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Budget 2020: the right intent, but the challenge remains daunting

By Arthur Kamp, chief economist at Sanlam Investments

BUDGET 2020 is the best we could have hoped for in difficult circumstances. In essence, it aims to constrain consumption spending relative to capital expenditure, while recognising that persistent tax increases are counter-productive and constrain growth.

Budget 2020 is firstly about cutting the wage bill

At the heart of the proposed spending restraint, which decreases Main Budget non-interest spending by R156.1 billion over the next three years, is a R160.2 billion decrease in the government's wage bill. This implies average consolidated compensation growth of just 3.5% in nominal terms over the next three years. Including other spending cuts, the total expenditure reduction is R261 billion. In turn, the impact of wage restraint is partially offset by additions and reallocations of R111 billion. The latter includes R60 billion for Eskom and South African Airways. Overall, the cuts are deep enough to ensure a decline in non-interest spending in real terms over the next three years.

On paper this is exactly what was required, but it does rely heavily on the ability to negotiate the necessary wage restraint, which suggests forecast risk. Also, the Main Budget non-interest spending cuts are somewhat back-ended with a net decrease of R8.8 billion in 2020/21, followed by net cuts of R60.9 billion in 2021/22 and R86.5 billion in 2022/23.

On balance, the Budget keeps the level of tax constant

On the tax front the adjustment to personal income tax, reflecting a higher than inflation increase in brackets and rebates "costs" the fiscus a net R2 billion. Carbon tax and an increase in the plastic bag levy increase the state's revenue by R2 billion. On balance therefore the proposed tax changes have no impact on tax revenue.

Even better, taxes are aligned with economic growth

Main Budget revenue falls from 26.1% of GDP in 2019/20 to 25.8% of GDP over the next three years. This, along with the intent of broadening the tax base, fits with the objective of aligning the tax structure with the growth objective.

However, despite these bold steps, the Budget deficit remains wide and the debt ratio continues to increase over the next three years.

Budget deficits remain wide

The Main Budget deficit of 6.5% of GDP in 2019/20, was way off the mark by some distance compared with the initial Budget of -4.7% of GDP published in February 2019. This reflects a revenue shortfall of R 63.3 billion, as well as increased support for state-owned enterprises (mainly Eskom). The deficit remains wide at 6.8% of GDP and 6.4% of GDP in the next two fiscal years. Meanwhile, the primary Budget deficit of -2.6% of GDP for 2019/20 (projected to decrease to -1.1% of GDP by 2022/23) falls short of the surplus of at least 1% of GDP required to stabilise the debt ratio.

Interest payments remain the fastest growing expense item

Accordingly, the debt trajectory mapped out by Budget 2020 sees gross loan debt increase to 71.6% of GDP by end 2022/23 from 61.6% of GDP at the end of the current fiscal year. And, interest payments remain the fastest growing component of expenditure, absorbing a greater and greater share of available resources. Interest payments have increased from 2.25% of GDP in 2008/09 (R54.3 billion) to about 4.0% of GDP (more than R200 billion) in fiscal year 2019/20. This is set to increase to close to R300 billion in three years' time (4.7% of GDP).

That the debt ratio continues to increase over the years ahead reflects the extent to which South Africa's fiscal trajectory has deteriorated amidst high expenditure levels (total consolidated expenditure remains high at 35.9% of GDP in 2020/21), although it does ease to 34.9% of GDP in three years' time) and an inability to protect the balance sheet of the state, as reflected in the ongoing drag from ailing state-owned companies.

Given this starting point, a return to fiscal sustainability by taking the right steps today will likely take years.

Can SA keep its investment grade?

Attention will now revert to Moody's. A key requirement is stabilisation of the government's debt level, including guaranteed debt of state-owned companies (mostly Eskom debt), while the agency also stressed the importance of raising the potential growth rate.

Continued on P3

Ford assists drought-stricken EC farmers

- Agri Eastern Cape receives grant of $20 000 (almost R290 000) from Ford Motor Company Fund to assist with disaster relief due to the devastating drought
- Through the Ford Fund grant and a fund-raising initiative hosted by Eastern Cape Motors Ford William Moffett, almost R530 000 has been donated to help local farmers
- Current drought now in its sixth year, and is one of the most severe droughts on record - impacting over 2 000 commercial farmers in the Eastern Cape

The Ford Fund grant, which is disbursed by non-profit organisation (NPO) Global Giving, will be used to assist with the procurement and distribution of hay bales and animal feed to farmers in the Eastern Cape who have been heavily impacted by one of the province's most severe droughts on record - which is now in its sixth year and has resulted it being declared a drought disaster area.

"The $20 000 grant from Ford Motor Company Fund, combined with the amazing fund-raising efforts by Eastern Cape Motors Ford, will help Agri EC in its efforts to assist the hardest-hit farmers."

Additionally, through a Ford Fund grant, NPO World Vision South Africa acquired a mobile Watergen atmospheric water generator that produces safe and clean water from air, capable of producing up to 900 litres per day.

The two-year project is assisting 79 schools, four clinics, 50 early childhood development centres (ECDs) and an estimated 3 400 households, primarily in Uitenhage and KwaNobuhle near Port Elizabeth.

IN THIS ISSUE

GPI's royal deal

CAPE TOWN-based empowerment company Grand Parade Investments (GPI) has served up its 95.36% stake in fast food franchise brand Burger King to a growth hungry private equity investor.

Emerging Capital Partners (ECP) Africa will not only buy the local master franchise rights to Burger King – which turned profitable last year – but also the Grand Foods Meat Plant (which supplies hamburger patties to Burger King).

GPI will now be left mainly with its gaming interests in SunWest – which operates the cash spinning GrandWest casino in Cape Town, the Table Bay Hotel and the Golden Valley casino in Worcester.

The price tag for Burger King is somewhat complicated to tally up. GPI slapped an enterprise value of R670 million on the business, which equates to a 12 times historical earnings (before interest and tax) and eight times on a forward earnings basis based on the expected 2020 financial year profits. That means Burger King SA is expecting earnings before interest and tax of at least R84 million for the year ending June 2020.

At this point Burger King has grown into a 90 strong chain with a national presence in the main urban areas. This is a commendable expansion effort considering GPI only acquired the master franchise for the Burger King brand in 2012, and has faced challenges in finding suitable (and affordable) sites for outlets in busy urban nodes.

Still, the local Burger King operations have found flavour over the last two years, and at last count turnover exceeded R1bn.

The recent successes at Burger King were soured slightly by GPI having to place its other (albeit much smaller) food brand operations – Dunkin' Donuts and Baskin Robbins – into liquidation.

Photo credit: AP Photo/Gene J. Puskar.

It seems ECP are determined to keep Burger King's growth ambitions on the boil. Paul Maasdorp, the MD of ECP, said Burger King SA employed more than 2 800 people. "We would seek to more than double (that figure) over the course of ECP's investment."

GPI CEO Mohsin Tajbhai said the group had taken a strategic decision to reduce its operational involvement in Burger King SA, and had solicited interest from various firms.

"The offer we received from ECP was the highest bid we received and exceeded an independent valuation done on the business. Based on this, the board felt that it was necessary to recommend the offer from ECP."

There was talk GPI might hang onto a small minority stake in Burger King – but that was probably difficult to accommodate in a private equity deal.

Tajbhai stressed ECP were experienced investors in the African restaurant and consumer space.

ECP has completed 12 transactions in the consumer sector in recent years. From 2012 to 2017, the firm played an instrumental role in guiding Java House's growth from 12 stores into a leading East African restaurant group operating 59 restaurants across three countries.

Following the completed sale of Java House, ECP invested in Artcaffé Group, a leading Kenyan restaurant and café operator, in December 2018. Since ECP's investment, Artcaffé Group has grown its store footprint by more than 30% in one year.

It will be interesting to see if ECP are interested in growing Burger King into selected African markets.

Cross-industry consortium formed for chemical recycling

Innovative technology enables circularity for difficult-to-recycle PET plastic waste

ALPLA Group, an international plastic packaging and recycling specialist, has joined a new consortium for chemical recycling of PET. The consortium intends to speed up the commercialisation of enhanced recycling technology, BP Infinia, which turns opaque and difficult-to-recycle PET plastic waste into recycled feedstocks.

Leading companies operating across the polyester packaging value chain – including businesses involved in the manufacture, use, collection and recycling of polyethylene terephthalate (PET) plastic packaging – have announced they have formed a new consortium that aims to help to address the problem of plastic waste by accelerating the commercialisation of BP Infinia enhanced recycling technology.

The consortium intends to combine the capabilities and experience of its members – packaging and recycling specialist ALPLA; food, drink and consumer goods producers Britvic, Danone and Unilever; waste management and recycling specialist Remondis; and energy and petrochemicals producer BP – to develop a new circular approach to dealing with PET plastic waste.

Georg Lässer, Head of Recycling at ALPLA said: 'ALPLA is delighted to join this cross-functional project with partners from the entire value chain. It completes our intense activities besides mechanical recycling and focuses on post-industrial PET waste, difficult-to-recycle PET packaging and PET thermoform trays. With BP in the lead, we have a very strong and highly experienced partner that contributes with knowledge about virgin polyester production.'

Rita Griffin, BP Chief Operating Officer Petrochemicals said: 'BP is experienced in developing and scaling up technology and we'll do this again with our innovative BP Infinia process. But we know we cannot create circularity on our own. That's why we are thrilled to be working together with industry leaders to develop and prove a practical business model that can hopefully contribute to making all types of polyester waste infinitely recyclable.'

PET is a plastic widely used for rigid food packaging and drinks, personal care and homecare bottles. It performs an important function; however, there is the need to create more circularity in its use and reduce waste.

Avoid downcycling as well as landfill and incineration

PET is a plastic widely used for rigid food packaging and drinks, personal care and homecare bottles. It is a lightweight, durable and versatile material and one of the most collected and recycled types of plastic. Of the PET plastic bottles collected globally, more than 75 per cent are recycled, but only 12 per cent of those collected make it back into new bottles. The remainder is currently lost from the bottle-to-bottle loop, as it is used for other applications which are usually disposed of directly after use to landfills or incinerators, due to lack of separate collection.

The consortium members believe by joining forces they can speed up the commercialisation of the technology, infrastructure and demand needed to process billions of opaque and difficult-to-recycle PET bottles and food trays that are currently disposed of each year, including those that are difficult to recycle by current conventional recycling methods.

Abagold: more risks to assess?

THE wide(ning) spread of the coronavirus from China could have some severe implications for local fishing companies – especially those that export more exotic seafood products to the sprawling Far Eastern markets.

One such company is abalone faming venture Abagold, which has recently released its 2019 annual report.

Abagold has successfully bounced back from a devastating red tide incident in 2019, and continues to work hard to reinforce the business against operational risk.

The annual report disclosed that Abagold produced 12 m spat for the year and was able to meet its own requirement as well as supply spat into the market.

The successful operational use of the two Adverse Water Quality (AWQ) plants has eliminated the occurrence of mortalities during the late 2017 red tide event.

The company also reported there had been significant improvements in the product quality of formulated feed from Specialised Aquatic Feed (SAF) as well as in the diversification of products.

In addition, production costs per kg decreased by 11% as the farm recovered to full production and there could be more to come after successfully piloting an automated sorting machine (which will be fully implemented in the financial year ahead).

The company also noted that further productivity improvements in the formulated feeds, genetic selection programme and innovative husbandry practices could be anticipated.

But will the coronavirus outbreak – which appears to have already slowed the exporting of certain seafood into the Chinese market – negate these gains?

It seems a slowdown was already apparent by the end of June last year.

Chairman Hennie van der Merwe noted that for the first time in the history of Abagold, a slowdown in market demand for premium South African abalone was encountered. "This started in January 2019 with pressure on live abalone prices, and further impacting the sales price for smaller sizes in cans by April."

He added that the protest action in Hong Kong and the trade tariff wars between China and the USA did not help the situation. "So we enter the new fiscal year with our market under pressure and the need to look at different formats, offerings and geographical markets (including direct to China) as outlets for our high-quality product in the future."

Van der Merwe said the financial resources of the business were tested in this financial year after the earlier decision to continue to harvest only 75% of all growth in the year in order to facilitate the maturation and growth of the abalone pipeline as quickly as possible.

Although the tonnage sold increased year-on-year by 38% to 336 tons, this was only 67% of the volume that would be harvested and available in FY20.

Van der Merwe said Abagold continued purchasing abalone from third parties to maintain market share. But he indicated that this activity reduced in the last quarter, and had a drain on cash reserves as sales in late May and June slowed down and the company carried over more finished goods stock than originally planned.

Ultimately this meant Abagold increased its debt funding in this past fiscal year to allow the business to sustain itself during the farm recovery of the volumes and sizes to sustainable levels, while maintaining consistent supply to its loyal customers.

In terms of financial performance, Abagold's total revenue for the year hit R206 million – up significantly from the R150 million for the prior year.

Van der Merwe said the largest contribution to the revenue increase was from abalone sales, which increased by R51 million year-on-year.

The company managed to eke out a small profit before interest, tax, depreciation and amortisation.

It seems clear from Abagold's annual report that chasing short term profits is not an imperative at this juncture. Van der Merwe stresses that the consistent production of the required volumes of high-quality spat remained an essential basis for the sustainability of the company's production pipeline.

Credit Farmmanagersa.co.za

He said that while the expansion of operations on competitor farms led to third-party demand for spat, this demand had reduced significantly and the hatchery would now scale back its production capabilities as well as the area of the farm that the hatchery occupied.

"The focus of the hatchery is now to meet Abagold's demand with some overproduction. This division is the platform for the rest of our abalone business to achieve growth targets, competitive feed conversion rates and cost efficiencies."

Van der Merwe said Abagold's Sea View, Sulamanzi, Amaza and Bergsig production pipelines were already full with abalone by July 2018 - although the overall age of the pipeline remained very young.

He pointed out that the yield (growth net of sales/starting volume) achieved of 97.3% was in line with the previous yield of 100%. This was despite the increase in average size and a natural slowdown of growth rate as the pipeline matures past 100g average. Van der Merwe reassured that the operations team was comfortable that the pipeline would be fully restored in size and maturity by July 2020.

Abagold deserves an even break after its arduous recovery process over the last two years. Let's hope the coronavirus can be contained, and that traditional trading patterns in abalone resume in the key Far East markets as quickly as possible.

Invicta's financial re-engineering challenge

PAROW headquartered industrial supplies conglomerate Invicta looks set to take action to reinforce its balance sheet as the local economy looks set for a long grind.

Last month Invicta – which has retail tycoon Christo Wiese as a major shareholder – advised that it was in the process of evaluating and undertaking a number of strategic and operational initiatives. The group – which recently appointed the well-respected executive Steven Joffe (formerly of ENX Group and Gold Reef Casinos & Resorts) as CEO – said these could entail the disposal of non-core assets, specific inventory reduction programmes and various debt realignment processes. Perhaps more critical was Invicta touting the possibility of asking shareholders to participate in an equity capital raise, which would probably be undertaken through a rights issue exercise.

Invicta, over the years, has proved a resilient operator with most of its diverse array of business units (engineering products, agricultural machinery, construction and earthmoving machinery, forklifts and related spare parts etc.) feeding into essential cogs of industry.

In fact, it's not really the group's operational performance that has caused a re-think on the balance sheet structure, but rather a massive tax liability that stemmed from an empowerment investment structure dating back more than a few years.

For the half year to end September, Invicta reported that despite an increasingly challenging environment revenue was maintained at R5.3 billion and gross profit at R1.6 billion.

Invicta's operating profit declined by 6% to R383 million.

Earnings in the previous period were skewed by the R750 million once-off tax provision (related to the empowerment scheme legacy issue). This meant bottom line profits soared 228% to R208 million.

In November Arnold Goldstone, the recently retired CEO of Invicta, said that a pleasing feature of the interim period was the major improvement in cash generated from operations - increasing 426% to R518 million.

He said Invicta's strategic focus was "based upon optimising current operations and cash flows to right-sizing the level of debt that resulted from the 2018 tax settlement of R750 million."

Despite this improvement, Invicta tellingly decided to skip paying an interim dividend – an early sign that the group was well aware of pressure building on the balance sheet.

CBN presumes that latest decision to reinforce the balance sheet was also informed by trading conditions, which anecdotally appear to have turned even more brittle since the last quarter of 2019.

At last count, Invicta carried long term debt of around R2.3 billion with R721 million denoted as the current portion of long term debt. The bank overdraft was around R200m. With strong operational cash flows there should be no problem servicing these loans – but there would be some fretting at executive level if the economic downturn continued to chip away at margins.

In terms of raising fresh capital, clearly it's not the best time for Invicta to be selling off assets.

At the interim stage Invicta's Engineering Solutions Group (ESG) was labouring under the uncertainty prevalent in the industrial and mining sectors as well as the impact of load shedding. Still revenue was up 7% to R2.7 billion – although R216 million of revenue was generated by two recent acquisitions in form of Forge Industrial Group and Propshaft Rebuilders Group.

December 2018.

At the time Goldstone noted: "Without the acquisitions, ESG's operating profit before interest on capital equipment financing transactions and foreign exchange movements would have declined by 6%, which is testimony of the impact of the difficult trading conditions the Group is facing."

Invicta's Capital Equipment Group's (CEG's) was worse affected. Its performance was influenced by the lack of investment in infrastructure development in South Africa, the demise of numerous large local construction companies, a downturn in the Asian markets and drought in the South African agricultural sector.

CEG reported interim revenue down 8% to R2.3 billion.

With Invicta's weak share price on the JSE not conducive to hosting a rights issue, CBN reckons the more prudent option would be to look for an asset sale. But which assets could be put on the block is certainly not clear at this point.

Budget 2020

Continued from P1

Does Budget 2020 do enough? The government's focus on competition policy, implementation of the Integrated Resource Plan, a willingness to leverage the private sector and to promote and incentivise small and medium enterprises, while supporting industrial parks, along with measures aimed at improving the ease of doing business (and lowering the cost of doing business), should help promote growth over time.

But, the continued upward march in the debt ratio remains a problem. While this continues, downgrade risk remains.

Mettle to be peddled again

BELLVILLE-based financial services boutique Mettle looks set for another change of ownership.

Mettle has certainly endured an interesting corporate history over the last two decades.

Mettle has its roots in the mid-nineties when it was initially known as Boland Financial Services. The company morphed into Mettle, which listed on the JSE in the late nineties and was subsequently delisted in 2003.

After the delisting ownership passed to empowerment giant Hosken Consolidated Investments (HCI), which later relinquished control of the business.

In 2014 Mettle was acquired by Christo Wiese controlled property group Tradehold, which also owned financial services assets in the UK. About three years ago Tradehold unbundled its controlling stake in Mettle, which then listed on the JSE along with the property company's UK financial services operations and a budding solar services operation.

So, if the buyout offer for Mettle is unsuccessful, it will be the second time in less than 20 years that Mettle will delist from the JSE.

How it will work is that Cape Town-based financial services company Genfin will offer R118 million to buy out minority shareholders in Mettle. Excluded from the offer are entities controlled by Christo Wiese and certain individuals that will remain on-board Mettle as shareholders. Interestingly, Mettle CEO Friedrich Esterhuyse will be selling his shareholding.

While there are no specifics around Genfin's plans for Mettle, an official note to shareholders reckoned the company (and its subsidiaries) were more suited to operating in an unlisted environment and that the current JSE listing provided little benefit to the company at this stage of its operating cycle.

Genfin is described as an investment holding company focused on building a portfolio of companies that provide finance to small and medium enterprises and a smaller portfolio of other financial services focussed assets. So both Mettle's local and UK-based specialist lending operations will fit Genfin's strategy perfectly.

Genfin seems awfully keen on Mettle, and has already accumulated a material shareholding (around 14%) in Mettle over the past 12 months.

Once Mettle is back in an unlisted environment Genfin will provide additional capital in order to facilitate and support organic and acquisitive growth.

Mettle has scored from strong performances from its UK lending operation Reward, but its local operations have struggled.

In the six months to end August 2019, Reward contributed R122 million (£6.6 million) to revenue and R23.4 million (£1.3 million) to bottom line profits.

