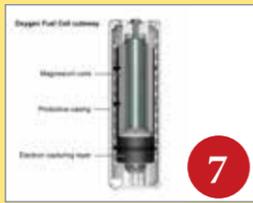




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Construction commences on new diamond recovery vessel



Artist's impression of the new vessel.



Steel cutting ceremony.

ON 15 May 2019, Damen Shipyards Group and De Beers Marine Namibia (Pty) Ltd participated in a special steel cutting ceremony to mark the beginning of construction on a new offshore vessel. In February 2019, De Beers Marine Namibia awarded a contract to Damen to build a new crawler diamond recovery vessel for offshore operations in Namibia.

At 177 metres long, the new vessel will be slightly larger than the current largest vessel in the De Beers Marine Namibia fleet, Mafuta (174 metres). Constructed from a Marin Teknisk design, the MT 6027 will be the most technologically advanced marine diamond recovery vessel in the world. On-board features include a dynamic positioning system (DP2) based on a seven-thruster propulsion system powered by six generators of 3 230 kW each.

This is the first time Damen has interacted with De Beers Marine Namibia as clients, and the new opportunity is one of several generated by Damen's shipyard in Mangalia, Romania.

The Mangalia yard has the largest capacity of all Damen's yards, with a total of three graven dry docks up to 60 metres

in width and 1.6 km total berthing space. The larger capacity has allowed Damen to take on larger construction projects, such as a RoRo ferry measuring 148 metres in length, a 155 metre long Cruise vessel, and this new 177 metre offshore mining vessel for De Beers.

Said Damen sales director offshore, Ruud van der Stroom, "So far, Damen's new build focus has mainly been on standardisation and in-house or own design vessels, along with various types of support and service vessels built for the offshore market," he said. "However, the facilities in Mangalia allow us to respond positively to De Beers Marine Namibia's new build enquiry: an engineered-to-order project with vessel dimensions beyond that built by Damen ever before."

De Beers Marine Namibia operates the largest offshore mine in the world, working at a water depth of between 90 and 150 metres off the south west coast of Namibia. The company owns five mining vessels and a dedicated sampling vessel, and additionally charters one sampling/mining vessel. Michael Curtis, head of the Addition Mining Vessel 3 Project for De Beers Marine, sees the new vessel order as a harbinger for

potential future collaboration. "We were already well aware of Damen's reputation as a reliable, efficient shipbuilder," says Mr Curtis, "and we are pleased to contract Damen to build this vessel for us after successfully winning a Global Tender for the construction of the vessel. De Beers Marine (South Africa) will construct the mission equipment, comprising a subsea crawler and diamond recovery plant, in South Africa in parallel to the vessel construction. Once the vessel is delivered by Damen, it will be sailed to South Africa where the mission equipment will be integrated into the vessel by De Beers Marine. Given the parallel path and complexity of the project, it is critical to work with the best shipbuilders who have a reputation for performance and on-time delivery."

The steel cutting ceremony marks the beginning of construction on the vessel, which will take around two years to build. Damen Shipyards Mangalia will deliver the vessel platform in Mangalia and the vessel will sail on its own keel to Cape Town, South Africa. After the integration of the mission equipment in Cape Town, the vessel is expected to deliver first diamond production in Q2 2022.

Disaster relief after Cyclone Idai



FORD Motor Company Fund, the philanthropic arm of Ford Motor Company, has donated \$30 000 (approximately R423 000) to assist those - especially children - affected by Cyclone Idai, which devastated large parts of Mozambique during March this year. Areas of Zimbabwe and Malawi were also affected.

International and local organisations called for material and financial support, and the Ford Fund's Disaster Relief division has assisted two non-profit organisations: Save The Children South Africa received a grant of \$20 000, and SOS Children's Village received \$10 000.

Millions of adults and children are exposed to daily risks and dangers in the aftermath of the natural disaster which has claimed hundreds of lives and displaced more than 300 000 people.

An estimated 1.5-million children have been affected across Mozambique, Malawi and Zimbabwe as a result of Cyclone Idai, with many people losing family members, their homes and all of their belongings. As well as fundamental needs like clean drinking water, food, shelter and sanitation, there is a need for assistance in other areas, including psychological support and preparing for a looming serious health crisis in the wake of the cyclone, with an outbreak of cholera the most pressing concern.

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'Can do' attitude at Oceana

FISHING giant Oceana Group – the owner of the iconic Lucky Star pilchard brand - has navigated through some tricky currents that have threatened production at its core canned fish division.

A serious supply shortage of pilchards from South African waters due to quota restrictions forced Oceana to re-think its production model at Lucky Star's production facilities.

The group is currently importing more than 90% of its pilchard stock for Lucky Star, a development that could have had a devastating effect on profitability (especially with a weaker Rand exchange rate).

Oceana, however, worked hard to ensure the imported costs did not threaten viability... or force marked price increases in the Lucky Star brand.

Oceana reported that in the half-year to end March the canned



fish business delivered a strong performance with volume growth of 11% to 4.9 million cartons (March 2018: 4.4 million cartons).

Oceana CEO Imran Soomra said affordable pricing, increased promotional activity and marketing (to increase the number of meal occasions) drove consumer demand in a sluggish South African

consumer market.

Ironically, Soomra said increased pilchard imports meant local canneries have benefited from the consistent supply of frozen product for processing resulting in both improved cannery efficiencies and labour productivity.

He said canned fish operating profit - which topped R222

million (last year: R171 million) - increased materially as a result.

Soomra said local demand for Lucky Star's canned fish remained strong but would be impacted by a tougher trading environment and the negative impact of a weaker rand on imported frozen fish.

Oceana believes the high levels of imported

fish will be the norm for at least the next three to five years – until the local pilchard resource is replenished.

Oceana also scored from a solid showing by its horse mackerel and hake segments where good catch rates were helped by strong demand in both local and foreign markets.

Operations were, however, hampered somewhat by a reduction in fishing days across Oceana's fleet due to maintenance and scheduled dry-docks. Weighted average fishing days was down a hefty 21%.

Oceana's often overlooked Commercial Cold Storage and Logistics (CCS) saw improved revenue due to increased occupancy levels, storage rates and pallets handled.

The performance at CCS's coastal facilities benefited from increased procurement of frozen fish for the canned fish business.

Space invaders

LOW cost housing development in the Western Cape is not easy task.

The latest results from Calgro M3 – which specialises in developing affordable housing clusters – showed the company incurred land invasion security costs and damages totalling almost R28 million at its Scottsdene site.

Calgro said the illegal occupation of adjacent council owned land at Scottsdene was ongoing.

The company said an increased security presence and continuous site surveillance was now necessary.

The impact of the land invasions has meant minimal new construction and no new development proj-

ects were started in the past six months to reduce the risk of partially completed units occupied or illegally invaded in the build-up to the national elections.

But Calgro indicated that it had held community engagements to communicate and entrench the positive impacts new development would have on the area.

Overall, it has not been easy going for Calgro. The company noted that in the past

12 months it had reassessed numerous bulk sale transactions to ensure all remain sound from a delivery and profitability perspective.

This had some bearing on the Western Cape developments

where Calgro indicated the following transactions were subsequently cancelled without incurring penalties:

*Belhar student housing private institution sale – 2 200 beds for R411 million;

*Belhar units to Afhco Calgro M3 Consortium – 1 000 rental units for R447.3 million and;

*Scottsdene units to Afhco Calgro M3 Consortium – 844 units for R317.1 million.

Calgro said new transactions were structured pertaining to these cancellations.

Belhar will see an improved student housing transaction that will be densified to 2 700 beds with a similar selling price per bed. This should

ensure better profitability.

Final agreements are also being negotiated based on an upfront land payment and monthly construction progress draws of R520 million.

What's more around 300 units originally sold to the Afhco Calgro M3 Consortium were sold on the open market for a price 13% higher than the cancelled transaction.

Calgro said at Scottsdene the negotiations on various transactions were ongoing - but progress was hampered by the current land invasion challenges.

Meanwhile, things are also looking tough in the Western Cape for Balwin Properties – the residential



property developer of large-scale sectional title estates for the growing lower-to-middle income population.

Specifically Balwin's elite development at the Paardevlei Lifestyle Estate in Somerset West

(where units sell from between R2 million to R3 million – appears to be straining).

Calgro said business at Paardevlei continued to be below the sales rate of the core business model devel-

opments due to the current challenging economic conditions.

The company said it does not plan to build any further elite developments once the existing developments have been completed.

More green for PSG

THE surprise move by adventurous Stellenbosch investor PSG Group into retirement village development a few years ago was initially met with some bewilderment.

PSG has been the force behind some of the most successful businesses seen in South Africa over the last few decades – most notably Capitec Bank as well as private education ventures

Curro Holdings and Stadio.

The group has also been instrumental in re-invigorating established businesses like Pioneer Foods, Capspan and seed business Zaad.

A property-based investment seemed a little staid for PSG, which has traditionally backed intellectual capital with ideas that targeted under-served niches in South

Africa.

But the rationale for PSG grabbing a 50% stake in retirement village specialist Evergreen – where well known developer Amdec is the other major equity partner - is gradually becoming clearer.

Evergreen's five year development schedule looks impressive with 12 villages planned. PSG latest investment presentation

showed that 604 units were already completed – including 78 units in Bergvleit, 260 in Muizenberg, 57 in Diep River, 31 in Lake Michelle, 46 in Noordhoek and two in Val de Vie.

There are 519 units currently under construction – most notable 204 in Noordhoek, 135 in Val de Vie, 50 in Sitari and 22 in Bergvleit.

The big number,

however, is that there are 3 699 units in planning – including 608 and 500 units at Val de Vie and Sitari respectively. The other Cape Town-based developments – Noordhoek, Muizenberg, Diep River, Lake Michelle and Bergvleit – total 828 units.

In total there are 4822 units in play that are worth a collective R13.5 billion.

The ten year plan

envisages more than 22 villages with 10 000 units that should be worth around R30 billion.

PSG stressed that 10 000 units still represented “an insignificant share of the total opportunity”.

While the development pipeline is impressive, it will also be worth watching plans to introduce an in-house care facility – Evergreen Care

– which should prove a valuable source of annuity income.

PSG has been the force behind some of the most successful businesses...

Still a bit of property action

WESTERN CAPE-based property companies are still moving in on opportunities despite the prevailing economic conditions that are dampening the mood in the real estate sector.

Arguably the most adventurous deal saw Fairvest, which specialises in retail nodes away from traditional 'shopping' nodes, last month acquiring the Nonkqubela Mall in Khayelitsha from the Investec Property Fund.

Fairvest explained that the acquisition was consistent with its growth strategy focusing on the acquisition of retail assets with a "weighting in favour of non-metropolitan areas and lower living standards measure (LSM) sectors".

Fairvest already owns the Maccasar Shopping Centre, the Nyanga Junction hub in Manenburg, the Parow Valley Spar and Tokai Junction in the Western Cape.

Fairvest will fork out almost R163 million for the mall, which looks a reasonable price tag considering projected net operating income of almost R16 million.

Fairvest's forecasts for the 10 months ending June 2020 pencils in rental income of R21.4million from the Nonkqubela Mall and R27.4 million for the 12 months to end June 2021.

Spear REIT – a property company that focuses exclusively on Western Cape real

estate – last month acquired the Radnor Road Distribution Centre in Tygerberg for R112 million.

Spear said the deal not only fitted its strategy to invest in high quality assets in the Western Cape, but also increased its exposure to modern industrial assets in Cape Town.

Spear forecast that the Radnor Road property should generate R7.2 million in net property income in the nine months to end February 2020. For the 12 months to end February 2021 Spear estimates that the property should produce around R10.4 million in net property income.

Spear also has some good news on its existing portfolio over the 12 months to end February.

Directors noted performance across the industrial portfolio remained healthy and strong with continuous demand for Spear's rental opportunities by prospective tenants.

They said industrial portfolio continued to operate with high occupancy rates and with no major tenant movements or expired leases.

The industrial portfolio (207 354 square metres) boasted an occupancy rate of 99% at financial year-end.

Spear said its commercial properties exceeded management expectations with robust vacancy reductions as a result of a front-footed and ag-

gressive letting strategy.

Directors said commercial vacancies at year-end were just 2%.

The smaller retail property portfolio – comprising two convenience retail centres servicing the Century City and Northern Suburbs markets – showed positive growth in store revenue and footfall.

Directors said the occupancy rate in the retail portfolio (34 648 square metres) was at 96%.

Spear's residential showed 100% occupancy rates. The residential portfolio only represents 2% of Spear's GLA (gross lettable area), and directors have stated an intention to increase this to closer to 15% of GLA in the medium term with the development of approximately 200 residential units at Sable Square and 200 residential units in Paarden Island (as part of its mixed-use development plans).

At investment company Trematon directors indicated in interim results to end February that in view of socio-political changes and economic challenges its Cape Town-based property subsidiary Aria had taken a "fairly conservative approach" to mitigate risk and take advantage of forthcoming buying opportunities.

Trematon said all sectors of the commercial property market appeared to be under pressure from a de-

mand and pricing perspective. "Aria's value play and broker network have been somewhat of a safeguard against these headwinds."

Trematon noted that Aria achieved several notable milestones during the interim period – most notably the sale of Northgate Park to Spear REIT. Aria also continued to execute their strategy of disposing of both non-core and out-of-Western Cape properties with the sale of Devonshire Parkade in Durban.

More heartening news was that Aria had identified and – in some circumstances – commenced with approximately R75 million of possible re-development projects within the existing portfolio.

These projects include York Street Boulevard in George and Maynard Mall in Wynberg.

Trematon's Resi portfolio – which houses its residential properties – made no further purchases in the interim period. In fact, the portfolio reduced from 636 units to 483 units after sales of mature properties at individual retail prices. Trematon indicated that sales had been, on average, in line with or above carrying values.

However, the company stressed: "We are still very focused on the residential sector as a viable long-term investment. In the Western Cape there are many new apartments to be delivered in the Cape Town metro

during 2019, so we are adopting a cautious approach to new investments."

Trematon believed there would be some distress in the residential market over the next 12 to 18 months – which meant that better acquisition opportunities would present themselves.

Ingenuity, the Western Cape property developer and owner, reported recently that its portfolio value had pushed through the R4bn mark.

Interestingly Ingenuity revealed that its 23 Lower Long Street property was reclassified from investment property to development property after the termination of the lease with the gym tenant and the purchase of the leasehold portion of the property.

The building will be demolished in anticipation of its pending redevelopment.

Ingenuity also noted



that construction of the 117 on Strand development was continuing well with a total anticipated cost of around R657 million. The project is scheduled for completion at the end of August.

Ingenuity noted it had not sought any additional investments – but would rather continue to focus on unlocking value from its development opportunities and realising value from mature assets.

Gem of a deal?

DIAMOND miner Trans Hex Group – which is in the throes of selling its controlling interest in West Coast Resources – has sold its head office...but not to the originally named buyers.

Readers might remember CBN reporting late last year that Trans Hex had entered into an agreement of sale with Darren Goodman and Adam Singer to sell the head office.

The terms of the deal, unfortunately, did not become unconditional and consequently the

sale agreement lapsed.

But Trans Hex has advised that it subsequently received an offer to purchase the head office property from the nearby University of the Western Cape (UWC). The deal – tagged with a R30 million offer price – was accepted by Trans Hex last month.

Trans Hex, which has been in the building for over 30 years, has banked a handsome profit on the deal. The carrying value of the property in its last financial report was just R1.2 million.

How companies can help employees and their families gain an education

Co-authored by: Christelle Helling, Exco of the South African Payroll Association

NELSON MANDELA once said: "Education is the most powerful weapon which you can use to change the world."

For South African companies who have the available resources, there is a great initiative from the government which will allow companies to help employees and their families gain an education. Education should never be limited to just the rich and powerful. We need to empower a whole generation by giving them the education they need to

better their lives.

How company-sponsored bursaries work For a bursary or scholarship to qualify as a bona-fide bursary or scholarship (which means it will be tax exempt for the employee), it needs to meet the following requirements:

- Only employees earning a gross annual salary of less than R600 000 will qualify.
- The bursary or scholarship agreement should state that

should the student fail to complete their studies, the bursary amount will be repayable by the employee.

- Bursaries and scholarships for NQF levels 1-4 (grades R – 12) are limited to R20 000 per year and for NQF levels 5-10 (including university education) it is limited to R60 000 per year

Another great thing is that these bursaries are not limited to one per family. If for example

an employee has three school-going children, they can apply for three bursaries of R20 000 each, providing that this additional R60 000 does not push their annual salary over the R600 000 limit to comply with the rules.

How companies should select employees for bursaries and scholarships: Employers should have a robust policy in place before implementing company-sponsored bursaries. The policy must specify the re-

quirements that should be met and should also be based on merit and need.

Education as a human right means that governments have an obligation to protect, respect and fulfil the right to education. This initiative is a gesture from the government that it is willing to honour its statement that education is a basic human right.

Implementation of company-sponsored bursaries and scholarships: The changes resulting

from the bursaries and scholarships will have to be internally driven.

Consultants can be used during the first implementation phase but after that payroll and HR departments should take the responsibility to ensure that employees' packages are correctly calculated and to have discussions with all qualifying employees where all the details are explained, and they are shown detailed examples to ensure they fully comprehend the benefits.

Leaving a legacy: Companies should also see this initiative as a way of investing in their own future.

If a company helps employees by providing them and their families with an education, they are cultivating loyal employees.

They are also creating a legacy where the employees and their children will now have a proper education and can work for and help improve the company.

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Domestic freight forwarding challenges grow

FREIGHT forwarding is a tough industry where price is king and forwarders are price takers rather than price setters, forcing many operators to discount heavily in order to close deals. These discounting measures without weighing up the related risks can adversely affect the quality of service delivered and the outcomes for both forwarders and clients," says Kennedy Ntenjwa, Marine Broking Centre Manager at Aon South Africa.

Seemingly, the biggest threat is the magnitude and complexity of risks that transport companies are willing to take on in order to secure business, with-

out thoroughly interrogating the financial and liability implications if something does go wrong.

Aon offers the following important tips when taking on new business and ensuring that the appropriate risk management measures are in place:

- **Thoroughly understand what you are taking on with every client:** For example, a freight forwarder took on a job to bring in specialised equipment for a client, shipped from Durban harbour to Johannesburg. The contract was signed in a rush and on the way, an accident oc-

curred. The value of the goods being transported came in at R3.5million, while the forwarder only had cover up to R500 000 for damaged goods cover – a loss big enough to put them out of business.

- **Escalating crime:** The level of crime related to the freight forwarding industry is omnipresent. Sophisticated crime syndicates are targeting anything from tech items, consumables and shoes through to cigarettes and liquor. The modus operandi is to jam radio frequencies around the truck, severing contact

with control rooms, leaving the driver and the load at the mercy of these brazen criminals. These well-connected individuals ensure that the goods disappear rapidly into the illicit market, leaving no trail. In many instances it is attributed to an inside job where an employee supplies the syndicate with information on routes being planned and cargo being hauled, making it crucial for freight forwarders to strictly operate on a 'need to know' basis.

- **Training and vetting employees properly:** Driver

training is crucial, not just from a vehicle handling perspective but also from a cargo loading and handling point of view. Drivers often do not know how to load or label cargo, or to recognise when something is fragile. Perishables are a major concern with drivers not understanding the correct temperature to set the thermostat at, or simply not setting the temperature at all for cargo that needs a temperature-controlled environment, such as meat or dairy products.

