

DENEL
INSIGHTS

First Issue - 2017



Denel Hosts Minister Mapisa-Nqakula and the National Defence Industry Council Workshop

Ms Nosiviwe Mapisa-Nqakula, Minister of Defence and Military Veterans; Mr Kevin Wakeford, CEO of Armscor; Mr Zwelakhe Ntshepe, acting Group CEO of Denel and Dr Sam Gulube, Secretary for Defence

DENEL GROUP VALUES



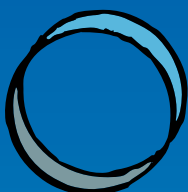
PERFORMANCE

WE EMBRACE OPERATIONAL EXCELLENCE.



INTEGRITY

WE ARE HONEST, TRUTHFUL AND ETHICAL.



INNOVATION

WE CREATE SUSTAINABLE INVESTMENT SOLUTIONS.



CARING

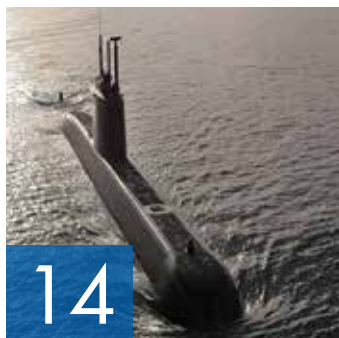
WE CARE FOR OUR PEOPLE, CUSTOMERS,
COMMUNITIES, NATIONS AND THE ENVIRONMENT.



ACCOUNTABILITY

WE TAKE RESPONSIBILITY FOR ALL OUR ACTIONS.

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Editor's Note

Let's hear from you!

Denel Insights is intended as a quarterly external communications platform to keep you – our stakeholders – informed about the programmes and developments taking place within the Corporate Office and business units of our Group. We would love to hear your comments and suggestions about stories on which you would like further updates.

Please email your letter to the editor to pamm@denel.co.za, and include your name and contact details.

We look forward to hearing from you.

Pamela Malinda



Ms Vuyelwa Qinga

We take great pride in these Denel employees who, individually or as a team, received due recognition at the 3rd Group CEO Award ceremony in May.

Editor-in-Chief

Denel staffers excel

It always makes one's heart swell with pride when employees, in simply going about their daily activities at work, actually go beyond the usual call of duty. In doing so, they are most likely not seeking reward; for them it is a question of giving their best for the benefit of Denel and its stakeholders.

We take great pride in these employees who, individually or as a team, received due recognition at the 3rd Group CEO Award ceremony in May. We invite you to read about their substantive contributions to the Group in this issue.

In the same vein of recognising excellence Denel celebrated the top academic performers from the Schools Outreach Programme (SOP) and our Group Bursary scheme, as well as the Denel Technical Academy at our Top Young Achiever awards function. Giving recognition to these achievers goes a long way towards motivating them for greater things in life, whilst also highlighting the success of Denel's investment in South Africa's youth through skills development to reduce the inequality gap and unemployment.

This social contribution from the Denel Group helped a group of school learners in the Free State province who were on the cusp of completing their secondary studies. With Denel providing

the "last minute push" by means of winter school enrichment programme, the learners were well prepared for the matric exams. This ultimately pushed them into the position of top achievers in the country for 2016.

This reinforces Denel's commitment to education, training and development. As our local global icon, Madiba once said: Education is the most powerful weapon which you can use to change the world.

True to our vision of taking Denel from "good to great", the consolidation process of the aerospace business was concluded. Denel Aviation and Denel Aerostructures SOC are now operating as Denel Aeronautics.

Enjoy this copy of Denel Insights and please continue to give us your feedback.

Vuyelwa Qinga

Group Executive: Communication & Public Affairs

We believe Denel has to continue playing its vital role in underpinning South Africa's self-sufficiency in advanced defence systems.

Mr Zwelakhe Ntshepe



Message from the Acting Group CEO

Outlook is bright

An important news item concerning Denel's business outlook in recent weeks was the Fitch ratings agency's affirmation of both Denel's national long-term rating and national short-term rating as positive. We believe Denel has to continue playing its vital role in underpinning South Africa's self-sufficiency in advanced defence systems. As such, the Fitch rating is an important indicator and is recognition that the fundamentals are in place for Denel to perform well.