Mettle said Reward had traded in line with expectations despite the UK's political impasse over Brexit.

Reward appears to be prudently managed with its loan and invoice discounting book increased steadily from R1.2 billion (£63.1 million) at the end of February 2019 to R1.3 billion (£67.4 million).

In contrast, the performance of the South African businesses was negatively impacted by the impairment of an investment in Lendcor Proprietary of R5 million.

Lendcor provides unsecured loans for home improvements to the lower LSM market through a network of building supply merchants.

Certain changes to the collection methodology relating to a segment of its lending book were imposed. Mettle said Lendcor had reduced its exposure to this segment - but this has, to date, reduced profitability.

Overall Mettle's local operations generated revenues of around R19.5 million, but posted a loss of R2.7 million.

Extremely robust, from head to cable: compact full-metal sensors

High reliability even under extreme conditions

FULL-metal sensors are used wherever an application requires special resistance, e.g. when it comes to coping with important stress factors in industrial applications such as lathes or milling machines. Here, the sensor housing has to reliably withstand rapid changes of temperature and aggressive media such as lubricants and coolants. Moreover, the robust high-grade stainless steel design offers optimum protection against abrasive parts in metal-cutting machining.

In the steel industry or in automotive industry, however, it is weld spatter, that presents a strain on the sensor housing. Here, the design with nonstick coating combined with the impact resistant sensing face is the ideal solution to ensure safe operation. The compact and short design permits use even in the smallest of spaces.

Contact: ifm electronic ZA

Banning private health insurance denies citizens access to quality healthcare

THE festive season, for the private medical schemes and health insurance markets started with the dropping of a bombshell. In Circular 80 of 2019, the Registrar and Chief Executive of the Council for Medical Schemes (CMS), Dr Sipho Kabane, announced that, "no Low-Cost Benefit Options (LCBO) will be allowed for low income market segments going forward. Furthermore, no products based on the Demarcation Exemption Framework and/or the MS [Medical Schemes] Act will be allowed beyond 2021".

Jasson Urbach, Free Market Foundation (FMF) Director, states: "Banning health insurance options and scrapping the move to introduce affordable medical scheme cover demonstrates a flagrant disregard for individuals' rights to enter into voluntary private contracts to protect themselves from unforeseen out-of-pocket payments when catastrophe strikes".

Hundreds of thousands of people will be stripped of their cover. The entirely predictable consequence is an increased burden on an already over-stretched public healthcare sector, precisely at a time when the country is in fiscal crisis. Poor and middle-income South Africans cannot afford this form of social engineering and will be denied their constitutional rights of freedom of association, access to quality healthcare, and protection of their private property.

Michael Settas, a member of the FMF's Health Policy Unit, says, "It is difficult to understand what the motive behind this move is, given that the CMS and the private sector have been working together to develop the LCBO for the past 5 years. Industry leaders are also none the wiser since absolutely no stakeholder engagement preceded this shock move".

Circular 80 targets some of the most vulnerable members of society who, for a brief time, have had an opportunity to better their lives with access to affordable, quality private healthcare. The decision to do away with LCBOs and health insurance products, without saying what will replace them and how much it will cost is without doubt a violation of the constitutional rights of the affected citizens.

To increase access to quality healthcare for all South Africans, government must allow those who can afford to pay for their own health insurance to do so. To achieve the objective of Universal Health Coverage (UHC), government must remove the regulatory barriers that artificially raise the price of private medical scheme cover and effectively prevent citizens from entering into voluntary private contracts. The government must not deny people their constitutional right to take care of their own healthcare needs and desires.

New solar farm adds 86 MW to grid

THE first phase of a 258 MW solar power complex has been completed in Upington. The facility, known as Sirius, has completed an 86 MW installation.

The project is part of a host of similar initiatives given the green light by the government to support the struggling power supply across the country.

Scatec Solar and its partners have announced that this connection is expected to produce 217 GWh and will lead to the abatement of more than 180 000 tons of CO2 emissions annually.

"We are pleased to reach another milestone with the grid connection of our fourth solar power plant in South Africa, with a combined capacity of 276 MW. South Africa continues to be a very important market for Scatec Solar, and we are developing several interesting project opportunities both within the utility-scale segment as well as our container-based solar solution", says Raymond Carlsen, CEO of Scatec Solar.

The company is an independent power producer that has a total of 1.9 GW of solar power across four continents.

Completion of the remaining 172 MW of the project is expected in the upcoming months, after being awarded the project in 2015.

According to MyBroadband, Sirius is one of 27 renewable energy independent power producer (IPP) projects which aim to add 2 300 MW to the Eskom grid and help deal with the national electricity crisis.

PoD + automation improves cashflow

ON average, an accountant spends 25-30% of their time looking for documentation to resolve queries, or resending documents to customers to ensure payment is made. By utilising technology to automate the control and distribution of invoices and linked statements, companies can expect to achieve a 10 to 35% improvement in their monthly cash collections. Over and above this is the 25% of time (a whole week in a month) saved when there is no longer a constant need to search for documentation.

The importance of proof-of-delivery (POD) management is a frequently overlooked or misunderstood aspect of keeping a business running smoothly, and cash flow consistent. Finance departments typically refer to a 'three-way document match' process to finalise a transaction in the system. However, this concept is not widely understood by the greater business community.

This is according to Christopher de Zeeuw, Managing Director of Capisol Software, a provider of integrated and automated document management.

Three-way document match

The documents involved in the three-way match are purchase orders, goods receipts and supplier invoices. If data on all three of these documents is not a 100% match, it will negatively affect payment being made.

"The procurement process typically starts with an order being raised in the system, which is subsequently approved by management prior to being sent to suppliers. Approval of the initial order effectively amounts to the approval of payment to be made to a supplier for the order," he adds.

The process culminates with the finance department, where all three documents (comparing quantity and price) are matched, to ensure that the amount due agrees with what was received and is also consistent with the original purchase order.

Eliminating reasons for delayed payments

"Automation does not only entail scanning in the signed POD and storing this manually on a drive. In order to achieve value out of the automation, one must ensure that the scanning process is efficient, designed to remove human error and - most importantly - that there are exception reports. These reports must be easy to extract and up-to-date at all times, so that the finance department can identify any missing invoices or PODs," he points out.

For the ultimate level of automation and best cash flow impact, it is recommended that all invoices are automatically distributed in a SARS-compliant format to one's customers' finance departments when the transaction takes place. From the invoice, the finance department must be able to drill down to the signed POD - without having to request a copy of the document.

"This simple step eliminates any reason or excuse for delayed payment, and ensures that the finance department has all the required documents to process the transaction. Furthermore, if there is a query, this can be raised within the same month, a possible credit passed, and the invoice still paid within terms," he adds.

Automation considerations

When selecting the level of automation to be adopted, companies must ensure that their document management partner is trusted in the industry and can provide top-level security. The following guidelines will help companies to gain the most from document automation:

- Automate where possible:
- Reduce human error:
- Have a single Master of Data:
- Exception reports:
- Link documents, and
- The system must be user-friendly: It must have the ability to quickly search and find a document and resend in one single step.

Stubborn chicken fat no match for clean-up solution

WHILE the main focus at Lubrication Engineers (LE) South Africa is creating comprehensive lubrication solutions to help customers protect and manage their assets, the company's holistic approach means they provide lubrication cleaning solutions too. This has been the case for one of their customers in the poultry business, who was struggling to find a way to deal with chicken fat.

"The customer runs a poultry processing plant, which means they need to use a food-grade lubricant," explains Callum Ford, National Marketing Manager for LE South Africa. "We supply them with our H1 Quinplex® Food Machinery Lubricant 4025 for their conveyers and chains."

Ford says this product is a semi-synthetic grease suitable for a broad operating temperature range and robust enough to withstand moisture, high temperatures, extreme pressures and other harsh conditions found at food manufacturing plants. "It features an aluminium complex thickener base, which provides extreme water resistance, excellent mechanical stability, reversibility and tackiness," he says. Key additives include Quinplex, LE's proprietary impact-resistant additive, and a rust and oxidation inhibitor.

The product is a tacky white substance, which unfortunately looks a lot like congealed chicken fat. "This customer found that excess lubricant was sometimes ending up on the floor. Because it does its job so well, they weren't able to dislodge it by spraying it with water when cleaning the site, and they were getting in trouble with health and safety inspectors, who would mistake the lubricant for chicken fat," Ford says. "We needed to come up with a solution to clean up the lubricant."

LE South Africa recommended its oil-eating kit, together with an environmentally-friendly industrial cleaning product that the company supplies. Oil Spill Eater II (OSE II) is supplied by LE South Africa in ready-to-use kits, complete with a 16-litre back-pack sprayer. "The cleaning staff simply spray on OSE II, which contains nutrients that attract indigenous bacteria," he explains. "These then rapidly multiply, speeding up the natural spill remediation process. In nature, bacteria release enzymes and biosurfactants that attack the spill. The biosurfactants emulsify the spill, breaking it down to be used as a food source for the bacteria. The end result of this process is CO2 and water."

This oil-eating kit is being used in the chicken plant in combination with LE's Greentastic Industrial Cleaner, a concentrated liquid solution intended for industrial cleaning uses, including oil and grease. This environmentally friendly water-based formula is not only phosphate-free, but completely phosphorus-free, making it a better choice for the environment.

"Greentastic is effective in a broad range of heavy-duty applications, gentle enough to be used as a general-purpose cleaner, and it can be used with solvents for degreasing," says Ford. "It's residue-free and non-caustic, non-acidic and non-flammable. Together, OSE II and Greentastic have proved to be the perfect clean-up combination for our customers in the food sector, and in particular at this poultry facility. There's no more confusion about whether the substance on the floor is lubricant or chicken fat, because this cleaning solution ensures there's nothing left on the floor post-cleaning."

NO TIME TO PANIC

Read recently the business stats, which did not paint a pretty picture. In fact it is deeply troubling, with government finances and households stretched to the limit.

Budget speech out the way sees some relief, however the economy is still in a slump with little growth (recorded and forecast), load shedding, job cuts to name a few serious issues which will impact on these outcomes. Biggest concerns, are government spending R25 billion more a month than it is getting in. Draining state coffers further, including the bailouts of SOEs. Debt is 61% of the GDP (72% if you take into account the loan guarantees of SOEs). Not great figures to work with if the economy is to be stimulated.

The results in manufacturing are down 25% from the year before. Land freight (a clear indicator of business) plunging to its deepest rate since 2009. The construction industry has taken a massive knock, with a slow down in new developments.

All of this and more leaves one feeling quite nervous, with the on set of a mild to severe panic attack. But this is not the time to PANIC. Infact it is the best time to really consider ones business strategies and to go back to the basics. To make sure you are doing the ABCs right and effectively.

YOU CAN DO THIS Practice and experience keep you from panicking in three ways: A) They provide the same sort of muscle memory that allows you to stay calm and call the shots under pressure. B) They give you confidence by way of that little voice in your head that says "Don't freak out; you know you can do this." And C) they give you courage to face your fear. Managing a crisis as like being on autopilot. You just go into some sort of crisis mode and you somehow know what to do. It's a combination of muscle memory, confidence and courage at work.

Some ABC pointers to gaining more of the right customers who will buy your products.

PEOPLE BUY BENEFITS *or the results that product will give. Identifying your ideal customer by making a list of all of the benefits.*

CLEARLY DEFINE *your customer. Who is the person who is most likely to buy your product and buy it immediately?*

IDENTIFY THE PROBLEM *What kind of problem does your customer have that you can solve? Clients will pay you to solve their problem.*

THE COMPETITIVE ADVANTAGE *Focus on the benefits of what makes your product better than others, by defining your advantage.*

SOCIAL MEDIA *can build relationships with your customers, and you can access more people than ever. Plus it's free!*

COLD CALLING *Whether you are doing it in person or on the phone, it is your job to warm up a potential customer.*

THE RIGHT PRICE *can be determined by the perceived value of your product. If you can make your product seem superior to your competitors, you can charge a higher price.*

PROPER NEGOTIATION TECHNIQUES *Look for the "win-win" situations, where both parties are happy with the results of the negotiation.*

CUSTOMERS FOR LIFE *Once a customer has purchased your product, this should not be once off sale. Keep a strong relationship with your customers. This will create more trust and add value to your product.*

SOMETHING FOR FREE *Your ideal customer is far more likely to buy your product if you give them a preview to try out.*

THE INSIDE SCOOP *Tell your customers about an upcoming sale or promotion. They will be happy to hear about it. They may even buy more as this builds trust with them.*

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Why Africa hasn't had its real leapfrog moment yet

By Andries Brink, CEO of Andile Systems

THE leapfrog theory is attractive. In the words of the Financial Times, it's "a quick jump in economic development by harnessing technological innovation." This sounds great, particularly when you factor in the immense amount of innovation and modernisation currently happening. Accessing technology and services have never been easier, especially in Africa where mobile phones have spread further and wider than any other region. Such momentum has sparked dreams of Wakanda, the Afro-future society depicted in the Marvel movies.

Fervent adoption of technology made Africa the leading example of how leapfrogging could change society. But the real world isn't as eloquent as theory. For example, while the M-Pesa mobile money service invented in Kenya has taken parts of the globe by storm, it and similar mobile money products have all but failed in South Africa. The obvious takeaway is the oft-cited phrase "Africa is not a country." But I prefer another philosophy: Local challenges need local solutions. Leapfrogging needs local context.

Tangible leapfrogging that lasts is possible and doesn't only have to relate to a low starting base. At Andile Solutions, we see this play out repeatedly as we deliver banking modernisation projects to organisations across the continent. Recently we deployed modern Treasury solutions to ZANACO in Zambia and Fidelity in Ghana - these are established organisations looking to remove legacy technologies and efficiently take a step into tomorrow. Both projects are successes and some of that credit should go to our excellent teams. But there is more to glean from the experience.

Africa is laden with technical debt, created by a legacy of ageing technologies. These aren't just systems languishing in back rooms. International providers have taken to dumping older technologies here, wrapped in promises that technology will deliver on potential. That isn't true: it's people and context that deliver potential, choosing technologies that fit. If you are not on the ground, gaining a real understanding of what is needed for a given project, you're doing little more than shoehorning ideas from other markets into local spaces. This inevitably leads to not realising the true potential behind modernisation.

The above is aggravated by the transient nature of many technology providers. They enter the market motivated foremost to relieve their flagging revenue, not to create opportunities. Once their projections fall short or they don't size up to the grit needed to do business here, they cut and run. Some will even undercut the competition purely for a good balance on a spreadsheet - the long-term consequences of their actions aren't considered. It's because they have no real vested interest in Africa's unique success, in the rise of Wakanda.

Technology companies born and bred in Africa have a very different perspective. We don't see Africa as just another place to make money. We see Africa as a giant ready to take global history by storm. This creates both a sense of unity as well as a deep respect for what Africa was, is and will be. Ultimately it creates a sense of purpose that those outside of the continent might struggle to understand and appreciate.

Mobile phones made for a symbolic example of Africa's untapped potential. But I've seen the next stage of leapfrogging show itself through our banking projects. Small startups and struggling incumbents have changed their fortunes through the smart and contextual application of modern technologies. Sometimes these technologies come from abroad - we partner with some of the best in the international fintech space - but they only work when applied through a local prism, where the bottom line is the result of passion, customer-centricity and homegrown context.

Africa's challenges can seem staggering. Infrastructure, education and R&D are areas that require a lot more attention. But dreams of Wakanda can become reality. Those challenges are not insurmountable. Many technology providers like to say this, but only those with a real nose for local requirements and with their futures firmly invested in Africa can deliver. They are the ones who make leapfrogging a reality.

Car to Car crash test demonstrates double standard on vehicle safety in Africa

IN the first test of its kind, Global NCAP has crashed the best-selling pick up model in Africa, the 2019 Nissan NP300 Hardbody, into a second-hand Nissan Navara NP300 manufactured in Europe in 2015. The unique car to car crash test graphically demonstrates the double standard currently applied by Nissan and other car makers to vehicle safety in Africa.

The difference in safety performance between the new African model and the second-hand European version is a matter of life and death. The crash test driver dummy in the new African Nissan would have likely sustained fatal injuries, the driver of the equivalent second-hand European model would have likely walked away from the crash. The second-hand European car is fitted with the lifesaving crash avoidance anti-skid system, Electronic Stability Control (ESC), the new African version is not.

Watch the Car to Car crash test film here: https://youtu.be/RFt_dA4vZBY.

Launched to coincide with this week's 3rd Global Ministerial Conference on Road Safety in Sweden, both of the crashed vehicles will be on public display as part of the 'People's Exhibition' in Stockholm Central Railway Station. Global NCAP is partnering with the Global NGO Alliance for Road Safety in hosting the exhibition. The call to action from the #50by30 themed display will be the adoption of a new target to halve road deaths and serious injuries by 2030 by governments worldwide.

David Ward CEO and President of Global NCAP said, "This is a very dramatic car to car crash test which uniquely illustrates the double standard in vehicle safety performance between models sold in Europe and those sold in Africa.

"The difference in crashworthiness is extraordinary. The new Nissan Hardbody performs significantly worse than the second-hand Nissan Navara, to the extent that the driver in the new African Nissan would likely have died from their injuries but the driver from the second-hand European Nissan would have walked away.

"A new car in Africa is not necessarily a safer car. Second-hand imported cars from regions with tougher regulatory requirements for safety, and environmental performance, can offer consumers much greater protection.

"Our aim in publishing this crash test result to coincide with the Global Ministerial Conference in Sweden is very clear. As we approach the end of the first UN Decade of Action for Road Safety, and set an agenda for the next ten years, the double standard demonstrated by an auto manufacturer such as Nissan with the NP300 in Africa is utterly unacceptable."

Saul Billingsley, Executive Director of the FIA Foundation said,

"Does Nissan believe an African life is worth less than a European life? If not, how does the company explain the shocking safety gap between these two vehicles demonstrated by Global NCAP? If we are to meet the 2030 target of halving road deaths we must stamp out this kind of unethical behaviour by some in the car industry."

Willem Groenewald, CEO of the AA said, "These results are extremely worrying and point to a major deficiency in the quality of vehicles available in Africa. We have for a long time been concerned that vehicles available in Africa are inferior to those in other markets such as Europe and Asia, and these results seem to confirm that concern."

"What this car to car crash also demonstrates is a complete disdain for African vehicle consumers and their safety at the expense of profit.

It also again highlights the need for stricter regulation of standards and tougher controls in terms of allowing these inferior vehicles on to African roads."

"On a final note, we endorse David's sentiments that higher safety-rated second-hand vehicles are a better option than lower-rated new vehicles, especially in light of these poor results which clearly show the devastating impact on families and society of inferior models which are sold in Africa."

The Nissan NP300 was previously tested by Global NCAP in 2018 as part of the #SaferCarsForAfrica campaign and received a zero star safety rating. The vehicle structure collapsed and was found to be unstable during the test. The high forces placed on the crash test driver dummy pose a significant risk of fatal injury.

The NP300's bodyshell was so unstable that the airbags were ineffective.

The Nissan Navara NP300 was previously tested by Euro NCAP in 2015 and achieved a four star adult occupant rating.

Deneb unravel textiles

DENEB Investments has finally sold Worcester-based Winelands Textiles, a loss making business that was proving a serious drag on the Epping-based industrial group.

Deneb was formerly known as the Seardel Group, a textile and clothing conglomerate owned by the Searll family. Seardel, however, got into a debt fix and needed to be rescued by local empowerment firm Hosken Consolidated Investments (HCI), which restructured the business and re-named it Deneb.

Deneb is starting to look less and less like the old Seardel. The big change happened in 2013 when Deneb sold its loss making clothing manufacturing operations to trade union SACTWU.

Last year Deneb signalled it wanted to divest from Winelands Textiles, Frame Knitting Manufacturers, Brand ID and First Factory Shops.

The combined loss generated by these entities in the last financial year was a not insubstantial R78 million (and R108 million the previous financial year).

Winelands Textiles has been sold to a black empowerment consortium led by businesswomen Tina Eboka for R65 million.

