources and downstream users that could exceed two billion by mid-century and be final consumers. We have the huge opportunity to boost regional trade and energy integration – and we need to have the enabling policies in our own country to capitalize on these huge opportunities.

“AFRICA AS A CONTINENT HAS THE UPSTREAM RESOURCES AND DOWNSTREAM USERS THAT COULD EXCEED TWO BILLION BY MID-CENTURY AND BE FINAL CONSUMERS. WE HAVE THE HUGE OPPORTUNITY TO BOOST REGIONAL TRADE AND ENERGY INTEGRATION – AND WE NEED TO HAVE THE ENABLING POLICIES IN OUR OWN COUNTRY TO CAPITALIZE ON THESE HUGE OPPORTUNITIES.”
Since 2004, South Africa has been importing practically all of its natural gas via a transmission pipeline from Sasol’s Pande and Temane gas fields in Mozambique. “The situation, as it is today, is that most of our power generation comes from hydroelectric at the Cahora Bassa Dam and the main off-taker is South Africa. We also possess fields in southern part of the country where operators have tended to struggle and again the main off-taker is a South African entity, IGAS. In that sense, a good chunk of our energy resources are already being placed in South Africa,” confides Omar Mithá, chairman and CEO of Mozambique’s National Hydrocarbons Company (ENH).

“We obviously recognize the relevance of South Africa and its excellent capacity to absorb Mozambique’s huge reserves, but we also have to be mindful of beneficiation of in-country monetization, and make sure our nation secures also benefits for itself and guarantees access to premium products within our country,” he stresses.

Mithá also points to the ongoing uncertainty around South Africa’s energy policy and the fact that there is still no real clear picture over whether the future direction will be gas, nuclear, renewables or even coal. “The appointment of Cyril Ramaphosa is obviously a good sign because he is manifestly pro-business, but there is still a long road to travel from words and speeches to action,” muses the ENH boss.

“Logically South Africa should be an enduring consumer of our energy, but it makes sense from our perspective to establish a diversified client base and we would be unwise to place all our eggs in the same basket, when the political winds can prove unpredictable... Our hope is actually to access premium LNG markets in the Far East by signing contracts with big-ticket importers such as Japan,” he contemplates.

Despite the obvious competition from LNG producers such as Australia, Qatar and increasingly the United States, Mozambique believes that its offering can be competitive.
“After all, importers like Japan are very concerned about security of supply and realize that it is in their own interest to spread risk across a variety of source countries so as to minimize any possibility of disruption to their supply chains. The sheer volume of reserves that we have at our disposal means we can be a reliable provider for upwards of 30 years from now,” notes Mithá.

Then there is the ongoing debate extending about whether or not it makes sense to extend South African pipeline connections north so as to tap into the Rovuma Basin. “ENH has conducted a conceptual project for a North-South pipeline, but the business worthiness of such a venture needs to be carefully calculated prior to investments being placed... The basic question remains: is it more economic to build a 6 million dollar pipeline for 2,500 kilometers or to invest in the purchase of LNG transport vehicles and rely upon South Africa building up its own regasification facilities. Pipelines take a long time to construct and there would likely be security issues to surmount all along the line. The advantage however is that we would be able to extend out such a project and establish a foothold right across the region with horizontal pipeline branches serving the mining industry in places like Zimbabwe and Zambia,” elaborates Mithá.

The LNG solution, meanwhile, would likely entail deploying small, specialized ships to sail around to a port like Cape Town. The benefits of a virtual supply chain like this are that it is easy to adjust them to shifts in the pattern of demand so you have an inherent flexibility advantage, and you can also command a higher price for LNG.

“ENH actually doesn’t have a particular preference between these competing models. An in-depth economic assessment needs to be conducted that weighs up the different trade offs. We are happy to pursue whichever pathway gains the greater traction,” declares the head of the NOC.

The dynamic between South Africa and Mozambique is also evolving as the latter becomes technologically astute. In the past South Africa has posed not just as an evermore thirsty consumer of natural gas, but equally as a strong service sector hub and support for the regional hydrocarbons industry as seen from the proliferation of South African service providers delivering operational support in the southern parts of Mozambique.

“The South Africans are significantly more developed than us when it comes to engineering, construction and auxiliary support functions such as logistics or catering so it is natural that you will often see them taking the lead. When it comes to expertise in LNG, however, they have little track record or historical basis. This means that we have to look further afield when we’re looking for technology transfer and sharing of know-how,” reasons Mithá. “If we are going to really make a success of LNG then we are going to have to look beyond the region and start engaging international enterprises from around the world... Already we are taking Decisive steps to cultivate homegrown expertise in LNG by sending Mozambican nationals to the sorts of places where LNG technology is being innovated such as Australia and Indonesia. We seek to train up a cadre of young experts who can ultimately come back home and pioneer the industry in Mozambique and beyond.”

“The South Africans are significantly more developed than us when it comes to engineering, construction and auxiliary support, so it is natural that you will often see them taking the lead. When it comes to expertise in LNG, however, they have little track record or historical basis.”

― Omar Mithá  ENH
The E&P demand in Africa is growing, with traditional nations still staying strong, but equally an influx of new players onto the market. Where do you see demand coming from in the future?

CLAIRES LAWRIE (CL): Africa is resource rich and a net exporter of both oil and gas globally and this is set to continue. E&P demand within Africa will depend on rates of urbanisation, car ownership and industrialisation. Africa is on a trajectory of urbanisation and expected to have many megacities such as Cairo, Lagos, Kinshasa, Johannesburg, Luanda and Dar es Salaam.

For oil, growth is likely to come from developments in Nigeria, Angola and Ghana. New developments for future growth is expected to come from East Africa, such as Kenya. Gas is a major opportunity in Africa. The demand for gas continues to grow, especially in larger economies such as South Africa and Nigeria. In the near term, plans for gas production are from Ghana, Nigeria and Angola. For longer term, Mozambique and Tanzania are expected to grow. However, the gas market will need to overcome infrastructure challenges such as for pipelines and gas processing plants to capture this opportunity.

E&P deals are happening across several countries rather than being concentrated on just one or two countries.

EBR: What opportunities are there specifically in South Africa?

CL: South Africa’s main sources of energy are imported, and the country’s energy mix is going through a transition. South Africa has historically been coal-dominated to produce electricity and synthetic fuel for the country. The country is rebalancing the energy mix to increase the share of petroleum, renewables and natural gas. South Africa is promoting private sector investment such as investment in renewables and electricity generation. There are plans for increasing the importation of liquefied natural gas (LNG). There is opportunity for the exploration of offshore gas and onshore shale gas.
Africa is going to be an important component of the global gas industry of the future,” says David Carroll, president of the International Gas Union (IGU), the association which advocates for natural gas as an integral part of a sustainable global energy system and promotes the political, technical and economic progress of the gas industry. Carroll’s assertion is backed up by statistics: Africa holds 7.6 percent of the world’s proven gas reserves and accounts for 13.1 percent of global liquefied natural gas (LNG) exports as well as 6.2 percent of gas pipeline exports according to a November 2017 PwC report.

Carroll is keen to talk up the benefits of greater utilization of gas, especially in developing countries such as those in Africa, where, “with economies growing, populations moving to cities and energy demands rising, natural gas is going to be a major growth story.” Additionally, he feels that gas is a more multifaceted energy source than the alternatives, pointing to the fact that “gas has multiple roles as a fuel. It generates power, but it is also a feedstock for chemicals and a direct feeding source for homes and businesses.” Moreover, “gas is cleaner than coal, diesel and oil and is therefore an ideal component to complement the increasing growth of renewables,” he notes. Carroll concludes, “we believe that natural gas is not just a transition fuel, but a critical element of today’s and tomorrow’s energy mix.”

PwC’s oil and gas industry lead for South Africa, Chris Bredenhann, describes how the major energy companies are positioning themselves to capitalize on the gas opportunities in Africa. He posits that, “Statoil, ENI and ExxonMobil are all looking at gas plays up the East Coast of Africa in line with the global trend of majors focusing more on gas as part of a longer-term transition to a lower carbon environment. BP and Shell are the notable players already acting to rebalance their portfolio more into gas, for instance, BP with their operations in Egypt and their purchase of LNG in Mozambique, and Shell through their 2016 acquisition of BG Group.”

However, the IGU’s Carroll cautions, “I firmly believe that Africa offers a great opportunity in terms of gas; though to be considered a true success story, countries must be more than just exporters, but users. This will lead to an improved quality of life and economic enhancement.” Speaking about South Africa in particular, PwC’s Bredenhann feels that “there is certainly demand for natural gas here, based on a couple of different factors: gas-to-power initiatives, substitution of coal-fired power and other sources, the anticipated price trajectory for electricity, and the expected economic growth South Africa will see in the future.”

Gas has multiple roles as a fuel. It generates power, but it is also a feedstock for chemicals and a direct feeding source for homes and businesses — David Carroll, IGU

Despite this foundation, Bredenhann warns that “there is a chicken-and-egg situation where suppliers say they will invest in gas if there is a demand, and the market says they will buy it if supply can be guaranteed.” Bredenhann therefore calls for greater interventionism from the state on this issue, declaring that “this is where the government needs to play a stronger role in terms of providing the enabling environment as the gas market will probably need to be kickstarted with LNG imports until gas is found in South Africa.”
Africa’s rise in global importance has been a rapid and steep learning curve. Marc Roussel, president of government services and international trade as well as senior vice-president of Africa at Bureau Veritas, highlights how they are ensuring Africa adheres to global industry standards along each step of the value chain.