Further evidence of Denel's positive business growth is the opportunity to cooperate with world renowned ThyssenKrupp Marine Systems (tkMS) in jointly supporting the SA Navy's frigates and submarines. This is a significant advantage for not only Denel's maritime division, but also for our technical personnel who will be trained in Germany. Other potential positive spinoffs for South Africa and the defence industry in particular will be the transfer of technology and supply chain opportunities.

Denel continues to innovate in the development of new weapon systems, notably in the field of infantry weapons, as we report in this issue. Our niche products and solutions attract much attention in the international market, as was evident at the IDEX 2017 exhibition in Abu Dhabi. With a view to improving on our offering to the market, the Group is committed to ongoing skills development and restructuring of the business units, as shown by the formation of Denel Aeronautics at the Kempton Park campus.

We are in the process of compiling the Denel Integrated Report for the financial year that ended on 31 March 2017. The results are promising under very trying conditions in the global market.

Zwelakhe Ntshepe

Acting Group CEO

Denel Hosts Minister Mapisa-Nqakula and the NDIC's Workshop

Following the launch last year of the National Defence Industry Council (NDIC), it was a privilege for Denel to host the Minister of Defence and Military Veterans, Ms Nosiviwe Mapisa-Nqakula, at the inaugural ministerial workshop of the NDIC in May.

A key discussion point was the Defence Industry Strategy that is intended to provide guidelines for productive government and defence industry cooperation and partnership. In Chapter 15 of the Defence Review 2014 it was recommended that a body be established to ensure the local defence industry received commendable government support to develop a footprint in the global defence market. This led to the formation of the NDIC, which also aims to build a strong skills base required for the sector to succeed, to create jobs and grow the economy on the back of the local defence industry.

With the Minister giving her full support, the NDIC workshop held at the Denel Land Systems campus in Lyttelton, deliberated the Defence Industry Strategy and the way forward. As a product of wide-ranging consultations between several government departments and the defence industry, the strategy contains provisions to stimulate local manufacturing. As Denel's acting Group CEO, Zwelakhe Ntshepe, noted:

"The strategy will open the defence industry for expanded participation by women, the youth and military veterans, and will also promote the growth of innovation in the South African defence

sector, whilst contributing to the building of a sustainable and profitable industry."

He took the opportunity to give the Minister an overview of Denel's renowned products in the landward, aeronautics, cyberspace and missile sectors. The Minister expressed her satisfaction with the contribution and progress made by South African industry.



Ms Nosiviwe Mapisa-Nqakula, Minister of Defence and Military Veterans; Mr Mthobisi Zondi, Chief Defence Materiel at the Department of Defence; Dr Sam Gulube, Secretary for Defence and Mr Zwelakhe Ntshepe, acting Group CEO of Denel

Launching Denel Aeronautics Campus



Denel Aeronautics employees and guests enjoy a Cheetah fly-past just before the official launch of the campus



Denel employees and SAAF stakeholders at the launch event



Mike Kgobe, CEO Denel Aeronautics with a SAAF representative and Nana Mabe, Group Stakeholder Relations Manager cutting the cake of the launch event

Having embarked on refining our Group strategy last year, Denel can announce that the consolidation of our Aviation and Aerostructures divisions has now been finalised. As of 31 March 2017, the campus at Kempton Park boasts the consolidated entity called 'Denel Aeronautics', which is operating in conjunction with Denel Aerostructures SOC Ltd.

By consolidating the two divisions Denel is targeting improved profitability and enhancing resource efficiencies. It further

optimally positions the new division to strategically focus on national programmes, including the Rooivalk combat helicopter upgrades and further developing the Small African Regional Aircraft flagship programme.

We wish to congratulate the Kempton Park campus management team for having successfully concluded this consolidation. This is one more concrete example of Denel realising our vision of moving the group from "Good to Great".

By consolidating the two divisions Denel is targeting improved profitability and enhancing resource efficiencies.