- **Legislation:** Freight forwarders are

operating in an increasingly litigious environment, where operators need to make sure that the business understands what is being transported, the risks associated with and regulations surrounding items being transported, particularly pertaining to the transport of hazardous chemicals, combustible substances or dangerous gasses. As a transport company, you are ultimately liable for any damage to property or loss of life. A relatively new risk that is surfacing in this space

is environmental impairment, where the operator can be held liable for the damage and repair of an ecosystem. Cover in this space can vary from R250 000 through to R25m.

Much more stringent and detailed roadworthiness regulations are also on the horizon. "Operators will need to familiarise themselves with these new developments, as insurance cover is dependent on the vehicle being roadworthy, ultimately necessitating the implementation of a comprehensive vehicle maintenance programme," says Kennedy.

"Bureaucracy strangling growth and job creation..."

THE time has come for a major shake-up of Cape Town's municipal bureaucracy because it is strangling growth and job creation, says

the Cape Chamber of Commerce and Industry.

The negative picture was spelled out at a recent two-day confer-

ence of the Western Cape Property Development Forum where it was revealed that developments worth billions of rands had been

abandoned because of bureaucratic delays.

This has contributed to a crisis in the construction industry where hundreds of

thousands of jobs have already been lost.

"Our City Council is supposed to enable business and encourage good development but they have now become a disabling force," said Mr Geoff Jacobs, President of the Chamber.

One example given at the conference was a R1.6 billion development project at the old City Park hospital which was aborted as a result of bureaucratic delays.

"This was a R1.6 billion investment which was lost because of incompetence," said Mr Jacobs. "We have also seen how the whole Foreshore Freeway project was called off after several firms and consortiums had spent many millions of rands

on some outstanding proposals. Investments would have poured into Cape Town but we lost out because of municipal bungling.

"We have an excellent organisation like Wesgro which has brought major investments to the Cape but we are let down when it takes four to eight years to get planning approval for projects. The City Council seems to have no idea of how much these delays cost and how they destroy viable projects."

There has been a major forensic investigation into the department that deals with planning and transport and the head of the department has been sitting at home for more than a year on suspen-

sion drawing a salary in excess of R3m a year while questions about expensive Chinese electric buses and Volvo bus chassis remain unanswered.

"Contrast this situation with the on-going world-class scandal-free development at the waterfront which falls outside the municipal area and does not require planning permission or building plan approvals from the City of Cape Town," said Mr Jacobs.

"The heart of the problem is over regulation and red tape administered by a growing staff of fabulously well paid officials who are simply not doing their jobs. The situation is unacceptable," said Mr Jacobs.



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Ethiopia telecom privatisation leads new wave of deals for 2019

Ethio Telecom, which has around 66 million customers, took a major step forward in its much-anticipated privatisation by pre-selecting six consultancies in partnership with the World Bank

TELECOM, media and tech investment and consolidation activity in Africa is predicted to reach a record high for 2019 as a number of significant deals including the opening up of Ethiopia's telecom sector are scheduled, reports specialist news provider TMT Finance.

Pan-African telecom operators MTN, Orange and Vodacom are among those vying to enter Ethiopia for the opportunity to serve its 105 million population following progress in the telecom privatisation process, reports TMT Finance. Ethio Telecom,

which has around 66 million customers, took a major step forward in its much-anticipated privatisation last month by pre-selecting six consultancies in partnership with the World Bank. Ethio, will be split into two businesses, offering tremendous growth potential to new entrants.

Privatisations of telecom assets are also planned for Togocom and Benin Telecom in West Africa, with consolidation investments expected in Kenya and Tunisia. Meanwhile, Airtel has hired banks for an IPO of its entire Africa portfolio while several telcos are bidding for Millicom's assets. The acceleration of investment into mobile and broadband infrastructure across the region continues as operators and investors try to meet the need for

data services. Leaders from the largest African telecom, media and technology companies, investment banks and investors met to assess the latest investment opportunities at the annual TMT Finance Africa 2019 conference on March 28 in Cape Town.

Over 60 key speakers presented at the event, which featured CxOs and senior executives from Vodacom, MTN, Helios Towers Africa, CSquared, Dark Fibre Africa, Convergence Partners, Seacom, Angola Cables, Standard Bank, IFC World Bank, DLA Piper, Rand Merchant Bank, WIOCC, Paix Data Centres, BCX, European Investment Bank, Investec Asset Management and GreenWish Partners amongst others.

Kaap Agri's bountiful growth

A DETERMINED strategy of ploughing a chunk of profits back into expanding its retail and fuel offerings is paying off for Kaap Agri, the Malmesbury-based farming services specialist.

In the six months to end March 2019 Kaap Agri saw revenue increasing by 28.7% to R4.4 billion. The group said like-for-like sales grew a solid 10.7%.

Kaap Agri reported that growth in the value of business transactions increased by 23.6% to R5.5 billion. This was spurred by a 21.9% increase in the number of transactions.

The performance is all the more impressive when realising that

product inflation - excluding the impact of fuel inflation - was estimated at -0.5%.

What's more Kaap Agri also has to contend with the after effects of a prolonged drought in the Western Cape - which meant a slower than anticipated recovery in agricultural conditions in the Western Cape.

CEO Sean Walsh said although consumers remained under pressure, group's range expansion and supply chain improvements generated strong retail growth in non-agri categories.

He disclosed that the largest impact on revenue came from The Fuel Company (TFC)

- specifically in newly acquired sites.

Kaap Agri reported that fuel volumes increased by 9.2%, of which TFC owned and managed sites grew fuel volumes by 9.5%.

Overall, the TFC's revenue grew by 45% and operating profit before tax by 24.7%.

Walsh said growth in fuel site convenience and quick service restaurant retail operations exceeded fuel volume growth. "We expect strong growth in this division to continue."

Revenue from Kaap core Agri's & Retail trading division - which includes the well-known Agrimark retail branches and Pakmark packaging ser-

VICES as well as newly acquired Forge mechanisation services and spare parts - increased by 24.1% with operating profit before tax increasing by 0.7%.

Walsh said that if the impact of the recently acquired Forge business was stripped out, non-agri retail sales performed well in growing by 3.9%.

Wesgraan - which includes grain handling and storage of grain and related products, seed processing and potato seed marketing - grew revenue by 26.6% off improved wheat harvests in the Western Cape. This resulted in a 16.8% increase in operating profit before tax.

Walsh stressed that

the full impact of the Wesgraan recovery was weighted to the second half of the current financial year.

He said revenue from Kaap Agri's irrigation manufacturing decreased by 5.3% due to the lingering drought related impact on capital investments and upgrades. Operating profit plunged by 27.9%.

Overall, Walsh was pleased with the Kaap Agri performance - stressing that there was still uncertainty about land reform, a general lack of business confidence and that there was less investment in the run-up to the recent general election.

"With the election behind us, more cer-

tainty in general terms can be expected. This should give room for a recovery in business confidence and more investment."

Walsh stressed that more private investment was paramount as investment by government alone would not spark an economic recovery.

"From an agricultural point of view certainty about land reform and water regulations is needed to build confidence for normalised investment in the sector. More confidence and positivity is also needed in the retail environment for growth."

Walsh said that the second half of the year

would remain challenging and an improved performance by Kaap Agri would be dependent on normalised weather patterns and increased consumer confidence.

But he reckoned the recovery in Wesgraan, store upgrades and expansions as well as the revenue from new TFC sites would contribute more significantly during the next six months.

"We remain committed to achieving our strategic medium-term growth targets through continued investment in our people, selective footprint expansion, revenue and cash generating expansion and acquisition opportunities."

Backup power for Africa's tallest building

THE Leonardo, destined to become the tallest building in Africa once completed later this year, features back up power generators supplied by Zest WEG Group.

Said Craig Boucher, projects and product manager at Zest WEG Group genset division, the commissioning of the units was undertaken in the first quarter of 2019 with practical completion expected to be reached in the second quarter of 2019. This follows the original awarding of the tender in November 2017.

"We have designed, manufactured and supplied the two 2 000 kVA, 11 kV generator sets which we are installed in the Leonardo's dedicated plant room on ground level," says Boucher.

"We conducted full in-house MV testing of the system at our modern Cape Town facility..."

The gensets will provide the building with emergency power backup and comprise prime-rated Mitsubishi-powered diesel generators coupled to WEG alternators. To reduce noise levels to local council requirements, Zest WEG Group supplied and installed inlet and outlet splitter attenuators. The fuel storage and transfer system ensures eight hours of operation, with bulk and day fuel tanks installed in compliance with local fire regulations.

The company also installed medium voltage (MV) generator protection and a control panel, as well as a main MV distribution

panel for the building, comprising six tiers for all incoming supply and feeder breakers. All the related cabling for the MV and low voltage (LV) reticulation were also provided for the generator sets, fuel system and auxiliary control equipment.

Significantly, Zest WEG Group holds a Construction Industry Development Board (CIDB) rating of 6EB for electrical engineering work in buildings, as well as a 9EP rating for infrastructural electrical engineering

work.

"We conducted full in-house MV testing of the system at our modern Cape Town facility before delivery to site," Boucher says. "We were assisted by our transformer division with the supply of three 500 kVA, 11 kV to 400 V step-down transformers to enable load testing at 400 V. This allowed us to conduct functional and load tests on the generator sets in our workshop, testing them individually as well as in full synchronisation and load share operation."

Boucher adds that the location of the generator plant room and the physical size of the generator sets meant that the generator sets could not be installed as fully assembled units.

"This challenge was overcome by disassembling the generator sets prior to delivery and re-assembling them in the generator plant room," he says. "Due to the weight of the equipment, special rigging equipment was required inside the plant room to facilitate the re-assembly process."



One of the two 2 000 kVA, 11 kV generators supplied to The Leonardo.

RELIABLE PRODUCTS and SOLUTIONS

for the heating, ventilation and air conditioning industry.

An in-depth understanding of the requirements for HVAC applications, access to quality product solutions and years of experience have ensured that the Zest WEG Group service offering is fit-for purpose. From single product installations to individually customised solutions, the latest technology is used to ensure optimum performance and reliability without compromising on energy efficiency.

All products are engineered to facilitate a safe and reliable environment with operational stability and the highest possible production levels as an objective.

Reduced maintenance and ease of serviceability assist in lowering the total cost of ownership for operations.

Cyber Cerebral South Africa Summit 19 Vol 2

9-10 October 2019 at The Capital on The Park, Sandton, Johannesburg.

Connecting Africa's Cyber Security's thought leaders.

FOLLOWING the overwhelming success of the inaugural Cyber Cerebral South Africa Summit 2019, in Cape Town - which saw a 35% C-Suite attendance - organisers, 7eventsafrica presents the second of trilogy of presentations, in Johannesburg on 9 -10 October 2019.

Cyber Cerebral South Africa Summit will break down barriers and create thought provoking conversations around topics which impact the South African cyber landscape. The Brand Seeks to educate the Southern African Landscape, ensuring that the decision makers throughout South Africa and our neighbouring countries are prepared for the eventual Cyber Attacks which will impact there businesses in the years to come - Our Motto is "By failing to Prepare, you are preparing to fail" This is what the Cyber Cerebral Brand

stands for.

CCSAS 19 Vol.2 will create vigorous conversations, intense debates around the advancement of policy and legislation and cyber security threats that organizations face today.

The CIO and CISO B2B Communications platform aims to develop a forward - thinking plan between the buyers and the sellers to ensure a stronger defence for our country's Cyber Citizens. The summit seeks to connect public, private sector and solution providers with the goal of protecting information.

Participants will:

- Gain invaluable insight and learn best practice from the thought leaders in the industry.
- Get up to speed with the latest technologies, policies, legislation and standards.

- Connect with your peers and other professionals.
- Experience live Panel discussions & debates over the 2 days from the experts in the industry.
- Extensive networking opportunities with the top commercial ICT & AI companies.
- Connect with the solution providers in the sponsors lounge.
- See what the latest advancements are in the Cyber Security sector.
- Build and foster business relationships.
- Be a part of the round table discussions.
- Experience concurrent workshop sessions from solution providers.
- Receive CPD point by attending Cyber Cerebral South Africa Summit.

Cyber Cerebral South Africa Summit

Sponsorship and speaker packages are available and Early Bird registration is already open. To reserve your seat go to <http://www.7eventsafrica.co.za/ccsas/registration.html> or contact Email: info@7eventsafrica.co.za, or phone 0648707049.

Prediction - AI will eliminated 80% of today's PM tasks

BY 2030, 80 per cent of the work of today's project management (PM) discipline will be eliminated as artificial intelligence (AI) takes on traditional PM functions such as data collection, tracking and reporting, according to Gartner, Inc.

"AI is going to revolutionise how program and portfolio management (PPM) leaders leverage technology to support their business goals," said Daniel Stang, research vice president at Gartner. "Right now, the tools available to them do not meet the requirements of digital business."

Evolution of PPM Market

Providers in today's PPM software market are behind in enabling a fully digital pro-

gramme management office (PMO), but Gartner predicts AI-enabled PPM will begin to surface in the market sometime this year. The market will focus first on providing incremental user experience benefits to individual PM professionals, and later will help them to become better planners and managers. In fact, by 2023, technology providers focused on AI, virtual reality (VR) and digital platforms will disrupt the PPM market and cause a clear response by traditional providers.

PPM as an AI-Enabled Discipline

Data collection, analysis and reporting are a large proportion of the PPM discipline. AI will improve the outcomes of these tasks, includ-

ing the ability to analyse data faster than humans and using those results to improve overall performance. As these standard tasks start to get replaced, PPM leaders will look to staff their teams with those who can manage the demands of AI and smart machines as new stakeholders.

"Using conversational AI and chatbots, PPM and PMO leaders can begin to use their voices to query a PPM software system and issue commands, rather than using their keyboard and mouse," said Mr Stang. "As AI begins to take root in the PPM software market, those PMOs that choose to embrace the technology will see a reduction in the occurrence of unforeseen project issues and risks associated with human error."

LPG - stay safe this winter

THE use of LPG powered appliances has become a trend in South Africa as the need for alternative energy sources increase. The colder months are obviously the peak season for these appliances - especially the space heaters.

LPG is kept under pressure as a liquid and when released it becomes a highly flammable gas which is heavier than air. Therefore, when appliance safety guidelines are not closely followed, it can be potentially harmful.

Safe Gas Appliances

Consumers are advised to only purchase appliances that have a Permit Verification Number displayed on them. The Liquefied Petroleum Gas Safety Association of South Africa (LPGSASA) and the Southern African Gas Association (SAGA) have established the Safe Appliance Scheme (SAS) and the Safe Gas Equipment Scheme (SGES) in order to ensure that all appliances and equipment installed in South Africa have been tested and are in compliance with the relevant South African safety standards and are fit for intended use. Any equipment that has not been manufactured

according to the standard could be hazardous. Only equipment that has been awarded a Safe Appliance or Equipment Verification Permit may be used. A list of all permit carrying appliances can be found on: https://www.lpgas.co.za/safety/find%20a%20safe%20appliance/Search_Appliance.php

Installing Gas Equipment

Before LPG equipment can be used properly, it has to be installed properly. Consumers should never attempt to install LPG equipment themselves. Amateur installations have caused numerous accidents in the past, such as fires and gas leaks, which can be hazardous. As per South African law, only a registered Gas Practitioner may install gas appliances or equipment. A comprehensive list of registered installers is available on: www.saqccgas.co.za where practitioners can be located by town/suburb. The winter season is a peak time for LPG consumption as the need to keep warm is immense due to the cold weather. As a result, the potential for fire related incidents increases as many of us use our heaters. Take

note of the following safety precautions when using an LP gas heater;

- Always read and follow the manufacturer's guidelines carefully.
- Always turn your heater off at the cylinder valve before going to bed or leaving the room or your property - in fact, at any time when the heater is not in use.
- Ensure all the components of your unit are well maintained e.g. the heater, regulator, hose and hose connections.
- When changing the cylinder, first close the cylinder valve and then remove the regulator.
- Always check that the rubber "O-ring" (washer) on the end of the regulator is not worn, brittle or damaged in any way. Replace it if it is.
- Test any gas appliance or heater for possible leaks by spraying a soap-water solution on all connections. Leaks will show in the form of bubbles and must be repaired immediately.
- Do not use aerosols or flammable, cleaning liquids or sprays close to the heater.

- Avoid sitting or standing too close to your heater - a safe distance would be approximately 1 metre.
- Always ensure that the room in use is ventilated so that there is a continuous supply of fresh air (oxygen).
- Ensure that your heater is positioned away from any flammable materials and is not blocking any escape route.
- Never place clothes or other items on or near your heater.
- Do not move your unit while it is in use.
- Educate children on the safe use of gas appliances and never leave them without supervision in a room where an appliance is located.
- If you suspect a gas leak, turn off the gas cylinder immediately and, if possible, take the heater outside.
- Have your heater serviced regularly.

Only use LP gas appliances that are permitted to be sold in South Africa. A complete list is available on www.lpgas.co.za. Click on the 'Safety' button and then on 'Find a Safe Appliance'.

New name for consulting stalwart

SOUTH AFRICAN based civil engineering consulting firm UWP Consulting has celebrated its 47th anniversary with a new name.

UWP Consulting officially changed its name to Mariswe on 1 February 2019 following 10 years of change that have resulted in the company becoming 100% owned by its employees, 55% black owned, and a Level 1 B-BBEE Contributor against the new Construction Codes.

Mariswe's stated aim is to engineer infrastructural solutions that build communities and improve people's lives. "Our objective has always been to improve lives through sustainable engineering services," says CEO Nonkululeko Sindane. "But the company has matured to the extent that it needs a new identity that showcases our transformation and our relevance in the future of South Africa and Africa."

New owners

UWP has acquired three majority black owned companies in the past 10 years - Khula Africa Engineers in

2009; CME Consulting Engineers in 2012; and Sektor Consulting Engineers in 2018. These acquisitions brought new technical expertise and projects to the firm.

Most of the shares in the business have also changed hands. In 2016 UWP was 33% black owned and 12% black women owned. A 25% stake of the black ownership was held by an external equity partner and 8% by black employees in management. The remaining 67% of shares were owned by white employees.

Today Mariswe is 100% employee owned and 55% black owned. Black women effectively own 24% of the company. The equity partner's 25% holding was bought by Abaqeshwa, a company wholly owned by black employees in the business, while 30% of shares are held by black managers and professionals within Mariswe.

Mariswe also successfully retained its Level 1 B-BBEE Contributor status in its first audit under the Amended Construction Sector Codes of



Munya Mutyora, senior technologist - Transportation at Mariswe, displays a pledge poster signed by all employees.

Good Practice in November 2018.

Roots in Africa

Mariswe operates from eight offices in four provinces of South Africa, with clients across all tiers of government alongside growing private sector partnerships. More than 35% of its revenue is currently generated outside South Africa and successful subsidiary firms are located in Tanzania, Zimbabwe, Botswana, Zambia and Ghana.

Projects have also been completed recently in Liberia, Uganda, Lesotho, the Democratic Republic of Congo and Sierra Leone. A new branch of the South African business has recently

opened in Lesotho.

"The name change has taken two years and we put our employees at the centre of the journey by asking them to literally paint a picture of why they worked at UWP," says Sindane. "Common themes emerged, providing the basis for a new set of company values."

But history will also play a role in Mariswe's future, she adds. "Over 47 years we have built a solid foundation. We have grown into a respected firm with the depth of expertise to deliver projects of any scale in our core technical disciplines of Transportation, Water and Sanitation, Structures, Management Services and Infrastructure Planning."