**EBR:** What percentage of the company’s operations are related to oil and gas?

**MARC ROUSSEL (MR):** In Africa it is around one third of our operations, and there are expansion opportunities related to this segment. For some countries the demand is based in exploration services such as Senegal, while in others that are at a latter stage, such as Mozambique, the services shift. Within other nations such as Uganda which is slowly developing, our first movement was to assist in training and overall, we are preparing them for when the market surge takes place.

**EBR:** What are the scope of services you offer in oil and gas sector?

**MR:** Bureau Veritas has a worldwide network, so from the very beginning of any project we are able to perform design review studies using one of our technical centers around the globe. These sites, be it in Houston, Aberdeen or Abu Dhabi, have expertise in specific areas, such as deep or shallow water, while at the same time we provide environmental and social impact assessments. Furthermore, we assist in applying the applicable laws and regulations as well as accompanying our clients in the quality strategy of the project, which could impact the results and/or costs of the project.

**EBR:** How conscious is Africa of environmental concerns?

**MR:** The consciousness is quite high now, and more people are aware of the HSE (health, safety and environment) impact through conducted studies. For new countries in sectors, such as oil and gas, we are active in explaining the complexity of the systems and demonstrating to them where strict rules apply as they do not understand them fully yet. We participate along with the rest of the industry to train and inform the government and workers about legal and technical framework, as at times the awareness of the regulations importance does not exist.

**EBR:** How does big-data and digitalization effect the way you operate?

**MR:** Digitalization for all of us is three-fold. Firstly, like any company in the world, we are implanting the benefits of digital technologies to improve our existing operations to be more efficient.

The second aspect is related to existing services and we are delivering digital tools to help in these areas. For example, for inspections we use web portals and other tools to make it easier for our customers to navigate reports and point out discrepancies. This has been an excellent help recently to attract projects in Angola.

Thirdly, brand new business. Digitalization comes with its own issues of certification and we have a growing demand worldwide for certification in terms of cyber security, data privacy and block-chain technology.
EBR: Tanya, you were appointed in January 2017 to lead BUSA based on your excellent track record in advocating for the business community on policy matters. What mandate were you tasked with?

TANYA COHEN (TC): The first thing I embarked upon was to review and subsequently restate our strategic priorities as an apex organization representing organized business in South Africa.

At the beginning of my term in office, I dedicated a significant amount of time with our members in order to understand their priorities and better define BUSA’s value proposition. As a result, we identified ten key strategic drivers – chief among which was economic transformation as a key intervention to grow the economy inclusively, create jobs, and develop society. This was the theme that emerged consistently through my discussions with all our members. Examples of other strategic drivers are: a predictable, certain and enabling regulatory environment; affordable, reliable and sustainable energy to meet current and future needs; a productive and stable labour market; education and skills development for current and future work; and a trade regime and international cooperation that enables South African business.

BUSA’s role as the apex body is to identify and address the common cross-cutting concerns of our members and partners – on issues like the sovereign ratings downgrade and government budget spending – that form the basis for common action. BUSA acts as a voice of reason within the national discourse.

EBR: South Africa seems to be experiencing a period of flux and uncertainty. How would you characterize the current business atmosphere?

TC: Honestly speaking, business confidence levels are very low at the moment. In a recently released business confidence index by the South African Chamber of Commerce and Industry (SACCI), the finding was that it was at the lowest level in 32 years! There has been a large amount of political uncertainty in recent times, which leads to regulatory and economic uncertainty.

At the same time, there is sometimes a historical suspicion of business from the public sector in terms of whether industry is genuinely contributing to South Africa’s economy. However, South African business has built remarkable capabilities in looking at models of shared value contributing to national objectives rather than purely capitalist, inward-looking, pure profit-making models, which has increased the government’s receptiveness to business.

With all that being said, South Africans are often extremely self-critical. Our confidence levels are often lower than our true circumstances – and it happens that when foreign investors look at South Africa, they see more opportunities here than we do ourselves! After all, we are one of the largest economic powers on the continent and the world is generally experiencing instability and change.
NEW-MULTI PRODUCT PIPELINE
Supplying the nation

PIPIN’ IT!

Despite the NMPP investment being seen as a large step in the right direction, some stakeholders are sceptical about the process. Johan De Vos, CEO of Gigajoule, a key player in the pipeline industry, asks an important question “Are SOEs the right vehicles to build pipelines? Transnet completed the New Multi-Product Pipeline (NMPP) linking Durban to Gauteng. The initial budget was ZAR 12.7 million, but the final cost was north of ZAR 30 million - substantially more expensive. In fact, at that time, we were involved in the design of a competing pipeline linking Maputo to Gauteng, which was halted due to the overdesign of the Transnet pipeline and the fact that the energy regulator allowed Transnet to cross-subsidize the new pipeline with revenues from the other Transnet pipelines.”

Nevertheless, despite some objections, the NMPP has companies clambering to be part of Durban’s Island View Precinct (IVP) and add to the site’s current 15 tenants, which includes global powerhouses Engen, Shell and Total. Along with these players, Transnet National Ports Authority (TNPA) CEO, Shulami Qalinge, is aiming to facilitate greater participation in the terminal, and is putting together a TNPA strategy that “will also allow us to allocate capacity to new entrants and to introduce an operating model that ensures equal access. This will enhance the security of supply,” Qalinge said.

These new entrants will have to meet strict conditions, such as Level 4 B Broad-Based Black Economic Empowerment (BBEE), and TNPA will seek 51 percent black ownership in the Terminal Operator company. Qalinge understands that “the execution of the IVP strategy is a complex process given national imperatives”, though urges “the industry to embrace the IVP outcomes and to work with us to effect a smooth transition.” With the space at the terminal already at a premium with already 15 companies and 656 storage tanks at the IVP, the next question that has many companies scratching their head is: where will the new tenants go?

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**TNPA GROWTH FORECAST FOR THE DURBAN IVP-LIQUID BULK SECTOR**

<table>
<thead>
<tr>
<th>Year</th>
<th>Liquid Bulk (Cubic Metres, in Millions)</th>
</tr>
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<tbody>
<tr>
<td>2011/12</td>
<td>21,5m</td>
</tr>
<tr>
<td>2018/19</td>
<td>29,0m</td>
</tr>
<tr>
<td>2021/22</td>
<td>30,9m</td>
</tr>
<tr>
<td>2023/24</td>
<td>38,5m</td>
</tr>
<tr>
<td>2031/32</td>
<td>48,3m</td>
</tr>
</tbody>
</table>

The remainder liquid bulk is delivered through crude imports via the Single Buoy Mooring (SBM).

Source: pccsa.org.za
Of the 15 tenants at the terminal, none is more noticeable than Total. The French company’s Island View terminal plant was established in 1957, three years after they commenced South African operations.

Their site consists of an 80 000 m³ storage capacity for Diesel 50ppm and ULP 95, with supply being distributed by pipeline, road and train. Additionally, the location distributes ULP95, LRP95 (MMT blended ULP95), DSL500 and DSL50. On top of this, the Durban site is home to Total’s Lubricant Manufacturing Plant, which manufactures, stores and distributes lubricating oil and related products for South Africa and the region.

All these moves, coupled with Total’s 26 percent share in the Sasolburg refinery, NATREF and the E&P project in block 11b, shows, in the words of Pierre-Yves Sachet, the country CEO and executive VP of Southern Africa, that “Total is here to stay.”

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**TOTAL**

THE NMPP REPLACED THE 12-INCH-DIAMETER DURBAN-JOHANNESBURG PIPELINE (DJP), WHICH WAS OPERATIONAL BETWEEN 1965 AND MARCH 2018 (53 YEARS)

12000
THE NUMBER OF JOBS CREATED DURING CONSTRUCTION

555 km
LENGTH OF THE TRUNK LINE FROM DURBAN TO GAUTENG, WITH THE ENTIRE PIPELINE COVERING 715 KM

3 million
VOLUME OF LITRES TO BE PUMPED PER HOUR ONCE COMPLETE

95
THE NUMBER OF WETLANDS THE NMPP CUTS THROUGH

1.5 km
DEPTH OF DISTANCE DRILLED UNDER A BUSY GAUTENG

49
THE NUMBER OF MAIN RIVERS THE NMPP CROSSES

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**TPL INFRASTRUCTURE TO SERVICE MARKET: PETROLEUM PIPELINE AND GAS SYSTEMS**

Source: Transnet

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www.energyboardroom.com
South Africa is a continental economic powerhouse. With its ascension to the BRICS ranks in 2011, the country seemed poised to enter the spectrum of developed countries, however, was severely affected by the 2008 global financial crisis. This has had some long-lasting effects, and currently the nation’s unemployment rate stands at 26.5 percent, while the GDP growth has largely stagnated in 2017 at 0.8 percent, with a modest increase to 1.6 percent projected in 2018.

