



DENEL

INSIGHTS

Second Issue - 2017



Denel participated at the world's leading and largest defence and technology exhibition, DSEI 2017, held in London in September.

DENEL GROUP VALUES



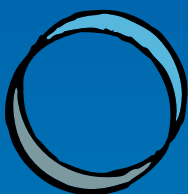
PERFORMANCE

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.

Contents

Issue highlights



- 2 Editor-in-Chief
- 3 Message from the Acting Group CEO
- 4 Creating value for the customer under challenging economic conditions
- 6 Denel exits the Denel Asia JV
- 7 New talent set to take Denel into the future
- 8 Mainstreaming transformation and innovation
- 10 Denel targets world's top defence show
- 11 Prominent presence in Poland
- 12 New Sovereign Security Solutions at Denel
- 13 Turbo growth for Denel Aeronautics family
- 13 Careers in full throttle at Newcastle Airshow
- 14 Inspired to live Madiba's values
- 15 Careers abound: air and ground
- 15 Denel treks to Utrecht to inspire the youth
- 16 Cyber Netiquette
- 17 Youngsters do the maths at holiday camps
- 18 More Casspirs for the continental fleet
- 19 Talented trio armed with core stem skills
- 19 Top-shelf delivery record for top shells
- 20 Solomon mines his creative depths to take solar to hot new heights

Editor's Note

We're proud to share with you our second edition of Denel Insights. We hope you enjoy reading it as much as we enjoyed putting it together.

Denel Insights is a quarterly newsletter to keep you – our stakeholders – informed about the programmes and developments taking place at Denel Corporate Office and in the business units of our group. We would love to hear what you think about the publication and we welcome your suggestions on stories you would like to read.

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

Denel Insights, is a fitting showcase for the achievements and successes of Denel in recent months, and encapsulates in a few pages packed with interesting and informative news.

Editor-in-Chief

This, our second edition of Denel Insights, is a fitting showcase for the achievements and successes of Denel in recent months, and encapsulates in a few pages, our progress on the road to creating value for the customer and ensuring transformation for our own sustainability and the good of society.

Undoubtedly the highlight of these past few months was the release of our financial results, which is explored in great detail in the pages of this issue. These figures reflect an organisation on the up, but one that is realistic in acknowledging the challenges it must tackle and overcome to fulfil its potential. And, as you read, the organisation has made several key appointments aimed at ensuring that this happens.

Other developments that will enhance group performance are the split of Denel Integrated Systems and Maritime (Denel ISM) into two business units: Denel Maritime and Denel Sovereign Security Solutions (Denel S3). Read more about this and other developments on pages 12 and 13.

Youth Month may have been a while ago, but Denel made the most of it at the time, taking its message to the Newcastle Airshow, which attracted scores of aircraft enthusiasts - including

many considering their career options. We participated in SAA's youth career summit and a similar event held in Utrecht, KwaZulu-Natal. A particularly exciting initiative during the month was the funding of three young female engineers on a week-long programme for women in innovation in Kigali, Rwanda.

On page 16, you will find helpful hints on how to be safe in cyberspace. We urge that you read and re-read these, as they may save you from the clutches of fraudsters and scammers out to get their greedy hands on your hard-earned money.

Our appearances on the continental and international stages are also among the many stories you will enjoy in Insights issue 2.

It has been a pleasure for the editorial team to put this publication together and we hope you will agree that it was time well spent.

Until we close the book on 2017 with our festive issue, keep flying the Denel flag high and proudly.

Vuyelwa Qinga

Group Executive: Communication & Public Affairs

Denel's recently announced financial results, which are covered in depth on pages 4 and 5 of this issue, reflect a company that has conquered challenges and emerged stronger.

Mr Zwelakhe Ntshepe



Message from the Acting Group CEO

In the face of the tough economic conditions with which business today has to contend, the group was able to maintain revenue levels above the R8 billion mark and increase exports by 5%, commendable achievements by any standard. Profitability exceeded target by 9% to end the year at R333 million NPAT. Return on sales was maintained at a similar level to that of last year.

While we have great products and services and can be justly proud of both, all credit for our performance must go to all our employees for their continued commitment to the organisation and their desire to play a meaningful role in the realising our vision.

But, as we all know, doing business today is not without its challenges and controversies. You will probably have seen or heard mention in the media of the questions being raised about our audit report, with allegations be made of our reluctance to release an adjusted report - an unqualified audit with irregular expenditure.

The fact is that all matters relating to the irregular expenditure incurred in the 2017 financial year have been fully disclosed in the integrated report, the content of which was thoroughly reviewed by SizweNtsalubaGobodo (SNG) before it was signed off its audit report. SNG has extensive knowledge of our business and its key risk areas, among them irregular expenditure.

For this financial year, SNG - unhindered in any way - conducted an independent audit based on account standard operating procedures and drawing on information and accounting records, including details of the irregular expenditure, supplied willingly by Denel.

The audit report was submitted to the Denel Audit and Risk Committee meeting, which was attended by the Auditor General representative, and was approved with no objections.

Unless a material event occurred during the audit that was not disclosed to SNG but became evident after the signing of the audit report, there is no basis for a change to the report.