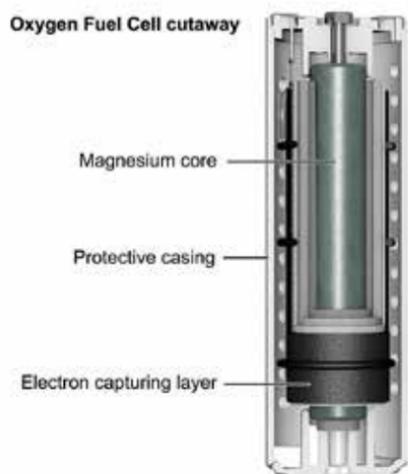
Oxygen Fuel Cells - coming to Africa

OXYGEN FUEL CELLS, fit in your hand, are a light weight and high density power source recently developed for off grid, emergency preparedness and outdoor activities. The oxygen fuel cell, also called metal air fuel cell, works through the capture of electricity released in the oxidation of magnesium, aluminium or other alloys.

Unlike disposable batteries that go dead on the shelf, fuel cells have a shelf life of over 25 years without degradation in power performance. Longevity of power supply is critically important for emergency kits and disaster preparedness, where hand-held power and light can be a matter of survival. Lithium batteries also suffer power degradation in storage and are prone to lose their ability to accept a charge if left without charging for long periods (2 years or more). Think about your emergency kit?

How do oxygen fuel cells work?

Oxidation is defined as a process where a substance combines with oxygen, resulting in the release of electrons. When the



magnesium in a fuel cell is moistened, the oxidation process begins. A carbon material, surrounding the metal core, captures electrons as released. Depending on design criteria, fuel cells can feed electricity directly to LED lights, charge a phone or be fed into a rechargeable battery for future use. To keep the fuel cells dry until needed, manufacturers will often cover the cells in an airtight plastic seal. Remove the seal, dip the cell in water for just a few seconds and the process begins, electricity will be released for 100's of hours. Dipping again is normally required every day or two to keep the cell moist. And yes,

you can dip the cell in any kind of water, tap water, sea water, water from a stream, lake, puddle, even very dirty water will provide the moisture required to activate the process.

What about the environment?

According to the US Environmental Protection Agency, each year American's throw away more than 3 billion batteries. That's about 180 000 tons, many of which are single use alkaline batteries – an expensive and environmentally damaging habit.

Over the past five years, Hydra Light International Ltd developed a family of Oxy-

gen Fuel Cell powered products. The "Hydra-Cell" is made with a magnesium core. Magnesium is an environmentally friendly mineral that is often used in fertilizers.

Fuel cells can keep disposable batteries out of the garbage. A single HydraCell, has the power equivalent to over 30 AA premium alkaline batteries. To compare power density (weight vs power output), 30 AA batteries weigh nearly 700 grams while the HydraCell weighs just 100 grams. That is a favourable weight to power ratio of 7 to 1 in favour of the much lighter HydraCell.

In less developed countries, kerosene is the main source of light in millions of homes, producing a dim flickering light with unhealthy smoke emissions.

Further, kerosene lamp fires are a leading cause of death, debilitating burns, loss of income and property loss. A single Hydra-Cell will deliver over 300 hours of clean bright light, replacing approximately 7.5 litres of kerosene otherwise burned in a kerosene wick lamp. Fuel cells have the potential to replace huge volumes

of kerosene, reduce household emissions, including greenhouse gas emissions while providing clean bright LED light for study and other household activities. (Further, you can't charge a phone with a kerosene wick lamp).

What about the cost?

Pricing may vary from region to region. In the USA for example, where HydraCell products are used for outdoor recreation and emergency preparedness, the manufacturer's suggested retail price of a HydraCell is less than \$14.00, while 30 AA alkaline single use batteries often retail for \$20.00 to \$30.00. That equates to a savings in the range up to 50% or more by switching to fuel cell technology.

Studies in Africa have shown that even those homes with other sources of light often rely on disposable batteries as backup source of lighting.

For more information on Hydra Light and HydraCell products, including distributor opportunities, contact Ray Ludwig: ray@hydracellpower.com. Website: www.hydracellpower.com

Advertorial

Tips that can accelerate your business ahead

Successful Businesses know that customers are their lifeblood and have to actively win and retain their clients. And that a great product and excellent service are vital, as is effective marketing. After all, people have to know about your business to become customers.

Here are a few key moves to jump-start, or accelerate, your business and deepen existing clients' loyalty.

SHARING YOUR EXPERTISE

Offering useful insights is a great

your customer is raving about your business or complaining for all to see. They say there is no such thing as a bad review, it is how you apply yourself to it and learn from it.

CREATE OR UPDATE YOUR WEBSITE

Even if you conduct most of your business offline, the potential to win or lose customers before ever hearing from them, based on your website is there. I cannot overestimate the importance of a polished website for a

Customers are the lifeblood of any successful business

way to raise your profile as an expert without making a hard sell. You can easily publish an article on your social media or LinkedIn page. A frequently updated article on your company website can help you and your business develop a following of loyal regular customers. Best of all, it will not cost you a cent to produce.

company. You do not want loose a prime opportunity with potential clients. It is a chance to present your business in a professional way and set the tone with customers. An easy to navigate website is also more effective along with client testimonials and regularly updated articles.

GET ACTIVE ON SOCIAL MEDIA

Another free option is the clever use of Facebook, Twitter, Instagram and LinkedIn, all of which can drive customers your way. Promote a sale or event, or simply share some news about your business. Include photos or interesting tips as a picture can generally tell a thousand words if done right.

TEND TO EXISTING AND FORMER CLIENTS

Often we forget to remind our customers of our products and services and we constantly need to let them know of any new offerings or changes in your business. Whether via social channels or email, better still a more direct (sitting in front of your clientele) approach will work wonders. The aim is to inform and sell.

Be sure to use a tagline or blurb that best describes your business in a way that will get you noticed by potential clients. Hashtags are another way of ensuring you reach your clients across all mediums.

REACH OUT TO YOUR COMMUNITY

Getting involved in and doing good for your community is good for the soul, and can raise your profile. Consider establishing your business as a supportive community player.

Social media is a great way engage directly with customers, but remember to keep tabs on your accounts and always be prepared to respond, whether

As you plan for some accelerated business, take some time to brainstorm what two or three steps you might take to boost your marketing efforts.

Profit with purpose: a win for SMME's

ENTREPRENEURS across South Africa are reaping the benefits of big businesses increasingly embracing profit-with-purpose as critical to their long-term sustainability.

It's a winning merger, said impact strategist and filmmaker Shani Kay, who stressed that this inclusive approach effectively translates to an ongoing commitment to help build small businesses to become a permanent feature in the supply chains of their bigger counterparts.

"SMMEs are the key to our desired economic growth and job creation objectives; and so the biggest contribution that our listed sector can make is to help small business to thrive by providing them with both support and opportunities. This in turn creates a bigger, more diverse and more competitive supply chain alongside a bigger pool of economically active consumers" she explained.

Kay points to SA Breweries as an ex-



ceptional example of a company that is integral to the fabric of South African society.

SAB Senior Corporate Affairs Director Zoleka Lisa said the company committed in 2016 to invest R1 billion over five years in its Public Interest Commitment (PIC) programme, 61% of which is focused on agriculture.

This local sourcing strategy saw them significantly boost the barley yield of North West farmer Mapula Vivian Seboko, among others, winning her the title of 2018 Emerging Farmer of the Year.

Lisa said SAB also committed a further

R200million to build sustainable enterprises within the communities in which they operate.

Providing invaluable coaching and financial support to its small business partners, the programme has benefited people like Johannesburg hydroponic rooftop farmer Fezile Msomi and businesses such as Kevali Chemicals. Started by Funeka Khumalo, a female entrepreneur from Gugulethu, Kevali provides customised solutions in the chemical industry that focus on hygiene and sanitation, water treatment and adhesives.

Since her participation in the SAB Accel-

erator, Kevali has experienced 30% annual growth, with a credible list of customers that includes SAB and other multinationals, as well as a mission to inspire young girls across South Africa that it is possible to follow their dreams and succeed

Lisa describes enterprise development as a key channel to address not only South Africa's unemployment challenge, but also to maximise exports and minimise imports. Local sourcing is an integral part of the programme, and the organization currently sources 97% of all materials in the production of its products locally.

"SAB is focusing on the inclusion of black-owned businesses in its supply chain, and ensuring it has a healthy pipeline of suppliers that represent the demographics of South Africa," she explained. This speaks to its commitment to contributing to the transformation of previously disadvantaged individuals, which is key to developing an inclusive economy.

South Africa, said Kay, is starting to see an increase in these innovative business models, which deliver profitable returns and societal value in synergy.

"It marks a critical move from a business focus on double-digit growth that can only result in an environment of 'haves' and 'have-nots'. Companies are now re-identifying their purpose, redefining their values, and re-connecting with a human-centric approach to doing business that will see them into a sustainable future" she said.

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Response to DEA label of “problem plastic”

“It is an excellent product that gets the job done. The problem does not lie with the material, but with how it is discarded and highlights the need for waste infrastructure to be developed.”

“We believe we have a viable solution to this problem...”

THE Polystyrene Association of South Africa (PASA) has responded to a statement made by the Portfolio Committee on Environmental Affairs before the National Assembly recently, identifying polystyrene as one of the five so-called “problem plastic products” that have a short lifespan and are the biggest culprits in our environment. The other items on this list are plastic cutlery, stirrers, earbuds and straws.

The Association’s Chief Executive Officer, Adri Spangenberg, said that polystyrene is so much more than just a single-use plastic, given the fact that South Africa has developed various end-markets that use recycled polystyrene with great effect.

Impressive growth in recycling figures thanks to new end-markets

“During the 2017-2018 financial year, more than 6 300 tons of polystyrene were successfully diverted from our country’s landfills and recycled in South Africa. Considering that our recycling figures stood at 1 849 tons in 2013, we are very proud of this growth – proving that the local polystyrene recycling industry is growing and thriving,” she said.

Spangenberg said recycled polystyrene is in great demand by recy-

clers, who use the material in the production of picture frames, cornices and stationery. “The biggest demand for polystyrene, however, has come from the building and construction industry where recycled polystyrene is used in the production of lightweight concrete bricks and screeds. Polystyrene used in this application can be of any colour or grade, clean or slightly contaminated as it gets chopped up and mixed with a special mixture of cement and other ingredients to form lightweight concrete that is waterproof, fire resistant, offers insulation against heat and cold and it is cheaper and easier to build with than traditional bricks or concrete”.

Recycling polystyrene to create jobs, build homes, deal with waste

“The plastics industry provides employment to more than 60 000 people and the Polystyrene Association has recently unveiled exciting plans that will see this figure increase even further. We are partnering with municipalities to take polystyrene collection and recycling to the people with the establishment of Polystyrene Trading Hubs in the larger metro cities and Municipal Polystyrene Recycling Hubs in outlying areas. These hubs will address a much-needed solution for housing,

employment and the waste crisis by enabling communities to collect, recycle and produce the material they need to build houses in their immediate areas”.

Projections are that polystyrene recycling in South Africa will be increased to 63.7% (27 870 tons) per annum by 2023 with these hubs.

“The plastics industry provides employment to more than 60 000 people...”

Creating a win-win solution

“Banning polystyrene just as we are on the cusp of an exciting breakthrough will jeopardize the future employment of thousands of people and undermine the excellent work we have been doing over the last 11 years. Our industry is committed to finding a solution that will permanently bring an end to plastics polluting the environment. We invite Government and other stakeholders, including unions, converters, brand owners and retailers to engage with us in the weeks and months to come as we work together to find what we believe can undoubtedly be a win-win solution that the rest of the world can follow,” Spangenberg concluded.

Reviving the Tsitsikamma wetlands

A century-old decision to drain the Tsitsikamma wetlands has resulted in grave damage. But an MTO project is bringing nature back to this eco gem.



The Tsitsikamma wetlands then.



And now...

THE Tsitsikamma region was once home to impressive wetlands. Those days are returning thanks to an ambitious project restoring the natural order to this area, conserving water and helping local communities.

Tsitsikamma is a colloquialism for ‘clear water’ and the region stands up to that claim. But roll back the clock for just over a century and it was even more impressive with wetlands spanning alongside the local mountains.

Wetlands are not a common sight in South Africa, taking up less than 3 percent of its surface area. Yet they are crucially important in maintaining the natural ecosystem and without them, serious problems, including loss of water, start to occur.

This was not known in 1917 when a planting project was started to meet the country’s timber needs. The intention was good - doing so safeguarded

hectares of indigenous forests. But large areas of wetlands were drained to make space for the trees. Such destructive activities have taken their toll, halving SA’s percentage of wetlands.

“Wetland degradation also creates other problems,” explained Jan Huyser, Environmental Manager at the MTO Group. “The wetlands functioned as a floodplain for the water captured by the mountains. Once they were drained, that flow narrowed, eventually creating a donga that is clawing its way upstream.”

Wetlands are essentially transition areas between dry land and bodies of water. They include high water tables, fertile soils, aquatic plants and plenty of wildlife. As such, they act as water filters, feed underground aquifers and reduce erosion. Despite their scarcity, wetlands are crucial for sustaining water. They are also highly

valuable to local communities for water access, livestock grazing and recreational uses. The implications of wetland draining eventually resulted in the 1975 RAMSAR Wetland Convention. But the damage had been done.

Then when MTO took over the Tsitsikamma lease in 2005, it decided to launch a rehabilitation project. This has two prongs to attack the problem: the removal of alien plants and addressing historical damage, such as plugging drainage ditches and reducing erosion impact.

Parts of the project involves impressive engineering endeavours, such as gabions (mesh cages filled with rocks) and weirs (low-level dams to encourage water retention), as well as eco logs to block human-made drainage channels.

To date, excluding training, logistics and certain infrastructure, MTO has spent

over R11.5 million on the restoration. It also recognised that some wetland problems originate further upstream and has for the past few years been rehabilitating a Tsitsikamma tributary river, located on Fingo tribal land belonging to the Mfengu community. In total, the project has laid down 1 818m³ of gabion structures and 349m³ of concrete structures, installed over 75 eco logs and cleared 145.5 ha of invasive species. Overall 2 882m² of wetland banks have already been restored.

Sustainability is very important to us, particularly in a country with so few water resources,” said Lawrence Polkinghorne, CEO of the MTO Group.

“Water is a very precious resource and we all have a role to play in its conservation. MTO is committed to environmental sustainability; we see it as a ticket to the game”

Nearly R3 billion in investment raised in 2018/19

WESGRO has announced that it has helped secure R2,85 billion in facilitated investments in the 2018/19 financial year, on behalf of the City of Cape Town and the Western Cape Government. The investments are projected to be realised over a five year period, and create nearly 1 000 new direct jobs.

This follows a successful fourth quarter, where the Investment Team - which consists of the Investment Promotion Unit and Agribusiness Investment Unit, supported in the investment facilitation process by the InvestSA One Stop Shop - collectively secured more than half a billion rand in declared investments. The investments

secured in the fourth quarter were spread across the Tech; Real Estate; Waste and Agribusiness sectors, and are expected to result in the creation of more than 100 new direct jobs.

Wesgro receives its investment promotion mandate from the City of Cape Town and the Western Cape Government’s Department of Economic Development (DEDAT). The Agribusiness Investment Unit in particular is funded by the Western Cape Government’s Department of Agriculture (DoA). The team also shares an investment-focussed resource with Green Cape, helping land investment into the growing green economy sector.

The investment team manages a pipeline of investors, assisting them to do business in the city and broader province, which is currently valued at R29,4 billion. During the last quarter, 25 new investment projects were recruited into the pipeline, spread across the following key sectors: five in Manufacturing, three in Tech and one each in Pharmaceuticals, Real Estate, Healthcare, Financial Services, E-mobility, Energy Efficiency, Solar-PV OEM, Consulting and Maritime, and eight by the Agribusiness Investment Unit.

The Chief Business Officer, Yaw Pephrah, noted: “A key focus in 2018/19 was to strengthen the Agency’s rela-

tionship with municipalities across the province, so as to assist in promoting and attracting investment into locations across the entire region. During this last quarter alone, the team engaged with Hessequa Municipality, Theewaterskloof Municipality, Mossel Bay Municipality and George Municipality.”

Pephrah continued: “Greater collaboration with the InvestSA One Stop Shop, operated by Wesgro and DEDAT, was also prioritised, as the investor centre provides an on-the-ground service offering for investors looking to do business in the Western Cape. The One Stop Shop has now assisted with 13 regulatory approvals, exceeding its target.”



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Windaba conference opens doors for African development

AS concerns around energy security in South Africa grow, so does it for the rest of the continent, where access to energy plagues close to 1 billion people in Sub-Saharan Africa alone. It is therefore befitting that this year's Windaba conference will bring together industry leaders, investors, power producers and pioneers to discuss ways in which wind power can be unleashed to address South Africa's economic development and that of the countries north of our borders.

Themed, 'Unleashing Renewable Power for African Economic Development', this year's event will evaluate wind energy's role in ensuring economic development and how releasing the remaining constraints to growth can lead to greater social and economic impacts.

Recent data released by the International Renewable Energy Agency (IRENA) shows that renewable energy capacity has grown in all regions of the world, emerging and developing economies included. Africa's 8.4 per cent growth put it in third place and it is no wonder that many South African wind power industry players are already au fait with the landscape.

South Africa is a front runner in Sub-Saharan Africa when it comes to the wind industry and has much to gain from expanding its markets. This would shore up the local manufacturing sector, thereby creating long-term sustainable employment opportunities. Furthermore, this will have the potential to contribute to the country's green economy objectives and objectives of the National Development Plan, all of which hinge on a coordinated supportive policy environment that supports a smooth power procurement as part of the Renewable Energy Independent Power Producer Procurement Programme (REI4P).

It is anticipated that the next competitive auction for renewable energy in South Africa will be announced by the second half of 2019, following a positive start to the year, which saw government renewing its commitment to growing this sector as part of the country's sustainable energy mix.

What the World Bank says about energy security in Africa:

- The world is not moving fast enough to reach its universal electricity access goal by 2030. A substantial acceleration of

efforts and investments are needed to achieve this objective.

- While nearly 1 billion people in Sub-Saharan Africa alone may gain electricity access by 2040, an estimated 530 million will still not have elec-

tricity access due to population growth.

The 9th annual Windaba Conference and Exhibition will take place on 8-9 October 2019 in Cape Town, at the CTICC. This year, for the first time, Windaba will expand its focus to

include the whole of Sub-Saharan Africa and will be looking to share the lessons that South Africa has gained from its world-renowned REI4P with the broader continent.

For further information: <https://www.windaba.co.za/>



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Always Visible

National Minimum Wage: 3 Things every employer should know

By Rob Cooper, tax expert at Sage, and independent labour economist, Andrew Levy

SOUTH AFRICA'S national minimum wage legislation came into effect on 1 January 2019, setting the minimum wage at R18 per hour for farmworkers, R15 per hour for domestic workers and R20 per hour across most other sectors of the economy. The Commission for Conciliation, Mediation and Arbitration (CCMA) is already facing a flood of disputes between employers and employees about the new minimum wage, which indicates that many companies do not yet fully understand their obligations under the law.

1. The National Minimum Wage is applicable to many so-called independent contractors

The National Minimum Wage Act does not confine itself to employers and employees as defined in the Basic Conditions of Employment Act. It expands the definition of an employer to mean "any person who is obliged to pay

a worker for the work that that worker performs for that person" and of a worker to encompass "any person who works for another and who receives, or is entitled to receive, any payment for that work whether in money or in kind".

The intention of the law is clear: it is meant to prevent employers from shifting to hiring 'contractors' to avoid meeting the requirements of the minimum wage.

The legal specifics are technical—and we discuss them in detail in our National Minimum Wage handbook and seminars—but the bottom-line is that someone who is an independent contractor and not an employee under other laws could be regarded as a worker for the purposes of the minimum wage.

These conclusions may yet be tested in the courts. But until then, we recommend that employers ensure that their individual contractors, casual part-timers and others not under a formal employment contract earn at least the hourly national minimum wage for the work they do—in other words, they should check that the amount paid for the

hours worked is at least R20 per hour.

