

OUR WORLD

ISSUE 14 | Q2 | 2021



good chemistry

 **AECI[®]**

One AECI, for a better world



BOLD

Pushing our performance above and beyond for a better world.



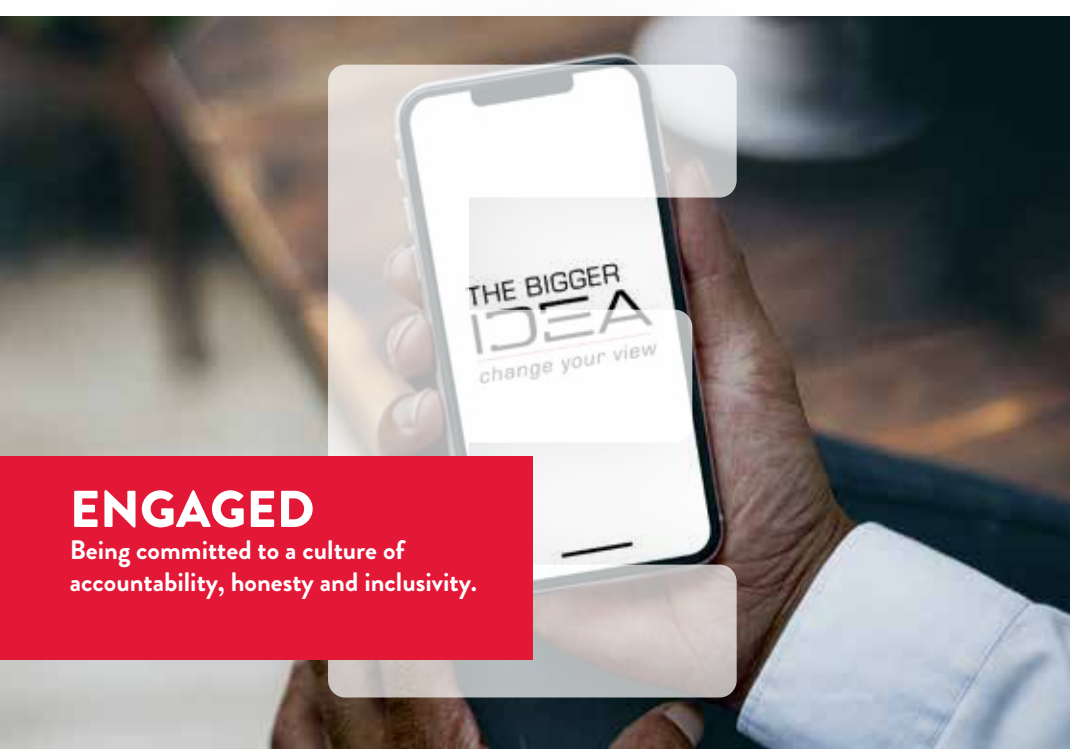
INNOVATIVE

Actively challenging ourselves to reinvent who we are, what we do and how we do it.



GOING GREEN

Driving solutions for a sustainable future.



ENGAGED

Being committed to a culture of accountability, honesty and inclusivity.



RESPONSIBLE

Acting in a manner that is mindful of all stakeholders' interests.

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FROM OUR CHIEF EXECUTIVE

Dear Colleagues

Welcome to the first issue of Our World magazine since the beginning of the COVID-19 pandemic! The delay has been due not only to our focus on managing the effects of the pandemic on people and the business, but we have also spent a lot of time formulating and actioning the Group's strategy to 2025. Our revised branding and a review of our BIGGER values reflect this. Please take time to familiarise yourself with the changes and our strategy moving forward which is centred on the key message of "One AECL, for a better world". This is the benchmark for everything we do, every day. We should be working as "One AECL", leveraging our vast capability and experience in science and technology, and customer service for the betterment of humanity and the planet. The story on our recently launched Sustainability Report and the pioneering work we are doing in Better Mining, Better Water, Better Food Systems and Better Chemistry is the beginning of an exciting journey that will build a dynamic purpose-led company of the future.

Also in this issue of Our World magazine is a piece regarding the safety challenges being experienced currently. Safety is and will always be the most important issue for us and we cannot claim to be shaping "a better world" if we are failing to create a better world of safety in the workplace. Each of us has a responsibility to ourselves and our colleagues to ensure Zero Harm. I ask again that you recommit to the principles of Zero Harm and report anything you see that is or could be contrary to these.

We are almost halfway through 2021. Our financial results to 30 June will be released to the market on 28 July and I look forward to sharing some insights with you at that time.



Mark Dytter
Chief Executive



A NEW VISION, A NEW STRATEGY, A NEW STRUCTURE, A NEW BRAND

"One AECL, for a better world" summarises our revised vision and our Strategy 2025. Delivery of growth in line with these commitments and aspirations for the benefit of all stakeholders is supported by our revised Group structure and our revised brand. All of this is the culmination of a strategic review completed in 2020, when we made a conscious decision to align our Group more closely with global megatrends. Of particular focus here is stepping up as a purpose-led Company where we leverage our resources and technology to shape "a better world".

Our vision is to deliver sustainable solutions for a better world through innovation and excellence founded on “good chemistry”. This vision, our overall philosophy and practices are implicit in our BIGGER values.

good chemistry



BOLD

Pushing our performance above and beyond for a better world.

- We are courageous in pursuing ambitious goals
- We are decisive, resilient and tenacious in facing challenges
- We are fearless in pioneering new opportunities and pushing the boundaries to grow responsibly
- We are committed to a better world in everything we do

INNOVATIVE

Actively challenging ourselves to reinvent who we are, what we do and how we do it.

- We have an adaptive, experimental mindset that encourages and seeks new ideas, opportunities and solutions to create shared value and improve our competitiveness
- We embrace the Fourth Industrial Revolution and fast track the digitalisation of our business
- We lead with game-changing differentiation for our customers' success

GOING GREEN

Driving solutions for a sustainable future.

- We provide sustainable solutions for our customers
- We conserve energy and other natural resources
- We develop and embrace smart, green technologies that deliver a better world

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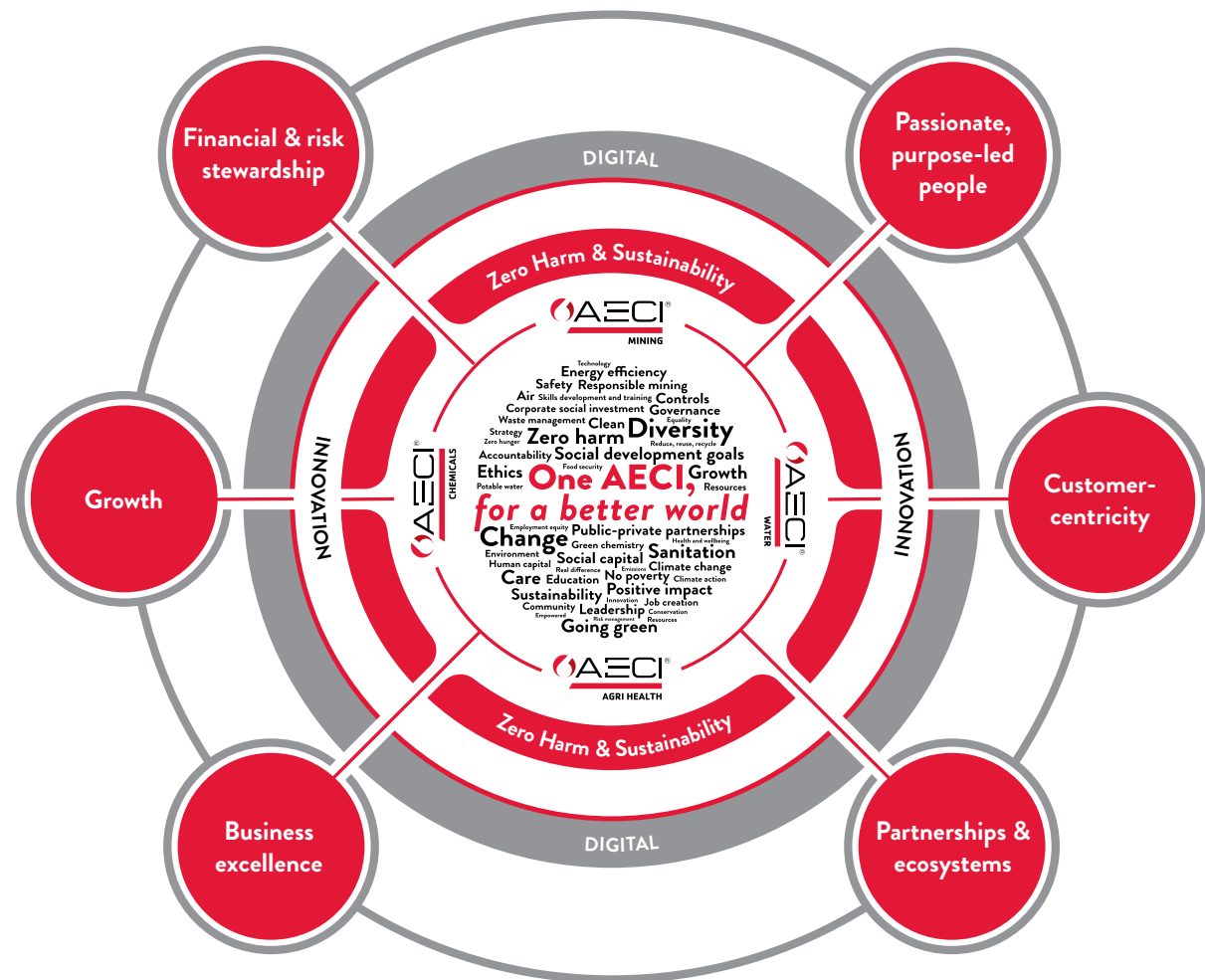
- We take ownership of our actions and decisions and understand their impact
- We are honest, open and respectful in all dealings
- We embrace diversity, equality, inclusivity and fairness
- We put our customers first and at the core of our business

RESPONSIBLE

Acting in a manner that is mindful of all stakeholders' interests.

- We optimise our business to deliver value to stakeholders
- We live our corporate, ethical and social responsibilities
- We strive for Zero Harm across our value chain
- We value and protect our assets, confidential information and intellectual property

Our business growth will be informed by our strategy illustrated as follows:
1 AECI + 3 STRATEGIC PLATFORMS + 6 STRATEGIC THEMES



The three strategic platforms underpinning everything we do are **Zero Harm** and **Sustainability**, **Innovation** as we continue to evolve the Business of Today and shape the Business of Tomorrow, and **Digitalisation** in the age of the Fourth Industrial Revolution.

Six strategic themes enable the strategy and are key focus areas for the achievement of our 2025 goals:

PASSIONATE, PURPOSE-LED PEOPLE

We recognise that our business is built on the quality of our people. AECI's organisational culture is based on our BIGGER values of being Bold, Innovative, of Going Green, and being Engaged and Responsible.

CUSTOMER-CENTRICITY

We will drive an integrated solution and customer-centric approach across the business to deliver maximum value for customers across all markets. We will enhance our customer alignment and understanding of their markets, priorities and strategies.

PARTNERSHIPS AND ECOSYSTEMS

We will continue our partner approach throughout our businesses, and will explore new business models across the ecosystem.

BUSINESS EXCELLENCE

We recognise that continued and intentional operational excellence will be required to achieve scalable change.

GROWTH

We are driving an international strategy reflected in the diversification of our markets to reduce risk and gain access to new customers. We are also focusing on the Business of Tomorrow to drive our growth.