Fitch confirms Denel's rating as stable and positive

Fitch Ratings has affirmed both Denel's National Long-Term Rating and National Short-Term Rating as positive. The outlook for both ratings remains stable, with the National Long-Term Rating at 'AAA (zaf)' while the National Short-Term Rating is at 'F1+ (zaf)'.

Acting Group Chief Executive of Denel, Zwelakhe Ntshepe, has welcomed Fitch's decision to affirm both the long-term and short-term ratings.

"We noted the concerns expressed by Fitch about the government's guarantees to Denel, as well as government's reassurance to the ratings agency that these issues are receiving urgent attention at the highest levels," says Ntshepe.

As a state-owned defence and technology enterprise, Denel plays a vital role in ensuring South Africa's self-sufficiency in advanced defence systems. "We are confident that government will play a very critical role in ensuring that the company remains a viable business," Ntshepe said.

Fitch notes that the decision to affirm the ratings reflected the continuing strong links between Denel and the state – mainly driven by the government's irrevocable and unconditional guarantee for R1.85-billion of the company's R3-billion domestic medium-term notes. This guarantee expires on 30 September and Fitch has further noted that a decision not to extend this guarantee would result in a multi-notch downgrade for Denel's ratings.

The Fitch Ratings report notes that Denel continues to deliver a strong top-line performance, benefitting from organic growth. Its key land systems projects are ramping up from the design to the production stage and this portfolio of the group was further strengthened with the acquisition of Denel Vehicle Systems.

It expects a short-term decline in revenues and profitability during the past financial year, which can mostly be attributed to foreign exchange factors and delays on major contracts.

In the medium term Denel's performance will be affected by the group's restructuring plans and revenues will be suppressed by the future repositioning of divisions and products. However, Fitch expects that margins will improve resulting from the overhaul of the support cost structure.

Ntshepe said the company was particularly pleased with Fitch's positive comments about the current interim leadership of Denel.

Denel completes contract with Namibia

A substantial contract for delivery of armoured patrol vehicles and light-weight remote weapon systems to Namibia has been completed in recent months.

The contract consists of RG32M vehicles and the self-defence remotely-operated weapon (SDROW) weapon stations. According to Johan Steyn, Denel Vehicle Systems chief executive, the delivery to Namibia was completed in March 2017.

Over the years Denel Vehicle Systems exported the RG32M mine-resistant light armoured vehicle, which is still widely used by peacekeeping forces around the world. The latest version of the vehicle has been developed by Denel Vehicle Systems for the Namibian armed forces, making use of the experience



gained from the vehicle's deployment in other parts of Africa, Asia, the Middle East and the Balkans.

It can operate in a variety of roles and offers an ideal balance of protection and mobility. The vehicle transports five crew members with their kit and special purpose equipment. The four side doors and roof-mounted hatches allow easy entry and exit for both normal and emergency use.

The SDROW is a lightweight weapon system fitted with a light machine gun and is designed for easy installation on a

variety of vehicles and platforms. We featured the SDROW incorporating PMP's Strike weapon in Denel Insights last year, following its display at the Africa Aerospace and Defence exhibition (AAD 2016).

The system can be operated remotely by one crew member from under cover, including all weapon functions such as cocking, safety and firing. Depending on the selected weapon configuration the SDROW is effective against enemy targets at a range in excess of 600 metres.

Denel wows at top Middle Eastern defence show

Expectations of rapid growth in defence spending in the Middle East prompted Denel to highlight its world-class systems at the region's top defence exhibition held in the United Arab Emirates this year.

A report released earlier by international consultancy firm, Deloitte, projected a growth of more than 3% in global defence spend in 2017 after years of declining budgets. This growth would be particularly strong in the Middle East and North Africa (MENA) region where a number of countries were starting to acquire next generation military equipment.

Zwelakhe Ntshepe, Acting Group Chief Executive of Denel said the company's strong presence at IDEX 2017 in Abu Dhabi, United Arab Emirates (UAE) resulted in significant customer interest. "The Gulf region is very familiar with the quality of Denel's products, especially in the fields of artillery, armoured vehicles and munitions, and we intend building on this reputation by exhibiting our capabilities."