Nevertheless, 2018 is certainly shaping up to be a new era of transformation for the country. The election of a fresh president, Cyril Ramaphosa, has brought newfound enthusiasm as he spearheads a series of modest but welcome changes, with observers cautiously optimistic about the future trajectory of the country, both from a business and social perspective. The Cabinet reshuffle announced on the 26th of February marks a significant step towards restoring business confidence both nationally and internationally, with many calling it “Ramaphoria”. The president, himeslef, highlights that the new ‘transitional’ Cabinet “reflects the requirement to balance continuity and stability with the need for renewal, economic recovery and accelerated transformation.”
**TIME TO BE AN EXPLORER?**

The African continent contains around eight percent of the world’s oil and gas reserves. While West African countries like Nigeria and Angola have always dominated African oil and gas in the past, East Africa has emerged as an unlikely energy power with a series of significant discoveries in Tanzania, Uganda and Mozambique. While the fall in oil price in 2015 has hurt investments globally – with Africa being significantly affected as a result of the higher extraction costs as companies have chosen to spend their limited capital in countries with proven resources and favorable fiscal terms – there remain attractive opportunities to exploit on the continent. Part of this derives from Africa’s own growing demand, with Africa’s energy demand projected to grow by 88 percent between today and 2035, higher than the global average of 37 percent, according to BP Energy Outlook 2015.

With the global oil price recovering slowly but surely, South Africa has huge upstream potential as one of the last few unexplored ‘frontiers’ on the continent, which has seen an explosive boom in upstream oil and gas development over the past decade, as well as ample opportunities to leverage on its strong infrastructure and expertise to position itself as a service hub catering to the full industry value chain. A big part of President Ramaphosa’s economic shift centers around the finalization of the 2014 amendments to the Mineral and Petroleum Resources Development Act (MPRDA), and the release of the final Integrated Resource Plan (IRP), both of which are required to provide clarity on the country’s energy priorities and regulatory certainty for domestic and international investors, especially within the space of exploration and production (E&P).

In September 2017, PetroSA’s chief geophysicist Peter Dekker displayed great optimism, highlighting that South Africa was bringing “new ideas in old exploration areas”, and the technical potential was there, with investors merely waiting for a positive regulatory environment. He highlighted four new plays in the Bredasdorp basin in the Southern Cape, as well as another look at the Orange basin’s deep-water environment, where 3D data has been acquired for the first time.

However, thus far none of these plans have come to fruition, with the only existing commercial production coming from the national oil company (NOC) PetroSA’s block in the Bredasdorp Basin. Discoveries have been made off the west coast in the Pletmos and Orange Basin, but none of the fields have generated any notable results. To add to the nation’s underutilized exploration capacity, in October 2017, the farmers’ and environmental lobby successfully won a court order revoking fracking regulations, dealing a blow

**SHAKING THINGS UP**

The governmental shift brings a breath of fresh air to the energy sector as well, with veteran politician Jeff Radebe having been appointed Minister of Energy. Radebe is South Africa’s longest continuously serving Cabinet member, having been part of every national administration since 1994 and under every post-apartheid President. What this means for the energy sector is still unclear given his lack of industry knowledge, but his longstanding Ministerial expertise, having held the portfolios of Planning, Monitoring and Evaluation, Justice and Constitutional Development, Transport and Public Enterprises, should place him in good stead to revamp the Energy portfolio, which has languished through a few years of stagnation.

Thus far, he has already pushed through round-four of the country’s Renewable Energies Independent Power Producers Program (REIPP), after two years of stagnation. This deal is worth 4.55 billion USD and offers huge potential of not only shifting the energy mix, but privatizing the energy supply. “Introducing renewables into South Africa is clearly the right thing to do: our country has an international obligation to reduce carbon emissions,” he proclaims.

The halting of the program was due to former president Jacob Zuma opting towards nuclear energy, and Eskom, South Africa’s power utility entity, not signing the REIPP agreement due to pressure being applied by the National Union of Metalworkers of South Africa (NUMSA), which controls the strong coal industry that accounts for 90 percent of South Africa’s energy supply. Nevertheless, the program has been welcomed by many in the industry and according to Radebe has the potential of stimulating other areas of the market and creating “roughly 58,000 jobs”.

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**JEFF RADEBE**

minister of energy

**CYRIL RAMAPHOSA**

president of South Africa

**KHWEZI TIYA**

head of oil and gas, Standard Bank South Africa

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www.energyboardroom.com
Khwezi Tiya, head of oil and gas of Standard Bank South Africa wants to see greater E&P, though understands it “is not a small decision and can cost hundreds of millions of dollars, so firstly companies must have some certainty before making this decision. Finalizing the MRPDA policy is more of a process issue than a legislative one and it has the potential to initiate a boom of E&P activity. If major investments, and discoveries are made in oil and gas over the next ten years, the South African position shifts completely as the economy will be impacted by a completely new sector, and this will add momentum to other industries.

Niall Kramer, CEO of the South African Oil & Gas Alliance (SAOGA), perhaps the country’s strongest proponent of E&P, believes that despite the current MRPDA being a stumbling block, the expected amendments will “provide the commercial attractiveness and stability for international investors. We also need policy certainty and harmonization around the plethora of related regulations from pricing, the National Energy Regulator of South Africa (NERSA), the Gas Act, gas-to-power, the legislation under which the Transnet National Ports Authority (TNPA) operates, and so on.” He goes on to exclaim that, “the country has been sitting for a while now on the cusp of what is probably its largest economic opportunity at the moment. Southern Africa is possibly the last large unexplored frontier on the African continent. The rest of Africa has more or less been actively explored. This is a huge opportunity – and we need to be ready for it so that the local communities are able to actively participate. I do not want to spend another five years just talking about this potential.”

“THE COUNTRY HAS BEEN SITTING FOR A WHILE NOW ON THE CUSP OF WHAT IS PROBABLY ITS LARGEST ECONOMIC OPPORTUNITY AT THE MOMENT”

For Kramer, the choice is clear: “South Africa has the opportunity to learn from the lessons of both Norway and...
Africa potentially offers significant returns. Companies are looking at recent discoveries in Tanzania and Mozambique and extrapolating those finds to South Africa’s potential.”

Another optimistic executive is Lindiwe Mekwe, the acting CEO for the country’s E&P regulator, Petroleum Agency South Africa (PASA). She is very excited to promote the country’s upstream potential under regulatory framework changes and believes that South Africa offers a veritable bonanza of opportunities for E&P players. “The major exploration opportunities offshore lie in the deep to ultra-deep water. While much of our acreage in these areas is already under license, opportunities for partnerships and risk sharing with the companies already in place are numerous. The deep and ultra-deep water off our west and south coasts is completely unexplored and, in our opinion, hold great potential,” she asserts.”

Venezuela. Oil and gas can be a silver bullet for the South African economy. We simply cannot afford to miss it.”

Chris Bredenhann, Director, at PwC South Africa, also has a similar viewpoint, and “despite the fact that this MPRDA issue has yet to be resolved, we have already seen a resurgent interest in South Africa from global players like ENI, Total and Statoil. I suspect there are a few factors contributing to this. First and foremost, with oil prices having increased to nearly USD 70, upstream investment is returning globally”. What cannot be overlooked is the sense that “despite being a frontier market, South

**FLYING HIGH**

*South Africa’s service prowess is well respected across the continent. Dimmie de Milander, commercial director for Starlite Aviation Group, explains how they position themselves*

**DIMMIE DE MILANDER**
—
commercial director, Starlite Aviation

**How does Starlite Aviation compete effectively?**
Establishing a helicopter base in the desert at Terrace Bay in the north of Namibia to support Repsol’s drilling operations there really encapsulates Starlite’s value proposition: our ability to execute and complete difficult projects successfully with no downtime or delays for our clients over very long supply lines – critical in Africa. The local knowledge of physically operating in the harsh conditions of various countries in Africa, in terms of both aircraft and crew, is of paramount importance. Companies face such harsh operating environments here, be it in Namibia, Mozambique or off the south coast of South Africa and they need to be prepared

The local knowledge of physically operating in the harsh conditions of various countries in Africa, in terms of both aircraft and crew, is of paramount importance. Companies face such harsh operating environments here, be it in Namibia, Mozambique or off the south coast of South Africa and they need to be prepared. We have intimate knowledge of local African civil aviation organizations, which is fundamental to the success of any offshore projects. Our extremely well-developed network of officials and relationships with local civil aviation organizations help our clients navigate the local landscape.

**How would you like the South African brand to be seen abroad?**
South Africans are able to work, execute and deliver successfully under difficult conditions. Faced with challenging, even impossible circumstances, South Africans will make a plan – and carry the job through to the end.
Additionally, for those with more modest risk appetites, she suggests “opportunities in the development of already discovered reserves in the shallower water.” She also highlights potential positive finds through onshore exploration in coalbed methane and shale gas potential in Karoo Basin, which has been put on hold due to environmental concerns of fracking. Her final message towards potential suitors – “South Africa is ready for investors so interested parties should come! We are a stable country with a long track record of strong institutions, and there are great opportunities here: onshore, shale, and offshore. Come and invest! South Africa is ready.”

One company leading the pack in this E&P charge is French giant, Total, which first attempted to explore in 2014, though was not prepared for the treacherous oceans off the South African coastline. Now, it plans to bring a rig from the North Sea in Norway and recommence operations at the end of 2018. Many in the industry believe this could be the E&P catalyst the nation has been waiting for.

The Port of Cape Town, boasting the largest drydock in Africa, has traditionally been the largest beneficiary of this economic activity. In 2015, the maritime oil and gas industry – rig repair, ship repair and vessel fabrication – was estimated to sustain 7,120 direct jobs, 6,120 indirect jobs, adding R1.5 billion to the economy. Services available in Cape Town span fabrication, construction, FEED to installation and commissioning, for a full range of equipment and drydock facilities, to the provision of floating/sub-sea/mooring systems, topside modules, sub-sea pipelines, and so on, in addition to umbrella E&P services.