FINANCIAL AND RISK STEWARDSHIP

We will maintain a strategic lens on financial and risk management to deliver critical insights to the business and decision-makers.



REBRANDING AS “ONE AECI” WAS THE LOGICAL NEXT STEP

In support of our strategy, all businesses have been rebranded according to the revised pillar structure and one visual identity is in place. This is known as a “branded house” model where the company's name, logo and colours are the main brand. The “One AECI” rebranding promises the delivery of “a better world” – internally and externally – through the power of “good chemistry”.

A number of Group-wide programmes for “One AECI” are already up and running namely Zero Harm, AECI Connect, the BIGGER Idea App, the BIGGER values, the “good chemistry” culture initiative, IT platforms, sustainability programmes and a travel booking system.

There is also a “One AECI, for a better world” video which was played on Business Day TV (BDTV) and CNBC Africa three times a day, during prime time, from 1 March to 16 April.

BDTV is on DStv channel 412 and available on 7,5 million DStv decoders in businesses and homes throughout Southern Africa. According to the post-campaign report, 216 487 people saw the video.

Similarly, CNBC Africa is on DStv channel 410 and available in 48 African countries including many where we operate like Botswana, Burkina Faso, Cameroon, Côte d'Ivoire, Democratic Republic of Congo, Ghana, Madagascar, Mali, Namibia, Tanzania and Zimbabwe. Every week, CNBC Africa reaches 14 000 C-Suite leaders, 65 000 business decision-makers and 97 000 influential opinion leaders. According to the post-campaign report, the South African monthly viewership was 627 000 and the monthly viewership on the rest of the continent was 593 000.

The media mix was designed to engage the investor community specifically following the release of the Group's 2020 financial results in February. We are planning to engage a much broader public audience – including our business partners, customers and employees – via high-profile entertainment and news channels like CNN, eNCA, M-Net, Newzroom Afrika and SuperSport.

The “One AECI, for a better world” video is on the aeciworld.com home page and on myaeciworld.com.



AECI[®]

MINING

AECI[®] MINING EXPLOSIVES AECI[®] MINING CHEMICALS



AECI[®]

WATER

IMPROCHEM



AECI[®]

AGRI HEALTH

AECI[®] PLANT HEALTH AECI[®] ANIMAL HEALTH AECI[®] SCHIRM



AECI[®]

CHEMICALS

AECI[®] INDUSTRIAL CHEMICALS AECI[®] SPECIALTY CHEMICALS AECI[®] FOOD & BEVERAGE AECI[®] MUCH ASPHALT AECI[®] SANS FIBERS



FIRST-EVER DEDICATED SUSTAINABILITY REPORT FOR “A BETTER WORLD”

Our Sustainability Report, published in March, provides demonstrable proof and tangible measures for our bold, new strategy and vision of shaping “a better world”.

The Report includes a Sustainability Framework with 10 overarching goals for “a better world” in the areas of Mining, Water, Food Systems and Chemistry as well as Responsible Operations and Passionate People. There are also six Group-specific targets for 2025.

Our holistic approach is inspired by five priority United Nations Sustainable Development Goals (SDGs) namely:

- Zero hunger (#2)
- Clean water and sanitation (#6)
- Decent work and economic growth (#8)
- Responsible production and consumption (#12)
- Climate action (#13)

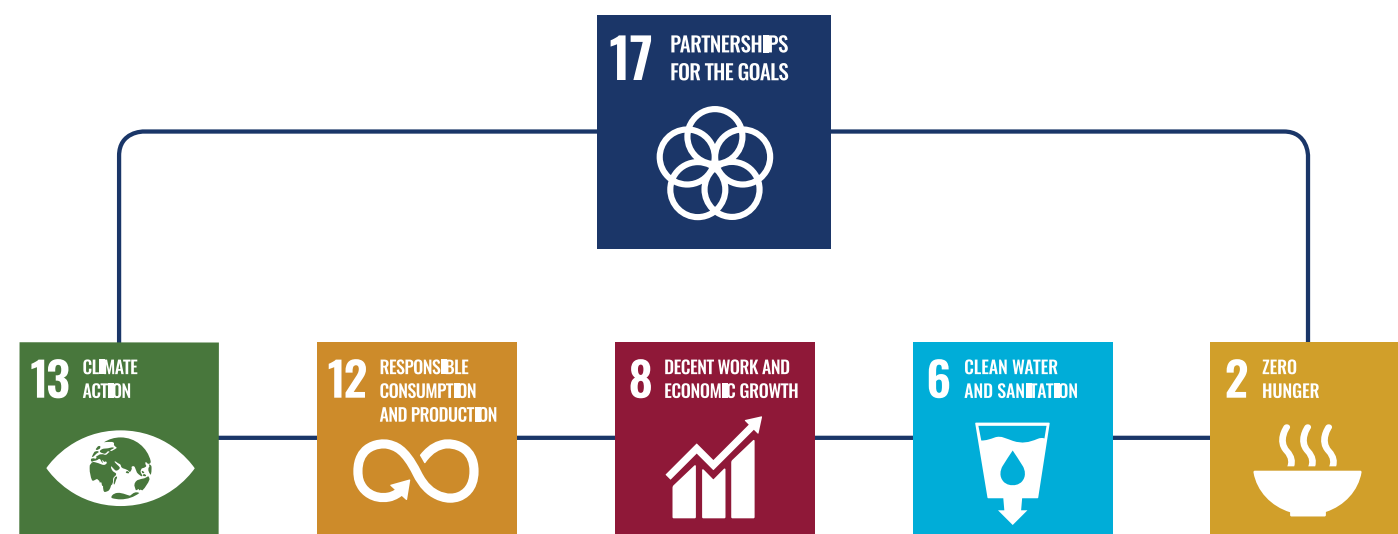
“We have finalised a set of milestones and targets for these goals and are formulating various projects that will deliver accordingly. While our first milestone is 2025, we are already looking ahead to 2030. AECI’s

sustainability goals will continue to be informed by those of the United Nations and the needs of the individual countries where we operate. By definition, therefore, the process is an iterative one,” said Mark Dytor.

“Supported by the AECI Growth Office and our ongoing innovation drive, new processes, products and technologies that can be scaled sustainably in the future are also being explored,” he added.

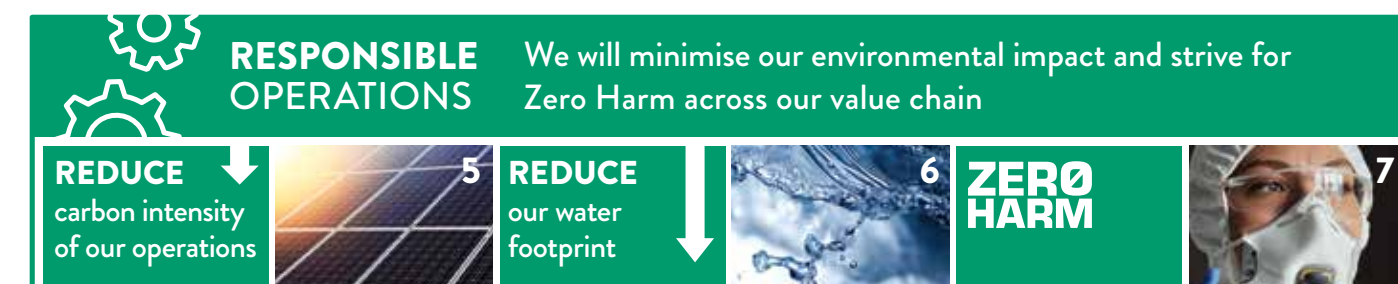
THE SIX 2025 TARGETS ARE:

- Potable water consumption – 25% decrease
- Discharge to sea or sewers – 20% decrease
- Carbon footprint – 20% decrease in Scope 1 emissions
- Total Recordable Incident Rate (TRIR) – <0,25
- Moderate environmental incidents – 24% decrease
- Electricity from renewables – 8% increase (we have already committed to installing four solar plants at key South African operational sites)



SUSTAINABILITY FRAMEWORK

We will drive innovation and growth in support of the SDGs



Tangible examples of what we have already achieved on our Sustainability journey are covered in the Sustainability Report. Highlights include:

- Cutting waste by recycling packaging
- Desalinating water in the Western Cape and saving 2 000 factory jobs
- Developing green chemistry for homecare and personal care brands
- Extending shelf-life and improving the affordability of healthy food
- Reclaiming 1,8 million tonnes of ash for bricks used to develop housing
- Recycling asphalt for the construction of roads

- Re-using water, including a R30 million state-of-the-art water treatment plant at AECI Mining Explosives in Modderfontein, which is saving the City of Joburg 400 million litres of potable water a year – enough for 4 624 people annually (see page 32 for more)
- Supporting a digital trading platform for emerging- and smallholder farmers (see page 38 for more)
- Using waste oil instead of diesel in products for the mining industry

View the Report at www.aeciworld.com/sustainability.

EIGHT WAYS AECI IS SHAPING A BETTER WORLD OF FOOD SECURITY

good chemistry

Three AECI strategic pillars are actively engaged in delivering better farming, nutrition and productivity as well as water systems for communities, farms and industry. Together, AECI Food & Beverage, AECI Plant Health and AECI Water touch nearly every piece of the value chain – from farm to fork!

According to the United Nations, one in nine people do not have enough to eat and one-third of all food produced goes to waste. This is mirrored in Africa where hunger and malnutrition as well as diet-related diseases and food waste are a daily reality, exacerbated by the COVID-19 pandemic.

At the same time, precision irrigation should become the norm in South Africa where irrigation accounts for 70% of total water consumption. Agricultural exports also face particular risk as some European customers are seeking to track “embedded water” used in upstream agricultural production.

Helping address these challenges through our significant scientific and technological capability and capacity is the essence of our commitment to a better world of food security.



01.

IMPROVING YIELD BY WORKING WITH NATURE FOR SUSTAINABLE AGRICULTURE

AECI Plant Health's holistic NuWay® methodology uses precision analysis, remote sensing and tailored chemistry to address long-term soil health. This enhances agricultural output and delivers healthier crops. An example is Biocult which uses mycorrhizae to improve plant nutrition as well as soil biology and chemistry.

Through R&D, we are exploring future opportunities to improve the quality and quantity of produce by using specially treated water from boreholes, dams and rivers for irrigation.



02.

REDUCING THE VOLUME OF WATER NEEDED FOR IRRIGATION WITHOUT COMPROMISING YIELDS

AECI Plant Health has secured SupPlant technology, whereby precision sensors on individual plants reflect exact moisture requirements and feed the data to a control centre for irrigation. To date, there are 13 installations on 435 hectares. The objective is to expand the offering to 7 000 hectares by 2025.

AECI Plant Health and AECI Water are exploring how water treatment technologies can reduce the volume of water needed for irrigation purposes without compromising yields, while AECI Food & Beverage is targeting water conservation opportunities in the dairy industry.



03.

MAKING FARMING MORE INCLUSIVE

AECI Plant Health supports emerging- and smallholder farmers.

In Malawi, we have developed Nyonga input packs that include seeds, fertiliser, crop protection products and personal protection equipment. These packs are distributed through multinational companies that contract smallholder farmers to produce cotton, maize, pigeon pea and tobacco.

In South Africa, the Khula App digital trading platform is another offering that facilitates upstream and downstream commercial activity. Our wide range of plant and soil health products and services are available on Khula. Currently, 4 200 emerging farmers are registered and the medium-term goal is 50 000. Read more on page 38.



04.