Deneb said Winelands Textiles does not meet the required return on capital hurdle rate, and so the company believed it was in the best interests of the to dispose of these assets at this time.

The price seems a reasonable exit for Deneb, who will be keen to concentrate on higher margin manufacturing and distribution businesses as well as on unlocking value from its sprawling property portfolio.

Deneb disclosed the value of Winelands Textiles' net assets as at end September 2019 was R65.8 million. But the business recorded an after tax attributable loss of R2.2 million.

It will be interesting to see how the Eboka-led consortium goes about re-stitching the profits line at Winelands Textiles.

After the sale, the last remnants of the old Seardel clothing and textile empire are specialist niche businesses like Brits Nonwoven, Integrated Polypropylene Products and Romatex Home Textiles.

The textile hub no longer reports separately, and these days is included within Deneb's Industrial Products Manufacturing segment.

In the year to end September the industrial product manufacturing endeavours brought in R953 million of revenue. This represented just 28% of total turnover, and paled in comparison to the R1.4 billion generated by the Branded Products segment – which includes Epping-based Prima Toys.

Thaw point at Chill beverages?

CHILL Beverages, the innovative beverages company based in Stellenbosch, is restructuring to squeeze out better returns in a competitive local market.

The big change is the surprise (and immediate) resignation of CEO Grant Hobbs, who was a founding investor in the business. Chill has not announced a successor yet - but John Steyn, currently the chief operating officer, is acting as interim CEO.

Chill's majority shareholder, Brian Joffe's investment company Long4Life, will no doubt be scouring the beverages segment for a long term replacement for Hobbs.

Chill has come strongly to the fore in the local beverages industry in recent years with strong selling niche brands like Score Energy drink, Fitch & Leedes mixers, Bashews soft drinks and mineral waters. More recently, Chill ventured into the liquor segment by launching a well-priced canned sparkling wine brand. The group also co-packs for other beverage companies and produces house brands for mainly large retailers.

Reading between the lines, it seems clear Long4Life – which also owns Cape Town-based sportswear and outdoor equipment retailers Sportsmans Warehouse and Outdoor Warehouse – is dissatisfied with Chill's recent profit performances.

It is almost inevitable that a promising beverages company like Chill will eventually start impinging on markets dominated by larger players. Certainly a dominant mixer company like Schweppes – owned by beverages giant Coca-Cola – is unlikely to allow too much market share to be sipped away by a feisty little competitor. The same goes for the energy drink market where Red Bull and Monster as well as sports drinks like Energade (Tiger Brands) and Powerade (Coca-Cola) are equally precious about maintaining their respective market shares.

In 2017 Long4Life paid around R664 million for 100% of Chill.

It is difficult to judge Chill's performance by looking at Long4Life's accounts as the beverages division also includes Gauteng-based contract bottler Inhle.

In Long4Life's most recent financial report to end August 2019 revenue from its beverages operations increased by 20% to R657.1 million (previously R549.4 million).

But Long4Life advised that Chill Beverages' investment in production capacity and plant upgrades - together with increased expenditure in marketing and advertising - had not yet been matched by increased sales.

This meant that while revenue and volumes increased against the previous year, underutilised capacity and the increased expenditure caused a decline in the trading profit of the beverages division.

At that time Long4Life pointed out that the onset of summer trading conditions had seen Chill's sales prospects improve significantly.

For the period ending August last year Long4Life disclosed a 15% gain in sales at Chill on the back of an 11% growth in volumes (driven mostly by its own brands).

Long4Life acknowledged that innovation and new products were a focal point in the premium mixer category. The group said Fitch & Leedes grew volumes by 14%.

Long4Life did recognise, however, that there was more competition in mixers and energy drinks – which was causing selling price points to decline but also stimulating market growth.

What is an interesting turn of events is the admission by Long4Life that Chill has targeted numerous export markets that offer potential. Presumably this revolves mainly around the Fitch & Leedes mixer offering. Hopefully there will be some encouraging progress on this front when Long4Life reports its results to end February shortly.

Flogging cat 'o 37 million tales whips up export business

FORD Motor Company of Southern Africa (FMCSA) exports the locally assembled Ford Ranger to over 100 global markets. It is also a significant supplier of components to Ford manufacturing plants internationally by managing the local manufacturing and export of catalytic converters.

Annually, more than 1.8-million catalytic converters are supplied from South Africa to 25 Ford vehicle manufacturing plants around the world, along with two aftermarket divisions - with more than 18-million units exported over the past decade. The catalytic converter is an essential exhaust emissions control device that reduces toxic gasses and pollutants from diesel and petrol internal combustion engines, thus contributing towards cleaner emissions and reduced environmental impact.

FMCSA has nine local catalytic converter manufacturers - six of which are based in Port Elizabeth, two in Cape Town and one in Germiston - which support Ford's global vehicle assembly operations for a variety of models. A single supplier located in Ibiden, Hungary, is also contracted by FMCSA to supply customer plants in Europe.

"Catalytic converters have been a crucial part of our export business since this division was established in the mid-1990s," says Ockert Berry, VP Operations at FMCSA. "The programme ramped up significantly in 2002, and through to the end of 2019 we have supplied almost 37-million catalytic converters to Ford plants around the world."

> "Catalytic converters have been a crucial part of our export business..."

"As a highly specialised industry, the catalytic converter business is an important contributor towards investment and employment in the local economy, and currently supports several thousand jobs at our nine local supplier companies."

In 2019 alone, over 160 000 catalytic converters were fitted to Ford Ranger pickup and Everest seven-seater sport utility vehicle (SUV) models produced at the Silverton Assembly Plant in Pretoria - destined for the domestic and export markets. Catalytic converters are also exported to Ford Ranger assembly plants in Argentina and Thailand.

South Africa supplies catalytic converters to Ford plants in Europe that assemble the Fiesta, Figo, KA, B-Max, EcoSport, Focus, Mondeo/Fusion, C-Max and Transit/Tourneo.

Locally manufactured catalytic converters are also shipped to North America for use in the Ford Fusion which is assembled in Oakville, Canada, along with the Transit van produced at the Kansas City plant in the USA.

Slowing world trade, load shedding take their toll on freight volumes

THE Ctrack Freight & Transport Index shows that freight volumes are at their weakest levels since April 2016: down 6,8% for the year to January.

Furthermore, international data shows that world trade is slowing at its fastest rate since the 2008/9 recession. According to the World Trade Monitor, world trade volumes declined 1,3% on a year ago towards the end of last year.

The South African freight transport sector is exposed to the world trade cycle. Therefore, it should come as no surprise that the freight transport sector in South Africa is similarly reeling.

In addition, the China/US trade war has only been patched up by the phase one trade deal, while the breakaway of the UK from the EU is causing trade to slow in Europe.

Load shedding in December and January also played a role in South Africa's freight volume decline, while simultaneously strangling the country's retail industry.

Thankfully, fuel prices have been dropping. Oil prices are at their lowest levels in years, primarily due to the Coronavirus outbreak. Lower fuel prices helped arrest the decline in South Africa's pipeline transport volumes (down 0,8% on a year ago).

While sea transport volumes remained positive in January, the significant decline in the amount of bulk commodities handled is cause for concern.

While January volumes are unlikely to reveal much about the Coronavirus impact, China has over 30 million tons of steel in storage.

This means that future shipments may be impacted. Moreover, for the last four weeks China has been using about 60% of the usual amount of coal it uses for producing power.

Bulk goods transport is down, with the Baltic Dry Index at its lowest price in over a decade. Break bulk volumes on the other hand have fared better. This may be due to greater bulk imports that were - at least in part - for drought relief in South Africa and in neighbouring countries.

The Beira port in Mozambique is still not fully functional either and some goods are being sent to South Africa.

With uncertainty created by load shedding and lower manufacturing volumes, it is no surprise that the storage and handling sub sector has recorded the sharpest declines: minus 19,3% over the last year.

Road freight volumes have declined -7,3% although a slight increase in traffic to South Africa's northern borders has been recorded.

However, internal road transport is sluggish as results from listed logistics companies reflect.

Rail freight volumes did not decline as much as road freight and this is partly due to most rail traffic being bulk export commodities. However, one should expect rail freight volumes to remain under pressure.

International air freight volumes into Africa remain positive according to IATA, although South Africa's air freight volumes are in decline. Combining both local and international air freight volumes results in a volume decline of -1,9%.

"The true scope of the Coronavirus outbreak on world trade is difficult to fully comprehend and quantify. Apart from lower freight and transport volumes, the epidemic will no doubt also contribute to widespread stockholding reductions. Still, we trust that the Index will reveal better news soon and that global and local economies begin to get back on track quickly," ," says Hein Jordt, managing director of Ctrack South Africa.

African Utility Week & POWERGEN Africa

12-14 May 2020 at the CTICC in Cape Town.

"MORE than 30% of South African mining projects will be terminated prematurely due to additional power costs if suitable solutions are not found within the next 12 months" says Ted Blom, independent power and mining expert and commentator and a partner at Energy & Mining Advisors.

His comments follow Mineral Resources and Energy Minister Gwede Mantashe's recent announcement that the government had conceded that it must allow mining companies to produce energy for their own use. Ted Blom adds: "most mining projects in Africa provide their own power for operations, but that just increases the hurdle rate for committed capital to develop and run the project. The big difference is that provision of own power is already factored into those projects whilst South African projects have NEVER factored in the costs of providing own power."

The power and energy challenges and success stories of the Commercial & Industrial sectors on the continent will be unpacked at the upcoming 20th edition of **African Utility Week & POWERGEN Africa** from 12-14 May 2020 at the CTICC in Cape Town. The event will bring together more than 10 000 power, energy and water professionals from more than 90 countries.

Dedicated session topics will include:

- Harnessing the power of self-generation in the Commercial & Industrial sector
- Small Scale embedded Generation for the Commercial & Industrial sector
- Productive Use of Power as critical to mini-grid development and sustainability
- Funding for effective mini-grid project rollout and scale up
- The A-Z of successful deployment of hybrid technology mini-grids
- Batteries for your renewable energy system: factors to consider.

"Utility transformation scenario planning for Eskom" is another thought-provoking session in the packed conference programme that is divided in five strategic focus areas:

- Finance & Investment Strategy
- Future Cities
- Energy Revolution Africa
- Water
- Smart Energy – Metering

Along with multiple side events and numerous networking functions, the event also boasts a CPD-accredited strategic conference and technical presentations with over 300 expert speakers.

For more information visit: www.african-utility-week.com ; www.powergenafrica.com/

Engine imports threaten sustainability

SOUTH AFRICA needs to wake up quickly to the dire socio-economic impacts of simply importing new engines rather than remanufacturing existing components locally.

According to Andrew Yorke, operations director at Germiston-based Metric Automotive Engineering, large diesel engines are gradually becoming uneconomical to repair.

"We have already seen this trend in light commercial vehicles, where complete engines are now imported as opposed to remanufacturing individual components," says Yorke. "The remanufacture of components was a viable industry twenty years ago, but that market has long disappeared."

The business focuses on the remanufacture of components for large diesel engines that drive the rail, mining, power generation and marine sectors, and Yorke says he is seeing the same disturbing trend in these segments. He notes that 30 years ago, some 80% of the cost of an engine overhaul would be for engineering and 20% would be for the parts. Today, that percentage split is exactly the opposite.

"This is because the OEMs are pricing their parts to the aftermarket in a way that makes remanufacturing less and less viable," he says.

This is not because the engine is designed to be thrown away. On the contrary, its major components – cylinder head, engine block, conrods, crankshaft and camshaft – are all designed to be remanufactured more than once. It is the other wear parts like seals, bearings, liners, pistons and gaskets that need regular replacement.

A new era for SA's 100 year old supergrain

TIGER Brands has officially opened its new, state-of-the-art Oat Mill for its first and oldest product – Jungle Oats – in Maitland, Cape Town.

Speaking at the opening event unit manager, Rees De Villiers outlined some of the innovative features. “With this state-of-the-art building and technology, the new mill has increased efficiencies and significantly improved output. Notwithstanding this, however, the overall carbon footprint has actually been reduced through the installation of higher-efficiency motors which reduce the energy input per ton.”

A total capital investment of R208 million was made to the manufacturing site in the Western Cape. Socio-economic benefits of the new Mill include investment in oat farmers. The company has invested in 10 black South African farmers through its Smallholder Farmer Programme in the Western Cape who will in 2020 plant 100 hectares of oats.

The unveiling of Jungle Oats' new mill coincides with a major milestone – its 100th anniversary. While a lot has changed since being launched as Tiger Brand's very first product offering – “Tiger Oats” – back in 1920, marketing director Lee-Anne Govender notes that the goodness of oats has remained consistently the same.

“The way in which we process our oats sets Jungle Oats apart from competitors, including international competitors. Interestingly, the original campaign of ‘Tiger Oats' was ‘Health is Wealth'.

“This year, we celebrate 100 years of “Doing Life with Heart”. Heart wellness continues to be a distinct benefit of Jungle Oats, given its beta-glucan content, and Jungle remains committed to promoting this message across South Africa,” Govender concludes.

Versatile precast concrete equipment shelters

RAILWAY signalling units, batteries and equipment for cell phone towers, security surveillance electronics, photo-voltaic and wind farms and other high-value support and back-up equipment are often the target of theft or damage due to their accessibility. The risk of theft is easily reduced by the installation of Equipment Shelters from Rocla, South Africa's leading precast concrete designer and manufacturer.

The design team at Rocla ensured that the unit design was practical for handling and transportation, yet strong enough to deter possible break-in attempts. Replacement costs of sensitive equipment are incredibly high, and the Equipment Shelter is a seriously solid solution to reduce tampering, theft and damage.

US$250 million trade finance deal announced

ABSA and the African Development Bank Group (AfDB) have signed a US$ 250-million Risk Participation Agreement (RPA) which, when fully utilised, is estimated to mobilise over US$2 billion worth of trade business over three years.

The RPA was signed on the side-lines of the 2019 African Investment Forum (AIF) held in Johannesburg.

This facility, through a 50:50 risk sharing approach, will help to promote broad-based economic growth on the African continent through increased facilitation of import-export activities of African corporates and small and medium-sized enterprises, and increase intra-Africa trade and regional financial integration in line with the AfDB's High 5 strategic priorities.

The RPA enables Absa and AfDB to equally share the risk of issuing trade finance facilities to African banks who have been unable to access trade finance support, due to a number of multinational banks exiting the continent through de-risking.

"Intra Africa Trade is crucial to harness the potential of Africa, which boasts 60% of the world's arable land and an abundance of resources. AfDB & Absa are financial institutions which are intimately involved in the provision of financial services to support these flows." says Temi Ofong, Deputy CEO of Absa Regional Operations & Chief Operating Officer, Absa Corporate and Investment Banking.

Carmel Kistasamy, Head, Global Development Organisations at Absa Corporate and Investment Banking says the agreement will benefit many African banks and their clients who have been unable to access trade finance after the 2008 financial crisis. Kistasamy sees demand for trade finance coming particularly from sectors such as agriculture and manufacturing.

She says the investment spending gap for Africa's development continues to widen with latest estimates of between US$130 - US$170bn per annum. Small and medium-enterprises, which are seen as drivers for economic growth and job creation, require significant funding to expand their businesses and the private sector has a key role to play in cross border investment.

"Intra Africa Trade is crucial to harness the potential of Africa..."

George Wilson, Head of Institutional Trade Finance at Absa Corporate and Investment Banking says AfDB has played a crucial role in assisting with reducing Africa's trade finance gap.

"Not only does their involvement directly address their developmental mandate, it greatly expands the reach and capacity of Absa's continental Trade Hub and has the potential to practically broaden the access to trade finance and developmental growth in Africa. We see this as a key stepping stone for even more impactful trade finance collaboration with the AfDB into Africa." says Wilson.

"This deal is the result of what happens when you have the bravery to imagine and the will to get things done and we look forward to working with the AfDB to bring our clients' possibilities to life." says Ofong.

National minimum wage increase

THE Minister of Employment and Labour has promulgated a new minimum wage in terms of the Minimum Wage Act, effective 1 March 2020. The new minimum wages for all employees not within the scope of a bargaining council agreement or sectoral determination are as follows:

- R20,76 per hour for all employees, except farm- and domestic workers;
- R18,68 per hour for farm workers; and
- R15,56 per hour for domestic workers.

NEASA members can call its 24/7 National Hotline on 086 016 3272 with any queries.

Concrete course that lifts careers on offer next year

QUALIFIED and experienced consulting engineers are primary target markets for the Advanced Concrete Technology (ACT) course offered by the School of Concrete Technology because the knowledge gained from the course plays a vital role at the design stage of a concrete structure to ensure that the correct concrete specifications have been formulated, says John Roxburgh, senior lecturer at the School.

The globally-respected ACT course will be presented again, depending on the number of suitable candidates, in January next year by The Concrete Institute's School of Concrete Technology in Midrand. ACT has been offered biennially by the School for 25 years and successfully completed by 80 candidates whose ACT diplomas have opened significant executive and management career opportunities.

Roxburgh says such in-depth concrete knowledge is vital not only for consulting engineers but also the national economy. "Qualified engineers would, for example, know that the serviceability and performance of concrete depend not only on the strength of the material but also on its durability. They would understand the quality and limitations of concrete with the ACT course having provided this essential knowledge," Roxburgh states.

"The ACT course, which is examined and assessed by the UK-based Institute of Technology, is by far the most advanced course on offer from the School of Concrete Technology - and anywhere else in the world, for that matter. It is basically the main concrete technology course for highly qualified professions such as civil and consulting engineering," Roxburgh explains.

The course covers 75 topics, including essential training for civil engineers in subjects that include Principles of Reinforced and Prestressed Concrete, Assessment of Concrete Construction, Special Processes and Technology for Particular Types of Structures, Repairing Concrete and Quality Control, as well as Standards, Specifications and Codes of Practice. Other subjects that form part of the ACT course include Concrete Mix Design, Statistics for Concrete Testing: Durability in Concrete, Precast Concrete, Ready-Mixed Concrete, and the Properties of Concrete in Plastic and Hardened State.

Requirements to qualify for the course are strict and include a qualification, which could be a diploma or degree, in civil engineering or any other appropriate branch of science and technology. Furthermore, successful completion of the School of Concrete Technology's SCT 41 and 42 Concrete Technology and Construction correspondence courses, aimed at improving civil engineers' concrete technology knowledge, as well as other appropriate qualifications, would also help gain admission to the course. Both SCT 41 and 42 courses are on offer from the School this year.

The ACT course is also suitable for cement chemists, and the full spectrum of cement and concrete industries and mining-sector employees requiring maximum concrete technology expertise for their work.

For more information, contact John Roxburgh on tel 011 315 0300 or email johnr@theconcreteinstitute.org.za or visit www.theconcreteinstitute.org.za.

Recognition for lightweight sanitation units

SOUTH AFRICAN technical assessment agency, Agrément SA, awarded Rocla a certificate of recognition for its lightweight concrete toilet top structure at a function held in Pretoria recently.

Rocla's precast concrete sanitation unit is a cost-effective solution to one of the most basic and essential needs in South Africa – the need to supply clean, hygienic and cost-efficient sanitation to schools and homes of people living in rural areas.

"Rocla is proud to have its innovatively designed sanitation units certified as "fit for purpose" by Agrément SA. We had a unit on display at the function in Pretoria, which caught the eye of the Deputy Minister of Public Works and Infrastructure, Noxolo Kiviet as well as other delegates" commented Malebusa Sebatane, Marketing and Communications Manager for the Infrastructure Specialist Group (ISG), adding " We described the unique features of our sanitation units to the deputy minister, and how the product could solve the issue of non-existent hygienic ablution facilities found at many schools, and in particular resolve the issue of pit latrine deaths endured by our young children in schools and in their homes" said Sebatane.

The Rocla unit was designed to provide a viable, dignified, safe and sustainable toilet unit to even the most remote corners of South Africa. All of Rocla's sanitation units are designed as water saving units that can function on the existing grey water output from a household rather than requiring fresh drinking water. The good news for municipalities and home owners with pit latrines is that the Rocla solutions on offer also include for an upgrade to the Water Research Commission endorsed twin leach pit technology at a reduced cost to a new installation.