As a result of its strategic location at the southernmost tip of the African continent, halfway between East and West, South Africa - and in particular Cape Town - has served as a maritime hub for centuries. In 2016, 5.8 million bpd of petroleum transited through the Cape of Good Hope, representing the third-largest maritime route.

As a result, Provincial Minister of the Western Cape Government MEC Alan Winde shares, “we also take a proactive approach in certain areas that we have identified as having huge growth potential if they are unblocked, under what we call Project Khulisa (‘cause to grow’ in isiXhosa). The three areas are tourism, agri-processing and oil and gas.”

“Five years ago, we announced our vision to leverage on the Western Cape’s strategic position along global

Our objective is promote South Africa’s maritime interests and development, as well as positioning the country as an international maritime hub, while ensuring maritime safety, health and environmental protection.

www.samsa.org.za
Chairman’s Message

Transformation has always been a business imperative for Shell. It is key to addressing the social inequality that exists in our country and for this reason, it sits at the heart of our business.

Consequently, we’re passionate about community projects that are focused on three key societal issues – high levels of unemployment, poverty and inequality. We believe that education is key to addressing these problems, which is why over half of our total community investment goes towards education initiatives.

Likewise, we understand that in order for an economy to grow it has to integrate all of its citizens in a meaningful way. Managing our impact on people is essential to being a responsible company. We do this in many ways: by creating jobs, encouraging local businesses to be part of our supply chain and providing useful skills training.

We are aware, however, that “True transformation requires the commitment of all South Africans”

Shell asks you to join us in building a country that fuels a nation of equal opportunity, enabling each individual in our country to achieve their full potential.

Hloniphizwe Mtolo
Chairman, Shell South Africa

FROM STATION TO NATION
Powering SA’s Progress Through Transformation

Shell’s Transformation Journey
From simple stations to our great nation, Shell is, and has always been, truly committed to powering sustainable progress.

In 1991 Shell launched the Mount Fleur Program with the aim of creating a set of scenarios to map out how South Africa might develop post-apartheid.

From 1995 through to 1998, Shell established an equity partnership with Thebe Investment Corporation which, in 2008 saw Thebe’s participation extending to Shell’s entire value chain.

Shell is the first oil company to achieve and maintain a level 1 BBBEE status through our continued focus on transformation.

Since 2009, Shell’s Education programs focus on building educator and learner capacity in Science, Technology, Engineering and Mathematics. For the past 7 years Shell has also hosted and sponsored a literacy program called Rally to Read which has benefited over 43 000 learners.

In 2011, Shell’s flagship education program, Rally to Numeracy was introduced. The program helped to increase educator understanding and teaching of the Mathematics syllabus and in turn improved the numeracy levels.

Shell Livewire Programme ensures small businesses flourish

The Shell Livewire Programme, started in 1995, aims to combat high levels of youth unemployment and develop entrepreneurs. This initiative supports historically disadvantaged individuals, who have business drive and a resilient character.

Rally to Numeracy helps learners embrace Maths

Since 2011, Shell, in partnership with The Maths Centre, has offered a flagship educational initiative focused on improving Mathematics skills. The Rally to Numeracy programme is aimed at helping educators to enhance their understanding and teaching of the country’s Maths syllabus, which over 50 primary schools from disadvantaged areas across South Africa have benefited from. These initiatives demonstrate Shell’s commitment to true transformation. The company remains passionate about uplifting the communities within which it operates by focusing on initiatives that address poverty, unemployment and inequality.
companies constructing buildings and facilities in SBIDZ.”

This activity has long fostered a vibrant ecosystem of service providers of all stripes with pockets of deep specialities and Western Cape companies servicing not only South Africa but the continent’s oil and gas needs.

Adrian Meerburg, managing director of Fairbrother Geotechnical, shares, “I can comfortably say we have drilled most of the large ports in South Africa, from Saldanha, where we provided extensive geotechnical services for the upgrading of the iron ore terminal, the largest iron ore export facility in Africa; the drilling investigations for the upgrade of Cape Town Container Terminal; Port of Durban, Port Elizabeth Harbour as well as the initial drilling for the Port of Ngqura at Coega, including the upgrades 10 years later.”

Furthermore, he adds, “we have also expanded our marine drilling services to Southern Africa and have completed a number of marine drilling investigation projects in Namibia, Angola and Mozambique. We are currently busy with a marine drilling investigation on Lake Malawi and in the past year, have had enquiries for work in Gabon, the Comoros and Madagascar.”

The sector champion is undoubtedly Atlantis Corporation, whose flagship projects include FerroMarine Africa (FMA), a multidisciplinary fabrication and logistics facility located in Saldanha Bay (120 kilometers north of Cape Town) covering an area of 220,000 square meters, with its own quayside providing access to the open sea; and FerroMarine Cape (FMC), a world-class dedicated repair and upgrade service hub for the offshore oil and gas industry, located on 50,000 square meters of land adjoining the A-Berth quay with comprehensive facilities and infrastructure.”

While the oil price crisis has hit many service providers, both globally and in South Africa hard, Brian Blackbeard, industry veteran, is steadfast in his commitment to the sector. “As a company, we have remained invested in the
LPG IMPORTS: THE TIME IS NOW!

Despite South Africa’s refinery output being an integral part of Southern Africa’s demands, many are questioning their efficiency, and plans to construct a new site have been ongoing for the last decade. Benoit Araman, managing director of Oryx Oil South Africa, a leading LPG player, believes this “year on year downward trend of local LPG production and refineries capacity needs to be addressed. Because of the age of these installations and irrespective of the relevant scheduled maintenance program, refineries are facing incidents on regular occasions. This causes a significant number of unplanned shutdowns therefore impacting the ability to supply. This is definitely a huge concern due to the fact that import infrastructures are not fully developed yet.

Araman believe that the market will witness a lot more products being displaced towards imports, which is not uncommon. For example, if you look at Morocco, an LPG market of 2.5 million-tons per year, it is based on 100 percent imports. I see this import-based LPG system coming to South Africa. It is a logical solution and is what the industry needs. South Africa has a perfect strategic location between the Indian and Atlantic Oceans and it is possible to provide LPG throughout the country by marking import ports along the two coastlines.”

This has already commenced with the Saldanha Bay Terminals supplying the Western Cape, Northern Cape and section of the Eastern Cape. Though Araman believes for LPG “more needs to be done to supply the regions of KwaZulu Natal, Gauteng, Limpopo, Mpumalanga, North and Central areas as these are the areas of highest demand for energy.

GASIFICATION: RESHAPING THE ENERGY MIX

Despite South Africa’s lack of significant hydrocarbon production, over the border in Mozambique a 75 trillion cubic feet (tcf) natural gas discovery was made in recent years—of the nine largest African discoveries in H1 2016 were gas, with Africa as a continent having a proven natural gas reserve of 502 tcf - with 90 percent of the continent’s annual natural gas production coming from Nigeria, Libya, Algeria and Egypt.

To facilitate this gas resource, under the Independent Power Producers (IPP) Office, South Africa has established a new natural gas plan that includes constructing several natural gas-fired power plants and at least two liquefied natural gas (LNG) regasification terminals by 2025, while in the meantime the Department of Energy has also identified Richards Bay and Port Coega as the locations for the first LNG imports through floating terminals. Additionally, they have positioned a liquefied petroleum gas (LPG) import terminal in Saldanha Bay, as well as planning sites in Richards Bay and another in the Eastern Cape.
Due to low oil prices, key industry players have advocated for South Africa to take advantage of this and start developing the necessary infrastructure to enable the country’s transition from coal-fired power generation to a gas economy. Dave Wright, executive director of the South African National Energy Association (SANEA), points out that “most of the Eskom coal generation fleet is due for retirement from around 2022. Now, this aligns very well with the lead time required for LNG infrastructure to be developed. With gas prices being so low now, it is the perfect opportunity to do this. I think there has been a poorly made assumption that we will receive access to Mozambique gas, but this is not a given as operators in the Rovuma Basin are naturally looking to find the best markets to send the gas to.”

Niall Kramer, CEO, South African Oil & Gas Alliance (SAOGA), is adamant. “We absolutely have to establish a gas economy. As an indication, below three percent of our total energy mix is gas, compared to the world average of 20 to 25 percent. The timing also could not be more fortuitous. Now is when South Africa should be executing the deals to bring LNG into the country.”

Chris Bredenhann, energy lead at PwC South Africa, concurs on the sagacity of the nation’s gas moves, “PwC recently completed a study on the demand for natural gas and our conclusion is that there is certainly demand for it based on a couple of different factors: gas-to-power initiatives, substitution of coal-fired power and other sources, the anticipated price trajectory for electricity, and the expected economic growth South Africa will see in the future.” Bredenhann sees the problem as “a chicken-and-egg situation where suppliers say they will invest in gas if there is a demand, and the market says they will buy it if supply can be guaranteed. This is where the government needs to play a strong role in terms of providing the enabling environment, as the gas market would probably need to be kickstarted with LNG imports until gas is found in the country. The government should invest in the infrastructure and regulatory framework that would foster a more attractive environment for the creation of a gas market in South Africa.”