2. The penalties for non-compliance are steep

The CCMA may impose a fine that is the greater amount of twice the value of the underpayment and twice the employee's monthly wage on companies that do not comply with the Minimum Wage. Non-compliant employers may also be named and shamed in a quarterly publication of all employers that were instructed to comply with the National Minimum Wage—this will be posted on the Department of Labour website.

Employees and trade unions will be vigilant in ensuring that employers pay the national minimum wage. This will most likely be the primary means of enforcement, although examination of pay records to ensure the correct amount is being paid will also be an automatic check for all labour inspectors.

3. Minimum wage and the Employment Tax Incentive Act

The Employment Tax Incentive Act (the

ETI Act) came into effect on 1 January 2014 and President Cyril Ramaphosa announced that it will be extended for another decade in his State of the Nation Address.

According to the Act, the employer must pay a wage in each month that is not less than "the amount payable by virtue of a wage regulating measure" for an employee to qualify to generate the tax incentive for the employer.

Wage regulating measures (such as Sectoral Determinations) always specify an hourly minimum rate, and some also specify a monthly and/or a weekly minimum wage. If payroll systems and employers apply the hourly minimum wage rate specified by the wage regulating measure, they will be in compliance.

However, the Act also specifies that a monthly minimum wage of R2 000 must be applied if there is no wage regulating measure. This section does not provide for the minimum wage to be validated against an hourly wage rate, while the National Minimum Wage is applied on an hourly basis.

Sleep-deprived employees cost South Africa billions

SOUTH AFRICANS need more sleep. Sleep-deprived employees are at higher risk of life-threatening chronic illness and disability, more likely to cause workplace accidents, less productive and more absent – adding up to an economic liability in the billions. The cost to just one medical aid scheme of treating the life-threatening diseases linked to sleeping less than the recommended eight hours a night is estimated at R22-billion annually in a recent study conducted by Charles King, an MBA student at the University of Stellenbosch Business School (USB).

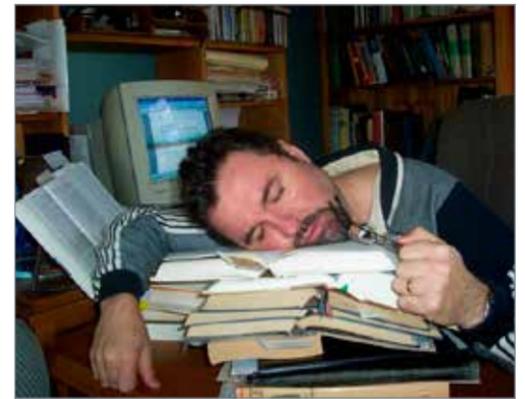
He set out to determine the expected savings in healthcare costs if 25- to 40-year-olds could be "converted" to healthy sleeping habits in a world that expects employees to be "always-on".

"Lack of sleep is not only related to workplace issues such as absenteeism, lack of productivity, poor work performance, and accidents – which have a direct cost impact on a business – but insufficient sleep has been directly linked with seven of the 15 leading causes of death.

"The research looked at the indirect costs of lack of sleep, particularly the cost to medical schemes of treating illnesses where inadequate sleep is a major risk factor. We asked what the potential savings would be to a medical scheme if individuals just got enough sleep," King said.

It is widely accepted that seven to nine hours sleep a night are optimal for wellness, productivity and lowering the risk of disease, but King said two-thirds (64%) of the people whose sleeping habits he tracked slept for less than seven hours a night, with men more likely to be sleep-deprived.

Sleep problems have become one of the leading causes of phys-



ical and mental health illnesses, due to expectations of being always available, shift work and longer working hours, 24/7 availability of entertainment and addiction to technology such as mobile phones.

Even one night of less than six hours sleep is equivalent to two totally sleepless nights in its impact on cognitive performance – impairing memory and concentration, and making risky decision-making more likely – and the risk factors for disease increase exponentially as sleep time decreases below the seven-hour mark.

King said that an average of less than seven hours sleep increased the risk of developing major depression by 22%, coronary artery disease by 73%, type 2 diabetes by up to 18%, and the risk of developing colorectal cancer by 50%.

Those who don't get enough sleep, he said, are subject to a "double jeopardy" scenario – lack of sleep is a contributing factor to obesity, and both are individually linked to increased risk of cardiovascular disease, depression, cancers and diabetes.

Making the sleepless scenario worse, people with habitually poor sleeping patterns also tend to have unhealthy lifestyle habits like drinking alcohol, smoking and lack of exercise – combining these with insufficient sleep further increases the risk of developing chronic diseases.

"Medical schemes carry the burden of these

diseases, directly and indirectly. The costs need to be established, to identify the risk for the schemes if members do not adhere to healthy sleeping patterns and other lifestyle choices," King said.

He said there was a need for more research and analysis of the macro-economic and financial impacts of insufficient sleep on individuals, society and medical insurers, as well as understanding and measuring the impact on people reliant on the public health sector.

This would assist in raising awareness of the importance of healthy sleep patterns. To ensure healthy sleep, he said use of mobile devices, watching TV or working in bed should be avoided, along with consumption of nicotine, caffeinated drinks or any substance that would impair sleep quality, while regular exercise had significant benefits to improving sleep.

"It is important to educate people on the health benefits of healthy sleep norms, as well as the health risks of not getting enough good quality sleep. Companies need to raise awareness of the benefits of adhering to a healthy sleep norm, like better work performance, less absenteeism, less injuries on duty and lower risk of developing life-threatening disease. Doctors who interact with patients must be aware of and communicate the risks of unhealthy sleep habits," King advises.

APPOINTMENTS

Cummins Southern Africa's MD



Ms Racheal Njoroge, Managing Director, Cummins Southern Africa.

CUMMINS Southern Africa's recently appointed Ms Racheal Njoroge as the Managing Director, taking over the reins from Mr Thierry Pimi who has

Cummins Southern Africa's recently appointed Ms Racheal Njoroge as the Managing Director...

since adopted the role of Executive Managing Director, Cummins Africa and Middle East Area Business Organization (ABO). Born and raised in Kenya, Ms Njoroge has enjoyed a progressive and fulfilling career at Cummins, having joined the company as a summer intern in Columbus, Indiana in 2006.

She holds a Bachelor's degree in Management Information Systems and Business Administration from Winona State University and an MBA from Ball State University in the USA.

She is also a 2013 Global Leadership Development Programme graduate and a 2015 High Performance Team graduate and has attained Six Sigma Green Belt and Sponsor Certifications.

Bearings International's Product Manager



Andrew Gerald Altree.

BEARINGS International (BI) has appointed Andrew Gerald Altree as Product Manager for its FAG and INA brands. Altree, who has a Diploma in Business management and 25 years' industry experience, will oversee the vision, strategy, marketing, and pricing for these two leading brands.

FAG has diverse applications - from high-precision bearings

for aerospace applications to sensor wheel bearings for passenger cars, or large-size bearings with outside diameters of over 4 m for wind turbines,

Almost every modern passenger car contains INA engine and transmission components. Variable cam timers and hydraulic bucket tappets ensure improved performance, reduced fuel consumption, lower emissions, and increased driving comfort in modern car engines. INA rolling bearings, engine components, and linear technology are characterised by their high level of quality and reliability.

Latest appointments at BI include Conrad Muller as Sales and Marketing Director and recently, Victor Strobel was appointed, as Customer Offer Marketing Manager.

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Can we afford to let R200bn go down the drain?

The effects of corrosion on public infrastructure is estimated to cost South Africa between 3% and 6,5% of GDP (Gross National Product) – or in round numbers, in excess of R200bn annually.

“THIS estimate is probably conservative but it’s a travesty as so much can be done to minimise the effects of corrosion” so says Hendrik Rasebopye, Executive Director of the Corrosion Institute Southern Africa (CorriSA).

reduces the capacity of pipelines and equipment, resulting in loss of output as well as the loss of equipment, or even life. Hence, anti-corrosive coatings are used to combat the corrosion damage to critical structures and equipment.

“This estimate is probably conservative but it’s a travesty as so much can be done to minimise the effects of corrosion” so says Hendrik Rasebopye.

The CorriSA was originally formed as the South African Corrosion Council in 1960. It was subsequently constituted as an Institute in 1974.

The Institute serves those responsible for combating corrosion: scientists, engineers, anti-corrosion contractors and purveyors of corrosion resistant materials, as well as industrialists seeking to prolong life or preserve equipment.

The Institute aims to:

- Extend the recogni-

Professional recognition

“We currently have over 100 corporate and more than 1 000 individual members and in addition to fulfilling our day to day mandate, we are currently in the process of obtaining recognition as a professional body and trade organisation from the DTi (Department of Trade and Industry). This important step will not only allow our members recognition on the DTi database but will formally allow partnerships and project exposure – allowing

Cape Regional Committee Chairperson comments that it is not surprisingly the area closest to the coast is the most corrosive area with Muizenberg being one of the most corrosive regions in the whole of South Africa. “Surprisingly, there are also some highly corrosive regions inland and these tend to be close to some of the mines. All this information is pretty useful for architects, planners and engineers; those who are making decisions about materials specifications and measures to combat

local authorities who’s statement echoes the concerns of all bodies effected by corrosion in South Africa. “The Water Service Providers (WSP) and Water Service Authorities (WSA) make significant financial investments in pipelines and associated water infrastructure. It follows that asset owners in the water industry are desirous of the longest possible life expectancy, which in turn usually relates to the longest possible time period being required before first maintenance and a strong preference for

corrosion protection and life expectancy of national and private assets. Education and training has been identified as a South African national priority, and upgrading of Corrosion Protection Skills is essential for service delivery and the longevity of essential assets. CorriSA has served the needs of individuals, academia and industry since the early 1960s in the fight against corrosion. It is a non-profit organisation seeking to pull together all interested and affected parties in the battle to reduce

A Definition

The corrosion of metals and nonmetals takes place due to the gradual environmental interaction on the material surface. The structures and facilities of different materials are affected by this

(Definition from Corrosionpedia.)

Knowledge is power

Unlike death and taxes, corrosion and its degrading effects can be managed and even eliminated entirely by taking the right precau-



Common examples of corrosion which cost the country billions of rands annually.

interaction. Even the ambient air, laden with moisture and oxygen, can start this process, known as rusting, on steel surfaces. In the case of buried structures and pipelines the soil chemistry and moisture determine the rate of damage. Fumes of acids such as sulphuric acid and dust of caustic soda also accelerate corrosion. In the case of aluminium, however, the oxide film formed due to initial corrosive attack protects the surface from further damage. In marine environments, in which airborne salt crystals are deposited onto ships, corrosion of submerged surfaces as well as surfaces floating above water level occurs.

Corrosion affects the microstructure, mechanical properties and the physical appearance of the materials. Rusting and other types of deterioration drastically

tions and adhering to recognised international standards of protection when major infrastructure facilities are planned and designed.

“The information, research and solutions are well documented but clearly the message is not getting through to the right people in the right institutions. Corrosion is insidious and affects all forms of infrastructure and property whether public or private, and it’s not just the rust that most of us are familiar. Much of the effects of corrosion are unseen until it’s too late – when a building or bridge is declared unsafe due to imminent collapse or a major underground pipeline begins leaking toxic liquid or gas into the environment, just because the effects of overhead power lines were not understood or cathodic protection was omitted from the project scope, either by design or through igno-

tion of corrosion as a problem, requiring specialised attention.

- Promote standardisation in corrosion technology.
- Promote study and scientific research into corrosion and materials protection technology.
- Promote the reporting, discussion and publication of corrosion experience and knowledge.
- Enlist diverse membership so as to achieve reciprocal benefits between: - industries, governmental groups, individuals, educational bodies and academics.
- Facilitate adequate training facilities for the corrosion protection of materials.
- Recognise merit and reward persons who make a contribution towards corrosion technology

us to ‘own the corrosion space’.

“A personal goal is to engage with the new Minister of Public Enterprises and enlighten him (or her) on the disastrous effects of corrosion by participating in one of internationally recognised courses we run on a regular basis”, he enthused.

Since the beginning, CorriSA has been recognised by the industry as a training service provider for its own internal courses, as well as its relationship with SAQCC (Corrosion Protection) and NACE International with whom it has a licence agreement to conduct training courses. Registration with the South African Department of Education and the Council for Higher Education is in progress.

A problem countrywide

Graham Duk, CorriSA Treasurer and

corrosion. Of interest is that Darelle Janse van Rensburg recently completed a thesis on corrosion rates in the country - the study was originally started by Bryan Callaghan of the CSIR in the 70’s. She has taken the study to a new level and can now provide a quantifiable likely corrosion rate in the whole of South Africa.”

CorriSA Education Framework

The CorriSA Education Framework comprises a multitude of specialised courses, numbering 17 in total and covering Corrosion in general – four courses - and 12 NACE International courses in the Corrosion Defence category, plus the important Best Practice Awareness of Corrosion in Water Utilities endorsed by The Corrosion in the Water Industry Forum” (CITWIF), comprising

the highest possible level of corrosion protection of the assets. It is a fact that corrosion is often the single biggest contributor to the deterioration of the asset value. Education and training has been identified as a South African national priority, and upgrading of Corrosion Protection Skills is essential for service delivery within the broad Water Industry”

Conclusion

Mitigating corrosion has a significant bearing on the ultimate

and prevent corrosion. The Institute serves all those responsible for combating corrosion: scientists, engineers, anti-corrosion contractors. The interests of the Institute embrace the evaluation of a vast range of materials and corrosion protection methods and the impact of environmental conditions on the durability of materials.

The Institute continually stresses that the huge costs of corrosion can be minimised by good design and appropriate application of existing technology.

To find out more and get involved CorriSA conducts monthly get togethers. In Cape Town it meets at Kelvin Grove on the 3rd Thursday of the month and in Johannesburg meetings take place at the Core on the 2nd Thursday of the month.

Email: members@corriisa.org.za or phone 010 2240761 for more information.

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- Used by Plascon, Dulux & industry leaders

High-pressure cleaners at NAMPO

THE Maer range of high-pressure washers was a prominent feature at Goscor Cleaning Equipment's (GCE) stand at the recent NAMPO 2019 trade show. High-pressure washers have traditionally found favour in the agricultural community as farmers seek to keep their large capital equipment units dirt-free, thereby reducing maintenance costs and downtime.

Peter Esterhuizen, National Sales Director at GCE, says high-pressure washers are integral to the farming community as these machines help farmers keep their big-ticket and mission critical machinery such as agricultural combine



harvesters, crop sprayers and tractors clean. "High-pressure washers ensure that these big and expensive machines are maintained properly by removing any dirt particulates and general grime on a daily basis in wash bays, thus reducing maintenance costs and, of course, downtime," says Esterhuizen.

The Maer range includes electric, petrol and diesel-driven versions from 220V to 380V, and pressure ratings of anywhere between 100 to 500 bar.

The Italian-manufactured pressure washers are robust in design, easy to operate, durable and fitted with the durable Interpump.

Split bearings for mill maintenance and upgrades

SPLIT bearings from Cooper Bearings, available from Bearings International (BI), are ideal for maintenance and equipment upgrades for sugar mills in Southern Africa. This is the view of Matthew Tyler, Cooper Bearings Product Manager at BI, who recently paid a visit to various sugar mills in Swaziland and Mpumalanga.

Cooper Bearings represents one of BI's oldest agencies, which has been distributing the brand since 1937. The main advantage of the Cooper split bearing is that the unique design makes assembly a lot easier. Unlike conventional bearings, rolling surfaces and seals can be inspected frequently during operational life for preventative maintenance.

Bearing replacement minimises downtime, with no need to dismantle or remove any auxiliary equipment on the shaft. "The main advantage of the Cooper split bearing is its unique two-half configuration, which means it is totally split to the shaft to facilitate simple installation, inspection, and maintenance, without the need to disturb auxiliary equipment," Tyler explains.

Many southern Af-

rican sugar mills were designed and built in the UK, the home of Cooper Roller Bearings. Hence the bulk of sugar mills in Southern Africa have Cooper split bearings, representing a major market for BI in terms of both maintenance and upgrades.

"A solid bearing can take up to 24 hours to remove, while a Cooper split bearing can usually be changed in under two hours," Tyler stresses. The latest development from Cooper is the SNQ angled pedestal, now available across the standard range of SN and SD equivalent pedestal housings.

This pedestal makes it even easier to fit Cooper split bearings, as the angled joint allows the pedestal to be slid under the shaft. "The main advantage of the SNQ angled pedestal is that the bolt holes and centre heights, from the bottom of the base to the shaft centre, is a direct equivalent. This allows for a straightforward bolt-on, bolt-off approach, without any modifications required," Tyler notes.

Sugar mills generally close down for the off-crop period from December to March, and crush cane non-



Cooper is rolling out an angled pedestal across its standard range of sn and sd equivalent pedestal.

stop for the rest of the year, depending on the crop output. Any breakdowns during this period of maximum production has a significant impact on uptime.

"The entire sugar mill could come to a standstill while a bearing is changed-out. The advantage of Cooper split bearings in critical applications such as sugar mills makes such changeout quick, easy, and cost-effective," Tyler points out.

Cooper split bearings start from a 40 mm shaft size / 1.5 inch, with the bearings for sugar mills being over 1 000 mm in diameter on the diffuser shaft alone. Due to the long lead times, BI maintains an extensive local stockholding at its Parkhaven, Johannesburg head office. Addi-

tional stock is held at BI branches in Nelspruit, iSithebe, Richards Bay, and Durban to meet the requirements of the sugar industry.

"We carry metric sizes for new applications, and hold a very good stock on the imperial sizes due to the age of the mills. When these were built over 50 years ago, everything was imperial, so we cater for both," Tyler stresses.

"The advantage of Cooper split bearings for sugar mills is that some of these have not been replaced for decades. The good sealing arrangement translates into a very long life. However, proper maintenance and lubrication are essential, as well as proper balancing of the equipment," Tyler concludes.



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Air compressors can tackle global warming

FOLLOWING the recent Intergovernmental Panel on Climate Change (IPCC) meeting in Incheon, Republic of Korea, Andy Jones, managing director at Mattei, comments on ways industry can contribute to limit climate change from rising by more than 1.5°C this century. "The industrial sector accounts for more than 50 per cent of global electricity consumption (6 673TWh), and of this, up to 20 per cent (1 335 TWh) is due to air compression and delivery to its final uses.

"With this in mind, it's clear that energy saving and energy recovery in industrial compressed air systems should be recognised as an important consideration in any plan to reduce greenhouse gas emissions and curb global temperature rises.

"Whilst most major compressor manufacturers have successfully reduced their specific energy over recent years, there is much more to compressor efficiency than the traditional specific energy calculated by the conventional life cycle cost calculation (LCC).

"Mattei has long argued that traditional discussions fail to take into account changes in efficiency across the lifespan of a compressor – therefore, a true Life Cycle Cost (LCC) cannot be reached. Relying on the standard life cycle cost calculation does not factor in fundamental design issues and long-term wear and tear. As a result, buyers are being misinformed on the true running costs of units, preventing accurate analysis of energy usage.

"Many are unaware that screw and vane compressors differ significantly in terms of lifetime efficiency. In the case of screw compressors, tests have shown that efficiency

deteriorates from the beginning of operation, as roller bearings are subject to wear, contingent on speed and load. Although screw compressor manufacturers advise the substitution of all major rolling and thrust elements after a certain number of operational hours, any modification of the clearances is likely to have a significant impact on efficiency, as internal air leakage becomes highly likely."