Of particular interest to Deputy Minister Noxolo Kiviet was the unique "Community Cast" methodology with which all the new Rocla toilet structures and sub structures are manufactured. The award winning Community Cast system was developed by Rocla specifically to benefit rural and township economies with strong emphasis on local job creation and skills transfer which of course aligns 100% with the Public Works and Infrastructure's Expanded Public Works Programmes.

Agrément, which was launched in July 2018 is a fully-fledged legal entity of the Department of Public Works (DPW). Agrément's certificates are comprehensive advisory documents that will assist building authorities and other relevant players to assess the in-situ suitability of any innovation.

Rocla is part of the ISG which also includes Technicrete.

Vodacom awarded Green Star EPB rating for Cape Town head quarters

VODACOM has completed its newly refurbished Century City building in Cape Town. The building has just been accredited with a five Star Existing Building Performance (EPB), Version 1 Certification by the Green Building Council of South Africa (GBCSA).

The Vodacom Century City offices consist of three floors of office space, with an external open and basement parking. The refurbished building which was originally constructed in 2000, adopts green cleaning principles, indoor air quality management and a rigorous occupant feedback process. Furthermore, the building consumes even lower resources when compared to the national GBCSA benchmark building standards.

"In addition to reducing Vodacom's direct environmental impacts, we are also helping our customers to reduce their carbon emissions through the use of our Internet of Things (IoT) solutions, big data and digital products and services which are enabling access to information and communication and replacing traditional ways of doing business", says Vodacom Managing Executive, Carol Hall.

Consulting company WSP Africa oversaw the design and implementation of a number of environmentally sustainable design features in the Vodacom Century City building, including the construction of a 542 kWp single-roof photovoltaic solar array on the building. The installation comprised of about 2 000 mono crystalline solar panels onto Solar World Sundeck roof sheets and 100% recycled Suntabs over a 3 600 m² area.

"The thinking behind the refurbishments was in recognition of the fact that green buildings are not solely about reducing energy, but are also about consuming less water, using more sustainable materials, reducing waste, improving air and light quality, the restoration of habitat and reducing dependency on vehicles," concludes Hall.

Aurecon rebrands to Zutari

ENGINEERING, design, and advisory company Aurecon Africa has demerged from the global Aurecon brand to position itself as a business aimed at the African market. In October 2019, Aurecon officially announced the separation of the African business from the Aurecon Group, effective from 1 January 2020.

"Having all decision-making and ownership in the hands of Africans will increase our agility and capability to deliver appropriate and relevant offerings," Aurecon Africa Chief Executive Officer **Gustav Rohde** comments. Prior to his new role, Rohde served as Aurecon's global Chief Operating Officer.

The company is undergoing many changes, including a total rebranding process, with a completely new name in **Zutari**, which reflects the company's African heritage. The name was derived by combining two Swahili words *mzulia* (invent) and *nectari* (nectar). Swahili is the most spoken language on the continent.

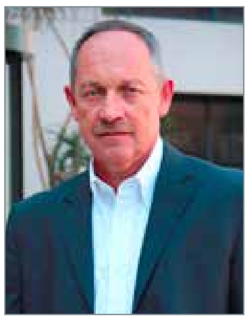
In positioning the new company, Aurecon Africa recently achieved a Level 1 Broad-Based Black Economic Empowerment (B-BBEE) status. Three recent senior appointments, with Rohde at the helm, will assist the new entity to nurture its skills, supplier, and socio-economic development goals. "B-BBEE has always been a strategic imperative for us, and therefore our Level 1 status is an important affirmation," Rohde adds.

Joseph Ndala has been appointed as a Director and Chief Financial Officer for Africa.

Imraan Mahomed has been appointed eThekwini Office Manager.

Bulelwa Leni has been appointed East London Office Manager.

Dr. Lulu Gwagwa, Chairperson of Aurecon Africa, is encouraged and excited to see the new direction in which the company is going. "I am very proud to be part of this journey, and I look forward to steering the new company towards success. No doubt we face serious challenges on the continent, but being part of finding human-centric solutions is very rewarding."



Gustav Rohde.

Dr. Lulu Gwagwa.

Rohde affirms: "We have been operating on the continent for more than 85 years and have been active outside of South Africa for the last 50 years. Africa is our home and is where we want to grow our business. With many losing appetite to work on the continent, this decision goes against the tide, but we believe the opportunities in Africa are vast. Being an African-owned business shows our commitment to the aspirations of our people and our continent."

CONCORD | CRANES

CONCORD CRANES INTRODUCES NEW CAPE TOWN BRANCH

Concord Cranes proudly announces the opening of their new branch in Cape Town! In November 2019, Concord joined their Bud Group partners Goscor Access Solutions, Uni-Span Formwork & Scaffolding, Bobcat, Sany and Goscor Earthmoving Equipment at the new 25 000m^2 premises in Blackheath. With branches in Saldanha Bay and now Cape Town, Concord has expanded their reach to ensure that their services are widely available throughout the Western Cape as well as to the greater Southern African region. With over 180 cranes ranging from 7T – 750T, Concord Cranes has project experience across various industries which include maritime, renewable energy, petrochemical, civil, commercial, construction, SMPP and power & generation.

Visit Concord at their new branch or get in touch brent@concordcranes.com I 079 873 8251

Bud Rental Services is the collaboration of leading industrial brands Concord Cranes, Uni-Span and Goscor Access Solutions. Operating in the industrial sector, these businesses offer bespoke industrial rental and sales solutions that encompass a shared product offering; tailored to meet the requirements of our clientele.

Over the last 40 years, the businesses have grown exponentially with a footprint that expands over 19 operating branches in SA, Botswana and Ghana. Their African footprint is well established, particularly across Southern Africa and they are continuously looking to expand to cater to their customers' requirements.

For further info, please get in touch:

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a Bud Group Company

Skills drain floors the industry

Tandy Coleman, Chairman of the Flooring Industry Training Association discusses the skills drain in the flooring industry, a topic that she is particularly passionate about and committed to change.

SKILLED flooring installers are in short supply, not only in South Africa but throughout the world. Many of the truly skilled artisans are retiring and as there is not much being done to attract next generations into the industry or to consciously upskill those already in the industry, the craft is being lost which ultimately affects all stakeholders in the flooring industry.

So, how do we stop this skill drain? Whose responsibility is it? How do we attract new blood into the industry? How do we increase the skill level, ensuring that we have well trained and highly competent fitters in the industry?

Given our country's staggering unemployment rate of 29%, our government is making an effort to promote job creation and skills development, even if it sometimes has its challenges. Some manufacturers are offering training even though sometimes restricted by funds, time and facilities. Yet, why is this not solving our problem? In 2013, FITA (Flooring Industry Training Association) was formed by a group of passionate people with a goal.

FITA's mandate was to facilitate the upskilling of existing fitters and to attract new talent to the industry. Stakeholders across all categories within the flooring industry were invited to join this industry body. With backing from CETA (Construction Education Training Authority), who has been very generous with funding, they should have been able to achieve great things.

So, why is FITA flailing? Let's analyse the facts:

- The NQF level 1 qualification that was available as a training module was very basic and dealt predominantly with carpeting and vinyl. FITA remedied this shortfall. They applied to CETA for funds to scope a new qualification and on receiving them, invited experts from all flooring categories to assist in the process. After much cajoling, they managed to scope qualifications from NQF level 2 to 4 in 13 different floor categories and submitted them for approval and registration. This took six to eight, 2-day sessions over the duration of a year. Did you lend your expertise to this process?
- The qualification has been with the QCTO for about 18 months, despite FITA chasing the process. Approval is imminent and the next step is for the learning material to be written which will require further funding and expertise. However, membership has started to dwindle. A few fully committed members have remained whilst others have merely left or taken their own direction. Can you offer the expertise and time to this process?
- It certainly seems that stakeholders are loath to commit financially if they are not seeing any immediate value. This raises an interesting debate. Without the necessary skills in the industry, our businesses may all be in jeopardy. Is it not our obligation to stand together to remedy a very real problem? Should we not upskill individuals and create thriving communities and businesses? Is it not our obligation to drive good business practice for a better South Africa? Yes, FITA has a large fallout rate within the learnerships, but if five expert new fitters out of every 50 are provided, we as an industry are still winning, as well as making available the opportunity for good, long-term careers and a way to escape poverty and change lives. Are we feigning ignorance or waiting for someone else to take the lead? Are we seeing what transpires before committing? Are we committing only when BBBEE scoring is an issue or when we stand to gain without investing?

With passion and commitment, there is no question that FITA can solve a very real problem. Does it not make sense for all stakeholders to work together to make a difference? Is a whole not far greater than the sum of its parts? Is there not strength in unity?

There are leading industry players standing by FITA and are proud to state their commitment and involvement. What about you?

First battery-powered mini-excavator wins award

THE first fully electric, battery-powered mini-excavator from Wacker Neuson, the EZ17e, performs and handles just like a diesel-powered model. For this innovative development, the jury of the SaMoTer Innovation Award 2020 in Verona awarded the electric mini-excavator with the Innovation Award in the category hydraulic mini-excavators.

The innovation was selected in the category hydraulic mini-excavators for efficiency and optimal integration of electric propulsion with a design identical to the diesel version and for performances identical to the classic diesel version despite ensuring no gas and noise emissions. The excavator will be the highlight product at the Wacker Neuson stand C11-C12 at SaMoTer, that is taking place from March 21-25, 2020.

High flexibility in use

The excavator EZ17e can run entirely on its battery. Yet, it can also be operated while connected to the mains – and even charged while in operation – thanks to its smart charging management system. This makes it the ideal solution for environments where emissions and noise have to be kept to a minimum, for example in urban areas, for indoor work or on sites close to schools and hospitals.

Operators do not have to worry about damaging the machine when working close to walls or in confined spaces as the tail of the

excavator never extends beyond the undercarriage. This also makes the EZ17e ideal for tunnel construction, demolition and redevelopment work in confined spaces, as well as for restoration projects inside buildings. These are precisely the types of environments where contractors need powerful, compact machines that can be operated without any emissions.

No compromises in performance

"Wacker Neuson has been manufacturing innovative, practical and cost-efficient equipment for 170 years. We've channelled years of experience and expertise in zero emission products into our first mini-excavator with battery and electric drive technology. Our development work always focuses on usability and customer value. Which is why we make no compromises when it comes to performance, with power ratings matching those of our diesel-powered model," explains Martin Lehner, CEO of the Wacker Neuson Group. All hydraulic functions are as powerful as those of the conventional model. The battery is integrated in the existing engine compartment. The EZ17e weighs almost exactly the same as the diesel version and can therefore be transported on a trailer.

Easy to handle – low maintenance – reliable drive

The electric excavator EZ17e is powered by the latest lithium-ion technology, which Wacker Neuson has been using and continuously developing for many years. Long battery life is one of the key features allowing the fully electric excavator to be operated for a full working day. The battery can be charged overnight via a domestic socket (110-230 V), or in just four hours using a high-voltage current. Service teams do not need any extra training for servicing the machine, making the electric excavator particularly attractive to rental parks. "For rental companies in particular, these solutions are an interesting supplement to existing fleets as many of their customers rent products for specific projects such as renovation work inside buildings or tunnel construction," adds Alexander Greschner, CSO of the Wacker Neuson Group. "Electric drives are also low maintenance; reducing downtime, costs and maximizing machine availability."

Making modern buildings safe

IT is critical for modern buildings to have the necessary fire detection and protection systems in order to comply fully with the National Building Regulations and Building Standards Act, 1977 (Act 103 of 1977), Fire Protection, as set out in SANS 10400 Part T: 2011. However, ensuring that a building is compliant often requires the involvement of a fire-engineering specialist right from the initial design phase, according to ASP Fire CEO **Michael van Niekerk**.

"The first question is what value we can add? If we are engaged early enough, we can often help architects avoid often costly mistakes when it comes to either over- or under-specifying fire-protection systems. This is largely due to the vast experience and track record we have in this regard," van Niekerk comments.

"We have been involved with a number of high-profile building projects where we are able to reduce the total spend on fire protection by up to a tenth of the total budget, simply due to our innovative fire-engineering design recommendations.

"We understand how buildings work, and can collaborate with the entire professional team, from the architects to the mechanical and electrical engineers, as well as specialist areas such as hazardous storage and access control," van Niekerk highlights. Smaller architectural practices are also unlikely to have an in-house fire engineer, which is where ASP Fire can play a vital role.

"One of our main aims is not only to make architects aware of the role of fire engineering in building design, but how important it is in terms of cost-efficiency to engage with an expert such as us from the outset. Where we have worked with architects in this regard, we quickly become integrated with the professional team," van Niekerk stresses.

ASP Fire has worked on a wide range of projects, including industrial projects, and even packing houses in the agricultural industry. "In every instance, we have been able to make a significant contribution to the design, and also reduce the overall project cost. Architects also have peace of mind that their buildings are fully compliant, and have the correct fire detection and protection systems installed," van Niekerk cludes.

Redesigning sprinkler installation

Victaulic's FireLock™ IGS Style V9 Sprinkler Coupling and Grooved Sprinklers have not only eased the manner and speed in which fire protection systems are installed, but offer increased job site safety and system confidence.

VICTAULIC released the first UL Listed grooved mechanical coupling for fire protection piping services in 1952. Today, Victaulic technology includes a complete offering of fire protection grooved couplings, fittings, sprinklers, devices and accessories to meet the needs of fire protection piping systems.

According to Marcel Ley, Regional Manager Victaulic South Africa, the innovations were created to replace conventional threads on both outlets and sprinklers, with the mechanical connection redefining sprinkler system design and installation in exposed applications, particularly in the storage and warehousing segments.

"The storage, warehouse and distribution centre segments have undergone significant growth and transformation, creating a need for fire suppressions that are easily installed, maintained, and reconfigurable," explains Marcel Ley, Regional Manager Victaulic South Africa. "Victaulic already has a unique portfolio of products and services that offer value and versatility from the street to the sprinkler head, and the Installation-Ready sprinkler technology just compounds the advantages of using Victaulic."

Ley explains that a single bolt makes up the joining of the innovative coupling design, which in turn is fitted onto sprinklers with a connection size of ½-inch, ¾-inch or 1-inch, and transitions to 1-inch allowing for the standardization of 1-inch IGS outlets making the project easier to plan, design and weld. The simplification of the coupling leads to simplified installation, which increases not only on-site job safety, but allows for ease of maintenance in the future.

Made famous by Victaulic in 2005, the company's Installation-Ready technology allows for ease of installation on site, with the sprinkler and coupling arriving pre-assembled, with no loose parts or preparation required before installation.

"The biggest time-saver and labour management advantage seen with introducing Installation-Ready technology to sprinkler installation is the elimination of sprinkler prep work and the associated consumables such as tape and the like," comments Ley. "By eliminating the need to fit consumables, fitters can instead focus on installing system components and therefore reducing time and unnecessary installation efforts."

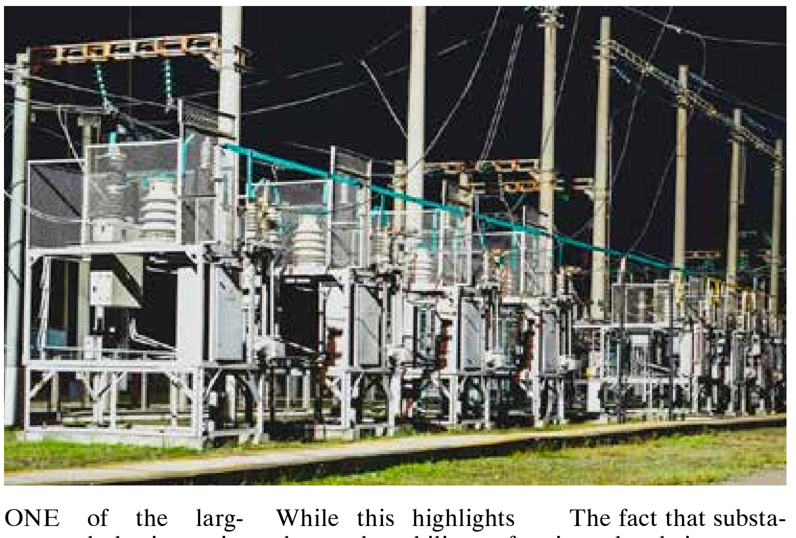
Other advantages are that they require no complicated training or tools. Utilising visual confirmation of one bolt pad for proper installation instead of using a torque wrench makes installation simple and gives users peace-of-mind.

With installers currently fitting sprinklers with a sprinkler wrench, this physically demanding repetitive motion may lead to unnecessary damage to the sprinkler itself as a result of over-torqueing. This problem is however alleviated with Victaulic's solutions due to the utilisation of a mechanical connection with a single bolt allowing the fitter to use a power tool to save both wear and tear on their body, and avoid applying torque directly to the sprinkler frame.

"Reducing the amount of torque applied to the sprinkler frame and replacing the frictional connection with a mechanical one, in turn reduces the likelihood of leaks when the system is pressurized. Rework due to leaks can add an average of one day per system, which will ultimately result in an unnecessary cost to any project."

"We as Victaulic are committed to providing our customers with simplified solutions that save both time and money, all while increasing overall system confidence. With the advent of our Installation-Ready sprinkler solutions, customers now have access to what has to be the easiest and safest installation method on the market today, which ultimately improves both their productivity and work environment," concludes Ley.

Managing the fire risk of transformer explosions



ONE of the largest and busiest airports in Africa, OR Tambo International in Johannesburg, was plunged into temporary darkness on Sunday 12 December after a transformer at a substation in Kempton Park caught fire.

While this highlights the vulnerability of such critical electrical infrastructure, there are various measures that local authorities can implement in order to manage the fire risk, ASP Fire CEO **Michael van Niekerk** highlights.

The fact that substations, by their nature, do not have personnel means there is no one to raise an alert in the event of any incident. In addition, a lack of maintenance also means an increased likelihood of such incidents. The situation is exacerbated by load shedding, which results in current inrushes when the power is restored, which can damage components such as ageing electrical insulation, and the potential of transformer fires.

Some substations are in very remote areas, or in locations that are difficult to access after normal business hours. This means that installing a standalone fire-detection system is recommended to protect high-risk items such as transformers, which are used to step down the electricity from 33 000 V to 11 000 V or 6 000 V. In addition, a fire-suppression system using foam mist can be highly effective.

However, the dangerous combination of load shedding and a lack of preventative maintenance can result in arc flashes, which are basically mini lightning bolts that can cause the insulation in substations to start burning. A lack of adequate maintenance of the cooling oil in a transformer can cause hot-spot temperatures that result in bubbles in the oil which, combined with high temperatures, increase internal tank pressure, and may result in overflow or tank rupture.

The major problem, however, remains the lack of adequate maintenance. "We are all aware of the challenges faced by local government in maintaining essential infrastructure. Ageing substations that are not well-maintained to begin with are increasingly vulnerable to load shedding, which is a recipe for disaster," van Niekerk warns.

While a simple solution is to install adequate fire detection and suppression systems, this is hampered by the lack of necessary funding.

Therefore, carrying out preventative maintenance will ensure that substations are robust enough to cope with load shedding, and also allow local authorities to save on capex costs.

While local authorities have to adhere to strict regulations in terms of electrical safety, the installation of fire detection and suppression systems is not mandatory.

Economical magnetic-inductive flowmeters

INSTROTECH now offers Kobold's MIK, a compact, magnetic-inductive flowmeter, combining a large measuring range, from at 0.01 l/min and currently to 700 l/min, and six different measuring tube sizes, from G ½ male to G 2 ¾ male; perfect for users with smaller to medium-sized measuring ranges.

MIK measures the flow rates of electrically conductive liquids with a high degree of precision and is not influenced by the medium or its material characteristics (density, viscosity, or temperature). Particular advantages include uninterrupted flow of the medium, no moving parts, and installation in any position desired.