High-level decision-makers and defence industry leaders from Gulf countries, such as the UAE, Oman, Qatar, Kuwait and Saudi Arabia, regularly attend the biennial show. For Denel the Middle East has been a vital region for decades, resulting in the group now earning almost 60% of revenue from exports.

Denel Vehicle Systems recently started deliveries of its RG31 Mk5 mine-resistant vehicles to a client in the UAE, following on the heels of a similar contract to supply Denel's N35 4x4 armoured vehicles. Some of these vehicles were prominently shown as part of the UAE's own armed forces display at IDEX 2017. Interestingly, the precision-guided Al Tariq weapon system, jointly developed between Denel and its UAE subsidiary Tawazun Dynamics, was similarly a key feature on the Emirates Defense Industry Company's pavilion.

"Our reputation in the region is well-established based on the quality of



Chairman of the Denel Board, Mr Daniel Mantsha, Minister Ms Lynne Brown of Public Enterprises and Ambassador of the Republic of South Africa to the United Arab Emirates Mr MK Lekgoro

"Our reputation in the region is well-established based on the quality of landward defence products such as artillery systems, armoured vehicles and mine-resistant vehicles." said Ntshepe.

landward defence products such as artillery systems, armoured vehicles and mine-resistant vehicles," said Ntshepe. "As in years past, IDEX 2017 was a great opportunity for Denel to strengthen our reputation and create interest for other products in our portfolio."

Some of the products that attracted significant interest were the range of missiles from Denel Dynamics, including the Umkhonto-EIR surface-to-air missile, the A-Darter air-to-air missile and the Ingwe and Mokopa surface target missiles. A newly developed system, the Cheetah C-RAM surface-to-air missile manufactured by Denel Dynamics and Rheinmetall Defence Munitions (RDM), formed part of the Rheinmetall Air Defence stand. This system offers defence forces comprehensive counter-RAM (rocket, artillery and mortar) capabilities.

Having attracted much attention at AAD 2016, the iNkunzi PAW20 system was displayed by Denel PMP, alongside other Denel infantry weapons. The iNkunzi PAW20 is a 20x42mm semi-automatic weapon carried by a single soldier and is highly effective in modern urban warfare conditions at distance up to 800 metres. Both the weapon and the ammunition are manufactured by Denel PMP.

Denel Land Systems featured its newly developed DMG-5 machine gun in different variants, a range of 60mm mortar systems, and its NTW-20 anti-materiel rifle, which can be deployed against high value targets such as radar installations and parked aircraft, at range of more than 1 500 metres.

Whilst IDEX traditionally focuses on land and naval systems, Denel displayed scale models of the Rooivalk combat helicopter and the Oryx medium-sized utility helicopter to highlight the company's capabilities in aviation design, manufacturing, maintenance and repair.



GROUP CEO AWARDS 2017

Denel launched the Group CEO Awards in 2015 to celebrate and reward excellence across the Group based on our shared Group Values. Besides the five categories of previous years, two new categories were included to address some of the company's key priorities this year.

The 3rd Group CEO Awards function took the form of a gala event held in May in the Midrand Conference Centre, where the nominees with their partners, executive management and Denel stakeholders were present.

The DMG-5 Team from Denel Land Systems scored both the overall Group CEO **Rooivalk Excellence Award** and the **Airbus Innovation Award**. The team comprising Marumo Talane, Phindile Mashaba and Dakalo Nekhumbe, responded to the need from the market for a lighter general purpose machine gun (GPMG). Making various design changes to Denel's trusted SS-77 GPMG resulted in a reduction in mass from 10.3kg to 8.4kg, thus creating the lightest 7,62x51mm machine gun currently available on the market. With this innovation the three young engineers not only gained international recognition but also made Denel proud.

The **Munitions Performance Award** went to the Kenya Puma 406 Servicing Team from Denel Aviation (now Aeronautics). The team was required to carry out a complex 4P2 service on the Puma helicopter for the Kenyan Air Force,



Rooivalk Excellence Award and the Airbus Innovation Award
Marumo Talane, Phindile Mashaba and Dakalo Nekhumbe, awards winners and Zwelakhe Ntshepe, Acting Group CEO.