MAKING FOOD HEALTHIER AND MORE AFFORDABLE

Ingredients for affordable basic foods

Lower-income consumers spend a disproportionately high percentage of their total income on food.

AECI Food & Beverage supplies a range of specialty cultures used in the production of Amasi and Mageu, offering affordable on-the-go-nutrition. We also supply a range of functional ingredients used in the production of low-cost processed meat products that are an affordable, readily available, tasty source of protein. A healthier dairy fruit juice blend is coming soon.

Affordable alternative proteins

Global growth in demand for protein, coupled with the rising environmental impact of conventional animal farming and shifting

consumer ethics, have led to a growing protein gap and increased demand for alternatives.

AECI Food & Beverage supplies a range of products from collagen, hemp, keratin, peas, rice and whey. We are also exploring the possibility of developing low-cost microbial protein.

Fortified and functional food ingredients

Recent medical research has made a connection between poor gut health and a number of chronic health conditions. Conversely, a healthy gut microbiome has been linked to improved health and wellbeing.

We supply a range of functional ingredients including clinically-proven Fibersol®, a dietary fibre.



05.

REDUCING FOOD WASTE

AECI Food & Beverage supplies natural alternatives to artificial preservatives that extend shelf-life. An example is Fresh-Q®, a bio-preservative that naturally reduces the development of mould in dairy.



06.

REDISTRIBUTING UNSOLD FOOD

Through the donation of flowbins, AECI Food & Beverage helps a charity in Cape Town redistribute unsold food from grocery shops to people in need.



08.

FOOD SECURITY DURING COVID-19

Through iPledge, an internal crowdfunding initiative, we raised R3,5 million in 2020 to address food security challenges. 12 315 needy families received food parcels by the end of the year.



07.

REDUCING THE NEED FOR CHEMICALS AND WATER AS CLEANING MATERIALS WHEN TRANSPORTING LIQUID FOOD PRODUCTS

We are the first to offer Mega-Inliner® in South Africa. This is a fully recyclable liner which allows liquid food products to be packed without the need to clean a tank container with extensive quantities of chemicals and water. A trial was undertaken recently with a large beverage company and the results are promising.

AECI AND ORIGIN MATERIALS ANNOUNCE TWO NEW PROJECTS FOR “A BETTER WORLD”

AECI and Origin Materials (Origin) of the USA have expanded their joint development agreement to include low-carbon materials based on renewable chemistry. AECI has been a strategic investor in Origin, the world's leading carbon-negative materials company, since 2017.

The new projects involve AECI SANS Fibers, a global player in engineered thread for high-performance apparel and automotive applications, and AECI Much Asphalt, southern Africa's largest commercial asphalt producer for road infrastructure.



The aim is to develop, industrialise and manufacture advanced materials from Origin's carbon-negative technology platform (making use of inexpensive, sustainable wood residues). AECI SANS Fibers will buy Origin's carbon-negative PET and next-generation polymers for end products like clothing and footwear as well as automotive sewing thread.

The partnership is also expected to provide stable pricing largely decoupled from the oil supply chain, which is exposed to more volatility than supply chains based on sustainable wood residues.



For AECI Much Asphalt, the partnership is the next step in reducing the business's carbon footprint.

Several years ago, AECI Much Asphalt re-engineered manufacturing processes to include up to 40% reclaimed asphalt in the final product mix. Since 2012, this has avoided the impact of mining more than 1 million tonnes of aggregate and refining 53 500 tonnes of bitumen. Because bitumen is derived from petroleum processing, the development

of a low-carbon alternative based on Origin's technology platform is expected to substantially reduce the products' overall environmental impact.

Recycling is so successful that it is included as a requirement in some road tenders in South Africa.

Commenting on the partnerships, Mark Dytter said, “AECI and Origin are committed to innovative, sustainable solutions that will help bring the world to net zero carbon emissions. We expect that the two projects will result in a meaningful reduction in carbon emissions.”

“The Origin partnership is aligned with our 2025 strategy which has sustainability at its core and exemplifies our brand promise of enabling “a better world” through our products and services.”

A WINNING COMPANY

At the CAIA Awards in late 2020, AECI won three of five categories: Company Initiative of the Year, Responsible Care® and Sustained High Performance. Runner-up awards were also received in three categories: Company Initiative of the Year, Sustained High Performance and Corporate Social Responsibility (CSR) Initiative of the Year. We triumphed against other industry leaders like BASF, BME, Dow, Omnia and Sasol.

AWARD	AWARDEE
Responsible Care® Award	AECI Mining Explosives <i>Acknowledged for improvements over 10 years including reductions in explosives waste, improved plant efficiencies and lower emissions.</i>
Responsible Care® Sustained High Performance Award – Category A	AECI Mining Explosives (winner) and AECI Mining Chemicals (runner-up) <i>Acknowledged on the basis of the number of times they appear in the top 10% for all selected indicators and averaged for each of the three years being assessed. The total score is determined by adding the averages over the three years.</i>
Initiative of the Year Award – CSR	AECI Water (runner-up) <i>Acknowledged for the Hammanskraal community water project which was showcased in a previous issue of Our World.</i>
Initiative of the Year Award – Company	AECI (winner) and AECI Water (runner-up) <i>AECI was acknowledged for the Zero Harm strategy launched in 2017 and AECI Water was acknowledged for its role in reducing point source emissions and the environmental footprint at the Umbogintwini Industrial Complex.</i>

The South African chemical industry is represented by the Chemical and Allied Industries' Association (CAIA) which has 135 members including chemical manufacturers, traders and industry service providers. CAIA is part of a worldwide network of chemical industry associations and seeks to promote the continual improvement of performance in the safety, health and environmental (SHE) arenas. The other key objective is to boost productivity and competitiveness of the industry in South Africa, thereby enhancing its sustainability. CAIA is the custodian of the global Responsible Care® initiative launched in South Africa in 1994. Through this initiative, companies make a formal public commitment to improvements in SHE performance. The Responsible Care® Awards are held annually.



As a long-standing member of CAIA, AECI plays an active role in committees and forums namely:

CAIA Board
Mark Dytter is a member.

Responsible Care® Standing Committee
Neil Franklin, Group Safety, Health and Environment Manager is a member.

Process Safety Forums and other Committees
Several AECI representatives are active participants.

SAFETY IMPROVEMENT PLAN LAUNCHED

A Safety Improvement Plan has been launched. This follows a life-altering injury sustained by one of our employees in December 2020 and the emergence of more safety concerns in 2021.



**Become a
ZERO HERO
and achieve
ZERO HARM!**

Things you should know about me:

**01
I AM**

- Focused
- Engaged
- Caring
- Cautious
- Observant
- Prepared

**02
I DO**

- ZERO-IN! to assess risks
- Plan tasks
- Apply Life Saving and Critical Safe Behaviours
- Stop unsafe work
- Report incidents

**03
I LIKE**

- Sending people home safely everyday
- People to be ZERO HEROES
- Teams to achieve ZERO HARM!



TOGETHER WE ASPIRE TO OPERATE SUSTAINABLY, WITHOUT HARM TO PEOPLE, THE ENVIRONMENT AND THE COMMUNITIES IN WHICH WE OPERATE.

CRITICAL SAFE BEHAVIOURS

 CONDUCT PRE-JOB PREPARATION	 KEEP CLEAR FROM NIP POINTS	 FOLLOW MANUAL HANDLING AND LIFTING TECHNIQUES
 STAY CLEAR OF LINE OF FIRE	 USE SAFE TOOLS AND EQUIPMENT	 AVOID AWKWARD BODY POSITIONING
 KEEP EYES ON PATH/TASK	 CONDUCT SAFE PUSHING/PULLING	 MAINTAIN GOOD HOUSEKEEPING
 ASSESS AND USE SAFE WALKING AND WORK SURFACES	 OBTAIN REQUIRED WORK PERMIT	 APPLY AND ADHERE TO WARNING SYSTEMS
 ALWAYS USE YOUR PPE	 SECURE YOURSELF WHEN WORKING AT HEIGHTS	 CONDUCT ISOLATION AND ZERO ENERGY TESTING



APPLY CRITICAL SAFE BEHAVIOURS TO BECOME A ZERO HERO AND ACHIEVE ZERO HARM!

Safety performance is measured as the Total Recordable Incident Rate (TRIR), which measures the rate at which injuries occur in relation to hours worked. The message is very simple: if the TRIR goes up, we are hurting more people. At the end of December 2020, the Group's TRIR was 0,42. In February this year there were no less than eight recordable injuries and the TRIR fell to 0,46. Significantly, the AECI Executive Committee has agreed a TRIR under 0,30 as the goal for 2021. A TRIR under 0,25 is the goal for 2025.

"I know good work is continuing in a number of Zero Harm focus areas, but safety is now the overriding priority," said Mark Dytor.

The Safety Improvement Plan comprises seven areas:

- 1. VISIBLE LEADERSHIP ON PLANTS**
All managers, supervisors and SHEQ teams need to be highly visible on a regular basis. It is extremely important that there is engagement across the board and that concerns or undesirable behaviour are addressed.
- 2. EMBED LIFE SAVING AND CRITICAL SAFE BEHAVIOURS**
We must embed the Life Saving Behaviours and implement a revised set of Critical Safe Behaviours aimed at preventing injuries of any kind.
- 3. RE-INVIGORATE ENERGY FOR ZERO HARM**
We have introduced Captain Zero in an extensive campaign to make safety awareness and commitment top of mind for everyone, the same as we did when we launched Zero Harm.
- 4. SKILLS DEVELOPMENT AND SAFETY TRAINING**
- 5. CONTINUOUS RISK ASSESSMENT (ZERO-IN AND PRE-TASK RISK ASSESSMENT)**
We are standardising our Continuous Risk Assessment process to enable every employee to assess tasks properly before starting them and while executing them.
- 6. INCIDENT MANAGEMENT (INVESTIGATIONS AND EMBEDDING LEARNING)**
We need to improve the quality of investigations into incidents and truly learn from them. A new and standardised procedure was approved in December. We must start applying it and addressing the root causes of incidents.
- 7. PRIORITY PROCESS SAFETY IMPROVEMENT AREAS**

"Accountability for roll-out of the plan will lie with the leadership teams in each Group business and function and with the SHEQ experts. However, each and every one of us needs to play our part. I encourage you to make suggestions for improvements and report all levels of incidents. Please also remember that you have the right and an obligation to stop unsafe work," said Neil Franklin.

"Responsibility for our own safety and wellbeing and that of our colleagues is embedded in our BIGGER values. Irresponsible behaviour and the injuries that result from this behaviour are not in line with our values. Nor is it in line with our Zero Harm vision," he added.

A LOOK BACK ON THE JOURNEY SO FAR

2017

We defined our goal "to operate sustainably, without harm to people, the environment and the communities in which we operate", developed a strategy and roadmap and launched our journey to Zero Harm.