MIK has various material combinations for different media in the chemical industry. Flow housings are available in PPS with stainless steel electrodes and PVDF with Hastelloy electrodes. For extremely aggressive liquids, a combination of PVDF and Tantalum is used. A variety of seals are available in NBR, FPM, or the highly chemically resistant FFKM. Installation is quick and easy thanks to practical material-specific connection possibilities, such as PVC glue-in, stainless steel weld-on or PVC hose connections.

Characteristics include:

- Range from liquids, acids and caustic solutions: 0.01-0.5 ... 36-700 l/min
- Accuracy: +2.0% of full scale
- Pressure max: 10 bar; Temp max: 80 °C
- Advantages: no moving parts in the measuring tube; low pressure loss; any mounting position; short reaction time (a replacement for calorimetric flow switch)

MIK applications include the monitoring of additives or cooling agents, totalizing, or batching, the devices which use the magnetic-inductive principle of measurement, are an optimum and cost-effective solution.

Matching electronics are offered for various tasks, from designs with only switching or analogue output to those with counting and dosing electronics.

Contact INSTROTECH for more information on 010 595 1831 or sales@instrotech.co.za

Colour Connect avoids hose-routing mistakes

MACHINE builders and maintenance technicians must ensure that hoses are properly secured to the correct connection. Unfortunately, when dealing with multiple hoses on a complicated machine, personnel can waste a lot of time just identifying the proper routing and mating ends. Worse, there can be equipment damage due to incorrect connections or, in the case of process fluids, product cross-contamination. All can be costly for the OEM and user.

Correct Connect bands on HT-Series couplers and plugs

As a straightforward solution, Dixon Quick Coupling, Dallas, N.C., developed the Correct Connect colour-band design for the company's HT-Series quick-connect couplings. The polyurethane colour bands, for both the coupler and plug ends, let users quickly spot the correct mating connections.

Blue bands are standard. Other colour bands (orange, green, yellow and red) are sold separately. No special tools are required for installation, and they're field replaceable. The products are also available in connect-under-pressure HTE-Series and HTZ-Series couplings.

They can be used to easily identify seals, materials or sizes for an application; help with preventative maintenance schedules; and reduce setup time for more efficient hose routing. They're used in a range of applications, including oilfield equipment, industrial hydraulic machinery, mobile and construction equipment, hydraulic power units, and hydraulic tools.

The HT-Series couplings are available in a range of body sizes from 0.25 to 1.0 in. They come in steel and 316 stainless-steel versions, with nitrile/polyurethane seals standard. Additional seal materials are available.

They are rated for a temperature range of -40° to 100°C with standard seals and pressures to 350 bars. The ISO 16028 flat-face design is interchangeable with Parker FEM, Stucchi FIRG – Series A, Faster FFH, Eaton FF – FD89 and Holmbury HQ quick connectors.

www.dixonvalve.com

SAPPMA ensures quality of pipes used to provided drinking water

THE Southern African Plastic Pipe Manufacturers Association (SAPPMA) has made concerted efforts in recent months to ensure its members manufacture thermoplastic pipes that do not leach contaminants nor is in any way harmful to the consumer, and that they are trained in international best practices to ensure quality of drinking water

Ensuring consumer confidence

"It is SAPPMA's mandate to ensure unquestionable confidence and trust in the quality of pipes that are manufactured by our members," explains Jan Venter, CEO of SAPPMA. "For this reason, we take our job very seriously to ensure that the HDPE and PVC pipes produced by our members and bearing the SAPPMA mark, provide drinking to communities around the country without any health concerns". According to Venter, one of SAPPMA's biggest battles that it is consistently fighting, is against the use of recycled material. Although both HDPE and PVC pipes are highly recyclable when they have reached the end of their lifecycle, SAPPMA members are strictly forbidden according to the association's Membership Code of Conduct to use externally sourced recycled content during their manufacturing process.

"Most of the recycled material used by non-SAPPMA members could be of suspicious origin. Apart from the usual negative effects on pipe quality, there is also the potential danger of detrimental health effects, through the leaching of bad substances into potable water," Venter adds.

No microplastics due to abrasion

SAPPMA allayed fears and refuted rumours that plastic pipes could possibly be the cause of microbead pollution in drinking water. Whilst hard waters can create some lime scale inside drinking water pipes, Venter stressed that thermoplastic pipes are resistant to the chemical treatments used to remove lime scale and restore initial smooth pipe condition. This statement was confirmed by Plastics Europe's Manager of Technical and Environmental Affairs, Arjen Sevenster, who said that there is zero probability that

> "Most of the recycled material used by non-SAPPMA members could be of suspicious origin.

microplastics are generated during transport of drinking water. "Although storm drain and sewer effluent usually contain grit or other hard suspended solids which constantly strikes against the interior surface of the drainage and sewer pipes, thermoplastic pipes have an excellent resistance to abrasion compared to concrete, vitrified clay and GRP, which results in a significant increase in service life," Sevenster reported.

Adopting international quality standards for drinking water

Because consumer health and safety is such an important focus area for SAPPMA, the body has adopted NSF's internationally recognised ANSI 61 standard for health effects of components, including piping systems.

"We have recently welcomed NSF International, an American product testing, inspection and certification organization, as a member of SAPPMA. This afforded us the ideal opportunity to educate our members about international quality standards for drinking water," Venter explained.

For more information, visit www.sappma.co.za

EKD Kolibri energy chain

EKD energy chain from Powermite delivers reliable and cost-effective protection of cable, hose and hydraulic supply at a fixed or variable speed for the seamless operation of mobile equipment such as cranes and milling and boring machines.

"Our combined knowledge of over 50 years in drag chain applications with the globally renowned German energy chain manufacturer EKD, positions us as a leading supplier of EKD Kolibri energy chain to Southern African industry," says Donovan Marks, Director at Powermite. "EKD Kolibri energy chain is uniquely engineered to substantially reduce operational costs and extended component life for lowest total cost of ownership. It therefore comes as no surprise that this high quality product which we have been supplying to the southern African market for over three decades, is widely used across diverse industries such as ports and harbours, materials handling, industrial and water treatment plants."

According to Marks, one of the biggest challenges when it comes to recommending the most optimum energy chain solution, is that customers are not always able to provide the most accurate or comprehensive information about their machines. "We interact regularly with our customers and build solid long-term relationships so that we get to know their business and completely understand their equipment and requirements in order to be able to recommend the best possible solution."

Powermite's comprehensive range of EKD Kolibri energy chain, available in galvanised steel, stainless steel and carburised (hardened) steel, includes three different types - a one part link or flap-open link range, a wide range of bending radii (to facilitate large cables), as well as chain with separate end-connectors (each link can be used as an end-connector). "The bars of the flap-open range ensure easy access for on-site installation of hoses or cables," explains Marks.

The EKD Kolibri series ranges from external sizes of 15mmx15mm through to 65mmx225mm while the EKD PKK range can handle external sizes up to 100mmx340mm. Steel external sizes start from 50mm high x up to 1500mm wide.

The company's energy chain portfolio also extends to a plastic range consisting of self-extinguishing, ATEX, Anti-Static, steel-coated and Robotic bi-directional chain. Very few spare parts are required as all plastic chains are equipped with integrated connectors, keeping costs and downtime to a minimum. Powermite also offers chains designed for ultra-long distances. Known as the Marathon System, these chains use roller sets and are capable of maintaining speeds of up to 200m/minute.

EKD Kolibri energy chain's unrivalled wear resistant ensures exceptional reliability. This robust chain requires minimal maintenance and spares and can operate in extreme temperatures of between -20°C and +100°C.

Powermite's countrywide branch and distribution network in Johannesburg, Witbank, Cape Town, Durban, Richards Bay, and Rustenburg carry a full range of spares for the entire EKD Kolibri drag chain range and deliver after-sales service support to customers and end-users across some fifteen African countries as well as in Mauritius.

> "Our combined knowledge of over 50 years in drag chain applications with the globally renowned German energy chain manufacturer EKD, positions us as a leading supplier of EKD Kolibri energy chain to Southern African industry..."

WWF-SA backs new sustainability award

IF tourism in South Africa is to raise its contribution to GDP, expand economic opportunity and accelerate inclusive growth, it will have to tackle the issue of sustainability head-on, says Margi Biggs, convenor of the annual Wine & Food Tourism Conference.

"That's why sustainability will be a central feature of this year's conference in September. It is also why we are introducing a sustainable tourism category to our associated Wine & Food Tourism Awards. Called the WWF Conservation Leadership Award, it raises the number of categories in which wine and food tourism practitioners can compete from three to four." The other categories are for the authentic South African experience, for service excellence that contributes to memorable experiences and for innovation in concepts, products and services. The organisers are calling for submissions now, with entries accepted until 22 May. Entries will be assessed by a panel of seasoned experts chaired by Jean-Pierre Rossouw, publisher of *Rossouw's Restaurants and the Platter's South African Wine Guide*. Biggs said the newest award, sponsored by WWF South Africa through funding provided by Pamela and Neville Isdell, was intended to emphasise

the critical role of eco and social sustainability in the development and execution of a new generation of relevant, appealing and competitive travel offerings.

"With the rising awareness of over-tourism, the global trend is towards lesser-known travel destinations and in that sense, South Africa has an advantage. Nevertheless, if we are to remain at the top of our game, our wine and food tourism sector must ensure an array of transformative experiences that travellers know to be responsibly conceived and provided. Increasingly, tourists want to contribute to local efforts to promote biodiversity and protect communities. WWF-SA's Shelly Fuller said: "Today's travellers want to be the creator, producer and teller of their own personal sustainability stories and South Africa has a wealth of outlets for such expression. There are so many fine examples of projects to rehabilitate and protect indigenous habitat, to conserve cultural practices and traditions and to revitalise marginal communities, and many of them involve local wine and food.

"By allowing tourists to participate more directly in these initiatives, we help them forge their own narratives in refreshingly exciting and memorable ways. WWF-SA's role is to support and reward initiatives that work towards restoring balance and reinforcing the planet's natural defences. We are delighted to be partnering with the conference in celebrating South African excellence in sustainable tourism."

As a further boost to the conference and its awards, WESGRO would be championing the award for the authentic South African experience category honorees. "WESGRO has been a strong supporter of the conference since its inception five years ago, recognising the value of tourism for the Western Cape economy. This competition category is intended to celebrate the expression of local culture through food and wine in original and fully immersive ways."

For more information on the terms and conditions for entry in the Wine & Food Tourism Conference Awards, go to https://wineandfood.co.za/awards/.

New range of dry running conveyor parts for the food and beverage sector

BMG's Light Materials Handling division has launched a new range of dry running conveyor components for the food and beverage sector that offer high productivity, low energy and reduced water consumption, as well as a safe and hygienic work environment.

Says Ryan Forsyth, Business Unit Manager, Light Materials Handling division, BMG: "Our new range of dry running belts, with approval for direct food contact from leading global manufacturers, have important advantages over our original and conventional acetal chains and belts. These features include higher chemical and abrasion resistance, lower friction, greater strength and extended service life.

"The reduced coefficient of friction properties of dry running conveyor components enable end-users to reduce or eliminate chain and belt lubrication, providing a true dry running conveyor. Improved sliding properties result in reduced power consumption, increased wear life, lower dust generation and the ability to run at higher speeds, with higher loads. Other advantages over acetal chains and belts are improved product stability and efficient flow."

This advanced technology reduces the need for soap, water and chemical-based lubrication, resulting in dry equipment and floors, thus a safer work environment, with sustainability improvements, reduced bacteria growth and further cost savings.

Running dry also eliminates the need for regular maintenance and component replacement, because a dry operation is easier on conveyor bearings, frames and the chain or belt, with excellent chemical resistance and extended operating life.

BMG has also introduced a new condition monitoring device that continuously measures the coefficient of friction, to ensure efficient handling and flow of all container types, including PET, glass and cans. Variations in the coefficient of friction are reliable indicators of changing conditions and even pollution of the conveyor, especially in dry running lines.

This device is a complete unit, with sliders, which can be mounted on a conveyor and integrated into the line control system, to temporarily or continuously monitor friction. The condition monitoring unit is programmed to collect performance data, obtain data for trouble-shooting or to act as continuous input for the line controls. It can also be used as a stand-alone or portable device for spot measurements, without the need for operator intervention.

Obtained data is then used to calculate the average value, as well as the standard deviation and the trend. These values trigger an alarm if pre-set limits are reached and based on this signal; the user can check the situation and take corrective action before efficiency is compromised.

Another key feature is an easy-to-define optimum cleaning regime called 'Smart Cleaning'. Long-term line conditions can be analysed using data obtained through ethernet or Modbus connections.

A permanent control process of real-time monitoring of the line condition helps to maintain optimum conditions, ensuring high efficiency of conveying in food and beverage plants.

BMG's Light Materials Handling division has launched a new range of dry running conveyor components for the food and beverage sector.

Fruit washing – some technical advice

Heinrich Vollgraaff, Sales Manager at NDE Stainless Steel, shares advice about the correct grades of stainless steel for fruit washing applications in the Food and Beverage industry.

IN last month's Cape Business News, I talked about the supplier's importance as a partner in running a factory and minimising breakdowns. I mentioned the need for technical advice as part of the package which suppliers should offer and which NDE Stainless Steel provides as a free and much-valued service to customers

Technical advice is an important aspect in ensuring the success of any process, in any industry.

In the Food and Beverage, and Dairy Manufacturing industries there are many processes where corrosion is a factor, and the use of the correct stainless steel grade is crucial in providing solutions that are both corrosion resistant and hygienic.

As an example, I have highlighted fruit handling and washing because stainless steel is a commonly used material in the washing of fruit particularly here in the Western Cape.

Fruit Handling and Washing

The most common corrosion problem with stainless steel in water-related applications for fruit washing is a corrosion problem known as pitting.

Pitting is one of several types of corrosion which may occur in stainless steel under certain circumstance - and which, in many cases, can be prevented or minimised, mainly through choice of the correct grade of stainless steel.

Pitting is caused by chlorides in the water. Obviously the higher the chloride content of the water, the greater the likelihood of pitting.

The other factor that can cause pitting is lack of oxygen in contact with the stainless steel.

Stainless steels become corrosion resisting because of the formation of a very thin (5 nanometres) chrome oxide (a ceramic) on the surface.

This oxide can be removed through abrasion (tumbling of fruit) or through chloride attack.

Once this oxide is removed the stainless steel needs to regenerate the oxide film which it can only do in the presence of oxygen.

The most common barrier to the re-forming of the chrome oxide in the water industry is stagnant water.

Selection of stainless steel grades

There are over 500 grades and finishes of stainless steel, with a core group of well-known and frequently used grades.

Grade 304L can be used where the water used for washing contains less than 200 ppm (parts per million) of chloride. Most municipal water runs between 80 and 150ppm.

304L can safely be used at these chloride levels provided that the water is flowing and

not allowed to stagnate for periods longer than a day.

It is recommended with stainless steel that the fruit washing equipment is designed in such a way that it can be totally drained when not in use.

If either the chloride content is higher than this or there is stagnation of water, then grade LDX2101 or 316L should be used.

When chlorides in water are higher than 600ppm (as in sea or borehole water), grade 2205 duplex stainless steel is suitable.

New poultry master plan will stand or fall by implementation

THE FairPlay movement, job-seekers, trade unions and impoverished rural communities will be watching closely to see whether the new poultry industry master plan sets the industry on a growth path by cutting back the devastating flow of dumped and predatory imports. The plan, developed by government, the industry, importers and unions, aims to promote job creation in the chicken industry and its value chain, including maize and soya production.

"While FairPlay welcomes these developments, for which we have campaigned relentlessly over the past three years, everything now depends on implementation," said FairPlay founder Francois Baird. "The key to success will be the effectiveness of government measures to restrict imports, firstly through a tariff announcement expected soon. The strength of government's intent will be shown by the percentage tariff it is prepared to impose to restrict Brazilian chicken imports."

The promised crackdown on "unfair forms of trade" is another vital initiative against unacceptable trade practices, Baird commented. These include practices which can compromise food safety, such as thawing and refreezing, selling previously frozen imports as fresh chicken, and inadequate labelling which would prevent effective traceability in the event of product contamination. Government will require additional resources for the effective implementation of existing and new regulations and FairPlay hopes the import sector as signatories of the master plan will play a constructive role in seeing this realised.

Many thousands of jobs have already been lost, and thousands more are at risk because government efforts to stem the flood of imports have largely been ineffective. The relentless assault by foreign chicken producers, mainly in Brazil and the European Union, has created an existential crisis in an industry which is a strategic asset to South Africa, not only in terms of jobs, but also food security and food safety. The master plan sets out the steps needed to end the industry crisis and an action plan to increase chicken production and job creation.

The plan's job creation targets are not as high, or as specific, as FairPlay had hoped, but the master plan, if properly implemented, will help address South Africa's record 29.1% unemployment rate, firstly by halting years of devastating job losses through appropriate tariffs and other measures restricting imports, and secondly by promoting import replacement and new production.

The jobs target set out in the plan is modest. The largest jobs gain is expected in the poultry industry, where several thousand jobs are anticipated from investment and expanded production. Further jobs are targeted through the creation of new commercial-scale contract farming operations. Increased demand for chicken feed should result in new jobs in the soya and maize industries.

These totals could have been substantially higher, with increasing job creation in years to come, had government been willing to enforce a real cut in imports – halving them, say, instead of the relatively gentle curtailment that is foreseen. Most of the jobs growth will come not from import replacement, but from expansion to meet growing local demand.

"While we understand that compromises had to be made to secure agreement from all sides, including importers, an opportunity for aggressive job creation has been missed," said Baird.

Justice Richard Goldstone, FairPlay's patron, pointed out that the poultry industry master plan could well be a template for similar job-saving and job-creating plans in other industries. "In a country with one of the highest unemployment rates in the world, nothing can be more important. It will require compromise all round, and above all a steel-will from government to implement what is necessary," Judge Goldstone said.

Electronic engineers help wine growers to vintage success

Behind the rise and rise of English wine, British engineers and technologists are busy developing new systems and aids for the vine growing industry.

ENGLISH wine is taking off, with more and more people recognising its award winning quality and production growing by the year. A generation ago it was wise to steer clear of 'British wine', blends of cheap wine from generally unnamed sources. But since then, a warming climate and improvements in viniculture has seen a whole new industry blossom. Commercial vines are now grown throughout the UK, predominantly in the south of England and also in Wales and even Scotland. Viniculturalists all over the world know that without treatment, large portions of any vine crop will routinely be lost to fungi, bacteria, and – the blight of the industry - mildew. The English growers also realise that like all developing industries, as production grows so the need for efficiency increases.

Oxfordshire's Heli-Lift Services has been pioneering the use of helicopters for spray treating grapevines, using technologies developed by neighbours Sensor Technology - represented in SA by INSTROTECH.

Starting in the historical vineyards of Douro Valley, Portugal, where with little room for tractors, Heli-Lift soon realised that aerial spraying was very much more efficient and cost effective than traditional manual methods. It is now promoting its capabilities to English vine growers, who are all keen to innovate and advance their industry further onto the world stage.

Heli-Lift Services' spraying rig is designed so that its nozzles release perfectly weighted droplets evenly and swiftly over the crop. The company has also developed a hydraulically stabilised Heli-Deck for easy refilling on rough or sloping ground. To ensure even spray coverage, the pilots use a sophisticated GPS mapping device called HeliNav coupled with an intelligent LoadSense weight sensor that monitors spray usage to plot and record progress in precision detail.

Both HeliNav and LoadSense were developed by Sensor Technology Ltd. LoadSense is based on the company's wireless torque sensor which the industrial world is very fond of. Helicopter operators took to it because, being wireless, there is no need to drill cable holes through the aircrafts' body panels – which would mean getting recertified for airworthiness.

The pilots asked if Sensor Technology could link the load information with accurate GPS positioning, to automated flight planning for optimised spray patterns, and HeliNav LoadMaster was born. The load sensing and position monitoring technology developed by Sensor Technology is essentially simple, yet is accurate to very fine tolerances. LoadSense combines Sensor Technology's wireless signalling with a strain gauge Load Sensor. It has the capability of wirelessly transmitting its data to a readout where it both displays live readings and records them to build up an exact profile of each operation. Its inbuilt 32MBit memory can hold up to 280 hours of data which can then be downloaded to a PC via its USB cable.