Munitions Performance Award
Phaladi Petje, CEO PMP; Kenny Molepo, Gerson Lambani, Forward Gumbanjera and Dean Louw, award winners and Zwelakhe Ntshepe, Acting Group CEO.

whilst saving on costs and ensuring the target date was brought forward as per customer request.

For Kenny Molepo, Gerson Lambani, Forward Gumbanjera and Dean Louw the project was ground breaking as it would be the first time that servicing of this scale had to be performed at the client's base and as a joint technical effort with the client. Though the work was scheduled over ten weeks, the team managed to conclude the project within six weeks. Despite many logical and technical challenges, they managed to save costs and improved relations with the client, who also benefited from invaluable on-the-job training for the Kenyan technical team. This achievement is likely to create



Umkhonto Integrity Award
Tsepo Monaheng, CEO Dynamics; Cindy Khutlisi and Riette van Biljon, award winners and Zwelakhe Ntshepe, Acting Group CEO.

potential business in future, as the client had the aircraft available for operational purposes on time.

Winners of the **Umkhonto Integrity Award** were Cindy Khutlisi and Riette van Biljon, the shipment team from Denel Dynamics.

By handling shipping related documentation with the utmost sensitivity and care, the team ensured validity and coherence with the rules and regulations required by local and international arms control authorities. The judges found their integrity goes above and beyond what is required of them to ensure that Denel Dynamics remains within the set parameters to avoid major findings from



Dr Thulani Dlamini, CEO of the CSIR and Mr Zwelakhe Ntshepe, acting Group CEO of Denel



Mr J Nell, Chairman of the CSIR Board of Directors and Lieutenant General V.R. Masondo, Chief Corporate Staff, South African National Defence Force



Casspir Caring Award

PMP Employees with Zwelakhe Ntshepe, Acting Group CEO and Thulani Mahlinza, HR Executive Land Systems.



G6 Accountability Award

Stephan Burger, CEO Land Systems; Takalani Mandiwana, award winner and Zwelakhe Ntshepe, Acting Group CEO.



RG31 Inclusivity Award

Vuyelwa Qinga, Group Executive Communication and Public Affairs; Henry van Wyk representing the team and Zwelakhe Ntshepe, Acting Group CEO.



Badger Transformation Award

Natasha Davies, Group Executive HR & Transformation; Rentia Geldenhuys, General Manager Industrial Properties and Zwelakhe Ntshepe, Acting Group CEO

auditors and thus having to pay penalties. Their commitment in doing the right thing at all times was shown in the way they perform their daily shipping responsibilities in a trustworthy and honest manner.

A team of PMP employees received the **Casspir Caring Award** for having saved a colleague's life after he had been involved in an accident outside the premises of PMP. Noticing the accident on their way to work, the team called for help from PMP and as first aiders put their skills to work in anticipation of medical help.

The winner of the **G6 Accountability Award** was Takalani Mandiwana from Denel Aviation.

He was required to service the Rooivalk combat helicopter used by the SAAF in the war-torn Goma region of the Democratic Republic of Congo (DRC), working with limited resources and under pressure to get the aircraft serviceable to resume military missions. The judges noted that he went beyond the call of duty by delivering the required technical support services to the best of his ability within very trying circumstances. His dedication strengthened relations with the client who was unable to get the aircraft to South Africa for maintenance.

For the new **RG31 Inclusivity Award** recognition was given to an employee/team that promoted and championed inclusivity. The winners were the Software Development Team of Overberg Test Range. The team has demonstrated that by working collaboratively the objectives of the section could be achieved in an environment where people of all backgrounds, individualities, cultures and perspectives feel valued. Despite losing seasoned personnel in the past five years due to retirement, promotion and loss of contract posts, they embraced the transformation ideals of the Group by

participating in recruiting young software developers. This has resulted in a diverse working group that is current in place at Overberg Test Range.

Henry van Wyk received the trophy on behalf of the Overberg team.

The other new award, namely the **Badger Transformation Award** was given to Denel Industrial Properties for demonstrating outstanding contribution and impact to the Group's transformation agenda. It was received by Rentia Geldenhuys, General Manager Industrial Properties.