In the meantime, liquefied petroleum gas (LPG) could act as a bridge. As Kevin Robertsen, CEO of the LPG Safety Association of South Africa, exhorts, “there is absolutely a huge amount of potential here! Current per capita consumption of LPG is approximately six kilograms, which is a tiny fraction of Morocco’s 68 kilograms, for instance. We are starting from such a low base that there is huge growth potential. It is also critical to note that increased usage of LPG as will see an increase in demand for cylinders, appliances and equipment, a more diverse
distribution network and a greater demand for the installation of appliances – all of which will inevitably lead to employment opportunities of a large scale. South Africa has a significant rural community and the logistics of building power networks can be challenging and costly. Therefore, the transportability and versatility of LPG as makes it a viable energy source. The bottleneck has been the limited supply of LPG up until very recently in South Africa, particularly during the winter period.”

With the shift of the country’s energy mix towards gas, an abundance of opportunities opens up along the entire value chain. A shining example of this is CNG Holdings, a company founded in 2009 after Steven Rothman, CEO, saw that “international governments and corporations had a substantial need for alternative and renewable energy sources.” The company thus far has grown its compressed natural gas (CNG) footprint, and in 2014 built the company’s “first flagship filling station in Langlaagte, Johannesburg. To date, we have helped finance over 1000 taxi conversions to run on CNG, looking to capitalize on the nation’s 285,000 taxis operating nationally”. Additionally, they are supplying to the local bus network and ten Gauteng hospitals.

The only issue for future gas expansion is supply. “Sasol controls the supply of gas, and a large portion of natural gas is used for their own production, such as from gas into liquids. Sasol is not selling gas directly to new businesses reselling gas...it makes it difficult for smaller companies to compete,” indicates Rothman. As a result, CNG Holdings, is looking for alternate supplies of gas through sister company, LNG Tech, which is headed by Thabiso Mageza. He acknowledges that “South African market currently requires approximately 200 million gigajoules of gas per annum. In Sasol’s case, they would rather allocate the extra gas for their own use, rather than supply new customers. This is because their main line of business is coal and gas to liquid, and the end product delivers higher profits compared to pure natural gas sales to customers”
To counter this, Mageza is looking to source natural gas from other countries, such as Nigeria, and possibly Angola and Tanzania. The first steps? Mageza has “already started the interaction with NERSA (National Energy Regulator of South Africa) and they have a process of handling new technologies entering the market. The next challenges after gaining the license, is to obtain capital to invest in the project, develop and train staff to operate an LNG import and distribution business”.

GET INVOLVED: DOWNSTREAM PARTY

South Africa’s downstream network is a veritable ‘Who’s Who’ of the oil and gas world: BP, Shell, Total amongst others. Many of these are not only present in a business to consumer (B2C) capacity but have strong refinery operations that power the entire continent. This is none truer than for Shell, which has a 50-50 stake in SAPREF, Africa’s largest refinery. Hloniphizwe Mtolo, chairman of Shell South Africa outlines that “within the continent, Shell South Africa is the only downstream business for Royal Dutch Shell, as in other parts of Africa we come under licensing models.”

SOCIAL TRANSFORMATION: PROMOTING DIVERSITY

South Africa’s history is well documented, with the country freeing itself of apartheid in 1994. To establish a society that takes into consideration racial integration, the Black Business Empowerment (BBE) ruling was put in place in 2003, before evolving into the Broad-Based Black Economic Empowerment (B-BBEE) in 2007. This policy gives companies a B-BBEE ranking, level-one being the highest, based on their racial diversity outside the white population, and takes in factors such as skills development, ownership, management and socio-economic development.

Helping foster this movement is the Black Business Council, headed by CEO, Kganki Matabane. He wants the country to “progress to a situation where there is equality of all races and groups. The main focus we need to have as a country now is to ensure equitable participation in the economy from an ownership, management and control perspective. The situation right now is that economic activity is concentrated in the hands of a few, which is not ideal.” He believes that “if the demographics of the country are not reflected in the management, ownership and control of the economy, it creates an unsustainable situation where the majority of citizens feel excluded from the country’s development.”

Many oil and gas giants, such as Shell, are taking on this social responsibility. “Over the last year we became the first oil major to reach level-one B-BBEE accreditation,” explains chairman of Shell South Africa, Hloniphizwe Mtolo, “This is an important step in the country in terms of how large organizations are managed.”

Also taking a lead is French power, Total. CEO of Total South Africa & executive VP Southern Africa, Pierre-Yves Sachet, has witnessed that “the entire South African oil and gas sector has been a pioneer in social transformation”. In this regard “Total specifically on boarded its first BEE partner in 2003, and now after a lot of work has reached level-2 B-BBEE this year”. Sachet also believes an even broader approach “by identifying young talent with entrepreneurial mindsets from modest backgrounds and promoting them to dealership positions, financing them throughout the entire process”. With this focus, Total “are now committed to reaching level-one B-BBEE as soon as possible”.

Nevertheless, the six South African refineries are extremely old and require large upgrades, especially due to demands for cleaner fuel, with many in the industry discussing the possibility of even constructing a new refinery in the future. Mtolo acknowledges this point, understanding that “South Africa has an increasing demand for finished products, so it is imperative that the industry continues to invest into the refineries.”
sites for the nation as “refineries are key to creating a sustainable nation as the economic contribution of the sector is huge.” In this regard, “Shell, along with other industry players, are in discussions with the government to determine the necessary steps to make this possible, so all stakeholders can benefit in the long-term.”

Total CEO of South Africa, and executive VP of Southern Africa, Pierre-Yves Sachet, believes in “in the future of the refinery industry, even if we are aware of the large need for refiners to adapt and upgrade. This is what we have already undertaken at our refinery, NATREF, which for instance has been producing exclusively low Sulphur diesel fuels for the last three years.” Furthermore, adapting to a storage-based ecosystem, according to Sachet, would have a large social impact, as the “refining industry represents five thousand direct jobs and contributes to some 70 percent of the 700 thousand directly, indirectly and induced jobs in the oil sector of the economy through its downstream linkages into the economy. It is also an anchor tenant for the specialized engineering and construction industry for maintenance and replacement infrastructure thus supporting a significant skills base.”

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REGIONAL JUGGERNAUTS

South Africa is a continental leader in many ways and as a result many companies are using it as a hub for the region. In fact, Southern Africa “is the most economically integrated regional area in Africa and, compared to other parts of Africa, there is a relatively free movement of goods” highlights Thierry Pimi, managing director of Cummins Southern Africa states that, “the region is more advanced in terms of infrastructure, such as roads and rail, and South Africa is the most diversified economy on the continent, with this spilling over into neighboring countries.” As a result, Cummins has decided to position their new USD 25 million regional HQ in Waterfall Johannesburg, as the company looks to enter “new African markets with key projects that will allows us to ride the wave of African development.

Further, Pimi has his eyes on expanding "via two ways; either set-up the services before we have our products in the country or wait until we have products in the market before setting up our services. We do both. When the density of the operations is minimal, we train a local dealer to assist our customers, and once we reach a certain point, we either buy-out the dealer and take over the service, or set-up our own office.” This has allows Cummins to recently set up operations in “Botswana due to the largest diamond discoveries in the world, and in Mozambique I will soon cut the ribbon for our office.”

Another company looking to go abroad is Transnet, the state body that controls the nations railways, pipelines and ports infrastructure and daily operations. Siyabonga Gama, longtime CEO, believes their “oil and gas strategy potentially adding ZAR 10 to 12 billion (USD 0.83 to one billion) per annum to the Transnet revenue stream. We want to build a hydrocarbon market with a vertically integrated approach.” The next steps? For Gama it is “to replicate this across the African continent and we have done work in nearby countries such as Mozambique, Zambia, Swaziland and Zimbabwe amongst others. By either constructing or modernizing the infrastructure set-up in these nations, we are able to strengthen Africa’s logistics and supply chain backbone, a key necessity for future developments.”

The leader in South Africa’s oil and gas footprint is Sasol; present in 33 countries and renowned for their gas to liquid technology. Despite a strong US footprint “our commitment to Southern Africa, remains strong and active,” indicates Bongani Nqwababa, CEO. This is backed by Sasol’s natural gas pipeline that is supplying the resource from Mozambique to South Africa, and overall “since 2004, at the time of the initial investment made by Sasol and our partners in Mozambique, over USD 3 billion has been invested in developing the country’s hydrocarbon industry. This investment has contributed over USD one billion to the government of Mozambique” highlights Stephen Cornell, the company’s other CEO. ☮️
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TAKING FLIGHT

Dimmie de Milander, commercial director for Starlite Aviation Group, shares how the company has adapted to the global industry downturn; his positive outlook for E&P activity in southern Africa; and the local knowledge, ability to work successfully under harsh conditions, and international network, that set them apart from the competition.

Dimmie de Milander
STARLITE AVIATION GROUP

EBR: Dimmie, could you share the main highlights and milestones for the company since we met you in 2012?

DIMMIE DE MILANDER (DM): Starlite Aviation Group is a multi-faceted aviation company, offering a range of helicopter services on a global basis for a number of sectors, including emergency relief, offshore oil and gas support, and passenger and cargo transport, as well as a world-renowned pilot training school.

Focusing on the offshore oil and gas sector in particular, when the industry was booming in 2013 and 2014, Starlite performed extremely well, delivering a number of projects very successfully for international oil companies. From 2015, however, as a result of the fall in oil price and the global downswing in activity over the past few years, the company had to undertake some rapid changes to adjust to market conditions.