The load sensor transmits using the worldwide license free frequency of 2.4GHz using two built in antennae. The cockpit mounted readouts provide the pilot with precise real time information in an easy to understand graphical format. The sensor can also send signals direct to handheld readouts so that assistants on the ground have the same live information.

HeliNav LoadMaster provides position information through an on-board GPS (global positioning system), inclinometer and accelerometer and helps pilots plot and follow flight paths, monitor flight times, fuel requirements, etc. As such it makes even the most complex spraying jobs simple and efficient. It also logs the weight of the load and the distance travelled, so that the helicopter operating company can provide the client with accurate work reports and precise billing as well as schedule timely maintenance.

Sensor Technology and other British companies lead the world in advancing electronic sensing and data handling systems and it works hand-in-hand with the English wine industry, which is equally innovative and successful.

There are now over 500 vineyards in Britain, the most northerly being on the Shetland island of Unst, 1 400 miles north of Bordeaux and just 400 miles south of the Arctic Circle. They produce 5 million bottles of world-class wine that competes with the best that Europe and the New World have to offer. These numbers are growing rapidly: 1 m new vines were planted in 2016, which will eventually produce about 2 million bottles of wine and people are clamouring to join the industry or increase their existing investments. Norfolk's Winbirri Bacchus has been voted world's best white wine, sparkling Nyetimber from Sussex is similarly acclaimed.

INSTROTECH, instrumentation & process control specialists represent Sensor Technology locally. For more information: 010 595 1831, sales@instrotech.co.za

KSB support SABI schools training

KSB Pumps and Valves have once again thrown its support behind SABI's initiative to present irrigation courses to grade 11 school pupils.

The SABI training forms part of the curriculum for the subjects Agricultural Technology, Agricultural Science and Agricultural Management Practices for schools and is presented as a two-and-a-half-day course (Irrigation) to grade 11 learners.

The courses held in 2019 were given at Weston Agricultural College in Mooirivier, Wagpos Landbouskool in Brits, Hoërskool Bekker in Magaliesburg, Landboudal in Jacobsdal and Unicom Agricultural School in Tweespruit. This year's course will include the same schools with the addition of Kempton Park Hoërskool in Kempton Park and Hoërskool Merensky in Tzaneen.

Pumps training

According to SABI's Riana Lombard, the programme is expanding as the interest grows and the word gets around. "We are confident that the SABI training program for agricultural schools yields positive results on many fronts in the irrigation industry in South Africa and are thankful to KSB for presenting the pump and motor section of the course. We believe that the SABI agricultural schools' programme is important for the next generation of young South Africans."

Jason Nel, KSB Durban branch manager who provided the training, says the company has a long history of supporting agriculture and irrigation. "This training gives us a golden opportunity to engage with the next generation of South African farmers.

"It provides basic training specific to irrigation and water supply for farming. This year we included physical pump components so that the experience was more interactive and learners were able to touch and see the working parts of a pump."

Future farmers

"We know that our investment will provide these future farmers with a positive sentiment towards KSB and an understanding that we have and always will be there to support our farmers

As for the future, the group represented people from all areas and all population groups and shows that farming will be in good hands with our coming generations," Jason says.

He concludes that the giveaways and KSB-branded bags given to top students in each school were well received and it was clear that these token gifts instantly became prized possessions of those students.

Grade 11 students from schools across the country underwent irrigation training through SABI and supported by KSB Pumps and Valves.

70 years celebrated

John Bean Technologies (JBT) recently celebrated its 70th anniversary of operations in South Africa.

In January 1950 the US based company, previously known as FMC, was registered in South Africa.

Previously the company was represented in South Africa by Metal Box for about 12 years. JBT is well known for high tech and innovative products and service from its three divisions, namely Liquid Food Solutions, Aero Tech and Protein divisions.

JBT Liquid Foods specialises in an extremely wide variety of food processing machinery and solutions. Apart from its traditional canning, citrus and coatings business, acquisitions were made globally in Packaging (Proseal), High Pressure Pasteurization (Avure), Food and Dairy (Stork) and Fresh Produce Processing (FTNON).

JBT Aero Tech serves the aviation industry with ground, gate and military equipment and airport services, while protein focuses on meat and poultry lines and related equipment.

First locally manufactured TASTE Evaporator

The anniversary coincides with another important milestone, the local manufacture of the first TASTE Evaporator destined to Letaba Citrus Processors in the Letsitele area and will be used in the production of orange juice concentrate for export and local juice markets.

JBT SA sister company in Brazil supplied some components and engineering to reduce delivery time. Featuring 70% local content the 6 stage/5 effect evaporator has taken 4,5 months to construct with fabrication being overseen by a team from South Africa and Brazil. Managing Director of JBT South Africa – Dirk van Wyk and Southern Hemisphere President, Miguel Ruiz, staged to thank customers, suppliers, partners and clients for their patronage and support over the past 70 years.

70 YEARS OF JBT

Food & Beverage Expo focuses on hygiene standards

BMG's second specialist Food & Beverage Expo at the Hazendal Wine Estate.

BMG hosted its second specialist Food & Beverage Expo, to highlight the importance of pristine hygiene standards throughout the food logistics chain - from farmers, processors, manufacturers and packagers, to distributors, retailers and consumers.

This well-attended event - held recently at the Hazendal Wine Estate in Stellenbosch - focussed on BMG's solution services, which help the local food and beverage sector deliver on food safety and environmental and energy-efficient initiatives.

> "The timing of the event was significant, given the national recall recently of canned pilchards."

Keynote speaker, Linda Jackson of Food Focus, addressed relevant topics, including food safety and waste, contamination, legislation, water and energy efficiency and the value of quality products in the food and beverage sector.

"The timing of the event was significant, given the national recall recently of canned pilchards. The unfortunate withdrawal of canned fish from supermarket shelves, highlights the importance of impeccable hygienic design and effective maintenance, in the protection of product integrity," explains Linda Jackson. "Even small faults in design, operation and maintenance can have huge impacts on the quality and safety of food products."

On display was a wide range of BMG systems and components that assist both manufacturers and end-users to achieve compliance with recent changes in legislation. New regulations include R638 for 'Regulations governing general hygiene requirements for food premises, the transport of food and related matters.'

BMG plans to host the next food and beverage expo in Durban in April.

Optimistic outlook for agriculture

Comment by Paul Makube, Senior Agricultural economist at FNB Agri-Business

THE latest forecast released by South Africa's Crop Estimates Committee (CEC) points to a somewhat optimistic outlook for the agricultural sector as seasonal conditions turned positive.

The current estimates point to a sharp recovery in output of summer crops with the total maize planted area coming in up 10% year-on-year (y/y) at 2.54 million hectares (ha) and a potential 13.64 million tons using an average of 5.4 tons per ha for a relatively good season.

Not only is this positive from a GDP perspective, the estimated supplies may help tame food inflation which has been relatively contained below 3% for the better part of 2019.

The 2019/20 agriculture production season began on a negative note with delays in Spring rains and concerns over the weather outlook as forecasts indicated potential dryness across the board.

Agriculture performance was also weak as the sector fell into recession following three consecutive quarters of negative growth of 16.8%, 4.2%, and 3.6% respectively in the 1st, 2nd, and 3rd quarter of 2019.

Optimism in the sector was subdued and another bad season was going to be catastrophic for the whole value chain and the country as food inflation was likely to breach the double-digit level.

Fortunately, this was avoided as good rains replenished both soil moisture and dam levels although dryness persists in parts of the Eastern Cape and Northern Cape.

The rebound in production conditions afforded farmers to plant more area relative to the previous year and the summer grain and oilseed crops are in good shape though more follow-up rains are needed in some areas to ensure a good finish.

The current crop estimates if realised together with a carryover stock of about 1.67 million tons could bring supplies beyond April 30, 2020 to 14.31 million tons. This is obviously bearish for prices with maize futures for Jul-2020 delivery already softer prior to the announcement at R2,399/t and R2,484/t respectively for white and yellow maize.

The bullish crop outlook with increases in planted area for sunflower (+7% y/y), soybeans (+3,6% y/y), groundnuts (+85% y/y) will help offset the impact of the poor winter crop harvest on agriculture GDP particularly wheat which accounts for 78% of the total. The 2019 wheat harvest came in down by 14.4% y/y at just 1.60 million tons according to the Crop Estimates Committee's fifth estimate report. This would meet the country's import demand but nonetheless South Africa remains a net importer of wheat.

The agriculture outlook remains increasingly weather dependent and we are likely to finish the season on a positive note if the growing conditions retain the current momentum.

It is however important to note that severe drought conditions have placed significant pressure on producers in the Eastern and Northern Cape provinces.

Pre-testing starts of giant $2bn fertilizer plant

DANGOTE Fertiliser Limited has begun countdown to the inauguration of its $2 billion Granulated Urea Fertiliser complex located in the Dangote Free Zone.

With a capacity of 3 million tons per annum, the plant has been classified as the biggest project in the entire fertiliser industry. Siapem of Italy is the Engineering, Procurement and Supervision (EP) Contractor for the project, while Tata Consulting Engineers, India, is the Project Management Consultants (PMC) for the project.

At this time, several critical sections of the plant are going through various stages of pre-commissioning and test-run. Virtually all the section of the plant such as Central Control Room, Ammonia and Urea Bulk Storage, Cooling Tower, Power Generator Plant, Granulation Plant, have all been completed and are going through pre-testing.

Already, Dangote Feritiser has started receiving gas supply from the Nigerian Gas Company and Chevron Nigeria Limited under the Gas Sale and Purchase was Agreement to supply 70 million standard cubic feet per day (Scf/d) of natural gas to the plant.

The project, which will create thousands of direct and indirect jobs in construction and related fields, will provide a major boost to the agricultural sector by significantly reducing the importation of fertiliser in Nigeria and ultimately removing the need for imports when plant is in full production.

Group Executive Director, Strategy, Portfolio Development & Capital Projects, Dangote Industries Limited, Devakumar Edwin said Nigeria will be able to save $0.5billion from import substitution and provide $0.4 billion from exports of products from the fertiliser plant. "Thus, the supply of fertiliser from the plant, will be enough for the Nigerian market and neighbouring countries," he said.

Edwin said: "By the time our plant is fully commissioned, the country will become self-sufficient in fertiliser production and even have the capacity to export the products to other African countries. Right now, farmers are forced to utilise whatever fertiliser that is available as they have no choice, but we need to know that the fertiliser that will work in one State may not be suitable in another State, as they may not have the same soil type and composition. The same fertiliser you use for sorghum may not be the fertiliser you will use for sugar cane."

He pointed out that the fertiliser complex, which is sited on 500 ha of land has the capacity to expand as it is only occupying a small fraction of the allotted portion.

Edwin added: "The management of the complex are confident that the fertiliser business will deliver reasonable profit to the company and its shareholders as it is projected that population growth and the need for food production will jack up the consumption of Urea fertiliser beginning from 2020 when production of the production would have commenced in earnest.

"The current consumption of Urea estimated at a dismal 700 000 tons per annum by Nigerian farmers is said to be due to very poor usage and is believed to be the cause of poor product yield, which threatens food security in the country.

Meeting environmental goals

FROMM's comprehensive approach to environmental protection covers recycling, green initiatives and actively striving to develop and produce more environmentally friendly products. Its STARstrap™ plastic straps, for example, are one of the lightest polyester straps available today and have up to 25 % less polyester base material. The straps are manufactured using up to 98 % recycled polyester bottle material on state-of-the-art extrusion lines. The majority of this recycled raw material is produced in FROMM's own recycling plants, with its Texplast GmbH recycling plant in Wolfen, Germany being one of the world's largest.

The FROMM Airpad air cushions offer special HDPE films (25 – 65 microns) with a recycling rate of up to 60 %, biodegradable films or paper alternatives that guarantee a high load capacity. The intelligent cushioning system consists of up to 99 % air, saving on mass, volume, costs and raw materials. As a result, transport costs are reduced and space requirements minimised.

The FROMM stretch wrapping system combines tear-resistant quality stretch films (8 – 23 microns) and wrapping machines, with a pre-stretch unit of up to 400 % to provide highly efficient, material-saving packaging and optimal pallet securing. Up to 5 m can be stretched from 1 m of film.

All FROMM products are designed for reuse and / or for reclaiming and reprocessing or used as high energy, low emission fuel for waste incineration processes. Returned used PET (polyester) bottles are converted in the FROMM recycling plants to high-quality regrinds, regranulates and agglomerates for the production of PET straps, food packaging, textiles and beverage bottles. Airpads can be used multiple times before being recycled or disposed of, while boasting a 95% waste sorting rate, FROMM's production facilities work towards 'zero waste to landfill'. Film and strap waste, generated during production, is recovered in a closed cycle, recycled and re-processed in the production process or used in waste incineration. All FROMM recycled PET products meet or exceed the highest ecological and food industry standards.

FROMM's plastics production and recycle facilities also strive to achieve the lowest environmental impact possible, meeting ISO 14001 (Environmental Management System) and/ or ISO 50001 (Energy Management System) requirements where appropriate. As a result, many facilities make use of solar energy, which is up to 35% CO_2-emission-free. Controlled closed water circulation systems with internal filtration and the use of recycled wastewater minimises the use of high-quality drinking water in production processes. Waste heat produced by production is used for internal heating and other purposes, while the reduction of noise and dust is part of FROMM's continuous improvement policy towards an optimal working environment.

Such commitment to low environmental impact even extends to the tools and machines, which are designed for long service life and low energy consumption. Only high-quality materials are used, which are easy to disassemble and easy to recycle, with low-wear, efficient components, making energy savings of up to 25 % feasible. Wherever possible, plastic parts of FROMM tools and machines are made with recycled elements.

"Reduce resource consumption by better efficiency, reuse of products and recycling and conversion of materials is the FROMM way of life," says Denny Reddy, Managing Director, FROMM Packaging Systems SA. "In addition to our innovative technologies, manufacturing processes and industry-leading products, we attach great importance to quality and sustainability in our sponsorships and invest in our employees as our greatest asset."

"By safeguarding our natural resources, we at FROMM are committed to leaving a better planet behind."

Plastics industry comments on SONA

THE plastics industry makes a valuable contribution to the country's output growth and employment with a multiplier effect of 3.7 % for every job created and 3.5 % for every Rand invested to grow the industry.

The negative impacts of a national economy that has not grown at any meaningful rate for over a decade, losses suffered as a result of the industrial action taken by striking workers, a weakening Rand-Dollar exchange rate, competing against cheap imports; high electricity costs and unreliable supply have forced many of our manufacturers and recyclers to lose the fight for survival.

Counting the high cost of load shedding on the plastics industry

- Persistent energy shortages disrupted businesses: machines that usually run 24 hours a day (because it requires a minimum of 2-3 hours for them to start up and reach an optimal temperature), lost power numerous times during the day and mid-operations.
- Large amounts of raw materials and resources were wasted as these machines needed to be scraped clean in order for the start-up process to begin anew.
- In many cases, expensive equipment and machines have had to be decommissioned or replaced as a result of damage caused by electricity spikes.
- Because local plastics suppliers were unable to meet deadlines and supply orders in time, foreign competitors gained the upper hand. South African companies were seen to be unreliable and more finished products were being imported into the country – placing thousands of local jobs at risk.

Recognising the role of plastics in creating a green economy and mitigating climate change

- Life cycle assessments have proven that plastic products are more environmentally-friendly than other materials if they are disposed correctly and recycled effectively.
- Plastics that are fit-for-purpose and designed with their recyclability in mind offer a low carbon footprint and low environmental impact – often even lower than products that are biodegradable.
- Plastic bags manufacturers have removed fillers to produce bags that are fully recyclable and 100 % certified recycled plastic material is now used to produce some carrier bags. This creates an end-market for recycled plastic products and helps to reduce waste to landfill.
- The plastics industry has made impressive progress in developing a true circular economy where raw materials and resources used for the manufacturing of the original product, gets re-used time and time again. By ensuring that the products we create become part of a circular economy, we create a win-win situation for the environment and for the industry.
- The amount of plastics that were recycled in South Africa during 2018 alone saved enough oil to fuel 200 000 cars for one year – traveling 30 000 km/pa
- Plastics recycling in 2018 saved 246 000 tons of CO_2 - the equivalent emissions of 51 200 cars
- The plastics recycling industry provided direct employment to more than 7 800 people and created a further 58 500 income-generating jobs
- R2.3 billion rand was injected into the informal sector through the purchasing of recyclable plastics waste during the same year.

Investing in infrastructure and structural transformation

The President listed various shovel-ready, public infrastructure projects that are ready to be rolled out, such as the building of new dams and road construction.

Thermoplastic pipes are used to provide vital infrastructure and mixed plastics waste can also be processed with sand to make paving blocks suitable for walkways and pedestrian paths as well as a component in rural road construction.

Developing a master plan to support local businesses

Government plans to designate 1 000 locally produced products that must be procured from SMMEs. The President announced that projects with an investment value of R9 billion have already been completed and 27 projects worth just over R250 billion are in implementation phase that will see newly-built factories that manufacture smartphones, cars, power cables, tyres and food. Steps taken to clamp down on illegal imports and under-invoiced products are also welcome news as we have been working closely with the DTI in recent months to develop master plan that is aimed at growth, sustainability and building the green economy, lowering tariffs and introducing incentives for local manufacturers.

PETCO, the PET Recycling Company

PRODUCERS of polyethylene terephthalate (PET) plastic in South Africa realised that collectively addressing their responsibilities with respect to post-consumer waste PET packaging would be more effective and efficient than government-imposed regulation. Thus, PETCO (PET Recycling Company) was established at the end of 2004 as an industry-driven and financed national recycling initiative, based on the concept of Extended Producer Responsibility (EPR), the goal being to capitalise on the expected growth in the market for recycled PET and to act as the vehicle through which the PET industry could self-regulate and co-ordinate its recycling activities.

PETCO, as a non-profit company, is not involved in the physical collection or recycling of waste PET in South Africa, choosing to remain outside of the PET recycling value chain. Instead, it acts as a Producer Responsibility Organisation (PRO) that financially supports, on behalf of its members, activities along the waste PET value chain. PETCO members include brand-owners, resin producers, converters (who manufacture bottles from PET resin) and bottlers.

The PETCO Business Model

A key component of the PETCO model is a voluntary EPR fee paid by (i) converters who manufacture PET bottles from PET resin, (ii) bottlers who fill PET bottles, and (iii) PET importers. Resin producers and brand owners also contribute financially to PETCO in the form of annual grants. PETCO uses the revenue it collects to support recyclers, particularly during adverse economic cycles. Given that the market price of PET fluctuates as a result of fluctuations in oil prices, exchange rates, demand from large countries such as China, and other factors, it can be a volatile market. This support for the recycling value chain is paid out at contracted rates for tonnages, in line with PETCO's annual recycling targets. In turn, recyclers are then able to ensure a consistent demand for post-consumer PET from collectors. Many of these waste PET collectors operate informally, either through collection at kerbside or at landfills.

Since the establishment of PETCO, post-consumer PET bottle recycling in South Africa has grown from 2% in 2000 to 63% in 2018 – with a total of 98,649 tons of PET or 2.3 billion bottles being recycled – equating to 6.2 million bottles collected every day in 2018. This is a substantial achievement in a relatively short span of time.

Development of Infrastructure for Local Beneficiation

Recognising that business innovation sits at the heart of economic transitions, PETCO views itself as a catalyst of design for recycling innovation, preserving the value of existing resources and utilising rPET (recycled PET) in more and more applications. Through targeted support of recycling operations, PETCO has stimulated the development of local end-use markets as well as the export of fibre produced from bottles that would have ended up in landfill sites. More recently, Bottle-2-Bottle Plants, including two Coca-Cola approved bottle grade PET recycling plants, have been established with support from PETCO. Recent investments to manufacture PET strapping and monofilament exclusively from post-consumer material, marks an important step in reviving local manufacturing in a sector that has for many years been serviced almost exclusively by imports.