In awarding the Group CEO Awards to individuals and teams, Denel gives recognition to employees who are living the Denel Group's PIICA (Performance, Integrity, Innovation, Caring and Accountability) values.



GROUP CEO
AWARDS

2017



GROUP CEO AWARD IN PICTURES





The “Bull” in Denel’s kraal gets even better

Denel PMP has now developed advanced versions of its iNkunzi PAW semi-automatic weapon.

The iNkunzi – which translates as “bull” – is regarded as one of the most effective personal area weapons on the market, resulting in strong interest among prospective clients to acquire the system. Phaladi Petje, chief executive of Denel PMP, says the 20mm iNkunzi PAW was designed to meet the needs of the modern combat soldier who requires a lightweight, yet highly effective, personal area weapon. It is carried by a single soldier who fires the weapon from the shoulder.

The new version – iNkunzi PAW A2 – benefits from a number of upgrades to improve the weapon’s stability and accuracy. By replacing the box cartridge magazine with a rotary magazine holding six rounds, the weapon’s balance is enhanced and adds to its efficiency. The gas operated

recoil system was also replaced by a new inertia-operating system.

As a highly accurate semi-automatic weapon firing 20mm bursting ammunition, the iNkunzi PAW is best deployed in modern urban warfare conditions, Petje says. It can also be used in rural or jungle combat terrains at distances of up to 1,000 metres.

The weapon is regarded as being a force multiplier, highly effective against thin-skinned vehicles, command posts, machine gun nests and radar installations.

Petje says there is already international interest in the upgraded version of the iNkunzi PAW and PMP is exploring further markets for the weapon and the ammunition. As reported elsewhere in this issue of Denel Insights, another version of the weapon, the iNkunzi Strike, was unveiled at the Africa Aerospace and Defence exhibition – AAD 2016 – last year. The iNkunzi Strike has been integrated into a

remotely operated weapon station, the SDROW, developed by Mechatronics, a division of Denel Vehicle Systems.

In this integrated configuration, the weapon system combines explosive power and accuracy in a compact package. The weapon and sighting systems are mounted on the vehicle’s exterior with a single operator safely under armour on the inside. It can fire up to 350 rounds a minute using the same 20x42mm bursting ammunition.

Petje says PMP is busy with the development of a tripod for the iNkunzi Strike which will enable forces to fire high volume bursts from outside the vehicle.

Celebrating top academic achievement in critical and scarce skills

Top academic performers from Denel's Schools Outreach Programme (SOP), the Group's Bursary scheme and the Denel Technical Academy were celebrated at the company's annual Top Young Achiever Awards function in Midrand earlier this year.

This key event on the Denel Group's Corporate Social Investment (CSI) calendar is intended to honour young people from historically disadvantaged backgrounds who get training and financial support from the company.

The Mpumalanga province's top achiever in Grade 11, the 17-year-old Silinda Manelisi, achieved a 98% pass for maths and 91% for physical science last year as a direct result of the extra tuition provided by Denel through the SOP in that province.

Bursary students in various engineering fields at South African universities collectively reaped more than 70 distinctions in the 2016 academic year. Among the top achieving bursary beneficiaries is 22-year-old Thato Tsabone from Pampierstad in the North West province and 21-year-old Milandro Mouton from Upington who received 10 and 9 distinctions respectively.

Mouton is an honours student in electronics and physics at the North-West University while Tsabone is now in his third year in Mechanical Engineering at the University of Pretoria.

Both Tsabone and Mouton were among the top young achievers from high schools in six provinces around the country, the Denel Technical Academy and local universities who were honoured at the function.

"Our bursary holders were, once again, among the top achievers nationally in the fields of science, engineering and technology," says Zwelakhe Ntshepe, Acting Group CEO of Denel. "We pride ourselves on Denel's ability to invest in

South Africa's youth, particularly those from historically disadvantaged backgrounds".

A total of 74 distinctions were achieved across the spectrum of engineering disciplines, including mechanical, electronic, electrical and aeronautical engineering.