2018

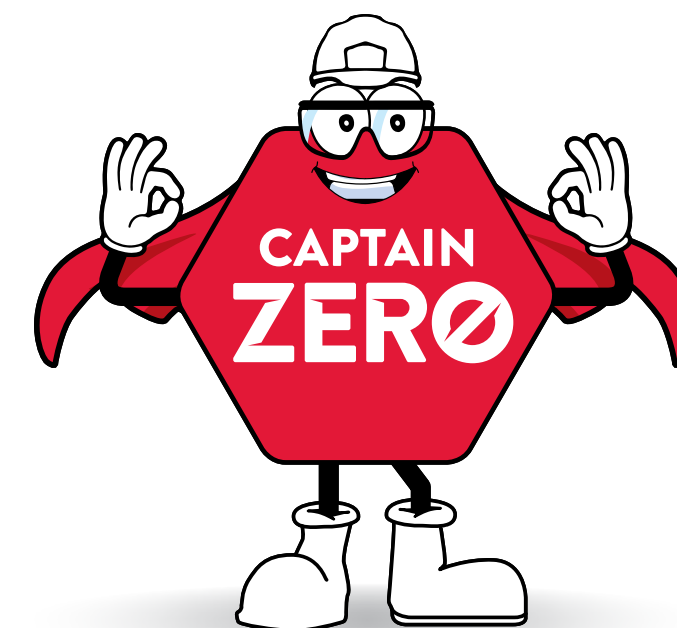
The Board and senior leadership fully endorsed and supported the strategy, employee-led syndicate groups developed a standardised approach to managing SHEQ and the businesses embraced the journey to Zero Harm in unique ways. AECI Much Asphalt and AECI Schirm were also on-boarded.

2019

To help leaders and teams evaluate and improve their roadmaps to Zero Harm, we launched the Group SHEQ Policy, Framework and Maturity Self-assessment Tool as well as the Life Saving Behaviours. Quarterly meetings and standardised reporting tracked progress.

2020

The COVID-19 pandemic tested our resilience to stay on track, but we were up to the challenge! We finalised our standardised SHEQ Incident Management Procedure and risk management processes, and defined standard risk categories for a bottom-up view of all high risks across the Group. Notably, we won the CAIA Award for Company Initiative of the Year, recognising our Zero Harm strategy and how we are making the chemical industry safer.





A TOP EMPLOYER IN SOUTH AFRICA

AECI has been recognised as a Top Employer in South Africa. We join more than 1700 Top Employers in 120 countries on five continents in being recognised and certified. Together, Top Employers positively impact the lives of nearly seven million employees globally!

The Top Employers Institute programme certifies companies based on participation in and results of its HR Best Practices Survey. The survey covers six HR domains including 20 topics such as People Strategy, Work Environment, Talent Acquisition, Learning, Wellbeing and Diversity and Inclusion.

It is the global authority on recognising excellence in people practices and helps accelerate them to enrich the world of work.

Top Employers Institute Chief Executive Officer, David Plink, said “Despite the challenging year we all experienced in 2020, AECI continued to demonstrate the power of putting people first in the workplace. We are proud to share this year’s announcement and congratulate AECI on being certified.”

TOP EMPLOYER SHOWCASES AN ORGANISATION’S DEDICATION TO A BETTER WORLD OF WORK THROUGH EXCELLENT HR POLICIES AND PEOPLE PRACTICES.



AECI Connect

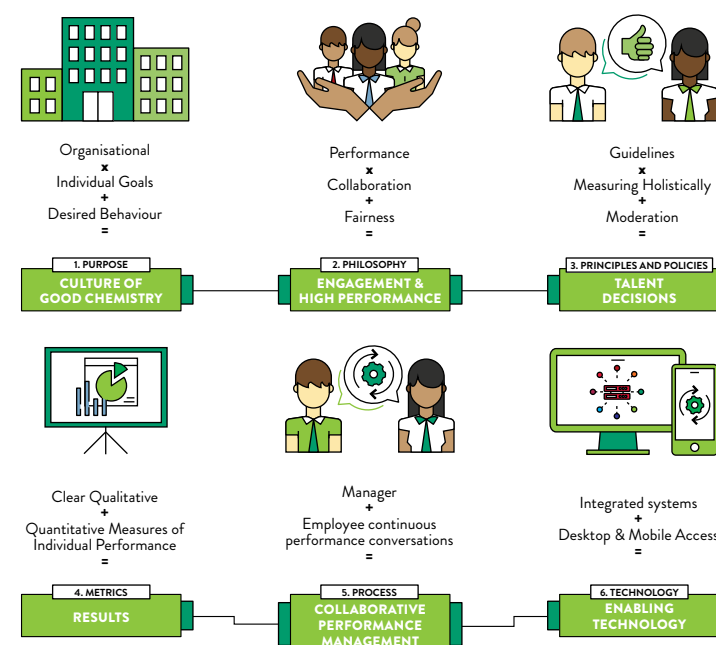
PERFORMANCE MANAGEMENT IS LIVE

CONTINUOUSLY STRIVING TO IMPROVE PEOPLE PRACTICES

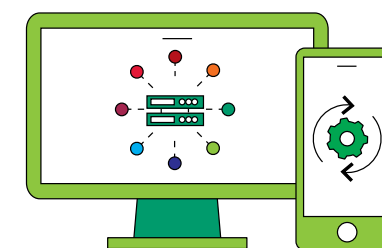
AECI’s Performance Management system has been renewed, including a Performance Management model as well as a new system on AECI Connect that enables a collaborative and ongoing process for continuous improvement. This is one of AECI’s tools for developing a high-performance culture, helping employees achieve their goals and delivering organisational results. For the time being, the online Performance Management is only available to some employees (C level and above). Training for everyone participating in the related online processes is available in AECI Connect’s learning module. There is information regarding the model and system as well as how to manage employee and personal performance.

THE MODEL

A new Performance Management model will provide guidelines and support throughout the process.



**GEAR UP FOR SUCCESS | SET YOUR GOALS
HAVE ONGOING CONVERSATIONS
FOCUS ON DEVELOPMENT
RECEIVE MEANINGFUL FEEDBACK**



THE SYSTEM

Fully integrated as part of the AECI Connect platform, the new system will facilitate a collaborative annual process between employees and Managers.



... AND YOU

Look out for the exciting and participative eLearning programme coming your way – remember you can also do the training on your mobile device.

In addition, classroom training sessions will be conducted on site by Human Capital in your business.



AECI EMPLOYEE ASSISTANCE PROGRAMME FOR A BETTER WORLD OF WORK

Providing guidance and support to all our permanent employees and their dependents 24 | 7 | 365.

What is the AECI Employee Assistance Programme?

As a Top Employer in South Africa, AECI is committed to employee wellbeing. The AECI Employee Assistance Programme (EAP) is just one way this commitment is being put into practice.

Very simply, the EAP helps all our permanent employees and their dependents manage daily concerns and issues effectively, stopping them from building up and becoming overwhelming problems that can detract from quality of life at home and at work. A few examples are family, financial, legal or work concerns and issues that happen from time-to-time (and seemingly more frequently during the COVID-19 pandemic).

The EAP is provided by ICAS, the trusted provider of the most comprehensive range of preventative care and counselling services to over one million employees for 20 years. Services are available for the following:

- Bereavement/loss
- Debt management
- Depression
- Family concerns (divorce/separation, moving house, parenting, disability or illness of a family member)
- Gender-based violence
- Health and wellness (chronic pain or disability)
- Legal matters (divorce/separation or financial problems)
- Loneliness
- Stress
- Substance abuse and addiction (alcohol, drugs or gambling)
- Trauma
- Work worries

Advice and guidance are also available for Managers of employees needing help.

Services are totally confidential and free of charge.

To access them, please phone the AECI dedicated toll-free numbers:

T 0800 212 795 (South Africa)
T +27 11 459 2177 (International)

All cellphone and landline calls are free.

What can I expect when I call for assistance?



After you select the right EAP Professional for your particular concern or issue, you will be transferred to him or her. Choose from accountants and debt advisors, lawyers, psychologists, social workers and many other registered counselling professionals.



As part of the assessment, the EAP Professional will ask for personal information that remains totally **CONFIDENTIAL**. No matter what!



Please use the telephonic service as often as you need to. It is available 24 hours a day, seven days a week, 365 days a year. Remember that the service is free. So are all cellphone and landline calls.



The EAP Professional will need to know the reason for your call. He or she will ask questions that are necessary to check that you are not in any immediate danger or risk. Do not be afraid to answer honestly.



When the issue cannot be resolved telephonically, you will be referred for up to six free face-to-face counselling sessions. You decide the preferred language, location and times.

“Sometimes, just the act of venting is helpful. Counselling provides a safe haven for precisely that kind of free-ranging release. You can say things in the therapist’s office, with the therapist present, that would be incendiary or hurtful in your living room.”

- Laura Wasser, American attorney

#ChooseToChallenge BEYOND INTERNATIONAL WOMEN'S DAY

"Gender equality and an inclusive workplace are fundamental principles of how we strive to create "One AECI, for a better world". The same principles of being Engaged and Responsible are embedded in our BIGGER values," said Mark Dytor when he joined Head Office colleagues to mark International Women's Day in Johannesburg on Monday, 8 March.

"We must all commit to a gender-equal world and hold each other accountable. In doing so, we will eliminate exclusionary practices and celebrate all the women who are part of the AECI family and make an invaluable contribution to our Group on a daily basis," he added.

The theme for this year's International Women's Day was #ChooseToChallenge. According to the group who arranges the event globally, "a challenged world is an aware world and from challenge comes change." Accordingly, people were challenged to forge a gender-equal world by:

- Celebrating women's achievements
- Maintaining a gender-equal mindset
- Raising awareness against gender bias
- Taking action for gender equality

AECI's programme included e-mailers from Mark Dytor and Candice Watson, Group Executive: Human Capital as well as #ChooseToChallenge pledge signings and hand-raising selfies that showed commitment to #ChooseToChallenge by flagging issues of inequality. The #ChooseToChallenge pledges by AECI's Executives were:

- "I #ChooseToChallenge the leadership of AECI to embrace gender equality" – Mark Dytor
- "I #ChooseToChallenge gender biases and stereotypes" – Mark Kathan
- "I choose to maintain a gender-equal mindset" – Edwin Ludick
- "I choose to celebrate women's successes" – Dean Mulqueeny
- "I choose to help forge a gender-equal world" – Dean Murray
- "I choose to forge positive visibility for women" – Candice Watson

There was also an opportunity to attend an online conference on gender intelligence which covered changing workplace strategies such as the freelancer and gig economy, diversity lessons from the COVID-19 pandemic and women's health in the workplace.

International Women's Day is a global occasion, celebrated annually on 8 March to commemorate the cultural, political and socio-economic achievements of women and bring attention to issues such as gender equality, reproductive rights and violence against women. The day was first marked well over a century ago with an event in 1911 supported by over a million people! Today, International Women's Day belongs to all groups collectively, everywhere.

CAPTIONS

Top-right: Mark Kathan (Chief Financial Officer: AECI) signs the #ChooseToChallenge pledge.
Bottom-right: Kerry Campbell (Group Wellness Consultant: AECI) embraces the #ChooseToChallenge theme.



CAPTIONS

Bottom-left: The MMDP winning group. From left: Lerato Mahlasela (GIBS Executive Director: Corporate Education), Jacques Strydom, Nthabiseng Modikwa, Zoliswa Manaka, Clint Papers and Mark Dytor (Owen De Wet was absent).
Bottom-right: The SMDP winning group. From left: Dr Roze Phillips (GIBS Executive Director: Value Creation), Joe Frates, Sudesh Ramnath, Stephen Thotobolo and Mark Dytor (Moatshe Motheo and Janine Reddi were absent).

THE GIBS CLASS OF 2020

78% of the 115 employees originally registered on the Foundation Management Development Programme (FMDP), Middle Management Development Programme (MMDP) and Senior Management Development Programme (SMDP) graduated in April. Small ceremonies were held at AECI Head Office in Johannesburg where all the necessary COVID-19 rules were duly observed.