The Collection Network

The collection network of post-consumer PET material in South Africa is largely unregulated or self-regulated, with no widespread municipal separation at-source collection systems in place yet. Recyclables are mostly recovered from co-mingled waste by a network of informal collectors and micro-entrepreneurs. These collectors, consolidate and supply post-consumer PET bottles to industrial-scale recycling operations, typically via intermediary agents such as buy-back centres.

In many cities in South Africa, PET recycling activities provide income generating opportunities and improved livelihoods for the urban poor. The main constraints faced by collectors and small-scale manufacturers include: poor access to material (volumes), lack of transportation, inadequate capital, lack of market information and business acumen, lack of equipment and tools, safe space to separate and store material, inadequate business premises, and poor working conditions.

Innovative waste management processes to boost the circular economy

Kate Stubbs, Marketing and Sales Director at Interwaste – a proud Séché Environment Company

THE future of South Africa's waste sector is certainly not all doom and gloom – despite the excess waste being generated and the many non-compliant facilities that take in such waste. In fact, the United Nations Environment Programme (UNEP) reports that Africa's solid waste is expected to double in volume by 2025, and an expected 244 million tons of solid waste is predicted to be produced within the next decade. This means that the sector is rife with opportunities to innovate. However, businesses need to be smarter about how they manage their waste at source - and find new ways to not dispose, but rather to reuse/repurpose such waste to the larger benefit of the environment.

This is where the Circular Economy comes in, and while it is still a relatively new concept, in the African context it offers significant opportunities to truly deliver on more inclusive economic growth, which includes job opportunities and positive environmental practices that are direly needed for sustainable growth.

As a reformative system, the Circular Economy is a model that aims to strip out all unnecessary waste materials, energy losses and related carbon emissions across supply chains and – through integration and innovation – promotes closing these gaps to allow materials, energy and resources to be 'fed' back into the cycle. The consensus is that a more sustainable ecocycle can be achieved through long-term design and planning, maintenance, repair, reuse, remanufacturing, refurbishing, recycling, and upcycling.

While adoption of this thinking is still in its infancy in Africa, there are success stories that can be seen in pockets where, through innovation, we are also seeing new business streams and even new industries come to the fore supporting this type of thinking.

For example, the drive to divert waste from landfill has directly resulted in waste disposal or management companies merging into reprocessing industries, with significant focus being placed on reuse, recycle and repurpose. This is causing manufacturers to rethink how they design their products as well as the type of resources they use to make their goods today to become the raw materials of tomorrow.

Additionally, in cases where recycling and reusing is not possible, we are seeing growth in safe destruction facilities as well as growth in the waste-to-energy space.

In fact, waste-to-energy plants offer a unique opportunity to tackle two critical challenges to lasting, sustainable development across Africa; power generation, and sustainably managing waste by reducing reliance on landfills.

Across industries, we are seeing a more concerted effort to find solutions that make active use of waste – building on the philosophy of reuse wherever possible. However, we need to instill a complete culture change and shift markets towards 'giving back to the system' in how we approach and treat resources versus waste, so as to avoid potential crises and ensure we build towards a resilient and sustainable future in Africa.

Kate Stubbs.

So, while there is no specific Circular Economy-related framework on the African continent, we are steering in the right direction. All that is needed now is a mandate that all businesses follow suit – that it is not merely a means to monopolise businesses but rather, that it becomes a public and private sector priority.

Liquid and hazardous waste prohibited from landfill

LEGISLATION that bans all liquid waste from landfills signals a massive shift in South African waste legislation and places significant importance on the effective management of such waste by waste producers and the waste industry alike.

"Over the past several years, new legislation has been developed to improve the disposal of waste to landfill, and more importantly, encourage our industry to seek alternative and sustainable solutions. One of the most recent significant developments has been the Department of Environment, Forestry and Fisheries (DEFF) placing a ban on all forms of liquid waste, as well as hazardous waste with a calorific value of >20MJ/kg from landfill disposal effective as of 23rd August 2019," says Kate Stubbs, Director Business Development and Marketing at Interwaste.

"And, with additional waste streams shifting towards this prohibition on an annual basis, it becomes essential that our industry not only embraces these legislations, but also takes the necessary steps to comply. These prohibitions not only seek for opportunities for alternative and more sustainable waste management solutions but create a more efficient waste economy in South Africa."

Encouraging Innovation

"To best manage these new regulations, it is central for waste producers to understand that not only is there ample room for new innovation in this space but currently, there are successful innovations already in practice that are driving legislative compliance," continues Stubbs.

Currently solutions exist for hazardous liquid waste to be repurposed into an alternative fuel source for energy production. Furthermore, there is an opportunity to start looking at some of these liquid waste streams as valuable resources that can be used to add value into our economy – reducing our dependence of fossil fuels and be used to re-create alternative products with value.

"While many businesses may not yet have prepared for this new legislative framework, there are already available solutions targeted towards complying with this new legislation," continues Stubbs."Interwaste has prepared and has developed sustainable solutions for our clients that meet the very needs of sound compliance. We have also developed significant capacity over the years for the treatment, recycling and / or recovery of qualifying wastes at our licensed waste management facilities through the recycling of qualifying liquid and hazardous sludge wastes (with CV > 20MJ/kg) through our waste blending platform in Germiston, Gauteng which produces a waste derived fuel (WDF) for use as an industrial fuel."

"As government aims towards a circular economy and improving our environmental standards as a country, there will no doubt be further stringent legislation down the line and as such, it is up to us as waste companies to take a proactive approach by seeking relevant investment and technology development opportunities for alternative waste disposal solutions to not only meet legislative requirements but, very importantly, find solutions that are commercially viable and provide the producer with environmentally sound alternatives," concludes Stubbs.

Power logging meter kit now for hire

CAPE Mimics ENERTEQ™ is one of the best handheld 3-phase alternatives for power network analysis; not just for its functionality but also because of the price. Robust, reliable and user friendly are other key factors.

It is used on distribution boards to measure voltage and current in order to determine the power consumption at a factory or elsewhere. (Other electrical connections such as frequency can also be measured and all in real time). The design of the Rogowski coils makes for easy cable clamping inside distribution boards in addition to other characteristics.

The data information is used to establish new network applications. For example, to switch from electrical power to solar power, first test the electrical connection at that site to establish how much current is passing through it (including voltage and other electrical factors) so as to determine which solar kit is the right one for that site.

As most of the functions on the ME435 are already pre-programed, it is easy to work with and to obtain the data. Simply connect the current transformers and voltage clamps, switch the power logging meter on and the device logs the data straight onto the internal SD card. (Logging intervals can be manually programmed).

In fact, the device's substantial increase in popularity has led to it being available **for hire** as well as for purchase, as many end users who do electrical testing, use it once-off on one or multiple sites and returning it after use.

The kit contains: 4 x voltage wires, 1 x power adaptor, 1 x 1GB SD card, a robust case, 3 x 600A Rogowski coils, 1 x power meter and 1 x USB-to-SD adaptor.

For more information call Anje Fouche at Cape Mimics on 021-551-8185

The Dead-Grid Safety Lock

Scope:

The Dead-Grid safety lock (DGSL) is a device that is fitted between a power source such as a generator or solar system and the electricity grid. This device ensures the safety of utility staff working on low voltage electricity grids and will ensure that it is not possible for the power source to become live when the utility grid is not present.

Reason for its development:

With the poor quality of electricity supply and load shedding in South Africa, consumers have resorted to the installation of embedded generators and alternative energy sources to power their homes and businesses. Some of these connections are not legal and and become a danger to persons that need to work on the electricity grid. The DGSL will provide this safety as well as providing an isolation point to work from. In addittion, the DGSL provides over current and surge protection for the consumer. The DGSL is available in single phase in 20A and in a three phase versions up to 50A.

Mode of operation:

The DGSL comprises of two 3-pole contactors in series with a functional relay controlling their operation. The functional relay's power is derived from the utility supply and will only operate when there is sufficient grid side power to do so. Should a contactor become defective, the DSGL will still prevent power being supply to the grid.

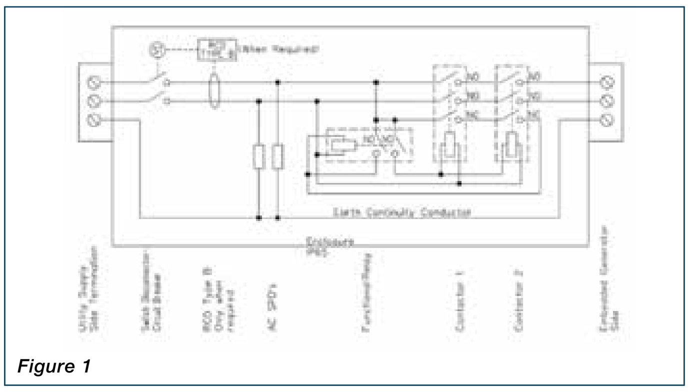
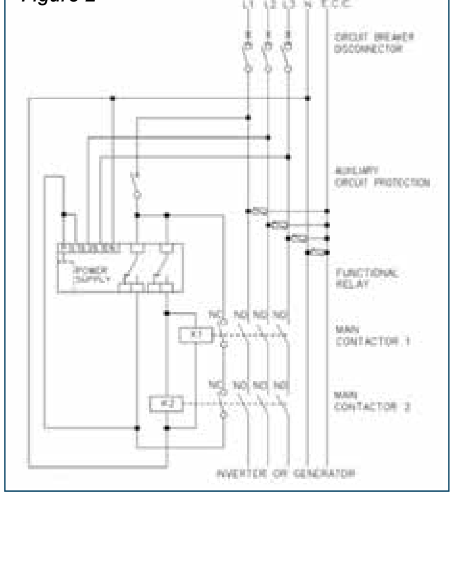


Figure 1

General:

The DGSL is housed in an IP65 enclosure and is suitable for external mounting. A Switched, locable main isolator allows the utility to lock the unit while working on the grid. An RCD Type B earth leakage relay may be fitted if required under NRS 097-2-2.

Figure 2



**Specifications subject to change without prior notice due to continuous improvements*

The Powerline Series

Dead-Grid Safety Lock

Features

- Dual Contactor Safety Operation
- Grid Side Activation Only
- Surge & Lightning Protection
- Lockable Isolation Switch
- IP65 Enclosure
- Concealed Hinges

The Dead-Grid safety lock (DGSL) is a device that is fitted between a power source such as a generator or solar system and the electricity grid. This device ensures the safety of utility staff working on low voltage electricity grids and will ensure that it is not possible for the power source to become live when the utility grid is not present.

Order Code	12-00318	12-00599	
Specifications	Single Phase 20A	Three Phase 50A	
Power Surge Protection	L-N	PE-N	
Nom. Input Voltage	230/400 VAC 50Hz	230/400 VAC 50Hz	
Max. Continuous Voltage	275VAC	275VAC	
Test Class	Class II	Class II	
Nom. Discharge Current	20kA (8/20us)	20kA (8/20us)	
Max. Discharge Current	40kA (8/20us)	40kA (8/20us)	
Funtional Relay			
Contacts	2 Pole (DPDT)		
Operating Voltage	230VAC		
Safety Protection	Dual Relay		
Standard	IEC 60255		
Monitoring	Over/Under Voltage	Voltage, Neutral & Phase Sequencing	
Isolator			
Contacts	3 Pole		
Rated Operating Voltage	300V		
Current Rating	32A		63A
Mounting	DIN with extension shaft and door interlock		
Main Contactor			
Contacts	3 Pole (NO) + 1 Aux (NC)		
Rated Operating Voltage	690VAC		
Coil Voltage	230VAC 50Hz		
Current Rating (AC1 / AC3)	32A / 22A	50A / 32A	80A / 50A
Power Rating (AC3)	11kW	15kW	22kW
Mechanical Life	16 (million ops)		
Electrical Life	3.6 (million ops)		
Coil Power Dissipation	2.5W	5W	9.6W
Other			
Wiring Diagram	Fig.1	Fig.2	
Enclosure Material	Powder Coated CRMS (3CR12 on request)		
Mounting	Wall Mount		
IP Rating	IP65		
Dimensions	380x380x200mm	380x430x220mm	
Weight	10kg	12kg	12kg

CLEARLINE
THE ELECTRONIC PROTECTION COMPANY

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E-mail: info@clearline.co.za
www.clearline.co.za

Ice-cream factory switches from coal boilers to HPCMS station

EGOLI Gas has supplied the factory with an HPCMS (High Pressure Customer Metering Solution) which was acquired from Energas Technologies, suppliers of high-end and specialised equipment to the oil and gas industries in Africa. The factory will benefit from the more efficient and environmentally-friendly natural gas fired boilers.

Energas is a specialist supplier of complete skid-mounted HPCMS for natural gas. According to Laetitia Jansen van Vuuren, Technologies Product Engineer at Energas Technologies, natural gas is a very reliable, safe and cost-effective solution for industrial users, compared with other conventional sources of energy such as electricity, diesel, coal or LPG. "Natural gas can be supplied via a pipeline network or by means of compressed natural gas cylinders to users not in the vicinity of a pipeline," explains Jansen van Vuuren.

CAPE BUSINESS NEWS

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AUTOMATION SYSTEMS

Speeding up design of bearing arrangements

DESIGNERS can now design complex bearing arrangements more quickly and easily, thanks to a simplified version of powerful simulation software from SKF known as SimPro Expert – which it uses to develop and design highly complex bearing arrangements – and make it far more user-friendly for customers.

SimPro Expert can be used to model an entire gearbox, in order to see the influence of one shaft on another, to determine the supporting properties of the housing, and to understand the detailed bearing behaviour for the given conditions.

"SKF application engineers have grown up with this software, but you need to be a relatively frequent user and have a good level of bearing knowledge to get the most from it," says Francisco Serrano, Manager for Product Line Engineering Tools at SKF.

This is one of the reasons why SKF has developed SimPro Quick – a stripped-down version of its more specialised bearing design programs. SimPro Quick has the same core as more advanced products such as SimPro Expert and SimPro Spindle – and retains many of their advanced features – but is far easier to use. While customers were demanding more advanced analysis of their bearing designs, they wanted to be able to do it in an intuitive way, using tools that were not excessively complex. SimPro Quick is a single-shaft bearing simulation tool that was developed to quickly evaluate the design of bearing arrangements and their field performance – based on relevant application requirements and conditions.

Catalogue link

A key feature of the software is that it ties in with SKF's new online Roller Bearing Catalogue – which is a live database of products. This means that anything incorporated into a design will be a current product.

Real example

In one case, a manufacturer of high-end textile machinery used SimPro Quick to increase the speed and accuracy with which it designed bearing arrangements. Here, running accuracy of the bearings is critical to the overall performance. Using SKF SimPro Quick helped the company to speed up its design process, while also evaluating an optimal bearing arrangement, without external help.

This was due in part to the user friendliness of the software, combined with its advanced analysis capabilities. An integrated e-Learning module allowed the user to quickly start modelling relevant bearing arrangements.

Next steps

SimPro Quick was first launched towards the end of 2017, and has had a good response, says Serrano. It is now being rolled out more extensively.

There are two ways to get hold of it: one is to contact your local SKF contact to request a licence; the other is to register through SKF's website – after which the request will be passed on to a local SKF representative.

For now, all modelling is done within the program itself – SKF has added a CAD import functionality.

"We will develop the tool in the direction of what users want," Serrano concludes. "This software is for all design engineers working with bearing arrangements."

For more information, and to request access for SKF SimPro Quick: www.skf.com/skfsimpro

SKF Agri Hubs solution with a bearing and seal integrated in one housing for tillage.

VSD and magnetic bearings drive HVAC advances

By Russell Hattingh, Engineering Manager, Johnson Controls South Africa

HVAC solutions are getting smarter and more efficient every year. These advances are driven by both customer demands and new regulations. Two components that are helping HVAC manufacturers meet these demands and differentiate their offerings are, variable speed drives (VSDs) and magnetic bearing motors.

Businesses and governments are becoming increasingly aware that the energy costs that their HVAC systems incur can equate to up to 40% of building total energy costs, and that this equipment has considerable bearing on the environment. With energy costs rising and stricter environmental legislation coming to the fore, users are demanding higher system efficiencies ,lower operating costs, and the use of more eco-friendly refrigerants. Users are also looking more closely at the total lifecycle of costs that will be incurred.

HVAC plant requires significant investment but generally has a long lifespan – anything from 15 to 20 years. To maximise their investments, users are thus demanding increased reliability and longevity of HVAC equipment and are very interested in ensuring lifecycle costs are kept low.

VSD trends

A chiller that incorporates VSDs can lower the chiller's annual energy use by 30 percent. How does it work? A VSD, as its name implies, allows a chiller to run at lower speeds under part-load conditions, thereby yielding a higher efficiency and lowering energy consumption.

But savings are not automatic. The trick is to understand how your VSD can save you money and apply it correctly within a system.

With higher demands for energy saving, VSDs are finding their way into more HVAC solutions, ranging from rooftop packages to central chiller plants and other devices. And they are continually advancing – during 2019 and 2020, VSD manufacturers will invariably focus more on flexible connectivity, easy interactive set up, easier interrogation in the event of a failure, and enhance optimised control.

Magnetic bearing motors trends

To meet the need for superior reliability and performance, HVAC leaders are incorporating magnetic bearings into chiller drives. With fewer moving parts, no contact and no lubricant required, there is less wear on mechanical parts and maintenance cost and effort is lower. This can help increase the lifespan of the equipment, with the elimination of oil, mechanical seals, wear surfaces and gears contributing to increased component and system reliability.

In terms of magnetic bearing trends, expect manufacturers to work on reducing costs as demand for these solutions rise.

It's not all about the tech

It is important for companies to work towards a sustainable future and this should reflect in their chiller designs, i.e. the equipment they choose, the consumables & refrigerants they use and the way they control their systems to optimise their operations spend. We only have one planet and companies need to be responsible when selecting and implementing new technology.

Expanded asset management coverage

NEW HART-IP support simplifies link between field devices and AMS Device Manager, reducing asset management project installation costs by up to 85%.

Emerson has expanded AMS Device Manager with HART-IP™ support, making it easier to connect with devices and control systems and potentially eliminate hundreds of thousands of dollars in project hardware and engineering. AMS Device Manager is used by thousands of facilities across the globe to streamline installation of field devices during capital projects, increase safety system uptime, and quickly and safely test devices from the control room. By eliminating multiplexers, organizations can more easily use AMS Device Manager to configure, calibrate, validate, and document more of their HART-enabled field devices and systems.

Connecting field devices to asset management systems typically requires the use of multiplexers that significantly increase hardware costs and engineering hours during the project phase. According to FieldComm Group™, more than 40 million field devices use HART, a protocol designed to allow intelligent devices to communicate with host systems. HART-IP—now native on AMS Device Manager—allows asset management systems to bypass complex and expensive multiplexers and directly access measurement and diagnostics information from HART-enabled field devices using existing plant Ethernet networking infrastructure.

The current interface has been tested for connectivity to Schneider Electric Triconex® Tricon CX safety systems, HIMA HIMax safety systems, and Phoenix Contact multiplexers. Emerson will continue to test and add new systems to the list of those officially supported by the interface.

"Asset management systems help integrate data between field devices and systems, making them useful for other on-prem or off-prem IIoT software and analytics. With better plant data integration, organizations can take an early, significant step to enable digital transformation," said Mani Janardhanan, vice president of product management for Emerson's Plantweb and reliability solutions.

OFFSHORE MINERAL MINING

Deep sea mining and the race to the bottom of the ocean

By Wil S. Hylton

UNLESS you are given to chronic anxiety or suffer from nihilistic despair, you probably haven't spent much time contemplating the bottom of the ocean. Many people imagine the seabed to be a vast expanse of sand, but it's a jagged and dynamic landscape with as much variation as any place onshore. Mountains surge from underwater plains, canyons slice miles deep, hot springs billow through fissures in rock, and streams of heavy brine ooze down hillsides, pooling into undersea lakes.