No less than 450 learners in Grades 10 to 12 in Mpumalanga, Limpopo, KwaZulu-Natal, the North West, Eastern Cape and Gauteng benefited from the SOP extra tuition for Maths, Science, Life Sciences and English last year.

Learners who participate in the programmes can add an extra 65 learning days to their school calendar.

Among the guests who attended this prestigious event were the principals of the beneficiary schools, including Ms Nontsha Liwane-Mazengwe of Vaal Reefs Technical High School at Orkney in the North West, who delivered the keynote address. The school has been with the Denel SOP since its inception 12 years ago.

"Denel strongly supports South Africa's national goals to improve educational outcomes in science, technology, engineering and mathematics," says Ntshepe.

"Our aim is to contribute to the holistic education and development of young people from high school, through to universities, in the workplace through internships and up to the point where they can be employed at Denel or other high-tech companies."

Apprentices who train at the Denel Technical Academy in Kempton Park were also honoured at the awards function. The Academy offers tertiary training to more than 400 students who then continue to gain practical experience in industry before returning to Denel to qualify as apprentices.



Mr Zwelakhe Ntshepe, Acting Group CEO; Ms Khumbudzo Ntshavheni, Denel Board Member; Ms Lesego Selemela, Denel Technical Academy Top Student and Mr Mike Kgobe, CEO of Denel Aeronautics



Ms Vuyelwa Qinga, Group Executive: Communication and Public Affairs and Ms Nontsha Liwane Mazengwe, principal at Vaal Reefs Technical High in the North West



Ms Pinky Mahlangu, Denel Board Member with Manelisi Silinda, Schools Outreach Programme Top Learner and Mr Zwelakhe Ntshepe, Acting Group CEO



Schools Outreach Programme Top Learners representing various schools and provinces

Denel and ThyssenKrupp sign agreement to collaborate on submarine and frigate upgrades



As Denel is set to revive the naval dockyard facilities in Simonstown, the company is collaborating with ThyssenKrupp Marine Systems (tkMS) for joint support of the South African Navy's frigates and submarines. (The German firm stylises its brandname as thyssenKrupp AG, hence the acronym tkMS).

As a global supplier of world-class defence products and solutions, Denel signed a Memorandum of Understanding (MoU) with tkMS aboard the SAS Amatola in Rostock, Germany.

The cooperation is based on the recognition of the critical importance of the operational availability of the South African Navy fleet at all times.

Denel's Maritime division will take responsibility for maintenance and upgrades on three Heroine-class submarines (SAS Manthatisi, SAS Charlotte Maxeke and SAS Queen Modjadji) and four Valour-class frigates (SAS Amatola, SAS Isandlwana, SAS Spioenkop and SAS Mendi). The vessels were commissioned by the SA Navy between 2005 and 2008.

In terms of the agreement tkMS, the original manufacturer of the submarines

and frigates, will provide technical and shipyard support as subcontractors to Denel. This will include quality assurance and procurement, on-site technical support, the transfer of technology and the development of the local supply chain. Training of Denel's technical personnel will take place in Germany.

"This is a major breakthrough for the South African maritime sector as Denel becomes responsible for specialist services on some of the world's most-sophisticated submarines and frigates," says Zwelakhe Ntshepe, Acting Group CEO of Denel.

As original equipment manufacturer (OEM) of the SA Navy Meko A-200 frigates (Valour-class) and the SA Navy 209/1400mod submarines (Heroine-class), tkMS will provide general support with regard to the dockyard operations, infrastructure and maintenance. In addition, the company will provide technical support for maintenance, repair and overhaul (MRO) of the frigates and submarines in the dockyard, with all activities focused on ensuring that the SA Navy vessels are able to spend maximum time protecting South Africa's maritime territory.

"These vessels are the sharp end of South Africa's naval forces and the primary

protectors of our coastline against possible intruders and illegal incursions into our territorial waters," says Ntshepe.

"We are smoothing the waves for the growth of South Africa's future maritime and shipbuilding industries. The benefits of this agreement will cascade down into the Simonstown community, the Western Cape economy and the entire local defence and technology sectors," he said.