"By contrast, the efficiency of vane compressors can actually improve over an initial running-in period. With no roller and thrust bearings to ex-

perience wear within the unit, from the moment a rotary vane compressor is turned on the compression unit undergoes a polishing process. This also means that the manufacturing set clearances are constant throughout the lifetime of the compressor. The benefit of this is two-fold. First, there will never be any loss in volumetric efficiency over time, and second the compressor

will never require an overhaul to substitute the worn bearings. "With these fundamental engineering differences between vane and screw compressors in mind, along with the previously discussed wear issues, it is clear that the standard LCC cannot be relied upon as a true representation of lifetime energy efficiency.

"In the face of global warming, and the devastating consequences that could accompany significant climate change, it is vital that we recognise the reality of compressor efficiencies and the impact that this can have on reducing industrial emissions. By choosing a rotary vane compressor, such as those available from Mattei, industry professionals can increase the efficiency of their outfits, and potentially help save the planet in the process.

Tree crop analytics to 1 300 farms in the EC

AEROBOTICS and major farming co-operative based in Humansdorp, The Co-op (also known as "Die Koöperasie"), have formed a partnership that will make Aerobotics' leading tree crop analytics technology and software available to 1 300 farms in the Eastern Cape. This partnership is the first of its kind in South Africa and is set to serve as a template for others like it in the future.

As part of the partnership, Aerobotics will provide its cutting edge tree crop analytics to farms that are members of The Co-op. Farmers will be able to utilise their relevant Co-op account to purchase Aerobotics' services, which means they have the option to pay for the advanced tree crop analytics provided by Aerobotics after harvesting. These include two separate packages, the Seasonal Drone Service and the Fly Your Own Drone package.

Aerobotics processes data from drone and satellite imagery through its proprietary artificial intelligence software to discover and analyse problems, pests and diseases affecting individual trees or vines on a farm. In addition to health, the software also measures size, height and canopy

volume. This type of highly accurate data empowers farmers to make better decisions in the field, so they can increase their yield and produce a more balanced crop.

The Co-op, established in 1944, operate in the Tsitsikamma, Sundays River Valley, Fish River Valley, Gamtoos Valley, Uitenhage, East London, Port Elizabeth, Bathurst, Qamata, Humansdorp and Kareedouw areas.

Through affiliates, The Co-op also has a footprint in the Western Cape and former Transkei and Ciskei areas. Products and services are provided to

dairy, citrus, deciduous fruit, sheep, ostrich and grain farmers.

Chief Operating Officer, Jannie Louw, describes the unique partnership as a great step towards adding value to agriculture in general.

"We are working and living in exciting times in South Africa. Partnerships like these are energising, and it makes us proud to stay involved in agriculture," said Louw.

Aerobotics will have a presence in major Co-op branches from January 2019. The partnership will hold various activation events for farmers in the region.

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All-terrain 4x4 forklift range extended

SHAMROCK Handling Concepts has extended its range of Agrimac all-terrain 4x4 forklift trucks. Typical applications are in agriculture and forestry, mining, industrial sites, building and construction, as well as outdoor warehousing and military applications.

"The main advantage of these tough off-road forklift trucks is one machine has the capability to move stock in all environments, without the need for the use of other vehicles. For example, one Agrimac forklift truck is able to move stock from a yard or field, safely to a warehouse," says Marius Schutte, divisional managing director, Shamrock

Handling Concepts, part of the Capital Equipment Group (CEG) of Invicta Holdings Limited. "Our Agrimac range - which encompasses TH-160, TH-210, TH-250 TH-300, TH-300 and TH-350 machines - is able to drive on rough, unpaved surfaces, where conventional vehicles are unable to travel.

"These 4x4 forklifts are fitted with large heavy-duty pneumatic tyres, which add stability and traction when operating in wet conditions and on uneven terrain.

Another advantage of 4x4 forklift trucks over conventional forklifts for outdoor operation, is high ground clearance.

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Drones helps EC farmers reduce overheads, strengthen security

THE EASTERN CAPE farming community has implemented the use of drone technology, as a means to improve security, boost productivity and help reduce escalating costs. According to farmers' organisation Agri Eastern Cape, the use of drones will play an integral part in farming operations moving forward.

More and more farmers are starting to use drones to do quick spot-checks on their farming operations without having to waste time trekking to remote areas on foot. This ranges from checking that boundary fences are secure, to checking on livestock, watering points and other critical operational issues. Joseph Ott, a conservation manager at a private reserve near Graaff-Reinet, said he started using his drone a year ago and has been reaping the benefits ever since. "We did some research and quickly realised that drones could make a huge difference to

increase efficiency to gather critical information quicker and at a lower cost [than labour and transport]." "Saving time collecting information is part of our monitoring and evaluation of our various conservation projects and is crucial to any farming and wildlife operation. Before, a large amount of time was taken up walking to various parts of the reserve [for inspections and monitoring]. The use of a drone, cuts that work down by more than 50% allowing me to do more in the same amount of time. It's a win-win situation any day of the week!"

Increase in identification, tracking capabilities

Ott adds that the drone allowed "the capability to search for very specific animals within a herd as well as local animals in inaccessible areas of the farm". "The drone allows us to track animals, identify erosion areas and grazing impacts far more efficiently than in the

past. We also use the drone for other operational purposes including the monitoring of soil erosion, stock, veld types and conditions, fences, security and infrastructure patrols." Chris Lee uses his drone on his 6 800 hectare Angora goat farm, Claremont, near Jansenville. He says his primary aim in investing in the drone was to cut back on labour costs. "All too often, when stock has been rounded up, we find that some of them are missing. Rather than taking valuable time to head back into the veld [to look for them], it is easier to send up a drone to search for them." "Angora goats hide very effectively in bush or Spekboom without being spotted. But now I can fly my drone overhead and have a clear view of where they are. When I have tracked them down using the drone, I can set off to bring them back while my staff concentrate on their work at hand. It's a simple question: What is my time worth to me?"



Saving lives of valuable livestock

A secondary reason behind Lee's decision to introduce drone technology was to deal with feral dogs which attack his livestock. "We are close to town, and they are often a problem. We can use the drone to check whether they are on the farm, where they are, and then follow them. This can save the lives of valuable livestock." Agri EC president Doug Stern says farmers are increasingly looking to technology in the face of rising input costs. "Labour in agriculture is becoming very expensive

and so drones will, to a large extent, assist farmers in this aspect – especially over weekends and public holidays when labour comes at an even higher cost [due to extra payment for staff working on a weekend or public holiday], or because labour may not be available to the farmer then. "Furthermore, farmers can quickly, with the use of drones, inspect and check all the necessary stock waters and the condition of animals that would ordinarily have to be done by labour. The implications are massive," concludes Stern.

Originally published in *Agri Tech News*.

New hygienic ball bearing units

WITH companies striving to perfect a proactive approach to food safety, SKF is launching the new Food Line ball bearing units – Blue Range, which extend a hygienic-design mentality to bearing unit components for food-processing equipment.

SKF has specifically developed its Food Line ball bearing units from a clean sheet of paper, component by component, to improve hygiene, performance, and compliance with food safety regulations.

Thanks to an innovative sealing system, high performing bearing grease, and complete seal-ability of the units where it's needed, SKF Food Line ball bearings deliver outstanding performance benefits. Watch here what is behind the innovation.

This means OEMs can innovate the performance and hygienic design of their food processing equipment through bearing units that last longer, are relubrication-free and highly cleanable.

As a result, food and beverage processing companies can reduce unnecessary risks to food safety – Hygienic

design of the bearing units reduces risk of bacteria build-up in hard-to-clean areas and minimizes the spread of bacteria during cleaning.

Furthermore, they can lead to an increased production uptime – Because bearing units do not require relubrication, there is no need to stop equipment for lubrication activities and less time is required for cleaning excess bearing grease—reducing downtime and maximizing production opportunities.

The Blue Range eliminates cost of relubrication and reduces bearing replacement frequency – With its relubrication-free capability and high-performance even in challenging food and beverage processing environments, companies can eliminate re-greasing material and labour costs, while reducing the frequency, thus cost of bearing replacements.

And, it reduces environmental waste – With less hot water needed for cleaning, grease in waste water and components that can be 100% recycled and energy recovered, companies can foster a preventive-versus disposal-oriented environmental.

AI in manufacturing

Which questions should you ask when deciding the best way forward?

AI: the cloud vs the edge

Cloud computing - the storage, management and analysis of data that is stored remotely on a server either locally or on the Inter-

net - has become commonplace in a relatively short time.

Edge computing enables data storage, applications and analysis to be carried out at the edge of a machine. Whilst there are various

interpretations about what edge entails, data mining at the edge and be compared to a spinal reflex. Lines and devices are monitored with real-time sensors, and data at the machine level can be processed

in microseconds. A machine's condition can be monitored in real time, but the data volume is limited. Real-time data processing at the edge also enables an immediate response.

Industrial manufacturers need to think carefully before deciding on which of these two options will be the most effective, taking into account the recent arrival of new solutions involving artificial intelligence (AI) and machine learning (ML). Omron has demonstrated how AI can be incorporated into machines by developing FORPHEUS, the world's first robot that can play and train people in table tennis.

FORPHEUS embodies Omron's three-fold philosophy for innovative automation: integration, interaction and intelligence (specifically AI). The robot uses its cameras and sensors to observe the mood and movements of the player and the ball. It can then rapidly analyse this data to anticipate how the opponent will hit the ball and its trajectory, so that it can then hit



the ball back. By assessing how its opponent plays, it can determine their skill level and modify its own play so that its opponent has a challenging game. This is an example of how smart machines could be used to train and assist people in the manufacturing industry, making the most of their potential.

So, what are the key issues involved in deploying AI and in determining how AI can improve a production line or a process, and if cloud computing or edge computing should be implemented?

The biggest challenge that companies face is that they often don't know what problem they want to solve. Some

of them aren't measuring any data yet, so even though they might be keen to implement AI, this will prove difficult without the necessary data. The solution is to start collecting and cleaning data first, before even thinking about introducing AI. You can then start trying to obtain information from the data and then begin visualising this in a smart way. This is basic data science and will help your company to start realising a range of benefits.

In this way, AI can contribute to direct and immediate results, because the intelligence is incorporated within the machine rather than being located elsewhere. Users can focus on po-

tential issues in the process, using the real-time data from the system and its components.

Omron's AI Controller has some pre-programmed tools that can help with simple cases of preventative maintenance. Using advanced mathematics, it can detect a problem or a deterioration in part of the equipment before a machine breaks down. However, with more complicated machines and with problems which involve more detailed use of AI, currently you will need specialists with advanced skills (such as data scientists and software engineers) if you want to extract the maximum value from this new technology.

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Total aseptic safety in the dairy



THE reputation of a brand is as good as the quality of the product. Producing the best possible quality is one thing, making sure it reaches your consumers without compromising taste, safety or anything else is quite another. And then there are the ever changing health and safety regulations and consumer needs to take into consideration. To effectively address new demands and opportunities in the market requires a production line which allows the processing of different products, without having to rebuild the entire production plant.

JBT Food & Dairy Systems offers a comprehensive range of UHT solutions to effectively protect the quality produced. The heart of its UHT con-

cept is the Sterideal. They say that thanks to a unique coiled indirect heat exchanger unit, it offers maximum heat transfer, extremely efficient energy use and incredible cleaning functionalities. With several additional modules designed around the Sterideal, tailor-made UHT lines can be set up to handle a wide variety of products. Even products with particles or fibres, they say, can be handled with ease.

With more than 40 years of experience and having supplied over 1 000 complete UHT systems, JBT Food & Dairy Systems offer its experience and high service levels to its customers, say the company.

The objective of sterilization is to kill all harmful organisms in a product. But

how to prevent it from killing the taste in the process? Taste is preserved best when a product is heated to high temperatures very quickly and is cooled down just as fast, especially when processing dairy products. They claim that the Sterideal is the only UHT system to do this with a helical heat exchanger unit. The result is effective sterilization combined with excellent preservation of taste.

The helical design offers more advantages. As the heat exchanger unit has no sharp bends or welding seams to impede fluid flow, the coiled design prevents clustering and other kinds of flow resistance even when handling products with particles or fibres, allowing the Sterideal can handle a wide variety of products.

The 2019 harvest in a nutshell

Thelema Mountain Vineyards reports

IN January we sat at the Cape Town International Convention Centre listing to Francois Viljoen from Vinpro presenting the crop estimations for 2019. The message was rather clear that across both Stellenbosch and Elgin the crop would remain constant. In regions such as Paarl and the Olifantsrivier the crop would dramatically increase.

He hit the nail on the head, our Stellenbosch tonnage in 2018 was 355 tons whereas this year our total on Thelema was 358 tons.

In Elgin we are sitting on a total of 448 for the 2019 season. In previous years we had higher yields but now as our vineyards reach the 15 year old mark we are seeing more balanced levels of production. In Stellenbosch we experienced some cooler spells in October which lead to an uneven bud break hence some patchy ripening. Luckily this did not

have a too large effect on our harvest.

Chardonnay which is naturally a variety prone to uneven ripening was the only variety presenting a decrease in tonnage per cultivar. Our Sauvignon Blanc increased by 15 tons, this was largely due to both good canopy and water management.

During week 5 of harvest we had 25 mm of rain on Thelema and 38 mm on Sutherland, this made us put the gears in neutral and idle a bit.

The rains were welcome as they assisted with moisture in the soils and presented us with some Botrytis Cinerea in our old Muscat block.

On Sutherland in Elgin all white varieties ripened sooner causing a bit of a traffic jam and some logistic challenges in the cellar. Elgin is usually 10 – 14 days later than Stellenbosch.

This could this be due to the cooler spells we experienced in October. Both our Elgin Pinot Noir and Grenache gave us beautiful fruit: the



meticulous vinicultural endeavours are definitely paying off. In the Grenache production is restricted to one bunch per bearer and shoulders are trimmed where necessary.

From here on it is smooth sailing, all red wines are in barrel with most having gone through Malol-

atic fermentation. White wines are being prepared for blending and bottling.

The 2019 vintage will present elegant, fresh wines, well-structured and reflective of the cooler, later harvest. Well balanced natural acidity and phenolic ripeness will ensure wines with longevity.

Wine & Food Tourism Conference 2019

THIS year's Wine & Food Tourism Conference, taking place at Spier near Stellenbosch on 18 September 2019, will feature South Africa's most respected trends analyst, Dion Chang, as headline speaker.

This year's event, themed "The Future of Wine & Food Tourism", will as per previous years provide an invaluable platform for participants to network and keep abreast of what is hot and happening in South African wine and food tourism. This is the fourth time this annual conference is being presented.

Known as an innovator, creative thinker, and walking ideas bank, Chang takes the unique view of "trends as business strategy".

His company, Flux Trends, specialises in understanding con-

sumer mindset and identifying unexpected business opportunities within shifting tendencies, ensuring that global trends have relevance when translated for African and South African businesses.

Margi Biggs, tourism specialist and convenor of the annual Wine & Food Tourism Conference, says: "Dion's topic at this year's conference will focus on the trends that are shaping tourism in South Africa, with an in-depth look at wine and food tourism sector."

"With tourism in South Africa set to grow as per, and even outgrow, targets set by national and provincial government, based on proven growth figures over the past few years, we need to act now to ensure the wine and food tourism industry develops in an innovative yet sustainable

fashion, creating more jobs and increasingly contributing a sizeable portion to especially the economy of the Western Cape." Tourism in the Western Cape is the region's fastest-growing sector, employing over 200 000 people and generating R17 billion for the economy each year. From a broader perspective; Africa received 67-million international visitors in the past year, a tourism growth of 7%, an encouraging figure given the global average of 6% and a 2.9% increase from the previous period.

Go to www.wineand-food.co.za for more information, to register for the conference, and to submit awards nominations.

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Farmers can reduce the impact of fuel price hikes on production costs

Diesel hedging and equipment management in the short term present best antidote to high diesel costs

HEDGING diesel while focusing much more strongly on equipment running costs, offer farmers the most effective mechanisms to manage the impact of increasing fuel prices on production costs.

South African farmers are currently facing the convergence of increased global oil demand, higher oil prices, a weak rand-dollar exchange rate, increasing taxes, an inefficiently applied fuel rebate and significant fertilizer inflation. Given this, "perfect storm of costs, it will be inevitable for farmers to absorb the latest fuel price increases weighing down on already thin margins," says Marthinus Look, AgriBusiness Senior Manager at Standard Bank.

In view of the R5.49 per liter tax on diesel, "we now also have a situation where 35 - 40% of the price of diesel in South Africa is made up of taxes," says Look. Despite this tax burden making diesel in South Africa significantly more costly than in neighboring countries, "the percentage of administered costs in the fuel price is expected to increase further," cautions Look. This year's budget, for

example, introduced a 10 cent per liter carbon tax. Since this is relatively low by global standards, South Africa's carbon tax rates are likely to grow over time, "especially considering the pressure under which South Africa's fiscus is currently operating," he adds.

Some relief is provided to the Agricultural sector in terms of a diesel rebate. About 100% of the portion of levies on the diesel price supporting South Africa's Road Accident Fund (R1.98/l) and only 40% of the fuel levy (R3.37/l) qualify for South Africa's agricultural fuel rebate, "says Look.

Furthermore, only the diesel used directly in the production of food qualifies for the rebate. Finally, South Africa's agricultural fuel rebate is, anyway, limited to primary agriculture. Since food distribution and the broader fuel needs of agriculture's wider supplier and distribution ecosystem do not qualify for the fuel rebate, "the rebate is likely to have a limited palliative effect on food inflation when measured across the entire agricultural value chain," says Look.

Even more broadly, however, "the largest driver of production cost inflation is not even fuel but rather fertilizer, a by-product of the oil refining process" says Look. In fact, last year's diesel price increases only accounted for a 0.8% increase in total intermediary agricultural production costs in 2018. Fertilizer prices, however, accounted for a 5.7% increase in total intermediary agricultural production costs. Amongst the components of fertilizer, urea in particular, experienced a 15% price increase over 2018. The disproportionate impact of fertilizer inflation on agricultural production, especially grains, becomes evident, "when one considers that fuel costs account for 6% of income produced, while fertilizer costs account for up to 21% of income produced," explains Look. Since the greatest factors driving grain production inflation are not, in fact, fuel, but rather fertilizer costs, says Look.

"What can farmers do to manage today's increased production costs and heightened price risk?" asks Look.

Firstly, diesel hedge and option contracts traded on SAFEX provide farmers a mechanism to purchase forward contracts on diesel at fixed prices in ZAR. This allows farmers to purchase three months' diesel supply at a fixed price ahead of planting or harvesting, for example. This can help farmers manage the impact of price spikes on production costs. The broader agricultural value chain, including beneficiaries, transporters and distributors, can also, hedge diesel. As such, "hedging diesel provides a mechanism to bring fuel price stability and cost-predictability to the entire agricultural value chain. This has the potential to significantly reduce the carry-through effect of increased fuel prices on food inflation," explains Look.

Secondly, farmers can use new technologies and up-to-date equipment to reduce running costs. New equipment, and especially the technologies to manage and monitor the equipment that new models increasingly come with, "provide farmers an opportunity to increase the efficiency of equipment while also reducing running costs," says Look. Instead of merely looking at capital costs when purchasing new equipment, "farmers should work closely with tractor manufacturers to develop comprehensive mechanisation plans that can increase performance and production while reducing fuel consumption and other running costs," says Look.

So, while there is not a lot that farmers can do about global oil consumption and production trends, the international price of Brent crude, taxation or legislation, "hedging diesel and reducing running costs through the judicious purchase of equipment and its strategic use are two tools available to the industry in these challenging times," says Look. If applied broadly across the entire agricultural value chain in South Africa, "the sector could successfully reduce the impact of increased fuel prices on food inflation in the broader economy," concludes Look.