There were 53 employees from the FMDP, 22 from the MMDP and 15 from the SMDP. The top three per class were:

FMDP GROUP 1

- 1st – Jasper van der Westhuizen, Branch Manager: AECI Much Asphalt
- 2nd – Melissa-Ann Jew – Group SHEQ Manager: AECI Much Asphalt
- 3rd – Anabela Ferreira – Section Buyer: AECI Mining Explosives

FMDP GROUP 2

- 1st – Sianesh Ramjas, Market Researcher: AECI Mining Explosives
- 2nd – Natalene Govender, Technical Manager: AECI Industrial Chemicals
- 3rd – Nokukhanya Masilela, Vendor Manager: AECI Mining Explosives

MMDP

- 1st – Jacques Strydom, Technical Manager (Personal Care and Homecare): AECI Specialty Chemicals
- 2nd – Owen De Wet, Regional Manager: AECI Plant Health
- 3rd – Zoliswa Manaka, Shift Manager: AECI Mining Explosives



SMDP

- 1st – Dr Megan Miller-Shaw, Research & Development Manager: AECI Mining Chemicals
- 2nd – Janine Reddi, Senior Legal Counsel: AECI
- 3rd – Joe Frates, Operations Manager: AECI Mining Chemicals

The two winning groups were:

EAGLES OF AFRICA FOR MMDP

- Owen De Wet, Regional Manager: AECI Plant Health
- Zoliswa Manaka, Shift Manager: AECI Mining Explosives
- Nthabiseng Modikwa, Product Manager: AECI Specialty Chemicals
- Clint Papers, Product Manager: AECI Water
- Jacques Strydom, Technical Manager (Personal Care and Homecare): AECI Specialty Chemicals

The title of their winning action learning project was "The impact of moving to One AECI" where recommendations were made on migrating the portfolio of brands.

IGNITION FOR SMDP

- Joe Frates, Operations Manager: AECI Mining Chemicals
- Motheo Moatshe, Business Development Manager: AECI Animal Health
- Sudesh Ramnath, Plant Accountant Nitrates: AECI Mining Explosives
- Janine Reddi, Senior Legal Counsel: AECI
- Stephen Thotobolo, Product Manager: AECI Water

The title of their winning action learning project was "Building a sustainably-conscious AECI" and included a strategy for a more resource-efficient and sustainably-conscious company through a "reduce, re-use and recycle" philosophy (specifically in terms of carbon emissions, water and waste).

The class of 2020 said that the COVID-19 pandemic challenged everyone, particularly two participants who were required to dial in from Botswana and Zimbabwe to make sure they were able to keep up and contribute to the action learning projects and presentations. Generally, however, they all agreed that they experienced kindness and support from the beginning. Now that they have finished their courses, there has been a change of thinking in their approach to their work and they have a renewed sense of confidence. The knowledge-sharing and support from AECI's Executives was particularly valued.

Mark Dytor and Lerato Mahlasela, GIBS Executive Director: Corporate Education echoed that learning needs to continue beyond the classroom. They implored the graduates to "lift as they rise" in their careers. Mark urged them all to play their part in giving meaning and effect to the "One AECI, for a better world" purpose-led strategy.





iPLEDGE FEEDS THE HUNGRY

A crowdfunding initiative by AECI during the COVID-19 pandemic helped raise R3,5 million for 12 315 food parcels by December 2020. Supported by our Executives and Non-executive Directors alike as well as our businesses, CSI funds, employees, shareholders and suppliers, we gave hope to beneficiaries in 32 areas across South Africa:

EASTERN CAPE (2)

- Burgersdorp
- Mdantsane

FREE STATE (3)

- Sasolburg
- Thaba 'Nchu
- Zamdela

GAUTENG (8)

- Alexandra
- Benoni
- Ekurhuleni
- Eldorado Park
- Hammanskraal
- Kagiso
- Klipfontein
- Thembisa

KWAZULU-NATAL (5)

- Ezimbokodweni
- Folweni
- KwaMakhutha
- Umbogintwini
- Umlazi

LIMPOPO (3)

- Blouberg
- Hlanganani
- Musina

MPUMALANGA (3)

- eMalahleni
- Hhoyi Village
- Likazi

NORTH WEST (3)

- Brits
- Klerksdorp
- Mankwe

WESTERN CAPE (5)

- Bonteheuwel
- Dunoos
- Kuils River
- Mitchell's Plain
- Parow

To make sure the food parcels were received by the needy, we partnered with Joint Aid Management (JAM) SA and the Nelson Mandela Foundation.

JAM is a humanitarian relief and development organisation operating in Angola, Mozambique, Rwanda, South Africa, South Sudan, Uganda and Sierra Leone, while the Nelson Mandela Foundation's "Each 1 Feed 1" campaign partnered with the Siya Kolisi Foundation to bring emergency relief to families seriously affected by the ability to earn an income during lockdown.

For every R287 received, we were able to support a family of five for a month! This was made possible because of special pricing offered by major chains like Boxer and Pick n Pay.

The iPledge winter campaign has been launched and we are hoping to supply care packs to people in need. Each pack is R350 and includes non-perishable foods, a beanie, blanket and scarf and a pair of gloves and socks. Our CSI Funds have already committed R900 000 which will reach 2 500 people. Employees who would like to give may do so via AECI Connect or by EFT to the Tiso AEL Development Trust or JAM which is responsible for managing the campaign.

MOVERS AND SHAKERS



NEW NON-EXECUTIVE DIRECTOR

Marna Roets joined the Board and the Audit and Remuneration Committees on 1 June 2020. She is a member of the Integrated Chemicals Financial Review Committee (FRC) and in March 2021 she was also appointed to the AECI Captive Insurance FRC.

Marna has more than 30 years' experience in auditing, banking, business, corporate finance and financial services, and advises companies regarding business, compliance and expansion. She was an Audit Partner at PwC before serving in various Executive capacities at major banking groups on the African continent for 18 years. Marna is a Non-executive Director and shareholder of No More Plastic, a company that manufactures biodegradable products.



NEW CEO AT AECI SCHIRM

Trevor Roberts is the new Chief Executive Officer at AECI Schirm. He served in an interim capacity before.

At the end of 2018, Trevor moved to AECI Schirm as Chief Operating Officer, and he and his family have made Germany their home. In 2020, he led the operational team that delivered all the business' strategic objectives for the year.

Trevor joined AECI in 1999, spending the majority of his time at AECI Mining Explosives where he was ultimately appointed to that business' Executive Committee with responsibility for marketing, strategic capital projects, sourcing and supply chain. This enabled him to gain international experience including in the USA, Indonesia, China, Australia and Africa.

Before moving to Germany, Trevor was Head of AECI's Group Strategic Sourcing function. Here, he and his team successfully facilitated a centralised procurement initiatives, leveraging synergies in the delivery of cost-savings for the whole Group.



NEIL FRANKLIN JOINS THE SAFEX BOARD

Neil Franklin has been elected to the Board of Governors for SAFEX International, a non-profit organisation involved in sharing SHE information regarding any topic that can prevent unwanted explosives incidents. An "incident" is any unplanned event or near-event that has the potential for harm and therefore includes "accidents". The exchange of members' experiences reduces the risks associated with the manufacture and use of explosives. Ultimately, this helps protect people, property and the environment from hazards and ensuing damage.

SAFEX has been going since 1954 and Neil loves the organisation's manifesto, written in 1953, that "the exchange of experiences to prevent work accidents is a humanitarian task, a moral and social mission and no effort undertaken for this purpose can be considered as too great". He is looking forward to the part he can play in driving best practices in the industry.

A RECORD-SHATTERING ACHIEVEMENT

By addressing issues of sensitivity and shear, AECI Mining Explosives has successfully delivered a record-breaking 980m Emulsion Vertical Drop System (EVDS) which is 277% deeper than the previous best of 260m. This has been done for Non-Ferrous China Africa's (NFCA) Chambishi mine in Zambia's Copperbelt Province, one of the largest underground mines in the country.

The EVDS delivers emulsion to an underground storage facility via a borehole piping system. At 980m, there were two key issues:

1. The products are shear sensitive and deteriorate when exposed to shear. Pumping over long distances introduces shear which can reduce the product's useability and lead to pipe blockages
2. In the event of a pipe blockage in a vertical line, there is a possibility that hydrostatic pressure exceeding the minimum burning pressure will build up, increasing the product's sensitivity

(Shear sensitive liquids change viscosity when under stress or pressure. Some liquids become less viscous with increased force (called shear thinning) and others become more viscous with increased force (called shear thickening).)

AECI Mining Explosives developed a new emulsion that minimises the effects of shear and rheology models that predict flow under specific conditions.

The EVDS was chosen as a means of improving the mine's cost-effectiveness, particularly in freeing up cage time for increased lifting capacity and more seamless inventory management. Previously, the mine used bulk emulsion cassettes that were loaded on the surface and transported via the cage network to each level. This compromised quality and was costly and time-consuming. Delays caused by cage times, double handling and spillages were commonplace.

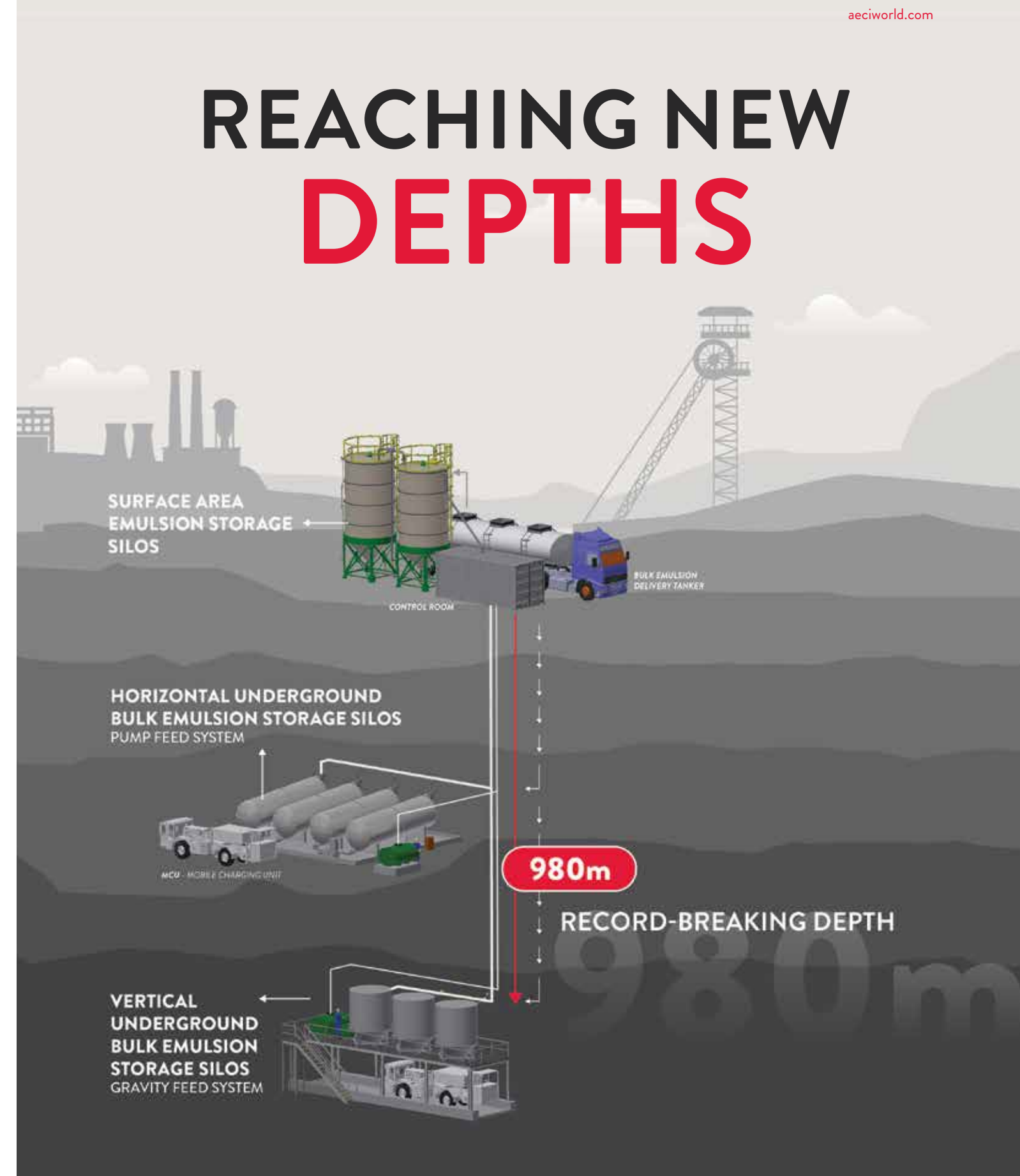
The process design and product testing were managed by AECI Mining Explosives and ELB Engineering, the business's EVDS technology partner, while the Zambian team paved the way for a successful installation and project outcome. To get the ball rolling, AECI Mining Explosives analysed NFCA's blasting schedule, product demand and space available to provide optimal surface and underground storage capacity and a tailor-made delivery system. Various installation options were considered to meet the mine's requirements and, importantly, to ensure that the system could be operated safely and sustainably.