This is a major boost for Operation Phakisa, the government's broad strategy to develop the ocean economy and unlock the potential of the country's vast coastline. The experience that Denel is gaining on the pride of South Africa's naval fleet will soon become available for work on other state-owned vessels and thus enable Denel to expand into the commercial sector in the long term. The agreement with tkMS forms part of Denel Maritime's strategy to establish key strategic alliances in the maritime sector.

"Both tkMS and the South African Navy have demonstrated their confidence in Denel's ability to look after our country's most valuable naval assets. We are confident of our ability to take over these responsibilities," says Ntshepe.



Paying Tribute to South African Youth through Innovation and Advanced Technologies

Yes, we are South Africa's innovative and reliable supplier of strategic defence, aerospace and security products and services to local and international markets. Of course, we are a dynamic South African company that attracts and retains the best and brightest minds through our commitment to innovation and excellence. More importantly for us, however, is that while we value our heritage, we also remain unapologetically youthful in meeting the challenges of a rapidly changing technology environment.

- Our flagship Schools Outreach Programme has achieved a **100% Matric pass rate with university entrance** since 2005.
- In Gauteng, Denel volunteer engineers provide extra Maths and Science tuition on Saturdays to learners in township schools.
- We travel across the length and breadth of South Africa to **expose, guide and advise learners on Maths, Science and Technology** related careers.
- We host learners at our facilities during school holidays for exposure to our business, our talent and opportunities for young people.
- Our R500 million (2015-16) investment in training and development, bursary schemes, internship programme and contribution to Maths, Science and Technology education **move South Africa's Youth forward!**

Together, with the rest of South Africa, Denel pays tribute to the Youth of 1976. We commit to supporting our **"Youth Moving South Africa Forward."**



Denel adds 'final push' to achieving Free State matriculants



Richmond Malinga with the learners from the Free State



Mike Dzulane with some of the learners from the Free State

Matriculants in the southern Free State emerged as among the top achievers in the 2016 year-end results thanks to academic enrichment classes offered by young engineers from Denel.

It is noteworthy that the Xhariep District, one of the poorest parts of South Africa, produced the second-best results in the entire country. From being number 78 in the previous year (2015), Xhariep has become the best performing district in the Free State, thus contributing significantly towards the Free State chalking up a 93.2% pass rate in the National Senior Certificate exams.

This achievement comes on the back of a request from the Free State education department in mid-2016 for Denel to host winter camps and enrichment programmes to adequately prepare the matriculants for the year-end examinations.

"We are exceptionally proud of the contribution we made to help the Xhariep matriculants achieve these outstanding results," says Zwelakhe Ntshepe, Acting Group CEO of Denel. "This initiative demonstrated how a state-owned company such as Denel can work together with the education authorities and communities to meet national goals."

Engineers from three Denel divisions offered academic enrichment classes in the Free State towns of Trompsburg, Zastron, Fauresmith and Olien. During a four-day period they focused on mathematics subjects such as calculus and geometry, and taught science courses in mechanics and chemistry.

Just prior to the start of the matric exams the Denel team went back for a "final push" programme during the October holidays.

"Many of our young engineers also hail from rural communities or disadvantaged backgrounds," says Ntshepe. "They welcomed the opportunity to give back to

society and share their knowledge and experience."

Among the Denel professionals responsible for teaching were Jappie Monele, Neo Motshologane, Richmond Malinga, Mmakwena Ramatshela and Moorosi Motake, all employed by Denel Dynamics, South Africa's leading designer and manufacturer of unmanned aerial vehicles and missile systems. Other were Mike Dzulane and Murendani Randima who work at Denel Land Systems, Sibusiso Nkosi from Denel Aviation and Suna Kotole, who is a professional engineer at Denel PMP.

Ntshepe says Denel will build on the 2016 matric success and extend its educational support programmes to other districts in the Free State and others provinces. "We see this as an opportunity to contribute our skills and experience in the very important science and technology subjects in order for learners to make a success with further studies," he says.

Denel Road Race

The Denel Athletics Club hosted its annual Denel Road Race in March. With no less than 4,000 participants, the race that took place at the Denel Irene Campus under the auspices of the Gauteng North League Races, was a tremendous success.



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