Wine industry training empowers thousands

FOR a more strategic approach to training and skills development, the industry in 2017 launched a learning and development strategy. "The strategy aims to create systems that monitor and promote continuous growth opportunities and in effect allows the industry to better align training with industry needs and prioritise and allocate funding," says Kachné Ross, Winetech Learning and Development manager.

The Learner Management System (LSM) derived from the establishment of a learning and development desk at Winetech in 2017. This online software application allows the industry to capture training and development data in one central point, making it easier for learners and producers to identify service providers, analyse training trends and identify skills required for specific career paths. Learners can also create online profiles, where all their training certificates can be accessed, according to Kachné.

The Vinpro vineyard training courses, Wine Training South Africa's SKOP courses and Winetech study groups and workshops are three of the many technical training programmes listed on the LMS.

Vineyard training

Vinpro has been hosting an annual series of vineyard training courses since 2012, with topics ranging from vineyard establishment to pruning, fertilisation, irrigation, soil science to the harvesting of grapes. Last year alone, close to 1 500



Gerrie Grootboom, a senior cellar assistant at Roodezandt Winery in Robertson.

people were trained in 68 sessions. The Vinpro Foundation, an independent non-profit company which invests in socio-economic development, skills development and enterprise development covers half the cost of this training.

According to the industry body Sawis (South African Wine Industry Statistics), the industry annually contributes around R36.1 billion to the GDP and offers over 290 000 jobs throughout the value-chain.

Wine Training South Africa

Wine training South Africa (WISA) evolved in 2005 from an older cellar assistants training programme that started in 1987. It is best known for its SKOP courses (short for Senior Kelder-assistent Ontwikkelingsprogram in Afrikaans), which are structured to allow senior cellar assistants to progressively work their way up from SKOP 1 to SKOP 3.

The Vinpro Founda-

tion in 2018 partially sponsored 93 cellar assistants to complete SKOP 3 and three of them enrolled for an accredited Learnership during 2018. A total of 8 602 people have participated in WISA courses since 2006, with 675 learners attending 292 training days last year.

Winetech study groups and workshops

Over the past five years, the industry had spent close to R2 million via statutory levies on the transfer of knowledge to cellar assistants through the highly popular Winetech study groups and workshops.

Gerrie Grootboom, senior cellar assistant at Roodezandt Winery in Robertson, has been attending the Winetech study groups since 2009. "The study groups have empowered me with knowledge and skills that allowed me to win what used to be known as the SA Cellar Worker title in 2014 and paved the way to a better future," he says.

The importance of improving shelf life

IMPROVING profitability is the Holy Grail of any business. When it comes dealing in perishables like fruit, vegetables, meat, fish or pharmaceutical and biological products it is the difference between success or failure.

Shelf life of any perishable product impacts profits massively.

As a country it is estimated that in South Africa, as much as 40% of perishable food is discarded annually. That is unacceptable in a society where some adults and many children go hungry every day. So, we must look to our laurels and make a big effort to improve. What can be done? It's all a matter of improving how we operate the supply chain. With food we need to

be sure that from the original source of supply until the product arrives on the consumer's table every aspect of the management of supply is rigorously controlled. Correct protocols of temperature control are vital throughout. Apart from the use of such solutions as frozen gel or ice packs, refrigerated vehicles and cool rooms thermal blankets, pallet-covers and container liners guarantee an improvement in shelf life and ensure that deliveries do not get compromised because goods receiving points are unable to accept deliveries immediately, they arrive.

To optimise the supply-chain follow these steps:

- Get produce into a temperature-controlled environment as soon as possible

- Keep the temperature as constant as possible – around 12 to 15°C
- Cover consignments for delivery with thermal blankets or pallet covers prior to loading in a refrigerated vehicle
- Only remove the covers once the consignment is back in temperature-controlled environment at the point of delivery
- Use air cleaning devices to remove ethylene gas and other harmful elements throughout the supply chain process

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How AI is changing business

By Tarun Gurjal,
Global VP – Sales and
Applications at In2IT
Technologies



ARTIFICIAL Intelligence (AI) implementation is set to increase in businesses between 2019 and 2020, finding its way into the areas of data science, human resources, customer experience, procurement and cybersecurity across industry sectors. To keep pace, businesses in South Africa (SA) need to be aware of how AI will impact their operations, drive innovation and open new markets.

According to *Gartner* research, 4% of businesses worldwide will be using some form of AI in 2019. By 2020, 50% of businesses will have adopted AI in some form as their customers become more

familiar with and trusting of the capabilities of AI.

The customer experience on steroids whether you shop or while you drive

When it comes to other industries such as motoring, AI is not just about developing self-driving cars. Vehicle companies since the early 20th century developed an application using Natural Language Processing (NLP) and Image Experience to aid customers. This has proven particularly useful to customers in rural areas and could revolutionise how cars are maintained, improving on the Customer Experience (CX).

This technology will assist the automotive industry significantly by reducing the time it takes to locate a problem and deliver the spare part if it is needed. By taking a simple photo, customers can email the photo

to the manufacturer or dealership. Based on the picture, AI will recognise and trace the parts needed for that particular model of vehicle. From there it communicates with

the customer and keeps them updated with regards to the delivery of the part.

HR and Finance in real time

A company that receives 5 000 CVs every quarter for 3 000 temporary positions, recently employed a Bot to optimise what was before, a manual process. Now, whenever a particular position is opening in the company, the Bot is notified. It logs into the system, collects applicable CVs from business sites, scans them and delivers the top 10% to the HR department. These are then verified by humans and once that is done, the Bot sends out emails and automatically sets up interviews. The whole process reduced the manpower required from 30 to 4 people, freeing up the HR department to attend to other duties.

AI allows for accurate Data Science

In the field of Data Science, AI provides cheaper, faster, more accurate and detailed analytics than a data scientist. Nowadays, companies have to make

decisions immediately. AI will using algorithms, make real-time recommendations without humans having to rely on that “gut feeling”. This gives businesses the edge they need.

AI bolsters security

There is also definitely an increase in the use of AI when it comes to proactive security in business, both in physical and digital security. In physical security, AI plays a critical role in face and voice recognition. AI is able to pick it up if a particular person is speaking in a frightened tone and alert the correct authorities. As AI becomes more powerful in cybersecurity, a decrease in cyber-attacks is anticipated.

AI proves to improve the overall business

From analytics to process automation to customer experience, AI has proved that it can only enhance your business. And in 2019, more business leaders have realised this. To ensure success in one's business it is imperative to have a firm grip on what AI can do for your company.

Huge losses as fraudsters intercept emails

FRAUDSTERS have once again swindled unsuspecting clients out of their life savings.

They managed to intercept emails from a financial services provider to its clients, advising them on tax savings by bolstering their retirement policies or tax free savings, according to cyber-security specialist and J2 Software CEO John Mc Loughlin.

The fraudsters intercepted the email and responded on behalf of the client, asking for confirmation on what had been put into retirement savings and also what was still possible. The financial advisors then responded and provided a breakdown of the current tax year investments and what the client was allowed to contribute before the end of the tax year.

He says the financial advisor emailed the requested information and documentation to the client's email address. “The documentation contained the customer information and details of the investment to be paid via EFT and also included the businesses bank details.”

Having received the signed document as well as the proof of payment from the client's email address, the financial advisor assumed all was in order. This was then sent for processing as they waited for the investment to clear in their bank account.

Several days later the deposit had not been



John Mc Loughlin.

cleared and they contacted the client. The client obviously cooperated and then sent the proof of payment to the financial advisor but this didn't match the one they had received days before.

“This is when we began our investigation on their behalf. From the evidence in front of them it now appeared that a trusted insider working within their business had given the client the incorrect bank details in order to commit fraud,” he explains.

Mc Loughlin says the client had seen an email with documents that were nearly similar, except the bank details were different. “Upon investigation, the client had received the changed documents from a free email service which was a fake account using mail.com and a derivative we have seen before – they use a free email service with the domain consultant.com.”

“It became clear that the client had their email account compromised, and it was not

a malicious insider at the financial advisor as initially thought. This compromise happens because people never change their email passwords. Compromised passwords allow cyber criminals to access their email accounts. They don't need to do anything except wait for the right email to arrive,” he warns.

In this case the attacker intercepted the emails from the financial services company before the client saw them. They then created a cloned email address on a free email service and then sent the altered documents to complete the fraud.

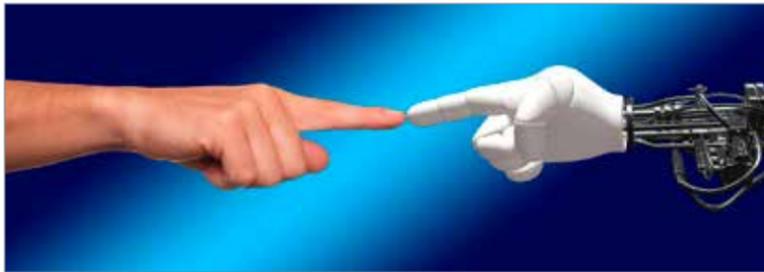
“The reason the attacker would have then sent fake proof of payment was to delay the business from following up. This delay gave the attacker enough time to empty the fake bank account of over R300 000.00. This client now has lost a large amount of money which was destined to be a retirement saving,” he concludes.

First seen at IT Online

J2 Software are one of the main sponsors of the up coming Cyber Cerebral South Africa Summit 19 Vol 2, 9-10 October 2019 at The Capital on The Park, Sandton, Johannesburg.

So, what's left after the machines take over?

By: Kieran Frost,
Research Manager for
Software focused on
sub-Saharan Africa
for International Data
Corporation



HERE are some guidelines that can be put in place. An obvious career path exists in being on the ‘other side of the code’, being the one who writes the code, who trains the machine, who cleans the data. But no serious commentator can leave the discussion there – too many people are simply not able to or have the desire to code. Put another way: where do the legal, financial, ethical, political and technical constraints on AI leave the most opportunity?

Firstly, AI (driven by machine learning techniques) is getting better at accomplishing a whole range of things – from recognising (and even creating) images, to processing and communicating natural language, completing forms and automating processes, fighting parking tickets, being better than the best dota 2 players in the world and aiding in di-

agnosing diseases. Machines are exceptionally good at completing tasks in a repeatable manner, given enough data and/or enough training. Adding more tasks to the process or attempting system-wide automation requires more data and more training. This creates two constraints on the ability of machines to perform work: 1) machine learning requires large amounts of (quality) data and 2) training machines requires a lot of time and effort (and therefore cost). Let's look at each of these in turn – and we'll discuss how other considerations come into play along the way.

Speaking in the broadest possible terms, machines require large amounts of data to be trained to a level to meet or exceed human performance in a given task.

This data enables the bot to learn how best to perform that task. Essentially, the data pool determines the output.

As we move up the stack from task to system, we find different obstacles. Let's use the medical industry as an example to show how these constraints interact. Medical image interpretation bots, powered by neural networks, exhibit exceptionally high levels of accuracy in interpreting medical images. This is used to inform decisions which are ultimately made by a human – an outcome that is dictated by regulation. Here, even if we removed the regulation, those machines cannot automate the entire process of treating the patient. Activity reminders (such as when a patient should return for a check-up, or reminders

to follow a drug schedule) can in part be automated, with ML applications checking patient past adherence patterns, but with ultimate decision-making by a doctor.

The investment required to train a bot to synthesize all the required data for proper diagnosis and treatment is considerable.

The economic point is a particularly important one. To automate the activity in a mine, for example, would require massive investment into what would conceivably be an army of robots. While this may be technically feasible, the costs of such automation likely outweigh the benefits, with replacement costs of robots running into the billions. As such, these jobs are unlikely to disappear in the medium term.

Industry 4.0, it's coming

SOUTH AFRICAN-owned business process outsourcing (BPO) solutions company Altron Bytes People Solutions has partnered with German-based enterprise software company SAP to train South Africans and Africans with Industry 4.0 skills.

Industry 4.0 is the trend of automation and data exchange in manufacturing technologies. It includes cyber-physical systems, the Internet of things, cloud computing and cognitive computing. Industry 4.0 is commonly referred to as the fourth industrial revolution.

“Companies can no longer deal with training solutions that are stuck in the ‘80s. They need to future-skill their employees to make sure they adopt the new Industry 4.0 way of working and adapt to the constantly develop-

ing digital environment,” says Pieter Nel, executive for learning solutions at Altron Bytes People Solutions.

“Taking into account that companies incorporating new technologies such as cloud solutions is the third highest factor impacting their businesses currently, and one which is ever-evolving, we are now providing a key service offering that is not just about learning. It is a game-changing and dynamic training solution that encompasses local and global partnerships with a focus on optimising business applications used by employees on a constant and consistent basis.” Nel points out this training solution project is being launched with key partners for the first time in Africa. He notes it will be only the fourth time SAP will roll this

initiative out globally.

“Altron Bytes People Solutions has proven itself to be a leader in bringing electronic performance support to market in South Africa, and has a unique skill-set in this area,” says Alan Brazil, head of indirect channels and business development, SAP Education EMEA.

“These skills and Altron's experience with SAP customers make them an ideal choice to be the first partner to offer ‘content-as-a-service’ solutions based on the SAP Enable Now platform to our customers in the region. We look forward to a long and productive relationship with Altron Bytes People Solutions in growing this new approach to end-user enablement.”

Source: ITWeb

SA import duties

Call for antidumping tariffs to be reversed

PAKISTAN cement exporters are putting pressure on their government to convince SA to overturn the existing anti-dumping duty on imported cement from that country.

The surge of cement imports from various countries have put local producers such as listed cement and lime firm PPC on the back foot. In 2018, cement imports soared 85%.

For the local cement companies, the influx of imports aggravates the effect of weak economic growth, overcapacity, stiff competition and floundering construction sector.

The International Trade Administration Commission (Itac), the SA body that investi-

gates and sets tariffs on imported products, imposed antidumping duties on Portland cement from Pakistan with effect from May 15 2015. The antidumping duties, which ranged from 14.29% to 77.15%, followed Itac's investigation after an application by a number of local cement producing companies.

Mohammad Rafiq Memon, chairman of the Pakistan-SA Business Forum, has called for the intervention of the Pakistan authorities. "Before the antidumping duty, annual cement exports to South Africa were worth \$700m, but has subsequently dropped to \$100m," he says.

Memon says SA should revisit the deci-

sion to impose the antidumping duties in the interest of fair trade. "This affects the bilateral relations between South Africa and Pakistan. There must be a balance. South Africa exports goods to Pakistan. Both countries should be happy with the trade relations."

He says Pakistan's ministry of commerce should send a delegation to SA to negotiate the reversal of the duty.

In 2015, Pakistan took SA to the World Trade Organisation (WTO), claiming that the antidumping duties were inconsistent with WTO provisions because, among others, SA failed to clearly define the scope of the products under investigation. The WTO

deals with the global rules of trade between nations and its main function is to ensure smooth, predictable and free trade.

Since the imposition of the duties on Pakistan cement, Vietnam has taken over as the largest exporter to SA, with 30 000 to 50 000 tons imported into the country each month, according to construction market intelligence firm Industry Insight.

Industry Insight says SA's imports of cement decreased 47% year on year in February, following the 61.2% increase in the previous month.

About 42 000 tons of cement were imported during February, mainly from Vietnam.

"Nothing was reported from China, since June 2018. The decline reported in February, resulted in an overall decline of 10.5% for the first two months of the year, compared to the same period during 2018," Industry Insight says.

While the Pakistani producers want the SA government to review the antidumping duty, their local counterparts PPC, AfriSam, Lafarge, Sphak and Natal Portland Cement, through representative body The Concrete Institute, wants Itac to impose a total ban on imports for a limited period.

According to the institute, following the imposition of antidumping duties on ce-

ment from Pakistan, the floodgates opened for imports from Chinese producers. Imports from China increased steadily in 2016 and 2017, and in 2018 imports from Vietnam started taking over, totalling more than 1-million tons of cement imported into SA in 2018. The Chinese, and now Vietnamese, imports have replaced Pakistani products.

The Concrete Institute's MD, Bryan Perrie, in February said the imports were hurting the viability of the local industry. He said some local companies have considered mothballing some of their plants and retrenching employees. The companies have also put on hold expansion plans.

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Vital concrete technology courses

THERE is an alarming shortage of concrete technologists in South Africa with only 79 School of Concrete Technology-educated students having attained the pinnacle of concrete technology, the Advanced Concrete Technology (ACT) qualification, in almost 30 years.

John Roxburgh, senior lecturer at The Concrete Institute's School of Concrete Technology, says although it is cause for serious concern the situation also provides tremendous career-boosting opportunities for those holding ACT diplomas. "These are people who have

passed the world's most esteemed course – and their skills would be in demand not only here but globally," he feels.

The ACT diploma is the world's leading qualification in concrete technology, examined by the UK-based Institute of Concrete Technology (ICT). The course incorporates high industry educational standards and passing it lifts successful candidates from the pack. But it's a challenging course and for this reason, SCT has over the past 30 years continually developed two e-learning courses to aid those who plan to study for an ACT diploma. These courses,

in fact, must be successfully completed before the trainee can be considered as a candidate for ACT studies.

The SCT41 course was developed as a study aid for the ICT Stage 2 Concrete Technology & Construction – General Principles examination. Roxburgh says this course provides detailed understanding of the fundamentals of concrete which includes constituent materials, specifications, concrete properties, production and performance. "Not only will passing this examination result in acceptance for Advanced Concrete Technology diploma studies, but it will also allow the suc-



The School of Concrete Technology has developed two e-learning courses to aid those who plan to study for an ACT diploma. Concrete properties and site procedure are two of many topics covered in the training.

cessful candidates to receive Affiliate Membership of the ICT and the right to use the letters 'AffICT' after their names."

Roxburgh says passing the ICT Stage 3 Concrete Technology & Construction – Practical Applications examination is the final course – especially developed by SCT – to complete before enrolling for the Advance Concrete Technology program. "The SCT42 course covers concrete material selection, site procedures, construction methods and achievement of concrete quality and performance. On passing this ICT examination, the ICT will – on successful application – consider bestowing Associate Membership on successful candidates who can then display the letters 'AMICT' after their names.

"To get to this level, however, requires taking the first step and

this would be to enrol with the SCT for the SCT41 (general principles) and SCT42 (practical applications) courses as soon as possible to prepare for the ICT examinations to be written in May 2020. This would be the start of an exciting career in concrete technology which will open many career doors – and acceptance for the SCT's 2021 Advanced Concrete Technology course," he urged.

The Concrete Institute's School of Concrete Technology is the oldest and largest

provider of concrete technology education in South Africa with a wide range of courses for all levels of competency. The SCT 2019 education programme carries full details of the two special courses for the ICT exams outlined above.

For more details about other 2019 courses planned in Midrand, Cape Town and Durban by the School of Concrete Technology, phone 011 315 0300 or email sct@theconcreteinstitute.org.za or visit www.theconcreteinstitute.org.za.



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Cold-cutting demolition technology



Various methods and attachments are often combined to pioneer cold-cutting technology.

COLD-CUTTING techniques developed by Jet Demolition have introduced a benchmark for health and safety in the petrochemical industry, which represents a highly volatile and hazardous work environment.

The equipment and methodology pioneered by Jet Demolition has the added 'green' benefit of limiting incidental contamination of natural resources, which is generally unavoidable using less advanced techniques. This proactive approach has resulted in the demolition specialist having completed over 100 projects for local petrochemical producers, Jet Demolition Project Engineer **Andre Botes** reveals.

Apart from oil and gas facilities, Jet Demolition's expertise also encompasses hexane plants, chemical plants, fuel tanks, and storage facilities. "Petrochemical demolition forms part of our heavy industrial demolition portfolio. It is critical to pay close attention to every step in the demolition process during petrochemical work, as we normally work in close proximity to live operations, with a high degree of danger due to the flammability," Botes explains.