The NFCA contract was signed at the end of July 2018 and work commenced on 1 January 2019. The project scope included the supply and delivery of all plant and equipment, the preparation of the site, drilling the borehole, blasting the underground cavities, installation and commissioning. The installation was finalised at the end of January 2020, on time and within budget. On 5 February 2020, the first emulsion was dropped to the 680m mining level followed by a drop to 980m the next day. The system was available at full capacity immediately and continues to operate the same way.

The key benefits for NFCA are:

- Improved safety
- Seamless inventory control
- Reduced interface with explosives
- Optimised ordering, delivery and refilling of charging units
- Reduced asset wear, maintenance and fuel
- Reduced risk of theft
- Reduced labour resources and time

"This is an exciting opportunity for the industry globally and confirms we are leading the way in the delivery of innovative technology for Better Mining that is safe and more sustainable," said Edwin Ludick, Group Executive: AECI Mining.



Our formulations have the capability to be transferred safely, efficiently and cost-effectively to record-breaking depths.

FIGHTING ILLICIT EXPLOSIVES

In the fight against the illegal use of explosives in South Africa, AECI Mining Explosives has partnered with Vapor Wake K9 South Africa (VWK9SA), the largest locally-owned and fully operational explosives detection patrol K9 company.

VWK9SA was provided with explosives samples to assist in training dogs by AECI Mining Explosives. VWK9SA makes available world-class Vapor Wake® K9 trained dogs specialised in explosives and narcotics detection, as well as tactically trained dogs for security purposes.

Vapor Wake® is a scientifically-based method for selecting, training and employing dogs for the detection of hand-carried and body-worn hazardous materials such as explosives devices. Dogs are trained to follow the scent – or vapour – of odours.

Criminal activities that involve the use of illegal explosives include cash-in-transit heists and ATM bombings. Terrorist attacks using explosives also endanger public safety on a large scale and can severely impact the economic and political stability of a country. The fast detection of explosives from the vapour phase enhances the protection of society. To mitigate the risk further, VWK9SA also provides immediate and specialised response to bomb threats where unattended packages at airports, for example, or other dangerous items are detected.

Training is conducted in environments that include interiors, exteriors, vehicles, confined spaces and moving targets that are human and non-human as well as a variety of distracting scenarios and real-life settings such as airports, fire departments, casinos, schools, homes and businesses.

According to Brad Wood, VWK9SA's owner, Vapour Wake® K9 teams are the most effective counter-measure available for the detection of explosives and are experts in searching for a variety of these materials. Teams comprise a SACAA-certified K9 and handler.

“AECI’s involvement in this initiative goes a long way to strengthening our training regime, which is really important in fulfilling our mandate,” said Brad.

Samples of commercial explosives are crucial in training the dogs.

The products supplied by AECI Mining Explosives range from pyrotechnics to propellants and other types of high-impact explosives. “We are not supplying commercial explosives for this application. Instead, we have committed to preparing explosive compounds in a registered explosives laboratory,” said Christo Peltz, Risk and Safety Manager: AECI Mining Explosives. Conversely the materials used in terror attacks, for example, are sometimes prepared in illegal basement/backyard operations and can be inherently unstable, dangerous and not available commercially.

“We have the ability to produce these energetic materials in a licensed, controlled and safe manner, provide small, safe amounts and dispose of them legally once their purpose has been served,” said Christo.

CAPTIONS

Top: Back row, from left: Moya Boss, Gideon Treurnich, Colonel Roberts, Barry Bateman, Barry Wood, Meggan Beeka, Johannes Mngomezulu and Darryl Milner and front row, from left Tyrel Phillips, Fred and Chelsea Mercado (all VWK9SA).
Bottom: Michelle Le Roux (Marketing and Communications Manager: AECI Mining) with Tyrel Phillips, Brad Wood and Darryl Milner (all VWK9SA).



The compound amounts required for training the dogs are small, with just a few grams of each being sufficient. Those receiving the explosives are in possession of an explosives permit, issued by the SAPS Explosives Inspectorate. This permit stipulates the quantity and type of material that may be provided and recipients have the legal obligation to store the products in a safe and secure manner. VWK9SA is fully accredited by the Safety and Security Sector Education and Training Authority, the SAPS Explosives Section and the South African Civil Aviation Authority.



NEW WATER TREATMENT PLANT FOR AECI MINING EXPLOSIVES

A R30 million state-of-the-art water treatment plant at AECI Mining Explosives' nitrates manufacturing facility in Modderfontein, Johannesburg is saving the city 400 million litres of potable water a year, which is enough for 4 624 people annually!

CAPTION

The plant at Modderfontein.

This is only the beginning according to Dean Mulqueeny, Group Executive: AECI Water who is on a mission to move industry off the potable water grid as far as possible. The aim is to replace one billion litres over the next five years! "To get the ball rolling, we are working with other AECI Group businesses on water recycling projects, specifically in Chloorkop, Sasolburg and Umbogintwini where we have large-scale manufacturing operations. Test work is currently being done to enable front-end engineering design," said Dean.

As far as the AECI Mining Explosives project is concerned, there were three water sources available:

- Process sewage effluent (PSE) water
- Effluent water from site run-off
- Cooling tower blowdown from the No. 9 and No. 11 Nitric Acid plants' cooling towers

Since each source has different chemistry, different technologies were applied to ensure they were all treated properly and sustainably. A unique approach was designed and developed including three technology "blocks", namely:

DISSOLVED AIR FLOTATION (DAF)

DAF reduces precipitated phosphates and suspended solids.

ULTRAFILTRATION (UF)

UF removes proteins, suspended solids and turbidity as well as most bacteria and some viruses. At AECI Mining Explosives, the three UF "trains" installed were aquasource, membrane and submerged systems.

REVERSE OSMOSIS (RO)

RO removes dissolved ions and lowers the dissolved salt concentration. The treated water is then stored in a tank before being distributed to the cooling towers and demineralisation plant.

Among the benefits for AECI Mining Explosives are:

- Cost savings of approximately R11/m³
- Less potable water usage, alleviating pressure on the water network and enabling "business with purpose"
- Less waste water discharged from site, leading to additional savings in operating expenses

This success story shows AECI's collective commitment to shaping "a better world" in line with the global sustainability agenda. May there be many more in the future.



A BUSINESS WITH PURPOSE

AECI Water has embraced the new Group strategy and vision of shaping “a better world” through the launch of Project Purpose which aims to leverage the business’ ecosystem to address issues of food and water security in South Africa – and beyond.

CAPTION

Bottom: From left: Panyaza Lesufi (MEC: Gauteng Department of Education), Bernette Sekati (Public Water Executive: AECI Water) and Estelle Janse van Rensburg (Project Coordinator: AECI Water).

Key drivers of the project are South Africa’s predicted water shortfall of 17% by 2030, as well as AECI’s sustainability goal of zero-liquid discharge from manufacturing facilities by 2030. In addition to projects executed or in planning for Group sites, work has also been done for the City of Tshwane, eThekweni Municipality and Ravele Village, reaching nearly 10 000 people. Furthermore, 19 new proposals/tenders with a value of over R300 million have been submitted, including:

- Potable water reduction for a refinery
- Borehole water treatment in Gauteng and Limpopo
- Desalination plants in two coastal provinces
- Water improvement in specific basins in Limpopo

Moving forward, the main goals of Project Purpose are to:

- Improve access to drinking water for all
- Reduce the use of potable water for non-drinking purposes
- Improve the quality of discharged effluent/water
- Drive and enhance environmental and societal benefits

These goals will be achieved by:

- Implementing closed loop systems for water recycling and re-use
- Implementing reduced treatment loads for better quality of discharged water
- Implementing and improving alternative sources of sustainable water supply
- Maximising the use of abundant and legacy water sources (e.g. acid mine drainage and desalination)
- Applying appropriate water qualities for specific applications (fit-for-purpose rather than potable for everything)

Key focus areas are:

- Public water (e.g. municipalities, schools and utilities)
- Private water (e.g. chemical plants and refineries)
- Mining, including acid mine drainage



“SELLING WITH PURPOSE” - VIRTUALLY

Five online training sessions were offered to employees at AECI Water. All the sessions were well-received and everyone who completed the training during 2020 successfully received a certificate.

“The value of this training is a common focus, common goals and a common language as well as clear processes that are in line with our BIGGER values and the future of the bigger and better AECI Water,” said Dean Mulqueeny, Group Executive responsible for this pillar. “Employees are given the opportunity to improve their personal credibility and performance to advance their careers and better themselves. Successful completion of training entitles them to lifetime membership with the training provider and access to online funnel management software called SCOUT.”

- **Introduction to “selling with purpose”**
106 people attended the one-hour session. The presentation and videos are available on my.aeciworld.com and will be used for on-boarding sales people in the future.
- **Opportunity scorecard workshop**
63 people attended the two-hour session. The scorecard was designed and developed by members of AECI Water’s Executive and Sales Managers and the training includes terminology specific to the scorecard as well as an overview of this scorecard.
- **Strategic Selling® with perspective workshop**
Everyone involved in sales attended the four half-day sessions. They are now using the “Blue Sheets” and the opportunity scorecard to populate AECI Water’s sales funnel. The latter will soon be visible in SCOUT, designed to run the sales process.
- **Funnel management and coaching**
This session focused on the methodology for analysing opportunities in the sales funnel to enhance sales performance. The coaching supported the overall strategy to reinforce consistent and proper application of the “selling with purpose” process. The programme adopts a mentor approach with the objective of guiding the ongoing use of the tools provided in the training.
- **LAMP®**
This Large Account Management module is a customer-centric business planning process for managing strategic relationships.

CAPTIONS

Top: Letlaka Sebata (Head of Public Water: AECI Water).
Bottom-left: Potable water plant for the Mkhizwana community in the Valley of a Thousand Hills.
Bottom-right: Inside the potable water plant for the Mkhizwana community.

NEW HEAD OF PUBLIC WATER

Letlakana Sebata is the new Head of Public Water, reporting to Bernette Sekati, Sales Executive: Public Water. Letlakana’s public water experience was entrenched at Ekurhuleni Water Care Company (ERWAT) and Johannesburg Water. At ERWAT he was a Project Manager, responsible for new business. He also participated in bid committees and qualified in the Municipal Financial Management Act (MFMA).