At the moment, Starlite does 30 percent of its work in humanitarian and medical support, 30 percent in post-conflict reconstruction and aid distribution, 20 percent on training and 10 percent on oil and gas. This is a good balance for the company at the moment, and naturally, the split also adjusts depending on prevailing market conditions.

EBR: The oil and gas industry is highly cyclical. How has Starlite managed the cycle, specifically in terms of retaining investments and skills during downturns in order to be prepared for the recovery when it arrives?

DM: When the downturn began, as a result of the huge costs associated with the equipment used in this industry, we had to release all leased, offshore aircraft. However, the silver lining is that the downturn affected the bigger, offshore-dedicated players more severely and some went into Chapter 11 bankruptcy. As a result, the leasing companies that own the aircraft now have idle assets and are very keen to supply them again. It is a buyer’s market at that moment. There is better availability of modern helicopters, which are now also available for shorter terms. This actually puts Starlite in a stronger position than before.

What has been critical was retaining our pilots and their expertise over the past two years. While they have not been able to fly offshore in the region, we have kept them flying on other contracts to retain the core expertise. For instance, with the new possible tender from Total coming up, we are able to offer them the same pilots they used on our 2014 contract with them. This continuity is important and well-regarded by the industry.

“WHAT HAS BEEN CRITICAL WAS RETAINING OUR PILOTS AND THEIR EXPERTISE OVER THE PAST TWO YEARS.”

EBR: How would you like the South African brand to be seen abroad?

DM: South Africans are able to work, execute and deliver successfully under difficult conditions. Faced with challenging, even impossible circumstances, South Africans will make a plan – and carry the job through to the end. 💡

“SOUTH AFRICANS ARE ABLE TO WORK, EXECUTE AND DELIVER SUCCESSFULLY UNDER DIFFICULT CONDITIONS. FACED WITH CHALLENGING, EVEN IMPOSSIBLE CIRCUMSTANCES, SOUTH AFRICANS WILL MAKE A PLAN – AND CARRY THE JOB THROUGH TO THE END.”
A FORMER MINISTER OF TRANSPORT DIPUO PETERS ONCE SAID, SOUTH AFRICA IS “A MARITIME NATION.” WITH A STRATEGIC POSITION ALONG ONE OF THE WORLD’S BUSIEST SEA ROUTES, THE CAPE ROUTE CONNECTING EAST AND WEST, AS WELL AS A 3000-KILOMETER COASTLINE, SOUTH AFRICA IS UNDOUBTEDLY ONE OF THE WORLD’S FOREMOST MARITIME NATIONS. ITS PORTFOLIO OF MARITIME ASSETS, FROM THE WORLD’S LARGEST BULK COAL TERMINAL PORT IN RICHARDS BAY, AFRICA’S BUSIEST PORT IN DURBAN (ALSO THE LARGEST CONTAINER FACILITY IN SOUTHERN AFRICA), AFRICA’S LARGEST REFRIGERATED CONTAINER FACILITY IN PORT OF CAPE TOWN, AND THE DEEPDEST CONTAINER TERMINAL IN AFRICA AT THE PORT OF NQURU, REFLECTS THE FACT THAT SOUTH AFRICA IS AMONG THE TOP 15 COUNTRIES THAT TRADE BY SEA, WITH OVER 96 PERCENT OF THE COUNTRY’S TRADE (IN VOLUME) MOVING BY SEA. DEPUTY MINISTER OF TRANSPORT SINDISIZWE CHIKUNGA REVEALS, “SOUTH AFRICAN PORTS HANDLE APPROXIMATELY 12,000 SHIPS AND APPROXIMATELY 300 MILLION TONNES OF CARGO ANNUALLY.” FOR THIS REASON, SOUTH AFRICA HAS ADOPTED THE COMPREHENSIVE MARITIME TRANSPORT POLICY (CMTP) WITH THE OBJECTIVE TO DEVELOP THE COUNTRY TO BE AN INTERNATIONAL MARITIME CENTRE, WHICH WILL ALSO ALLOW FOR FURTHER AMENDMENTS TO EXISTING LEGISLATION SUCH AS THE MERCHANT SHIPPING ACT IN LINE WITH OUR CURRENT NATIONAL MARITIME INTERESTS AND THOSE OF THE IMO AND THE AFRICAN UNION.

AS SOBANTU TILAYI, ACTING CEO OF THE SOUTH AFRICAN MARITIME SAFETY AUTHORITY (SAMSA), SHARES, “AN EXCELLENT INDICATION OF HOW WE ARE PERCEIVED INTERNATIONALLY REGARDING MARITIME MATTERS IS THE FACT THAT WE HAVE CONSISTENTLY REMAINED AS A MEMBER OF THE INTERNATIONAL MARITIME ORGANIZATION COUNCIL SINCE 1999.”

“AN EXCELLENT INDICATION OF HOW WE ARE PERCEIVED INTERNATIONALLY REGARDING MARITIME MATTERS IS THE FACT THAT WE HAVE CONSISTENTLY REMAINED AS A MEMBER OF THE INTERNATIONAL MARITIME ORGANIZATION COUNCIL SINCE 1999.”

— Sobantu Tilayi  SAMSA

Much of this international reputation stems from South Africa’s ability to provide safety assurance to international shipping along the South African coastline. This comes from both extensive experience of dealing with maritime disasters and a commitment to investing in new technology. For this reason, South Africa leads the way in Africa on several port-based innovations such as pilotage transfer by helicopter, locally built harbor tugs and new dredgers commissioned into
service, with future dredgers to be built locally. The country also manages and maintains a system of aids to navigation including lighthouses, a fully-fledged Marine Hydrographic Service, as well as Emergency Response Capacity, which includes a Search and Rescue Centre, Emergency Towing Vessels, Information and Communication Systems. Tilayi highlights, “We are the only country in this part of the world able to combine aviation and maritime search and rescue.”

Ironically, South Africa’s maritime expertise comes from the challenging Metocean conditions that have given the country its moniker, ‘Cape of Storms.’ Tilayi elaborates, “We have a very problematic, unshielded coastline. A slight weather disturbance in Antarctica picks up a lot of energy over the 4,000 kilometers to Cape Town. On top of this, you have the warm Indian Ocean coming into contact with the cold Atlantic Ocean in the south, and both taken together means that there is a lot of energy hitting the South African coastline. Our coastline is also very straight so very little energy is killed.” What exacerbates the danger is that South Africa is no less than 15 days from the nearest possible source of help in the event of a disaster.

Staying ahead of the game is critical because, as Tilayi points out, “while we are strategically located at the halfway point between East and West, the fact remains that it is quicker to go from Singapore and China to Kenya on the East Coast, and from the US to the Gulf of Guinea on the West Coast. South Africa needs to stay relevant and competitive - and the only way to do that is to stay ahead of global developments.”

For Tilayi, the mission is deeply personal. He outlines, “Before I started working with SAMSA, I was in the maritime industry being regulated by SAMSA and to be honest, I used to have many running battles with the organization. This is what motivated me to join SAMSA. The objective was to create a regulator that will not regulate the industry to death. My personal belief is that the safest ports are those where no ships come in. The safest coastline is the coastline with no ships. But that is not how life works. For me, what is of paramount importance is striking the right balance between environmental sustainability and economic benefit.”

He makes the bold claim that “you cannot think about South Africa without thinking about the maritime.” For this reason, he hopes to build SAMSA into “a highly specialized maritime authority that is systems-driven, and the go-to entity for government advice on maritime matters. We need to be at the forefront of African thinking in maritime development. This is the role that SAMSA can - and must - play.”
Kaashifah Beukes, acting CEO of Saldanha Bay Industrial Development Zone Licencing Company SOC LTD (SBIDZ), shares the main achievements of the past five years, the value proposition SBIDZ can offer the global oil and gas industry and their ambition to build SBIDZ into a global center of excellence.

EBR: Kaashifah, could you start by sharing how the project of Saldanha Bay Industrial Development Zone (SBIDZ) started?
KAASHIFAH BEUKES (KB): Eight years ago, a uniquely visionary exercise by government was initiated. Local, provincial and national government jointly undertook to investigate the feasibility of developing a special economic zone in the bay of Saldanha, on the south-western coast of South Africa.

At the time, the South African National Department of Trade and Industry (the dti) had just completed their review of their industrial development zone (IDZ) programme and were putting together a new policy framework for this very specialized economic instrument - many governments use special economic zones to grow and industrialise their economies, and promote regional and international trade – and many best practices and experiences were collated. The Provincial Government, through their Department of Economic Development and Tourism (DEDAT) then initiated a project steering team with the dti and the local government to ask many hard questions about the sectors that could be looked at in order to stimulate the local economy, provide meaningful employment, and ultimately, contribute to GGP and GDP growth, all within the framework of SEZ best practices.

Having evaluated a number of sectors, there was a realization that there was a significant amount of interest within the Western Cape economy in respect to oil, gas and maritime services, including fabrication, not just in the upstream sector, but also in downstream, especially when consideration is given to the activity in regional markets and recent LNG projects. Many companies had already been establishing offices in South Africa for their African staffing, support, logistics and servicing needs. Saldanha Bay is by far the largest and deepest port (quayside draft of 23m) in South Africa, and it was relatively greenfield, so there was lots of room for development. Its superb location at the tip of Africa also meant that it could service east and west sea traffic. Lastly, the port had seen a number of rigs being serviced while en-route around the tip of Africa.