Having worked for Jet Demolition for a decade, Botes forms part of a close-knit team of engineers. "Most are involved in supporting our site staff on a technical and commercial basis, or after a successful tender, managing the project itself," he points out.

The risk of fire means that conventional demolition methods are not always not suited to the pet-

rochemical industry. "We normally make use of large excavators with specialised attachments like shears," Botes highlights. "We have also developed quite a few specialised attachments to work in these zero-flame areas, where we cannot risk any spark or any

emission due to the volatile nature of the surroundings."

The company's fleet includes a selection of diverse demolition shears and ripping tools of various sizes and weights for added flexibility in flammable environments. The demolition shears, in



particular, range from a few hundred kilograms to over 12 tons, including the largest version in Africa at present.

"Our state-of-the-art cold-cutting equipment means we can carry out demolition work in the most volatile environments without impacting our clients' operational processes, which is critical in terms of downtime and productivity," Botes elaborates, adding that Jet Demolition has effectively pioneered cold-cutting technology in South Africa.

Botes adds that Jet Demolition has a fully-fledged safety department that deploys safety officers to all sites, and often more than one depending on the complexity of the project. "In addition, we have developed specific safe work and operating procedures for the petrochemical industry," Botes stresses.

A typical petrochemical demolition project takes four to eight weeks to carry out, with all the necessary equipment usually moved on-site two weeks' prior. While Jet Demolition has carried out successful petrochemical demolition work in Africa, Botes comments that there is much more scope in the rest of Africa, especially with the oil price on the increase.

Architects love concrete – but should know it better, says TCI



Designing with concrete offers unlimited creative potential – but architects should know more about concrete technology, says TCI's John Roxburgh.

CONCRETE is the material of choice for many architects and structural designers globally because of the vast design spectrum it offers but not enough South African construction professionals know enough about the technological aspects of concrete, says John Roxburgh of The Concrete Institute (TCI) in Midrand.

Roxburgh, senior lecturer at TCI's School of Concrete Technology, says architects who employ concrete in their designs because of its versatility and flexibility should also be versed in the practical properties of concrete at various construction stages and the variety of finishes – both off-shutter and architectural – concrete offers. This would not only enhance the architects' knowledge of the huge design potential of concrete but also ensure

that durability is incorporated into their concrete creations. Faced by increasing natural disasters as wild fires, hurricanes earthquakes, and floods, stability and strength are now increasing design considerations.

"However, architects need no convincing about the aesthetic qualities of concrete and are constantly finding new and exciting ways of showcasing concrete beauty. Concrete offers unlimited potential. It allows for design variations such as gently flowing structures, curves, or straight lines to enhance the artistic properties of a building. No other modern construction material offers the designer such a variety of forms, colours, and textures. Furthermore, the plasticity of concrete enables architects to transform the struc-

tures they visualise into reality - free of post and beam limitations," he adds.

Concrete also offers benefits such as strength, sustainability, economy, thermal efficiency, and sound attenuation. Speed of construction and the opportunity concrete offers to use local labour and materials are also regarded as important advantages.

Roxburgh says the School of Concrete Technology's five-day *Concrete Technology* training course, to be presented in Midrand, Durban and Cape Town this year, is the ideal course for architects and civil and structural engineers. "Not only would it provide these professionals with essential technological concrete knowledge but also boost their career advancement," Roxburgh adds.



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Drives for feed mills

SEW-EURODRIVE has supplied about 120 geared motors to Dalein Agriplan for a customised 100 tph feed mill for a major beef producer in the Free State. This is not only one of the largest single projects undertaken by the manufacturer to date, but is also one of the biggest fully-automated systems of its kind in Southern Africa.

Critical to the ongoing success of Dalein Agriplan has been the steady supply of SEW-EURODRIVE geared motors, Sales Manager **Willem Strydom** reports. "Our long-standing association with Dalein Agriplan indicates how important the agricultural industry is as a future growth area."

Part of the larger Dalein Group of companies, Dalein Agriplan designs, manufactures, and commissions a range of modular feed mills, with outputs from 3 tph to 100 tph. It also manufactures

raw materials handling and processing facilities across Southern Africa, and as far afield as Ethiopia and Ghana.

The success of the company's feed mills is due to the high degree of accuracy with which they weigh the raw materials, with a 5kg to 10kg margin on a 9t batch, Dalein Agriplan Owner **Lohan Heyl** reveals. "Such accuracy is critical for the mixed ration to have the best possible homogeneity, and hence adherence to the formulation."

"Our clients in the agricultural industry depend on us to meet their requirements and specifications, and we in turn rely on companies like SEW-EURODRIVE to provide the best-possible components to ensure that our locally-manufactured feed mills are world-class," Heyl elaborates.

Heyl adds that, apart from the quality German-engineered geared motors them-



Belt conveyors leading to a feed mixer.

selves, what is equally important is the customer support and technical back-up that Dalein Agriplan receives. "There is a fast turnaround time on geared motors in the event of any breakdown, from critical spares to replacement units, which allows us to reduce the downtime for our own customers."

Dalein Agriplan pioneered its compact purpose-designed feed mill in the early 1990s, and to date has designed and built about 100 throughout the re-

gion. Its current target market ranges from smaller farmers who want to reduce their costs by producing their own high-quality feed, to larger corporate mega-farmers with largescale commercial operations.

Strydom explains that the products supplied include helical bevel geared motors for macro batching plants, parallel helical geared motors for belt and chain conveyors and bucket elevators, and inline helical geared motors for screw conveyors.

Gearboxes-for railways-maintenance

BMG supplies the local railways sector with custom-designed planetary gearboxes for use in railway maintenance programmes.

"Dinamic Oil gearboxes, which are supplied with 22 kW brake motors, are used to lift, turn and hold railway coaches securely in place during maintenance procedures, like welding and machining," says Kelly Mac Iver, Gears Business Unit Manager, BMG. "A notable feature of this system is enhanced safety during operation. Prior to the introduction of these planetary gear units, large overhead cranes were used for lifting, turning and holding during maintenance and this was a highly dangerous operation."

These planetary gear units have a nominal output torque of 210 kNm and turn 15t railway coaches at 1 r/min. Other advantages

of these energy-saving units include efficiency at low r/min, easy access for maintenance, a smaller box for a given load and a wide range of ratio permutations.

The Italian range of Dinamic Oil planetary gearboxes is distributed exclusively in Southern Africa by BMG.

BMG offers a technical advisory and support service to ensure efficient performance and extended service life of every system. Substantial stock is held to ensure quick and efficient delivery throughout the entire Southern African region.



Typical application of Dinamic Oil gearbox, used to lift, turn and hold railway coaches securely in place during maintenance procedures, like welding and machining.

AC Drive migration at Mozal Aluminium

ROCKWELL Automation 1336 Drives have delivered the drive control required across the Mozal aluminium smelter near Maputo, Mozambique. The company reports that it is in the final phase of upgrading this plant- with its Allen-Bradley PowerFlex 755 AC Drives.

In addition to lowering risk of system downtime in the future and improving the plant's long-term reliability, far greater process intelligence leading to gains in diagnostic capabilities; greater energy efficiency; and enhanced hardware and software support are among the benefits gained with this technology upgrade.

"The PowerFlex 755 delivers a high level of actionable intelligence at the fingertips of maintenance teams, allowing them to diagnose and correct process issues without having to search and consult technical literature to understand the meaning of errors, where they occur, and how they should be addressed," explains Teboho Matlola, Project Engineer, Rockwell Automation Sub-Saharan Africa.

Other integrated functions, such as the drive's TorqProve feature, enhances site safety on the many different crane and hoist applications across the smelter. Used to optimise control of load handling and lifting, this feature includes a continuous brake slip monitor



The rod shop at Mozal Aluminium, one of the core plant areas that has been upgraded to the new Allen-Bradley PowerFlex 755 AC Drives.

that detects load slippage and will automatically hold and/or safely lower the load. The communications protocol needed to be able to keep the current systems running while ensuring that the drives are Connected Enterprise-ready on the EtherNet/IP standard.

"With many previously separate control functions such as brake choppers now integrated into the PowerFlex 755 drives, the amount of hardware required by the overall drive system has been reduced," Phineas Ratshosa, Project Engineer, Rockwell Automation Sub-Saharan Africa, explains. "A streamlined, more direct and integrated drive architecture doesn't just lower the physical and energy footprint required by the hardware, it further optimises maintenance and diagnostic efficiency for the plant."

Production-sensitive migration

Beginning in 2014, with

the scope of the migration numbering over 350 new drives, has been done in four phases. There are many diverse positioning and hoisting machines in various plant areas, each requiring a different solution. The migration continues to date and is scheduled to be completed in November 2020.

Rockwell Automation implemented a planned migration within the plant's maintenance schedule to keep plant shutdown to a minimum. This required precise communication, planning, preparation and execution between Mozal Aluminium, South32, Rockwell Automation and other third party service suppliers.

Rockwell Automation, together with its local panel manufacturer Temoc Lda, assembled the new MCC buckets of the drives and ancillary hardware, testing each component individually, prior to integrating the new buckets into the existing panels.

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High tech time switches

LEGRAND's AlphaRex³ and MicroRex time switches are designed for easy programming and ensure high-clock precision in industrial, commercial and domestic environments.

The AlphaRex³ series has a user-friendly standardised text guided programming facility, with a high resolution digital display and backlight. There is a standard, single data key for all devices in this range to allow quick and easy transfer of programmes to other time switches and for creating back-up copies.

Programming with clock precision to the second is controlled directly on the time switch, or outside the distribution board using a PC and Legrand's AlphaSoft programming software. Other features include an EEPROM memory, which prevents settings being lost and the facility to



AlphaRex³ and MicroRex time switches are designed for easy programming and ensure high-clock precision in industrial, commercial and domestic environments.

programme the clock prior to despatch. Once the unit has been programmed, the information will remain installed even if the switch is not connected to power. The battery can be removed without having to uninstall the time switch from the distribution board.

Typical applications for this series include industrial pump stations, security alarms, indoor and outdoor lighting, air conditioners, heating and ventilation systems and swimming pool heaters.

These time switches are also compatible with alternative re-

newable energy systems, like photovoltaic panels.

MicroRex time switches offer easy plug and play installation for daily and weekly programming. By simply setting the analogue switching dial during start up, the time is automatically set using the fast-run mode. In the event of a power failure, the time is automatically reset.

MicroRex devices, with analogue and digital dials, are 24 hour and seven day time switches for DIN rail and wall mounting, with a five year running reserve.

These units have the capability for multiple programmes, which ensures optimum time setting flexibility. MicroRex time switches have an LED status indicator, a precision clockwork of 0.2 s/day and are controlled by either a quartz or synchronous motor. For increased safety and user convenience, there is an automatic and manual and advance/over-ride facility.

The MicroRex series is designed for dependable use in many applications, including periodic lubrication of machines or regularly repeated switching of pumps, feed conveyors and sprinkler systems.

This device is also suitable for short periods of controlled defrosting.

New standard for digital inclination measurement

A new standard for digital inclination measurement has been set with the latest digital protractors from Stabila, distributed locally by Upat. Both the TECH 500 DP and TECH 1000 DP are manufactured exclusively in Germany.

The latest digital protractors not only measure degrees of incline, whether or not a particular surface is level, but also its precise degree. "What this means is that a particular degree can be preset, and the surface levelled precisely in accordance with the measurements," Upat National Product Specialist Charl Weber explains.

The main difference between the two models is that the TECH 500 DP measures from 0° to 90° and 90° to 0°, while the TECH 1000 DP covers 360°. The former reveals what is out of sync, while the latter calculates the exact amount.

In addition, the latter features smart data transmission to peripheral devices, featuring an RS-485 interface with a MODBUS documentation protocol and Stabila Analytics software for analysis. It includes a USB data cable with an M12 connector and a four-pin data cable with M12 connectors.

This makes the



The Stabila TECH 1000 DP features smart data transmission, with a RS-485 interface.

TECH 1000 DP particularly well suited to the automotive industry, where for example, it can be used to align radar systems on new motor vehicles. Upat has already secured a few pre-orders from major automotive manufacturers, Weber reveals.

"The latest digital protractors not only measure degrees of incline, whether or not a particular surface is level, but also its precise degree."

The latest digital protractors from Stabila make for easy measurement and alignment tasks in a broad range of applications. The TECH 500 DP is ideal for production applications such as carrying

out maintenance on or setting machines.

Long-term measurements are also possible thanks to a range of mounting options. These include a T-groove and a V-groove, plus an integrated rare earth magnet. The TECH 500 DP can also measure key values in quality assurance, while it allows for easy alignment of systems during the commissioning of special-purpose mechanical engineering tasks.

The TECH 1000 DP extends the functionality of Stabila's digital protractor technology by allowing for the modernisation and digitisation of existing machines in production. Advanced features include measuring, recording and documenting key values for quality assurance purposes; as when carrying out maintenance, setting machines, and monitoring processes. Long-term measurements mean that position changes can be recorded when commissioning a machine, while the actual values measured can be captured in a detailed transfer report.

A digital display screen allows for optimum readability under all conditions, while the anodised aluminium measuring surfaces themselves are particularly hardy. These digital protractors are water- and dust-proof in accordance with protection class IP65. A variable power supply includes the option of an integrated lithium-ion battery.

"Precision measurement is fundamental to a range of production work. Hence it is vital that professionals are able to rely completely on the accuracy of their measuring tools. This calls for measurement technology that is robust, always accurate and easy-to-use. The latest technology from Stabila represents an unwavering focus on innovation since 1889," Weber concludes.



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Blue battery makers show support

Raising awareness of plastic pollution in the oceans.



WHAT do vehicle automotive components and the ocean have in common? Not much. But awareness of plastic pollution is a growing concern.

Corne Strydom, Sales and Marketing Executive at AutoX, manufacturer and distributor of Willard@ Batteries in South Africa, says that plastic waste affects all the world's oceans.

"In line with this, we are launching a limited-edition Willard BLUE battery. Available at selected retail outlets, the Willard BLUE Battery range aims to highlight the threat plastic poses to our oceans and beaches by encouraging the recycling of plastic."

"Willard is working on this project with the Beach Co-op, an NGO committed to improving and ensuring the health of our oceans. The Beach Co-op will be benefiting from a generous donation from Willard, with a portion of the proceeds from the campaign being set aside for this purpose," explains Mr Strydom. "Beach clean-ups are also being planned for later in the year in conjunction with the Beach Co-op."

People participating in the campaign will also stand a chance to win a Big 5 Sea Safari in Hermanus, with lux-

ury accommodation at the Marine Hotel. To enter the competition, customers must register the purchase of their new BLUE batteries online at <https://willard.co.za> from the 1st of April to the 30th of September.

"We are emphasising the relationship between people and nature," he says. "The Willard BLUE battery campaign is a great way for people to get behind the idea of recycling plastic and ensuring that it doesn't pollute our oceans and beaches. We want to highlight the interconnectedness between people and nature and how we all depend on a healthy, natural environment for our wellbeing."

Willard's first limited-edition battery was the successful eye-catching pink battery where a portion of the proceeds went to the Breast Cancer Community Carer, PinkDrive. Next came the limited-edition Rhino battery, a rugged, resilient battery which was developed to cope with the harsh conditions faced by game rangers' vehicles as they help protect our rhinos. The limited-edition Red battery highlighted the importance of donating blood and many people responded enthusiastically to the call to action.

Turning a 'tragic plastic' problem into a nation building solution

Imagine if all South Africa's unrecycled plastic waste, at 1 100 000 million tons per year, could create thousands of jobs, clean our environment and help build our houses, hospitals, schools and roads.

DON THOMPSON, the CEO of The Center of Regenerative Design and Collaboration (CRDC), says he is about to make this a reality. He is the inventor of a process that can turn any plastic – dirty or clean and in any form – into the very building blocks of sustainable development. The product, EcoArena PRA (Pre-Conditioned Resin Aggregate) and Ecoblock are innovative environmentally friendly products which incorporate regenerated waste plastic particles combined with a standard sand-cement mixture to produce a highly resistant, durable cement or cement block while providing a viable up-cycling usage of this waste material.

The product has been tested and applied by PEDREGAL in Costa Rica for the past two years with great success. CRDC is also collaborating with international US chemicals giant, Dow in the development of EcoArena in a bid to develop a lead initiative for the alliance to end plastic waste.

In South Africa, CRDC has partnered with a leading operations company that has extensive expertise and

a long track record in on-site waste management, plastic recycling, waste to energy and implementation of zero waste to landfill solutions.

The case study

In Costa Rica, Thompson has been working with PEDREGAL, the largest cement, and concrete block company in Costa Rica and in collaboration with DOW, the American multinational chemical corporation. Over the past two years, the product has been tested and used for the last six months. The aim is to use 4 000 tons of plastic waste per month for the EcoArena technology. The feasibility of the product as an environmental breakthrough is proven and as a commercially viable and profitable commodity it also meets sustainable development requirements on all levels.

PEDREGAL began testing the use of EcoArena in their CMU concrete blocks, having achieved successful technical results and compliance with international standards (ASTM and C90). PEDREGAL then introduced EcoArena to all their concrete products

under the prefix ECO. Sales and Marketing Director of PEDREGAL, David Zamora says: "This breakthrough in transforming plastic and using it in the same way as you would conventional aggregate is a game-changer. Not only can we conduct our business in a more sustainable way but also we can also help solve one of the biggest problems we have created as human beings – that of plastic contamination. This is the very essence of our circular economy – one in which the construction industry is helping the plastic industry solve a waste problem by turning it into a raw material that can be used in any construction on the planet."

Claimed key benefits of CRDC EcoArena concrete:

- 10% increase in strength
- 8% to 16% decrease in weight (with 5% or 10% PRA)
- Increase in thermal properties
- Same fire resistance as with standard concrete
- EcoArena PRA can be used in pressed concrete products as well as in bagged

cement or poured concrete

- Lower dependency on other raw materials
- Obvious marketing benefits
- Reduce cement industries carbon footprint and carbon tax bill.

Environmental

- Supports and grows the UN Sustainable Development Goals
- Reduces Carbon Footprints by eliminating plastic to landfill and plastic pollution - (1 ton of mixed plastics going to landfill has an emissions factor of 21.3842kg CO₂e)
- All types of plastic can be upcycled into EcoArena PRA – i.e. no costly separation required
- Reduce plastic pollution in rivers, oceans, cities and impact on landfills
- Supports Zero Waste to landfill and plastic producer responsibility and government programmes or initiatives
- Waste plastic permanently eliminated from the environment
- CRDC and EcoAre-

na are foundation partners of Habitat for Humanity

Social and SMME

- SMME and job creation from waste plastic collection, plastic shredding SMMEs and transport
- Cleaner cities and healthier environments
- Support SMME concrete block manufacturers
- Help support the building of better social housing in Africa with a product that is stronger and benefits the environment and society.

CRDC will be testing EcoArena PRA with two major concrete manufacturers in the Western Cape as well as a major South African cement producer. "In South Africa, there is an established and sophisticated cement industry. Against this, we need to create jobs, we need to clean up the environment and there is an urgent need for housing. Our plan is to use the Costa Rican model to initially launch in the Western Cape before rolling out the initiative nationally" he concluded.

Another Green first for South Africa

EVALUTION Flooring has embarked on the first phase of a sustainability project that will be the

first of its kind in South Africa and will enable zero waste in the luxury vinyl tile (LVT) flooring arena. As part of its quest to curb its carbon footprint, the GreenTag Certified vinyl flooring supplier has teamed up with Recycle 4 Africa Waste Management (R4AWM) to recycle LVT offcuts and uplifts by transforming them into eco-bricks, pavers and potentially other reusable products in the future.