At Johannesburg Water, Letlakana managed the Innovation and Technology Department, where he approved the Innovation strategy and focused on collaboration with ecosystem partners like the Department of Science and Innovation, WRC, CSIR, SALGA, Rand Water, the Innovation Hub and Sci-Bono as well as other government departments, municipalities, universities and utility providers to improve efficiency and effectiveness through technology. He also participated in the City’s committees dealing with, among others, green building policy development, climate change, alternative water and energy sources, smart cities and sanitation policy.

One recent project in the Public Water space was for the eThekweni Municipality, upgrading a 1,5 Mℓ/day potable water plant for the Mkhizwana community in the Valley of a Thousand Hills. According to the tender documentation, the upgrade was necessary due to increasing water demand in the areas supplied and entailed a 2,7 Mℓ/day increase from the treatment capacity of 1,3 Mℓ/day. The upgrade of the water treatment works was the first step towards uplifting the community, where the majority of people have no formal employment. Governmental social grants, pensions and informal trading are their only income.

The project has improved the quality and quantity of potable water available while reducing the water losses previously experienced. Short-term benefits included temporary employment for local labour and long-term benefits include the potential to expand the availability of formal housing as a result of better infrastructure.



INVESTMENT IN INNOVATIVE AGRI-TECH START-UP

AECI has acquired a minority shareholding in Khula App, a South African agri-tech start-up and App-based digital trading platform.

Initially, this award-winning innovation focused on helping emerging farmers sell their produce through a network of off-takers across the country and beyond South Africa's borders. It has since expanded and now provides emerging farmers with access to important agri-inputs and accompanying agronomical advice vital for building a successful farming venture. AECI Plant Health has commercial exclusivity to supply inputs that include agrochemicals, plant nutrition products, seeds and other related application equipment and is also providing technical support.

For AECI Plant Health, the Khula platform enables greater access to the growing emerging farmer customer base that is becoming increasingly important in the social, economic and political context of South Africa. There are an estimated 200 000 emerging farmers with a potential spend on agri-inputs between R10 000 and R250 000 per annum (depending on farm size and crop type). Through the power of a digital platform, Khula is overcoming traditional barriers such as the fragmented distribution of these farmers (which drives high cost to serve relative to size), the availability of financing, the perceived lack of skills to farm and the limited availability of market data.

As pointed out by Quintin Cross, Managing Executive: AECI Plant Health, the market place is changing and Khula has been identified as a strategic partner in the development of a digital trading market place for farming of the future.

Khula has very attractive fundamentals, a sizeable addressable market, App development capabilities, key agri-business networks and a management team that works well with AECI.

"It is an exciting opportunity for us to digitally reposition ourselves in the agri-input market space, leveraging our product, technical and distribution capabilities," said Quintin. It aligns well with our corporate social investment and community outreach and supports the United Nations SDGs of zero hunger, responsible consumption and production, and job creation.

"We also believe that Khula together with AECI's involvement in multiple industries will be an attractive option for other South African companies, commercial farmers and government departments wanting to drive their enterprise development, CSI and community initiatives."

Khula intends developing the South African market further before turning attention to other African countries where small-scale and subsistence farmers face similar challenges when trying to improve their businesses.

CAPTION

Karidas Tshintsholo (Co-founder: Khula App).



FIELD TRIALS FEED THE HUNGRY

Field trials on the banks of the Gwaing River near Blanco, George in the Western Cape helped AECI Plant Health boost food security during COVID-19. Vegetables grown were donated to three soup kitchens in the Knysna district. These were Magdaleentjie Crèche, Tinkerland Crèche and Lovelight Radiancé. Some families in Blanco also benefited.

The field trials started in 2018 and all crops have been donated to charity organisations from the outset. The need to help poor families and pre-schools became even more pressing during the pandemic and AECI Plant Health responded by growing even more vegetables. These included potatoes, tomatoes, green beans, cabbages, peas, bell peppers and sweetcorn.

The children at the crèches love receiving the potatoes especially because they know it means fried chips prepared by their teachers!

In the field trials, AECI Plant Health's products are applied on a variety of crops. They run from seedlings or transplanting of seedlings to harvest on field trial research sites that belong to Biological Crop Health.

CAPTIONS

Top-right: Sweetcorn for Magdaleentjie Crèche.
Middle-right: Potatoes for Magdaleentjie Crèche.
Bottom: Green beans for Lovelight Radiancé.



CAPTIONS

Top-right: Jessica Bonin's vegetable garden on the slopes of Table Mountain in Cape Town.
Bottom: From left: Nkanyiso Ngubane and Nothando Shangase from Dukathole Farm.

In keeping with the food security and Better Food Systems sustainability themes, AECI Plant Health ran a "Green fingers in lockdown" competition as a means of "dealing with the bewildering loss of normality" and "expressing belief in tomorrow". People were encouraged to show what they planted and nurtured during lockdown.

The winners were Nkanyiso Ngubane and Nothando Shangase, co-owners of Dukathole Farm in New Hanover in the uMgungundlovu district of KwaZulu-Natal in South Africa. Shortly after lockdown, they decided to stick to their programme of sowing cucumber seeds in tunnels. "Restaurants are a major market for us so when lockdown restrictions took effect we had to rearrange our business quickly to ensure that there was still income to cover expenses. As we adjusted, we realised our role in society more clearly. There is no time to stop and lick any wounds. So we will continue to do what we do best, which is feeding the nation. It has been a journey worth taking and AECI Plant Health has made life easier by providing agrochemicals and fertilisers as well as hands-on support from technicians who are a phone call away," said Nkanyiso.

Other winners were Surita Badenhorst, a Human Capital Associate at AECI, who grew beautiful tomatoes and Cape Town resident Jessica Bonin, who conducted an experiment to see how viable it would be to create her own vegetable garden with limited time and resources. After assessing three major criteria, namely water/irrigation, sun and soil, she chose a lot of leafy greens and her garden is thriving.



SUPPLANT ROLLS ON IN LIMPOPO

21% yield increase in year one

In previous issues of Our World we have showcased the latest technology from SupPlant. Now AECI Plant Health has completed the first macadamia orchard installation in the world! Although the team's main focus was to maintain constant fruit and trunk growth during drought, heat waves and rain, the technology has also helped the farmer increase his yield by no less than 21% in year one. The real results will be even more visible in year two. The farmer is a very happy customer and wants to increase his SupPlant installation five-fold.



CAPTION

Top: The Zalash brand is made by one of Ethiopia's largest cosmetic manufacturing companies.
Middle: Thureya Sarlie (Sales Executive: AECI Specialty Chemicals) (middle) and Ketul Patel (Business Development Partner for Kenya: AECI Specialty Chemicals) (right) visit a customer's factory in Ethiopia.
Bottom: The AECI Specialty Chemicals technical team, from left: Lydia Letsoalo (Technical Service Chemist), Jacques Strydom (Technical Manager) and Davina Pillay (Microbiologist).

SEIZING THE OPPORTUNITY IN AFRICA

Manufacturing and technology solutions that require minimal energy and skill are just some of the ways that AECI Specialty Chemicals is seizing the opportunity to grow its personal care and home care offering in East Africa, particularly Ethiopia, Kenya and Uganda where the business has been developing presence and reach since 2019.

The most recent project involved formulating "masstige" body lotions for one of the largest cosmetic manufacturing companies in Ethiopia. The Zalash brand includes body and hair oil, shampoo & conditioner, and Vaseline. Cold press technology that is easy to deploy and manufacture with minimal energy and skill were key to the formulation process which took place at AECI Chem Park in Chloorkop, South Africa.

"Masstige" products are defined as "premium but attainable" and there are two key tenets: (1) they are considered luxury or premium products and (2) they have price points that fill the gap between mid-market and super premium.

This is very appropriate in the personal care industry where:

- Africa is home to the youngest population in the world (more than half of the continent's one billion people are below the age of 20)
- There is a large growing "middle class"
- Access to education means more women are pursuing careers and have extra income and spending power to "invest" in beauty and personal care

Under the leadership of Sales Executive, Thureya Sarlie, AECI Specialty Chemicals frequently visits key customers and employs someone in Kenya who understands local market dynamics.

The business has also received support from technology partner, Dow, to extend distribution in East Africa. Dow has an existing footprint in the region and the business's expertise is being leveraged accordingly.



HELLO MEGA-INLINER®

AECI is the first in Africa to offer the eco-friendly, globally patented Mega-Inliner® supply chain system to the continent's burgeoning food and beverage industry. A number of leading brands are already lining up, including The Coca-Cola Company.

Very simply, the Mega-Inliner® supply chain system includes a bag and a tank container. The bag which is placed in an empty tank container for filling with any non-hazardous liquids such as food and beverages as well as animal feeds and chemicals.

The high-barrier seven-layer film bag is 100% recyclable and also impermeable. This means that there is no cross-contamination, no oxidation and no saturation (or desaturation), thus ensuring the integrity and quality of the liquid being transported. Barely any liquid remains when the bag is emptied by means of compressed air, reducing unnecessary waste for improved manufacturing efficiency and value for money.

Measuring 118cm by 30cm and weighing up to 23kg, a Mega-Inliner® bag can be handled by one person. It takes approximately five minutes to put in a tank container and 15 minutes to take out.

The Mega-Inliner® tank container can be transported by rail, road and ship, cooling or heating systems can be fitted, and loads can be followed

anywhere in the world through track and trace technology. While the capacity of each Mega-Inliner® tank container is 25 000ℓ, a two-in-one compartmentalised tank version is in development for smaller volumes of 10 300ℓ each.

Since all the liquid goes in the bag, the tank container stays clean with no wear and tear. The need for cleaning chemicals, facilities and personnel is removed. No cleaning also means there are significant water savings. Without Mega-Inliner®, approximately 2 000ℓ of water are used to clean a single tank container. It has been calculated that with the Mega-Inliner® supply chain system, up to five billion litres of water could be saved around the world every year! This is enough water for 300 000 people in Africa or 1,3% of Cape Town's needs annually.

The Mega-Inliner® bag can only be used in a Mega-Inliner® tank container. However, all existing conventional tank containers that transport non-hazardous liquids can be modified with a few simple adjustments. Leaseback and sales solutions are available.

CAPTION

A Mega-Inliner® bag can be handled by one person. It takes approximately five minutes to put in the tank container and 15 minutes to take out.

This supply chain solution has received funding from an EU innovation and research programme and a number of accreditations and certifications are in progress including ISO 9001, ISO 22 000 and BRC. They will be finalised before 2023.

Coca-Cola has acknowledged that the Mega-Inliner® system “will reduce (their) carbon footprint”. Among the “huge positives” are:

- Fully recyclable
- No chemicals in the cleaning process
- No need for bulk storage (e.g. 200ℓ drums)
- Savings on drums, pallets and polyliners

According to Coca-Cola, the success of Mega-Inliner® lies in managing the system properly and reducing the number of empty return loads. “All this speaks to our 2030 and 2050 carbon footprint targets,” said Casper Kruger, Procurement Manager – Juice Africa, Coca-Cola Africa.

Roger Falck, Managing Executive: AECI Food & Beverage, said that Mega-Inliner® will help deliver AECI's strategy and vision of shaping “a better world” through the global sustainability agenda.

Sidon van Laarhoven, CEO and Founder: Mega-Inliner®, highlighted the incredible opportunity for African food and beverage brands seeking to do business in Europe where the system is well-recognised for enabling an eco-friendly supply chain.