Clearly, if a SEZ was designated and a zone developed with the right enabling legislation, a significantly large deep-water port such as Saldanha Bay, with onshore infrastructure, quayside facilities, streamlined customs processes and bespoke facilities and services to its tenants and operators, as well as strong linkages with local communities, this would really grow these sectors of the economy and contribute to sustainable employment.

Two pieces of land were identified totally some 356 hectares, one within the Port of Saldanha Bay managed by the Transnet National Ports Authority (TNPA) and the other just outside the port owned by the Industrial Development
Corporation (IDC), and would be linked by a bridge corridor. This was the basis of the designation sought from National Government and so it came to be that we were designated and licensed on the 31st October 2013.

We are still the only zone designated across a sea port. And with our sector-specific focus on the upstream oil, gas and marine repair, fabrication, logistics and related services industries, our value offering extends right to the water’s edge, highly prized to these industries.

**EBR:** What have been some of the main achievements of the past five years?

**KB:** Certainly the holistic policy clarity and the support available to us from the dti-administered SEZ Fund has been a critical achievement. We have secured grant funding to complete all the required onshore bulk infrastructure (electricity, water, sanitation networks, roads, security) and a multi-use commercial facility which will house the relevant government departments, agencies and state-owned entities that deliver services within our sectors. It will also house value-added services from private firms to enhance the business experience of all tenants and customers of the zone. Our infrastructure programme is progressing well and will run until the last quarter of 2019.

Our investor-responsive approach is central to our operational ethic, and so we always knew that we had to be able to lease land to tenants and operators on a dynamic basis. So we were delighted when in mid negotiations with the IDC, they offered to sell us their land designated within the zone. This created sustainable value for our stakeholders as the land is now serviced from the SEZ Fund grant and has all zoning and environmental authorisations in place. Once a company fits the investment criteria, they are allocated serviced land on a first-come-first-served basis.

With the TNPA, our first lease is in place on their land designated in the zone. South African legislation requires us to show control of the land we are designated on and since port land cannot be sold, we needed to conclude a long-term lease with the TNPA. The first of these is now in place and we are currently in negotiations on the second. This is a milestone for all concerned as this makes us also the first SEZ in South Africa to conclude a lease with the ports authority.

The second lease will itself be quite a milestone because it will be the back-to-back agreement which affirms the Offshore Supply Base concessionaire’s, Saldehco Pty Ltd, access to our value adding Free Port customs regime and integrated location to the rest of our tenants. Over the next months we, together with Saldehco and the TNPA will be taking this offering to the market internationally. We believe that it is collective efforts such as these that will see South Africa realise its potential as an oil, gas and maritime hub for the offshore market with dedicated purpose-built infrastructure.

**EBR:** What profile of companies will you be looking to attract to SBIDZ?

**KB:** Being sector-specific certainly makes profiling investors easier. We have been able to designate specific type of activities as well as provide the targeted enabling infrastructure to address the needs of operations like offshore supply, logistics, LPG and LNG projects.

The business model is also based on competition. The zone wishes to grow the industry with healthy competition, and is looking to avoid having one major anchor tenant. Naturally, large companies will create their own value chain, but we have seen from examples globally, that having a diverse ecosystem, with both large corporates and smaller companies represented, can really contribute to a symbiotic, competitive and resilient environment.

**HAVING A DIVERSE ECOSYSTEM, WITH BOTH LARGE CORPORATES AND SMALLER COMPANIES REPRESENTED, CAN REALLY CONTRIBUTE TO A SYMBIOTIC, COMPETITIVE AND RESILIENT ENVIRONMENT.**
A BREATH OF FRESH AIR

Davide Andreani, general manager of Mammoet Southern Africa, highlights the main challenges they face in the region, the importance of public and private collaboration in infrastructure development, and the relevance of gas for the region’s energy mix.

EBR: What is the strategic importance of Southern Africa for the company, and how does South Africa fit into this approach?

DAVIDE ANDREANI (DA): South Africa is the hub for the development of our African footprint as it is the most industrialized country on the continent, with a large abundance of expertise and opportunities. Nevertheless, we understand there is still a lot of work to do, and as a multinational company and market leader in our field, it is imperative that we support the entire market as well as all our clients with our international expertise and knowledge.

Our scope of operations here revolves around oil and gas, mining and power. Within the oil and gas field, we are focused heavily on refineries, with Sasol being one of our major clients, not just in South Africa, but equally the US. Within mining, we bring our global knowledge from working in major markets such as Canada and Australia, while in the meantime developing our own local innovations for Africa. In the power sector, we have participated in the construction of two largest power plant projects in Southern Africa, and they are even some of the largest in the world.

EBR: The infrastructure ecosystem influences a lot of what Mammoet does. How can there be a great collaboration between the private and public sector within the region, to facilitate greater infrastructure investments?

DA: The appointment of Cyril Ramaphosa as South Africa’s president has brought a breath of fresh air to the business environment. Investments will hopefully increase, with a proper partnership between the private and public sector.

For example, only last week we saw the signing of the final round of the renewable energy program, and with this it will bring a whole list of opportunities. Additionally, we witness the movement towards gas to power to shift the energy mix, with potential to integrate more LNG and LPG into the nation.

Overall, we need investments from abroad, and the new government is looking to integrate this approach and be leaders across Africa. Maintenance has long been the Achilles heel of Africa; therefore, when Mammoet conducts a project abroad, we teach the locals about how to operate and maintain the sites, and this facilitates knowledge and skills transfer across Africa.

EBR: What relevance do you see gas playing in the region?

DA: Looking at the last couple of years, there has been a vast acknowledgment that South Africa needs to diversify from coal. The country is ready for this, and our history is connected to gas, with companies like Sasol being leaders in many areas of this spectrum. Furthermore, terminals are being put in place, such as the large LPG bullets in Saldanha bay, with Mammoet part of their transportation. Everyone is ready for gas, and we are waiting for it to kick-start and play a larger role.
2015 World Bank report indicates that Sub-Saharan Africa requires some USD 100 billion in infrastructure investments over the upcoming years to meet its development requirements. This lack of investment influx has resulted in drastic energy shortages, and in fact “Sub-Saharan Africa, excluding South Africa, generating the same energy capacity as Spain; therefore, 900 million people are being given the same energy capacity as 40 million Spaniards” indicates Jurie Swart, CEO of African Infrastructure Investment Managers (AIIM).

This aforementioned USD 100 billion infrastructure requirement according to Swart, can be broken down as “around USD 70 billion debt, while 30 billion is within the equity space, and this is the area the private sector plays a key role in. This amount is not readily available, and the private industry can not invest into projects that have no commercial rationale.” Nevertheless, Swart sees that the huge amounts of capital being raised in developed markets with excellent returns is not as rosy as in the past and “if investors are looking for markets with high single digit returns, Africa is going to be able to offer this well into the future.”

Continent-wide approaches have become a hot topic over recent years, and this broader approach can spearhead infrastructure development, and according to Swart is “certainly a long-term vision we should aspire to. It makes sense to have cross border projects, though to do so successfully requires the navigation of an increased level of inter-reliance between those involved. There are some successful examples of this taking place, however, the priority in the short-term should be to solve individual countries’ needs before taking on this regional mindset.”

This business mindset and need to facilitate private investors has placed President Ramaphosa in the spotlight, and, because of his strong business background, possesses “the tools to be able to get the country moving forward and commands the respect of South Africa in the international landscape,” highlights Swart. He now believes the time is now to tell the story of Africa to the world and promote opportunities for investors as “infrastructure leads to development, not the other way around.”

**BRIDGING THE ENERGY GAP**

This energy gap in the region has been attacked by many players over the years, none more so than the Gigajoule Group over the last decade. Throughout this period, the South African based company have worked on some key regional projects, including the gas supply of two Mozambican Power stations in 2013 and the completion of their own power station in 2015, that delivers some 120 megawatts of power and cost roughly USD 200 million.

These projects were centred around a public-private partnership with the Mozambican government authority, Empresa Nacional de Hidrocarbonetos, (National Hydrocarbon Company) or ENH. Johan de Vos, CEO of Gigajoule Group notes this was critical as the company “had to work in a closely cooperative environment and be willing to take the risk of building something from scratch. We also had to secure the funding. Another crucial factor was our decision to allow the government to participate as a partner, which gave them ownership of the project and its future success. ENH has now learnt from that experience and taken on projects with other companies, so the skills transfer has been successful on that front.”

Furthermore, he believes another key element was the fact that despite regulations being absent, “the Mozambican government developed the legislation in parallel with the project development, instead of the telling industry to wait two or three years for the right regulations to be implemented.”
This required a huge amount of trust between the public and the private sector but was ultimately the only way forward to success.”

De Vos now wants to see this collaborative atmosphere translate to South Africa, with the government being the enabler that “creates a playing field but the private sector needs to be allowed to play its role”. He sees the discovery of 200 trillion cubic feet of gas in Northern Mozambique as an opportunity for the government to construct a pipeline to South Africa, rather than just allow the “Mozambican producers current plan is to liquefy and export it...the government should assist the private sector to bring some of that gas into South Africa instead of - once again - falling into the trap of trying to do it through state owned entities. With great partnerships, this could be a great solution for South Africa’s energy future.”

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**SUB-SAHARAN INFRASTRUCTURE GAP**

The private sector opportunity is estimated at USD31 billion

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**AFRICA IS LAGGING**

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GW per capita

|            | 0.07 | 0.03 | 0.23 | 1.09 | 3.32 |

INSIDER TIPS

Africa’s abundance of opportunities has positioned it as the centre of potential future investments over the upcoming decades. As a result, EPC players are lining up and flooding the market, and see South Africa as the perfect hub to branch out and capitalise on the market situation. Five of the leading players - ARUP, SNC-Lavalin, SENER, AECOM and Mott MacDonald – share their thoughts on the market.