These peaks and valleys are laced with most of the same minerals found on land. Scientists have documented their deposits since at least 1868, when a dredging ship pulled a chunk of iron ore from the seabed north of Russia. Five years later, another ship found similar nuggets at the bottom of the Atlantic, and two years after that, it discovered a field of the same objects in the Pacific. For more than a century, oceanographers continued to identify new minerals on the seafloor—copper, nickel, silver, platinum, gold, and even gemstones—while mining companies searched for a practical way to dig them up.

Today, many of the largest mineral corporations in the world have launched underwater mining programs. On the west coast of Africa, the De Beers Group is using a fleet of specialized ships to drag machinery across the seabed in search of diamonds. In 2018, those ships extracted 1.4 million carats from the coastal waters of Namibia; in 2019, De Beers commissioned a new ship that will scrape the bottom twice as quickly as any other vessel. Another company, Nautilus Minerals, is working in the territorial waters of Papua New Guinea to shatter a field of underwater hot springs lined with precious metals, while Japan and South Korea have embarked on national projects to exploit their own offshore deposits. But the biggest prize for mining companies will be access to international waters, which cover more than half of the global seafloor and contain more valuable minerals than all the continents combined.

Regulations for ocean mining have never been formally established. The United Nations has given that task to an obscure organization known as the International Seabed Authority, which is housed in a pair of drab gray office buildings at the edge of Kingston Harbour, in Jamaica. Unlike most UN bodies, the ISA receives little oversight. It is classified as "autonomous" and falls under the direction of its own secretary general, who convenes his own general assembly once a year, at the ISA headquarters. For about a week, delegates from 168 member states pour into Kingston from around the world, gathering at a broad semicircle of desks in the auditorium of the Jamaica Conference Centre. Their assignment is not to prevent mining on the seafloor but to mitigate its damage—selecting locations where extraction will be permitted, issuing licenses to mining companies, and drafting the technical and environmental standards of an underwater Mining Code.

Writing the code has been difficult. ISA members have struggled to agree on a regulatory framework. While they debate the minutiae of waste disposal and ecological preservation, the ISA has granted "exploratory" permits around the world. Some 30 mineral contractors already hold licenses to work in sweeping regions of the Atlantic, Pacific, and Indian Oceans. One site, about 2,300 miles east of Florida, contains the largest system of underwater hot springs ever discovered, a ghostly landscape of towering white spires that scientists call the "Lost City." Another extends across 4,500 miles of the Pacific, or roughly a fifth of the circumference of the planet.

The companies with permits to explore these regions have raised breathtaking sums of venture capital. They have designed and built experimental vehicles, lowered them to the bottom, and begun testing methods of dredging and extraction while they wait for the ISA to complete the Mining Code and open the floodgates to commercial extraction.

At full capacity, these companies expect to dredge thousands of square miles a year. Their collection vehicles will creep across the bottom in systematic rows, scraping through the top five inches of the ocean floor. Ships above will draw thousands of pounds of sediment through a hose to the surface, remove the metallic objects, known as polymetallic nodules, and then flush the rest back into the water. Some of that slurry will contain toxins such as mercury and lead, which could poison the surrounding ocean for hundreds of miles. The rest will drift in the current until it settles in nearby ecosystems. An early study by the Royal Swedish Academy of Sciences predicted that each mining ship will release about 2 million cubic feet of discharge every day, enough to fill a freight train that is 16 miles long.

The authors called this "a conservative estimate," since other projections had been three times as high. By any measure, they concluded, "a very large area will be blanketed by sediment to such an extent that many animals will not be able to cope with the impact and whole communities will be severely affected by the loss of individuals and species."

Reprinted from theatlantic magazine, January / February edition. For the full story visit https://www.the-atlantic.com/magazine/archive/2020/01/20000-feet-under-the-sea/603040/

Expect winching excellence

DYMOT Engineering prides itself in being a front runner in winching by constantly adapting to the latest technologies available on the market.

This is evident in the newest developments on offer with its plant manoeuvring winches. These winches complete with the swivel sheaves, were specially designed and developed for accurate positioning of plants or barges. They are extensively used in the mineral separation mining industry on ponds at Richards Bay, Mozambique, Madagascar and Egypt.

The winches are designed to operate in three winching modes:

- "Reel In" - The full power of the winch is used to reel in the rope thereby moving the plant in the direction in which the rope pulls it.
- "Drag Out" - The winch allows controlled pay-out of rope from the dragged winch when moving the plant.
- "Free Spool" - The winch allows rope to be pulled off the drum under a light applied load.

The industry standard is to use band brakes on both the winch drum and overload protection clutch to accomplish these operation modes. This configuration requires a great deal of maintenance to ensure that the band brakes operate optimally. These winches also utilised a manual lock pin device for maintenance operations.

Dymot has upgraded this design by removing the band brakes and replacing it with a disc brake system. The disc brakes utilise caliper disc brakes which are failsafe spring applied – hydraulically released. The brakes are controlled with a power pack which is controlled through a PLC or LCS. The braking and slipping points can be set much more precisely and the set point repeatability is much greater. The locking pin has also been modified to an automated system. The pin is engaged and disengaged using a hydraulic cylinder and operated from the power pack. It has successfully manufactured and commissioned the upgraded disc brake winch systems and achieved optimal success and acclaim from its clients.

Dymot winch incorporating its disc brake system.

Dymot is actively involved in numerous mining projects worldwide and have successfully distributed to more than 50 countries.

Contact Dymot Engineering Company on +27 11 970 1920 or visit the website at www.dymot.co.za .

OPINION

Luke the Dude feels depressed

Continued from back page

"The resulting unrest among DA supporters was heard loudly in the last election, which broke the party's steady rise and cut its support. Are they still a viable coalition partner? No way. I read an analysis in Daily Maverick which says that opinion polls show DA support is in free fall."

"Useless!" exclaimed Jon the Joker. "That reporter gave us Carl Niehaus dressed up as Charlize Theron. As the DA itself, now under new management, reiterated in its response, the reporter based her whole 'free fall' story on two outdated polls – by survey businesses with unconvincing track records.

"Ipsos, for instance, has a habit of getting their DA estimates wrong, on the down side. Maybe they are not biased; fact is, their track record is not flattering. The Citizen surveys are similarly unconvincing.

"At any rate, since the election setback the DA, whether you like them or not, has replaced Maimane and put a new leadership in place who have stopped the rot – for one, their interim leader publicly stated 'no more ANC Lite'. Anyone who looks, can see they are working hard to heal their party and get it back on a rising track."

"I see," considered Luke the Dude, "so the moral of the story is, Don't feel depressed and politically impotent. Do something!"

Cheers!

E-mail: noag@maxitec.co.za

So Californians think it would be so nice if all vehicles were electric?

Continued from back page

and promoting the rights of the workers.

The ever-cynical British Working Class has a phrase to describe this kind of political leadership: "Pull up the ladder, I'm all right, Jack", they say. They also put new words to the Communist anthem, "The Red Flag". Instead of, "On Moscow's walls, on Moscow's walls, we'll keep the Red Flag Flying!" they sing, "The Working Class, can kiss my Ar** I've got the Forman's job at last! There are more words, but the point is made.

The British had their socialist revolution before other countries. It deteriorated into a bloody civil war which the revolutionaries won. Then, they made such a hash of governing that the people revolted again and re-installed a king. What had really peeved the masses was that when the revolutionary leader, Oliver Cromwell, died the revolutionaries had tried to install his son as a new king.

It seems to be a fact of life that successful revolutionaries tend to take on the privileges of the elite they fought so hard (on behalf of the people) to defeat. History shows Joseph Stalin behaving more like a Czar than a democrat when he took power in Russia; Mao Tse Tung living like an emperor once he got supreme power in China, and then, closer to home, Robert Mugabe who wound up using the State-owned Zimbabwe airline as his personal supermarket trolley whenever he and his wife felt like shopping in Singapore.

Quite often successful revolutionaries try to set up dynasties. Raul Castro succeeded his brother Fidel for a while, though that attempt to create dynastic in Cuba seems to have failed. Robert Mugabe tried to hand over to his young wife but that failed too.

But back to thoughts on revolutionary ideas, such as banishing emissions of carbon dioxide on the debatable grounds that the world will come to an end unless we do so. California is leading the Green charge so to speak and one of the things the politicians there have decided to set in stone is the target of having only-all electric cars on the streets by 2075.

Now, I don't know how many cars there are in California but since the state has the fourth largest economy in the world by some estimates, I ventured to think it must be many millions. So I harnessed Google to find out if anyone had done the math, as they say in the US.

Bingo. It turns out that to make all vehicles electric within 20 years means getting rid of 26 million ordinary cars, five million trucks, and half a million diesel trucks. Add in vehicles from other states using California roads and the grand total is some 33 million vehicles.

It is a wonderful, not to say inspiring, Green vision of the future, although details of the plan are still a bit vague. What will emerge in the end is uncertain. Will nasty petrol engine cars and trucks be able to be traded in for electric ones at no cost to the owners? If not, which seems likely, will the new electric ones be sold on extra-low interest credit terms? No one yet knows.

As you would imagine cynics have done the math. They have come up with a couple of snags that will have to be overcome first before emission-free vehicles can glide forth on California freeways. The couple of snags are the usual suspects, the batteries needed and the source of the electricity needed to charge all those 33 million vehicles.

The opinions for electricity supply are coal-fired power stations, nuclear power stations, wind farms, photovoltaic panels, and (not yet available fusion powered electricity). And most of all getting such power to points as convenient as today's ubiquitous petrol and diesel service stations.

One must assume California cars will not be allowed to be powered by nuclear generators. Fusion has yet to be out of the laboratory, so it will be up to wind and solar. Assuming the ancient California grid is fixed and power points are scattered among the highways and byways and garages of those who have them, the question is whether wind and solar will be able to fill the gap.

Certainly there are going to have to be far, far more of both. Some estimates say the grid and the sources of power will have to double. That is going to costs gazillions.

Then there is the small matter of when electric vehicles will want to charge up. Logic says it will mostly be at night when solar does not work, so that means either back up petroleum-powered generators or batteries capable of storing vast amounts of power overnight. The same goes for wind generators who cannot so far operate at a nice regular speed because the wind blows lots or little, and in its own time.

There are of course many more things that will have to be sorted out but the snags concerning batteries will remain a huge obstacle to electric vehicles until something better comes along that does not use cobalt and lithium.

Again, I bow to people who can do the math. They say that there is simply not enough lithium and cobalt around to supply enough for 33 million electric vehicles in California.

I can recall wise men saying there would be no more copper available in my lifetime. I am still here and so are supplies of copper. And maybe there is some super battery invention lurking in the wings. Time will tell and California has kindly offered to be the laboratory.

Lessons from Al Capone

SEVERAL high-profile figures have come under public scrutiny during commissions of inquiry for serious crimes such as fraud and corruption. Prosecuting these offences is often a long and complex process. Al Capone, the infamous American mobster, was convicted of tax evasion as it was easier for the U.S. Attorney General to secure a conviction for tax offences than comply with the evidentiary requirements of his other crimes. But what right does the South African taxpayer have for the information disclosed to SARS to be kept confidential?

There is an obligation upon a SARS official to preserve the secrecy of taxpayer information and they may not disclose it to outside persons. Taxpayer information is widely defined as meaning any information provided by a taxpayer, or obtained by SARS, in respect of the taxpayer, including biometric information. There is added protection provided insofar as if a taxpayer's information is disclosed contrary to the law, the person to whom it was disclosed may not in any manner disclose, publish or make it known to any other person who is not a SARS official. A person who contravenes this provision commits a criminal offence.

The strict confidentiality provisions which protect a taxpayer are not without limitation. A SARS official, when performing his duties, is not prohibited from disclosing taxpayer information to the South African Police Service or the National Prosecuting Authority, if the information relates to, and constitutes material information for the proving of a tax offence. There are other circumstances where taxpayer information can be disclosed, such as where the information is already public, or where the taxpayer has given written consent, or by order of the High Court.

If an application to the High Court is made for the disclosure of taxpayer information, SARS may oppose the application on the basis that the disclosure may seriously prejudice the taxpayer concerned or impair a civil or criminal tax investigation.

SARS is also empowered to provide taxpayer information to certain specified entities to the extent that it is necessary for the purpose of them exercising a power or performing a regulatory function or duty under legislation. For example, SARS may disclose to a commission of inquiry established by the President the information to which the commission is authorised by law to have access.

Al Capone is reported to have boasted that, "They can't collect legal taxes from illegal money." This, as we know turned out to be incorrect, as he went to prison for tax evasion. A taxpayer's right to have his information kept confidential does not extend to material information necessary for proving a tax offence.

This article was written by Graeme Palmer, a Director in the Commercial Department of Garlicke & Bousfield Inc

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Luke the Dude feels depressed

LUKE the Dude was looking unseasonably grim. He had hardly said "grumph" in the place of his habitually explosive intrusion when he ambled into the local Pub & Grill, fashionably late for the regular congregation of convivial conversationalists.

"What's the matter," enquired Miss Lilly, looking concerned with a hint of curiosity. "Malema's manners upsetting you?"

Luke the Dude looked up and smiled. She has that effect on him. "That's part of it," he conceded, "what the Dickens is going on here? Our country is going down fast, what is not broken yet is being broken, and our once admired president has not got the courage to call the repairmen in. That is, if he even knows what's wrong. Not, given his choices on SA Airways and Eskom."

"I do not agree," protested Big Ben, not yet bellicose enough to raise himself up and invite a Kobus Wiese crew cut from the ceiling fan. "President Ramaphosa is doing the very hard job of fixing South Africa after the ruin wracked, is that the right word or is it wrecked, by the Zuma time. And it is a hard job, it will take time."

"Useless!" diagnosed Jon the Joker. "Ramaphosa was Zuma's deputy and right in the middle of the wrecking crew. Some fixer he is! Why didn't he do anything useful then?"

"Well," mused Big Ben, "you know politics, so you know there wasn't much he could do. If he did, he would not have been president now and where would we be then? In the happy Zuma legacy under Didi Mabuza and Ace Magashule, that's where! And don't forget, many of us once thought Zuma was the bee's knees, a better call than Thabo Mbeki. Don't make me mention names …"

"Anyway," I interrupted, "let's not get side-tracked. I think Luke was trying to convey some pressing concern when Ben voiced his disagreement. Am I right, Luke?"

"Not that pressing," considered Luke the Dude, "since there is nothing I can do about it. But maybe that makes it more pressing ... Yes, in fact, my concern is exactly that. Not only are our leaders doing nothing that will brake our acceleration downhill, I cannot see what the rest of us can do to save us from crashing."

"Oh dear," nodded The Prof while seeking comfort in stoking his pipe under the full glare of the No Smoking sign, "such anxieties may indeed feed a depression."

"I do not agree," disagreed You-Know-Who. "What do you mean, there is nothing we can do? We are in a full democracy are we not? Don't we have the vote, all of us? The people can always do something in a democracy!"

"Hey ho, Boyo!" cheered Colin the Golfer. "Enjoying your stay in Wonderland, aren't you just? Come back to South Africa! No Alice here, only Mad Hatters and cowardly lions."

"You are right, Colin," said Luke the Dude, looking sad for the first time in my lengthy experience of him. "Ben doesn't get it. In a perfect world you would be right, Ben, but look at the real world around you. The ANC is the very government causing all the trouble. And they have a very useful majority. As long as they keep the tribal chiefs happy, their base remains immovable and their majority stays. Ramaphosa and his accomplices know that and will keep it that way."

"Yep," grinned Stevie the Poet, "no Expropriation Without Compensation for the king of Zululand! Neither for any of the other kings; how many kings do we have in this democracy? Keep them all happy with taxpayers' money – meant for helping the helpless and repairing our broken country, by the way – and they will keep their voters in line."

"Hmmm," considered Irene the Queen, "except that the ANC is not one big, happy family. More like a house divided in a violent family feud. In such conditions, divorces do happen. That, and property transfers, is what keep the lawyers in business. The ANC is not likely to remain this unbeatable force. And when they do break up, neither of the divorcing parties will be the majority. Not if current scheming is as systemic as it looks."

"Quite right!" beamed Big Ben. "You understand how it works, Irene. If the ANC does break up, we will be rid of Zuma's state capturers and President Ramaphosa will not be hamstrung in rebuilding the country!"

"And how will he do that, Boyo?" laughed Colin the Golfer. "He will no longer have a majority to govern, will he?"

"Oh yes, he will," Big Ben confided from the intestines of the beast, "the bad guys are in the minority."

"Maybe they are, maybe they aren't," considered Bob the Book, "but whichever side comes out smaller, they would still be a sizeable minority. It is unlikely the bigger half will be able to form a government on its own."

"Order please!" ordered The Governor. "I have told you, no politics in the bar. Look at you. Nobody is drinking. Nobody is happy. Angela, please refill the glasses of these good ladies and gentlemen."

So, we ordered, sadly not on The Governor's tab. But before we could get back to the more pleasurable business of consuming the artworks of the brewer and the distiller, Luke the Dude insisted.

"Before you say cheers and think you have solved our problems," he spoiled, "where do you think that will get us? So what if a smaller ANC remains? One of the divorcing parties will need to remarry to form a coalition government. So, who will the coalition partner be? Only one bride comes to mind: the rude, destructive, racist EFF of Julius Malema and Floyd Shivambu.

"Who is looking forward to having them in government?"

The question was met with silence, everyone agreeing that it must have been rhetorical. After all, no rude, destructive racists here.

"What about the Democratic Alliance," tested Miss Lily. "The DA in alliance with the Ramaphosa faction of the ANC would at least be a major improvement on the present mess. In fact, they could well be a government that gets things done."

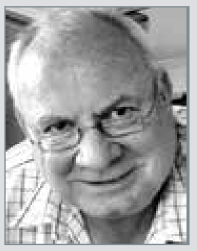
A titter ran through the company, relieving the sober mood in coalition with a raising of the glasses.

So, was that the end of it? Not quite.

"Hold your horses," grimaced Luke the Dude. "The DA is indeed working towards becoming an alternative government and they were making good strides, getting closer at every election to, at least,

OPINION

ON THE CONTRACTY



Pieter Schoombee

being a viable coalition partner. But that was before Mmusi Maimane turned the party into ANC Lite: aggressively pursuing every opportunity to prove their pro-African credentials with flawed policies and an aggressive persecution of any vulnerable-looking white – from their own Western Cape premier and former party leader, whose sin was that she expressed the factual truth that not everything done during colonialism was bad, to the young teacher in Schweizer-Reneke who did not commit even a fabricated sin.

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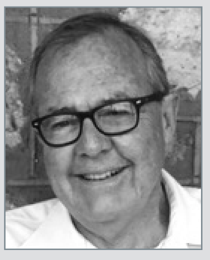
So Californians think it would be so nice if all vehicles were electric?

THE OTHER SIDE OF THE COIN



Keith Bryer

IT has always puzzled me why people who campaign most loudly for change are not quite so keen when the change manifests itself on their doorsteps. The phenomenon has a name. It's called *Not in My Backyard Syndrome*, or NIMBYS (someone who protests on these grounds, is called a Nimby).

For example, a Green Nimby will protest loudly when a forest of giant wind generators is erected near their homes in the countryside or very bright LED street lights are installed on their streets.

These days there are lot of Nimbies around. Most are well off. They are seldom found among the poor. But Nimbyism is actually a new word for an old phenomenon. All politicians suffer from it. The more extreme and revolutionary they are, the more virulent the Nimbyism infection once they are in power.

Check where such types send their children to school. Is it to the local State run primary school? Or, do they send their older children to the local State school? Neither. You can bet your shirt on nine out of ten times it is to the best private school available. The higher up the political tree the parents roost the fancier the school.

The same thing seems to apply to lifestyle. However much a revolutionary complains about the rich, once he or she is in power, it is their rich opponents they most closely resemble and imitate—down to the cars they drive, the way they dress and the houses they seek to buy in the suburbs.

Examples are not restricted to South Africa or indeed Africa. It is widespread around the globe, even in advanced countries. In the 1970s a well-known and powerful British trade union leader called Vic Feather (until he was ennobled as Lord Feather) had one of the best private collections of French oil paintings, including a couple of Van Goughs. One Van Gough painting on sale usually sells for tens of millions of US dollars. Not bad for someone who made a career out of protecting

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