At the moment, there are three Mega-Inliner® tank containers with cooling and heating systems operating in South Africa. Another 20 are expected in a year.

A summary of the benefits is as follows:

ECO-FRIENDLY

- 100% recyclable
- Infinite life cycle for tank containers
- Reduces CO₂ emissions
- Reduces packaging plastics for shipping by 95% when compared with cased goods
- Removes the use of cleaning chemicals and empty kilometres
- Avoids wasting 5 billion litres of drinking water annually

ECONOMIC

- Suitable for any non-hazardous liquid
- More litres per transport
- No loss of liquids
- Fraud-proof
- Always clean environment
- Simple planning and transport
- Fewer transport movements mean fewer lost hours
- Considerably lower transport costs
- No investment in own fleet needed
- No depreciation or maintenance
- Packing in units at destination
- Limited downtime or delay connecting inbound and outbound flows
- Immediate end to hours of cleaning and no empty kilometres to cleaning stations



WINNING THROUGH REMOTE TEAMWORK AT AECI SPRAYPAVE

When the multiple components for a new bitumen blending plant ordered by AECI Spraypave were dispatched from Texas in the USA to Cape Town in mid-March 2020, little did anyone know what was to follow. Not only was the plant the first of its kind in Africa, but a difficult assembly was going to prove even more challenging under lockdown restrictions.

Bitumen rubber is one of the products AECI Spraypave must produce to meet market need and the new blending plant provides this capability. While the mobile plant will be used initially at the business operation in Parow Industrial in Cape Town, it can be moved anywhere in South Africa in its containerised form. It comprises a 23 000ℓ aromatic/extender oil tank, a 67 000ℓ bitumen base tank, a 23 000ℓ diesel fuel tank and a CAT generator, all supplied locally and built onto two trailers for ease of site establishment. A blending unit and two 37 500ℓ reaction tanks were supplied by D&H Equipment in Blanco, Texas which was unable to send any technicians to help due to the closing of South Africa's borders.



What arrived resembled a giant puzzle of the various major individual components and a 6m-long container filled with consumables, parts and spares. A series of steps had to be followed painstakingly to get the plant up and running. Employees in Cape Town had to assemble the units with off-site help via site security cameras, phone calls, drawings and photographs of the components received by cellphone. Each step, from unpacking the parts to building pipelines, electrical work and assembly was communicated in detail prior to execution. This included regular video conferencing between D&H and AECI Spraypave. A D&H Manager also logged into the automated controls remotely to monitor the system from a distance of 14 500km! Commissioning and trials were done in the same way.

"The word teamwork takes on a new meaning when restrictions on personal movement necessitate that people all over the world work together remotely to achieve outcomes that would normally involve a multi-disciplinary team gathered on a single site. The skills required are no longer purely technical. Also vital is a high degree of patience as well as an excellent ability to communicate, listen and visualise the end result," said Eddie Jansen van Vuuren, Director: AECI Spraypave.



FREE TECHNICAL SKILLS FOR HAND-LAID ASPHALT CONTRACTORS

AECI Much Asphalt has presented free workshops to government departments, contractors and consultants, SMMEs and new entrants into the asphalt sector for nearly 15 years. The aim is to promote the sustainability of asphalt paving on South Africa's roads and help emerging contractors gain the skills to grow their businesses.

"First and foremost, we hope to facilitate the establishment of small enterprises and provide employment opportunities in the construction sector through skills transfer," said Bennie Greyling, Managing Director: AECI Much Asphalt. "At the same time, it is essential to establish a uniform, industry-wide standard for high quality hand-laid hot mix asphalt. All contractors should be able to deliver durable and cost-effective asphalt surfaces to their customers."

AECI Much Asphalt's Best Practice Workshop on Hand-Laid Hot Mix Asphalt provides practical instruction on techniques for the placement of hot mix asphalt by hand on small projects. Each delegate also receives a manual on the selection, use and application of AECI Much Asphalt's products and a certificate on completion of the course.

Last updated in 2018, the Best Practice Guide on Hand-Laid Hot Mix Asphalt provides step-by-step guidance and is a useful reference for the specifications and quality of finished asphalt surfaces. Hundreds of individuals have attended the training across South Africa since the workshops were launched in 2006. The COVID-19 lockdown resulted in a pause, but the workshop schedule will resume once it is safe to do so.

As an example, a course for SMME contractors was hosted near the company's Pomona branch in Kempton Park on a road where potholes needed repairing. Workshops have also been hosted in Empangeni, KwaZulu-Natal for the National African Federation for the Building Industry's mentorship programme where the Construction Industry Development Board-registered contractors were trained on asphalt patching, paving and mix type applications. Pictures from these learning interventions are below and on the next page.

"In the end, AECI Much Asphalt and the contractor placing our product have a joint responsibility for its quality," said Bennie. "We need to work together for the best outcomes and deliver Better Chemistry."



CAPTION

Scenes from the Hand-Laid Hot Mix Asphalt workshops.



Top: An example of an excavator at the B2Gold mine in Namibia.
Bottom: Screenshots from the App.

AECI SPECIALTY CHEMICALS DEPLOYS NEW TECHNOLOGY IN PREVENTATIVE MAINTENANCE

G-user preventative maintenance technology, developed in-house by AECI Specialty Chemicals, is ensuring minimal downtime on two excavators at the B2Gold mine in Namibia. The mining company is now receiving valuable data and machine operators are repairing faults as they occur, which was not the case before.

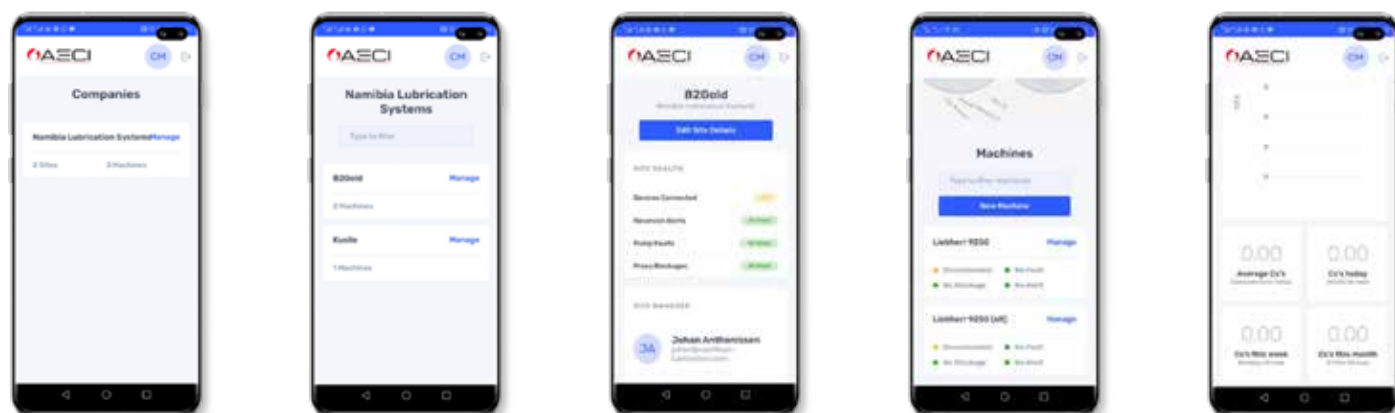
According to Pierre Mans, Business Development Manager: AECI Specialty Chemicals, G-user keeps everyone informed. "Previously, there was only a red light error when there was a fault, which the machine operator could simply reset or switch off to carry on working. If he did not physically report the fault, the maintenance personnel would be none the wiser."

Very simply, G-user is a cloud-based remote monitoring device for preventative maintenance, accessible from any desktop or mobile device via a web-based App. Data is sent to the cloud by means of the

built-in GSM or WiFi. An eSim is fitted for cross-border functionality. Because faults are reported as they occur, everyone receives information timeously and there is no unnecessary delay, failure or wear.

OTHER SPECIAL FEATURES ARE:

- Records the amount of grease or liquid that is used per day, per week or in any selected timeframe
- Works with external free sensors or switches such as pressure, temperature or proximity switches
- Controls the consumption of product on each of the assets, managing over- or under-usage and wastage
- Customised hardware and software can be designed and implemented for unique use cases in a shorter timeframe
- Reports fault codes live via SMS or e-mail reporting (e.g. low reservoir levels, no flow and blocked lines)



BETTER CHEMISTRY THAT KILLS COVID-19

AECI's range of hand sanitisers and surface disinfectants that protect people against the spread of SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2) have received important credentials confirming their efficacy and quality in the fight against COVID-19!

HAND SANITISERS

Developed in accordance with the World Health Organisation (WHO) guidelines for alcohol-based hand sanitisers, AECI Specialty Chemicals' hand sanitisers were awarded the South African National Standard (SANS) 490 by the South African Bureau of Standards (SABS).



Updated and published in October 2020, SANS 490 is a specific standard for alcohol-based hand sanitisers. The changes follow a significant rise in the number of fake test reports and SABS permits as well as incorrect "SABS Approved" logos in the wake of the COVID-19 pandemic.

The "SABS Approved" hand sanitisers bear the "SABS Approved" logo and the SANS 490 mark. They have undergone the following:

- Quality management system to ensure that the product is consistent throughout the production process
- Regular audits with samples – from the factory and retailers – to ensure that the product is consistent, fit-for-purpose and safe for use
- Vigorous tests to ensure that the product is compliant with SANS requirements

Current pack sizes are 1000ℓ, 25ℓ, 5ℓ and 500ml.

SURFACE DISINFECTANTS

The two surface disinfectants that are available, namely Concentrate and Ready-To-Use (RTU), were tested by SGS, the world's leading testing, inspection and certification company, in the United Arab Emirates (UAE). A report, proving that the products are effective against SARS-CoV-2, was received.



Locally, work has also been done on their efficacy against bacterial and spore-forming mould pathogens and a sales permit for the supply of

chemical disinfectant from the National Regulator for Compulsory Specifications (NRCS) is in place. The responsibility of the Department of Trade & Industry, the NRCS's mandate includes promoting public health and safety. This is achieved through the development and administration of technical regulations and compulsory specifications as well as market surveillance to ensure compliance.

The concentrate is available in 25ℓ and 5ℓ and RTU is available in 5ℓ and 1ℓ spray bottles.

As the impact of the COVID-19 pandemic led to the shutdown of some of our customers' operations in the first half of 2020, some of our businesses also slowed down or suspended their activities. This unplanned interruption gave us the opportunity to test our capability to respond innovatively and swiftly to an unforeseen challenge. We sought new adaptive opportunities and found good potential in the production and supply of sanitiser to aid in the response to the global pandemic.

AECI Specialty Chemicals took ethical responsibility to source pharmaceutical-grade ingredients, secure all required permits and permissions, and set up the necessary laboratory infrastructure for in-house product testing. Further, we worked with the WHO protocols to address any misinformation and ensure our hand sanitiser met credible criteria for efficacy and quality. The task was significant, but we were able to draw on our R&D capability, our network of employees, suppliers and buyers, and our relationships with industry authorities and bodies.

We launched our product publicly and made use of digital marketing channels to source new customers, sell products in bulk and donate to our employees, contractors and communities.

For its part, AECI Schirm in Germany, also rapidly deployed the manufacture of hand sanitiser and disinfectant to address the need to control the spread of COVID-19 in-country. Initially, a contract for the supply of 1,9 million litres was concluded with the German Department of Interior and executed in full. Thereafter, the business launched its own product range for the German market. Sales in other Eurozone countries could follow.