DEON GERBER
Director and Energy Services Infrastructure Leader, Arup South Africa

EBR: As a firm, Arup prides itself on having designed some of the most ambitious and iconic structures in the world. How does this come into play within the energy space where aesthetics is not as important a priority?

DEON GERBER: Flagship projects like the Sydney Opera House in Australia and the Silo district at the V&A Waterfront in Cape Town, act as a platform for the Arup culture and brand to showcase our capabilities. But aesthetics is only a small part of our day-to-day work and operations.

Within the energy space, we have also been involved in flagship projects that are fundamental to countries’ national development. The Transnet multi-products pipeline, which predates my time at Arup, was a project critical to South Africa’s energy needs, and we are very proud of that work. It was a USD 2 billion project to serve the forecasted fuel needs of the inland market.

On the back of our proven capabilities, I would like to see Arup building another pipeline like the one from Mozambique to Sasol’s Secunda plant, or another distribution pipeline in South Africa as part of a national gas infrastructure, or the like.

STUART KENT
Regional Director of Sub-Saharan Africa, SNC-Lavalin

EBR: What needs to be done to unblock the market so there are more capital investments?

STUART KENT: It is quite a complex process, and this is why many companies still refer to Africa as the final frontier. Investors are cautious about investing in Africa as they must manage corporate governance. Working in Africa has always had the overhanging situation of added risk due to compliance and corruption. Major companies stay clear of involvement in these issues and work in an ethical manner.

Overall, there are great opportunities in Africa, and despite the fact that companies could easily go to markets like Europe and Australia, where stability and ethics are easier to come by, Africa offers the potential that not many places can match.

SIYABONGA MBANJWA
Regional Managing Director of Southern Africa, SENER

EBR: How important are foreign companies to the development of the region?

SIYABONGA MBANJWA: There is a perception that foreign companies are entering the market and taking jobs away from locals. Our view at SENER is that you need, and can be more beneficial for both sides, a good mix between international and local companies for adequate skills transfer to take place.

In fact, if you listen to President Ramaphosa, an astute business man, he talks about plans to attract at least 100 billion USD in investment into South Africa through foreign investors over the next five years. This is critical to further stimulate the South African economy and create sustainable jobs.
EBR: Africa has been considered the final frontier for many years, though still it seems to not have reached its full potential. What is causing this blockage in greater development?

CARLOS POÑE: Finance and regulatory framework. If investors have US $5 billion to invest in projects, they will find US$5 billion worth of investment opportunities in Africa, as the list of infrastructure requirements on the continent grows every day. Nevertheless, challenges are often preventing governments from unlocking infrastructure development spend. What Africa needs is to establish an ecosystem that promotes innovative and collaborative investment between the private and public sectors so that we all work towards development on the continent.

EBR: Is a regional mindset a dream or a reality?

CP: The Africa Union’s Agenda 2063 is a good, first step towards action, though we must also understand Africa is a continent with 54 countries that have very different governments and ideologies. However, in the last few years we have witnessed a more common movement towards democracy and good governance, and this is good news for Africa and good news for investment.

EBR: What opportunities do you see in the market within each of your respective fields of work?

CLAUDIO PIERINI: Oil and gas is becoming more of a factor in the region. Equally, we see going forward that this is a lot of infrastructure already being built, and the last mile is more about how to supply the end user. Technology is becoming cheaper and we are moving more towards solar energy and microgrids as it becomes more affordable to the man on the street. Another question is how we are able to harness the potential of gas to power.

FAIEZ SALLIE: From an oil and gas perspective, we can not focus on South Africa, and must have a vision from a regional point of view. Fundamentally, the major has finds on the continent have been in eastern Africa, and the regional approach will encourage energy and gas supply from these discovered reserves, coupled with the world-class infrastructure of South Africa.

Additionally, we have seen a strong push from various energy programs and the department of trade and industry for downstream development. Overall, we see that gas to power is the most logical play, and geographical areas like Saldanha Bay and KwaZulu Natal must be developed, and this could be by providing gas from the large supplies in Mozambique.
A LONG-TERM COMMITMENT

Brian Blackbeard, CEO of Atlantis Corporation, shares the major milestones of their key projects, FerroMarine Cape and FerroMarine Africa, the value they provide to the global oil and gas industry, his long-term entrepreneurial investment strategy, and his positive outlook for the industry.

EBR: Brian, the global oil and gas industry has experienced a difficult few years but with the oil price reaching USD 70 per barrel, what is your outlook for the industry looking forward?

BRIAN BLACKBEARD (BB): As a company, we have remained invested in the sector despite sustaining losses during the downturn of the past two years because we believe that the market will turn. Although the oil price has been beaten down by technology and changing demand patterns, for instance in the automobile industry with the move towards electric hybrid vehicles, nevertheless it remains the case that certain industries cannot operate without crude oil. With reserves having been consumed in the past few years and very little new development in the past few years, I expect to see increasing offshore E&P activity within the current five-year cycle.

Furthermore, there is significant upstream potential within South Africa itself. The major roadblock at the moment is the Mineral and Petroleum Resources Development Act (MPRDA), which initially had introduced fairly demanding free carry rights for the government, resulting in a general reluctance amongst oil majors to explore in our waters. However, with the new political climate, there is an expectation that this bill will be revisited, which will then open the door for majors to return to South Africa. We heard very encouraging news recently that Qatar Petroleum has taken a 25 percent stake from Total. When these companies return, they will certainly require all the services that we can offer at our facilities.

This is why, while many of our peers and competitors have left the industry, we have remained invested and we are holding our position. When the industry picks up again very soon, we will be extremely well positioned to capitalize on the upswing.

EBR: It is not easy to invest countercyclical, particularly as many of your peers have disinvested from the sector in response to the downturn. How do you manage the volatility?

BB: Having a long-term view is extremely important. We are supposed in this by our international partner, MPC Group, who is also a very entrepreneurial company with assets in the maritime industry, which means that they are very committed to the sector.

We share the same entrepreneurial mentality and long-term outlook, which means that we are able to look forward
and take calculated risks in order to be present when the market turns for the better again.

**EBR:** We had the pleasure to meet you in 2006 when the two projects you were working on, FerroMarine Africa (FMA) and FerroMarine Cape (FMC), were only concepts on paper. Over a decade later, your dream has now materialized. Could you tell us more about both facilities?

**BB:** FerroMarine Africa (FMA) is a multidisciplinary fabrication and logistics facility located in Saldanha Bay (120 kilometers north of Cape Town) covering an area of 220,000 square meters, with its own quayside providing access to the open sea. We already have all the infrastructure, so potential clients do not need to undertake significant infrastructure and financial investments.

As of 2013, we also host the global oil and gas industry co-operative Oil Spill Response (OSRL), which offers subsea well intervention systems for swift deployment to any subsea well failures in the entire region. We are one of their four global locations, in addition to Singapore, Brazil and Norway, which is testament to the value we bring to the global industry. We have a long-term partnership with them and we made it very easy for them to establish themselves in Saldanha Bay as we provided all the workshop, facilities and infrastructure they required. It is also a great boon to South Africa’s standing as a service hub as we now have the strategic capabilities to handle any well intervention and environmental work.

Coming to FerroMarine Cape (FMC), it is a world-class dedicated repair and upgrade service hub for the offshore oil and gas industry, located on 50,000 square meters of land adjoining the A-Berth quay with comprehensive facilities and infrastructure. It also has a robust track record as we have had internationally renowned South African service provider DCD Marine as a tenant for the last couple of years.

We recently made the decision to extend our capabilities and are looking at acquiring our own ship/rig repair company so that we can reinforce the facility and continue the legacy of Cape Town as a global service hub by offering the complete shipyard service as both landlord and operator.

**EBR:** Could you highlight some flagship projects that showcase your expertise and capabilities?

**BB:** For FMC, I must mention the Scarabeo 7 project for Saipem, which was a large and successful project with 1500 people employed on-site. It created huge work opportunities and made a massive economic contribution to the Western Cape, and I am very proud that the project and its socioeconomic impact was recognized by the Western Cape Minister of Economic Opportunities Alan Winde. This is the kind of work we like and are capable of performing.

For FMA, I would like to highlight the production of five fully pressurized tankers for the ZAR 1.2 billion Sunrise Energy project in Saldanha Bay, which were built entirely from scratch in that facility, leveraging on our heavy engineering capabilities, welding expertise and large workshops.

**EBR:** On a last note, within the global industry, Norway is recognized for its cutting-edge technology and Singapore for its efficient quality service. What would you like the South African brand – and FMA and FMC – to be known for?

**BB:** As South Africans, we pride ourselves on our ability to be flexible and innovative. No challenge is too big for us, no problem too difficult to solve. With the embedded engineering skill capabilities in this country and the innovation that we are known for, we can participate in any major offshore project.

**AS SOUTH AFRICANS, WE PRIDE OURSELVES ON OUR ABILITY TO BE FLEXIBLE AND INNOVATIVE. NO CHALLENGE IS TOO BIG FOR US, NO PROBLEM TOO DIFFICULT TO SOLVE.**
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We speak directly with energy leaders and executives.
We are ready to share their insights and experiences with you.