Evaluation Flooring founder, Eva Kaiser, says: "Up until now there had not been a way to recycle the vinyl due to the many layers that make up the product. The first brick has been made completely out of recycled waste, including plastic that can't currently be recycled and would have landed up in landfill. Unlike other eco-bricks, no sand or cement has been added. The brick has been tested and was found to have no leaching and no emissions. It also has a compressive strength of 15 MPa - higher than

the average 5.2 MPa of concrete bricks. Plus, it is fire and rodent resistant. The product will soon be tested officially by the National Home Builders Registration Council to obtain certification for use in the building industry.

"There's plenty of LVT all around South Africa and we are currently working on how to logistically get all this material to a central point without adding to the carbon footprint. We are also exploring how to finance this massive project. While we might not be able to supply the market with eco-bricks just yet, the most important thing is that there is now a solution for directing LVT away from landfill."

Director of Waste Management at R4AWM, Debbie Sharp, adds: "Long-term, it would be ideal for companies to combine their feedstock, and for R4AWM to provide them with containerised waste management units which house all the necessary equipment to process LVT waste and

enable them to manufacture the eco-bricks on site. By providing companies with this technology, we hope to minimise all facets of waste, and divert it from landfill sites."

"It is through such thinking that the industry is inspired to think innovatively about how it uses waste differently and gainfully," says Grahame Cruickshanks Managing Executive: Market Engagement at Green Building Council South Africa.

Kaiser shares that Evaluation Flooring is working hard towards the sustainability of its LVT flooring over its entire life cycle. "We have the first - and currently the only - GreenTag Certified LVT flooring products in South Africa in both our Amtico and mFlor ranges. Our Amtico Spacia and Amtico Spacia Acoustic flooring products have achieved a Level B rating, while the Amtico First, mFlor 25-05 and mFlor 20-03 LVTs have achieved Level C status. What this means is that Level B Certification

will achieve 85% of the points required by the Green Building Council for a Green Star Rating for internal finishes, while Level C Certification will achieve 75%.

GreenTag Certification is important as the process involves the entire supply chain from the ingredients to the final product, including all sustainable practices throughout the production process."

"Over the past eleven years, Green Building Council South Africa has been on a sustainability journey to advance the transformation of the South African built environment and construction sectors and it is encouraging to mark this Green Star Rating for internal finishes with Evaluation Flooring," adds Cruickshanks.

"This is a break-through! We are so excited to be introducing this new way of recycling LVTs. Although the project is in its infancy and much still needs to be done, we are confident it can be achieved," concludes Kaiser.

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OPINION

Cape Town rates system is taxation by computer

Continued from back page

age is an unelected official whose salary is paid by ratepayers. Of course he too would be inclined to approve of the process. It's a no-brainer as the Americans say.

A computer makes life so much easier for municipal bureaucrats. Now all they have to do is designate an area of the City, pick a recent house sale – feed in the area's erf numbers and the computer programme will conveniently extrapolate this in a highly-scientific way and Bingo, the whole area is assessed – and new additional money rolls into municipal coffers.

It is passing strange that the "typical sale" the computer is told to take as a benchmark in any area, is not made public. You have to ask for it.

The bottom line is that there is no need to cut back on municipal costs, especially not the salary bill – heaven forbid. Ever-rising house prices will take care of that silly thought.

This system is king. Any questions can be countered by pointing to the "scientific" nature of the process. Moreover,

it must be scientific because the result is spat out by a computer. As for arguments urging individual valuations, it is quite absurd to expect municipal officials to undertake the task. It would take months. I mean, really!

If anyone complains they can always go to court where ratepayers' money will be used to cover the City's legal costs. Now, that is neat. Ratepayer-versus-rate gatherer. Failsafe, win or lose. Win and that will stop others complaining. Lose and it's only a victory for one of the 800 000. Small beer, really. Moreover, there can always be an appeal.

Finally there is Catch 22. You cannot argue that the house next door on a same size erf with an identical number of bedrooms is mysteriously paying fewer rates than you are. It's worse when the computer compares your house with one just as big but in a far better street and in much better repair. The only way to appeal is to hire your own valuer and prove the computer wrong. That will cost you. Fancy a gamble with Mother? Scissors, rock, paper to see who starts rolling the dice?

By the way, valuations can be repeated every year if the municipal officials think it's a good idea. The law says that they have to do it every four years but how can yearly salary increases be given to municipal civil servants if they don't? So, bet your sweet whatever, it will be and soon, regardless of the state of the economy and regardless of whether you, poor householder, have had a salary increase since the last valuation, or not.

Actually, our local bureaucrats can assess our rates every year if they feel like it. Will they restrain themselves in a falling house price market? You betcha. Will our rates fall if house prices do? Not on your life.

Using its computer model, Cape Town valuations are "cheaper and faster," says the municipality, adding "but no less fair". It seems a somewhat hasty afterthought.

One can only respond by sighing and saying, "Yes, well, maybe, or, ja, well, no, fine" but it would be more applicable to just bleat, "Ba-aa". After all ratepayers are being fleeced.

Taxation on EV's "a no brainer"

The Editor tries to see the sense in taxing electric vehicles out of existence.

WE all know the benefits of electric vehicles (EV's) – zero emissions, drastically reduced fuel and maintenance costs, no noise – with the seemingly only downside is that – for now - limited range.

Listening to presentations at the recent African Utilities Week show on the subject of future cities and electric vehicles, one came away with the distinct impression that the governments imposed tariffs on electric vehicles are a no-brainer.

The 43% effective tax levied on electric vehicles (EV's) puts them completely out of reach for the average Joe, and one wonders why the call by at least one of the major motor manufacturers in the country to abolish the tax altogether is not being heeded by the DTi.

A presentation by Eskom representative Darryl Chapman showed some startling statistics where Eskom modelling shows that even if 50% of all the passenger vehicles in South Africa were electric, the increase in electrical demand for charging purposes would be minute – adding less than 4% generating capacity. That is unless all the vehicles were charged at the same time.

Furthermore, said Chapman, charging vehicles at night after the peak demand was over, would actually be beneficial to Eskom as it would flatten out the generation curve which would allow power stations to produce more efficiently rather than what is described as a 'camel's humps' – the humps being the two peak demand periods, morning and evening.

Load shedding and Eskom woes aside, if one believes Chapman and his data, electricity supply is not a reason to discourage people turning to EV's.

So is it the protection of local vehicle manufacturers who have enjoyed government protective tariffs in order to stimulate local industry? That doesn't seem to hold water either. The majority of vehicles sold in South Africa are imported with only C Class Mercedes Benz, VW



Polo's and BMW X3's being the only passenger cars manufactured here and the bulk of those are for export anyway.

Potential losers in the adoption of EV's are the oil companies supplying petrol but not so much diesel, and of course the government who levy a substantial tax (the General Fuel Levy is about 24%) on every litre of fuel that we consume.

But wait, that would mean that we wouldn't have to import as much crude oil and that would have a beneficial effect on the fiscus, right? And EV's would be zero emissions rated so no carbon tax would apply...

So it looks like the government is worried that its tax base – which is under severer stress due to lack of GDP growth and wholesale looting – would be diminished still further.

If the purchase tax on EV's were reduced to say 10%, more would be sold and the government would collect a lot more 10%'s than the paltry +/- 1 300 x 43% it currently does. Good then for the environment, Eskom, citizens and dare I say it, for the fiscus. And why not provide incentives for local manufacture or CKD assembly of EV's – like we did in the old

days? The roll out of charging infrastructure would create jobs too...

In any event, the swing to EV's will not be dramatic and would provide many years respite in which to make adjustments to the taxation structure. The most enlightened country – as far as EV's are concerned – is Norway where EV's make up more than 50% of new vehicles sold. There they attract no tax and the government even provide a financial incentive to purchase an EV.

That country has an abundance of renewable hydro energy and vehicle usage is much more confined to local travel which suits the current limitation of EV range. But they are leaders in their commitment to protecting the environment...

The current EV population in SA is estimated at just north of 1 300, purchased by well-heeled citizens who either want to make an cost, environmental or fashion statement, but either way, with running costs – 'fuel' and maintenance – being a fraction of that of an internal combustion engine equivalent, makes EV ownership a compelling argument. So DTi, let's make it happen.

IN THE NEXT ISSUE:

- Corrosion and Abrasion Control / Specialised Coatings
- Electrical Industry / Manufacturers/ Contractors/ Suppliers
- Financial Services: Funding / Factoring / Risk Management / Business Advisory Services
- Freight Forwarding
- Industrial Gases
- Maritime: Port Operations and Harbour Services
- Materials Handling and Equipment
- Metals Industry / Processing / Fabrication
- Plant Equipment / Generators / Compressors / Machinery Hire
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- PPE / Work Apparel / Safety at Height
- Safety & Security/ Surveillance/ Access Control / Fire Detection
- Warehousing and Storage Management
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Cape Business News is always on the lookout for stories of companies that are shaping the Cape business landscape. If your company has a story to share, in these, or any other business sector, send your story to editor@cbn.co.za for consideration.

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Revealed: World Bank pumps billions into fossil fuels

- Large-scale study on 675 active World Bank energy projects
- 21 billion dollars for fossil fuels, only 7 billion for clean renewable energy
- Bank must stop supporting fossil industries and advocate an upstream carbon tax for fossil exploration and extraction.

A study commissioned by the German NGO Uргewald exposes the climate-dam-

aging activities of the world's most powerful development institution. The research, published recently during the World Bank's Spring Meetings, shows:

The World Bank Group's active energy project finance is three times greater for fossil fuels than for climate-friendly renewable energy sources – 21 billion US dollars for coal, oil and gas and only 7 billion US dollars for sectors like solar energy or wind power. In the last 5 years alone, the Bank

spent USD 12 billion for projects associated with fossil fuels.

The author of the study is Heike Mainhardt, a long-standing US expert on multilateral financial projects and expert contributor to the Intergovernmental Panel on Climate Change. Mainhardt analysed more than 675 World Bank Group energy sector projects. It is thus the most comprehensive analysis to date of the World Bank's fossil fuel businesses.

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The nuisance of competence

SMALLER? Who said the Cabinet was smaller?" demanded Jon the Joker in body language usually employed by heavyweight boxers at the weigh-in.

"I said so," retorted Big Ben, bending over and looking down at his jocular adversary. "What are you going to do about it? Send a straight right into my knee-cap?"

"No fighting in the bar!" shrieked The Governor from behind the pillar.

"Nice moving there, Governor," laughed Luke the Dude. "With legs as fast as those you could be a boxer yourself. Although, sweet Angie has better arms."

"It's from all the draughts she has been pulling," soothed The Prof in peace-making mode. "Tell you what, Angela, pull us another round so that The Governor can relax. We are all friends here." This had the desired effect and our hero re-emerged into full view.

The grand company of convivial conversationalists had re-convened for our usual ruminations on the affairs of the nation and the world. All were present and accounted for including the great white dog, who was currently comforting The Governor.

"As I was saying before I was taken seriously, which was a surprise as it does not often happen with you snobs," continued Big Ben accusingly, "The Cabinet is smaller. It was cut from 36 under Zuma to 28 now. So what's not smaller? Did you go to the same primary school as Zuma?"

Big Ben was certainly testier than his usual back-slapping self. Maybe the tennis elbow he regularly complains about was acting up again. Actually, the present company is convinced the ailment is haemorrhoids as everybody has concluded that Ben does not know his ass from his elbow.

"He does seem to have a point, Boyo," nodded Colin the Golfer, having done the math.

"Useless!" exploded Jon the Joker. "Smaller my elbow! You failed to count the dozens of deputy ministers, haven't you? No fewer than 34! Six more deputy ministers than ministers, so obviously one deputy is not enough for some of our hard-working ministers."

"Well, deputies are not regarded as members of Cabinet," elucidated Bob the Book. "So technically Pres Ramaphosa has reduced the Cabinet numbers."

"Technically being the operative word," continued Jon the Joker. "Technically but not actually. Who do you think are going to pay for the extravagant salaries and lavish perks of that vast number of kept men and women? An enormous 62 of them! Elevation-fifty-one if you count in Zamese. The same taxpayers who enriched the previous lot, that's who."

"I told you so," nodded Luke the Dude in sage approval, "it's the same old rogues' gallery - but fortunately we won't see the likes of Bathabile Dlamini again and unfortunately also not the last two remaining white guys, Derek Hanekom and Rob Davies."

"On a point of clarity," questioned Stevie the Poet, "why do you say 'fortunately' for Dlamini and 'unfortunately' for the other two?"

"Dlamini? A ha!" interrupted Jon the Joker as if he was serving an ace at Wimbledon. "Firstly, because she was useless! Does anyone wish to argue that point?" He looked around the bar and stopped at Big Ben. Nobody did. "Secondly, because she is the president of the ANC Women's League. It required guts to fire her and annoy that particular ANC eatery, so it is fortunate that Cyril scraped some together."

"Guts is not something our president has in abundance. He prefers to boil the frog slowly so that it doesn't notice; as he notoriously proposed to do with South Africa's whites during his long pursuit - it's ANC policy - of a socialist and then communist paradise."

"In line," mused The Prof, "with the prescriptions of Professor Marx in his idealistic philosophy - since then proven to be a murderous failure by the likes of Lenin, Stalin and their psychopathic ilk elsewhere on the globe."

"Indeed so," agreed Bob the Book, "although ANC leaders do not like to talk about it outside their policy-making conventions."

"Whoa, before you depress us with reality," shouted Luke the Dude, "Angie, my sweet, I see empty glasses. Please do the necessary."

This pleased The Governor, who was on the brink of banning politics from the bar again.

"Okay," insisted Stevie the Poet, "fair enough. But you haven't answered my second question. Why is it unfortunate that the only two white ministers were fired?"

"Nothing to do with the presumption of racism, if that is what you impugn my dear boy, and little with their whiteness," frowned Jon the Joker. "Their firing is most unfortunate because they were competent ministers. As it is, competence is not an undisputed quality in the South African Cabinet, as is evidenced by the vast numbers required to do the job."

"Why do you think he fired them then?" sparred Big Ben, "Cyril is not stupid."

"No, he is not stupid," agreed Jon the Joker. "Other unflattering things, yes, but not stupid. He did it because he had to. Bellicose ANC factions were lying in ambush, ready to strike. All of them had to be placated. Also, various interest groups and tribes. You had to have Zumaites, unionists, a few Xhosas, not to mention Zulus, and women in half the Cabinet to make up for the firing of Bathabile Dlamini."

"The simple fact of this unorthodox style of Cabinet selection is that the last remaining white men did not stand a chance, no matter how competent they were. Hanekom and Davies are not part of any faction, interest group or tribe. Whites don't matter and these two are men. They were disposable."

"Well," asserted Irene the Queen, "there is a white woman in the Cabinet, Barbara Creecy as Minister of Environment, Forestry and Fisheries. Promoted from Gauteng, where she was Finance MEC."

"Indeed so," said Jon, "and I am happy that she is. She is a highly competent woman. Had she been a man..."

"The quota system again," added The Prof. "The ANC has incorporated that in its management style. Much easier to implicate than 'racist' systems involving proven competence, experience and qualifications. Too much hard thinking required when using those."

"Hmmm," added Luke, "can't have the fastest runners on the track; not when they don't fit the quotas."

"Much more so," grinned Bob the Book, "in important affairs such as running the country to grow the economy, create jobs and improve people's lives."

"Useless!" exclaimed The Joker.

"I do not agree," protested Big Ben. "Surely you don't mean to say that those names announced by Pres Ramaphosa are not the most competent people in the country!"

"How's your elbow?" enquired Luke the Dude, "sitting comfortably enough?"

"It's like I said, big man," sighed Jon the Joker, "the truth is in the numbers. As Pres Ramaphosa announced it, in South Africa we need 62 people to do the job of the Cabinet. Not the best job, just the job, sort of. Compare that with the other countries of the world; even if we pretend that the Cabinet's job is done by 'just' 28 people:

"In the USA for instance - a hugely more complicated country with a population of about 330 million and the largest economy in the world - the Cabinet's job is done by 15 people. India, with 1'367 million people and the sixth largest economy, growing at 7%, has a smaller Cabinet than us. So do Brazil, the United Kingdom, Germany, Spain and Australia. Also fellow African countries Nigeria and Kenya."

"Don't tell me those 62 will all be doing productive work. President Ramaphosa has not announced a Cabinet; he has announced jobs for ANC cadres who cannot find gainful employment."

"I suppose that's it then," said The Prof,

Cape Town rates system is taxation by computer

Acept that South African municipalities have no other source of income apart from rates (um... apart from the whack they add to Eskom electricity prices, the charge they make for use of their sewerage systems, water supply and collecting one approved-size rubbish bin once a week, dog licences ...).

Also, accept that it is grossly unfair to make comparisons with the English 17th century tax on glass windows or Elizabethan sumptuary laws that taxed fur coats.

Accept all this and only look at how our municipal rates system works

Now to address the question: What do the following places, towns and provinces have in common with Cape Town? Alberta, Association of Municipal Administrators of New Brunswick, Ontario - and so on? The list is quite long.

Oh, so you noticed. All of them are in Canada.

Well, according to the Cape Town City Council officials, the way these Canadians collect rates and how they measure the value of homes on which they base these taxes, is perfect for doing the same thing in South Africa's Mother City.

That's right, a commercial Canadian computer model is being used to access Cape Town's rates. And, presumably in homage to the Canadians, Mother's officials call theirs CAMA. Nothing like an acronym to confuse people not in the loop

It means the Canadian Association of Municipal Administrators as well as Computer-Assisted Mass Appraisal (of Properties) which is what the system is called in Cape Town. That bit in brackets doesn't make a nice acronym - otherwise it would be CAMAOP. That's very difficult to say.

So the Mother City bought a Canadian programme, modified it themselves with the help of qualified valuers (one of

OPINION

ON THE CONTRARY



Pieter Schoombee

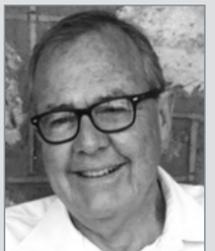
raising his glass.

"No it's not," said Stevie the Poet seriously, "let's not forget that two young men remain in prison for a murder I believe they did not commit. True to form, this judge won't allow them an appeal. And that's also not it, not by a long shot. Afriforum is approaching the Supreme Court of Appeal on their behalf."

"It's never it."

E-mail: noag@maxitec.co.za

THE OTHER SIDE OF THE COIN



Keith Bryer

whom had to be paid to fly to Cape Town at a cost of R1.5 million to spend a week checking that our lot of city servants had done it right).

There's no secret about all this (except for the Canadian angle) and officials are proud enough to boast that their modifications of the programme were done by "valuers (sic) statistical analysts, data collectors, and a host of diverse staff".

One can only thank the heavens for the "host of diverse staff". But, but apart from the professional valuers who, though paid by the City, remain independent, everyone else involved is a City official who could be said to have quite a stake in there being additional income pouring in to municipal coffers.

Yes, all you decent, hard-working rate-paying citizens of the Mother City, this is how the rateable value of your property is gauged - by a computer fed with data largely collected by municipal officials. Yup. All 800 000 of you. No margin for error whatsoever.

All of you in all your individual homes, whether loving-altered, painted or not, with a view or not, with grass mowed or not, regardless of your monthly income, are assessed this way.

If the computer says pay up such-and-such amount, you must pay up. That's that, unless you earn less than R15 000 a month and there are only some 20 000 of the 800 000 home owners in Cape Town who do.

This entire system is judged as accurate and in all ways all right by no less a being than the City Manager who signs the process off. Some may notice that this person-

Continued on P23