We have invited SNG to shed light on any matter that relates to the issue, but, to date, we have not received any feedback. Furthermore, if this was the result of an SNG error, the amendment would need to be on the basis that the undisclosed information is material, which is not the case, since all the information was disclosed in the integrated report.

The report was tabled at the annual general meeting of 25 August 2017 and was adopted, with an instruction that Denel and SNG must resolve their differences.

Any further developments will be made public and communicated in our next issue of Insights.

Once again, my sincere thanks to each one of our stakeholders for your continued support in the 2016/17 year and for helping us to create a firm foundation for success in 2017/18.

Zwelakhe Ntshepe

Acting Group CEO

Creating value for the customer under challenging economic conditions

Denel has emerged from 2016/17 - another challenging global economic period - with a better-than-anticipated performance. Neither local nor international conditions have been conducive to growth.

Cost sensitivity and competition are increasing, forcing organisations to implement cost-cutting decisions to maintain acceptable financial performance. Denel has not been immune.

However, the resilience and hard work of employees have seen the group through and it remains poised for growth and assured of sustainability. Credit must go, too, to suppliers and clients, who have walked with Denel every step of the way through the last year.

In the process, hard decisions have had to be taken, but the time has come to capitalise on the resultant gains. Some divisions have been consolidated and new capability areas are being developed. This has all happened against a backdrop intense media scrutiny of state-owned companies, which has caused reputational damage to the Denel brand.

The group has always demonstrated agility in identifying trends and positioning itself to respond to opportunities. Into the 2017/18 year and beyond, the group will continue to seek closer cooperation and alignment locally and within the international defence and research communities, forging alliances that will see it benefit from global expertise, continuously enhance its product offering and penetrate new markets. Already more than 60% of revenue comes from exports and the future business outlook is bolstered by a strong order pipeline in excess of R40 billion.

Based on these substantial exports, Denel is able to maintain, expand and build on a broad scope of sovereign and strategic technologies that would otherwise not

have been available to the group. Credit must go to anchor clients, the Ministry of Defence and Veterans, Armscor and the South African National Defence Force (SANDF) for much of the product portfolio and technology funding. It perfectly demonstrates the mutual benefit that can be derived from collaborating government entities. With more than 75% of both the local and export work being localised back to South Africa by Denel, the local defence industry benefits substantially from this partnership.

Going forward, the strategy to create value for our shareholder and the people of South Africa will be guided by:

- Strengthened customer and stakeholder relationships in support of long-term business prospects;
- Efficiency, productivity and profitability;
- Creating capacity for cash generation;
- Enhanced capabilities and innovation; and
- The creation of a dynamic and vibrant organisation.

Growing order book at the core

The core of the growth strategy is maintaining a continuous increase in the order book and managing cash flow, both of which will be made possible through strong relationships with key clients, suppliers, stakeholders and, above all, active political support from government on export opportunities. Existing global partnerships will continue to be leveraged to secure future business. Certain divisions have been consolidated and initiatives launched to diversify business offerings.

The 2016/17 results demonstrate the resilience of the business. Revenue levels were maintained above the R8 billion mark, recording a moderate 2.5% reduction in turnover compared to the prior year. Exports increased by 5% and now account for 63% of the group's total revenue. Relationships with foreign clients continue to grow, with long-term partnerships secured on strategic projects.

Profitability continued to be satisfactory and exceeded set targets by 9%, posting a total of R333 million net profit before tax. Return on sales was 4%, which was in line with the prior year's 4.8%. This year-to-year maintenance of profitability was achieved in spite of a reduction in sales in real terms (inflation factored) and is attributable to the group's cost containment discipline.

The group has initiated a strategic drive to further reduce the 18% OPEX percentage to sales closer to the 14% range. With the tough and volatile international trading conditions, Denel returned profitability in spite of a forex loss of R232 million booked for the year. The current debt-to-equity ratio of 1.2:1 is still unacceptable and plans are already in place to bring it down. An important key lever in ensuring Denel's long-term sustainability is optimising the cost structure through operational excellence.

Staying sharp at the cutting edge

The speed of change, accompanied by a global shift towards asymmetric conflict, has increased the impetus for Denel to be at the cutting edge of innovation in the defence and technology sectors. The group already meets many of the

ECONOMIC



Revenue
R8bn
R8.2bn | 2016

Cash
R2 021m
R2 003m | 2016

Net profit
R333m
R395m | 2016

Borrowings
R3 265m
R3 717m | 2016

R&D
R609m
R550m | 2016

Debt to
equity
1.2:1
1.6:1 | 2016

SANDF's land, sea and air requirements, and it expanded its capabilities into the cyberspace environment, where cyber threats impact on national security and economic interests.

To this effect, the establishment of the Denel Tactical Cyber Command Centre (DTC3) was an important step towards strengthening South Africa's sovereign capabilities in critical areas and in stimulating growth of research and development in highly specialised sectors.

Denel has ongoing discussions with the South African Air Force (SAAF) and the Department of Defence on upgrading the current Rooivalk Mk1F fleet. The world-class capabilities of the Rooivalk combat helicopter have strengthened Denel's reputation as a globally respected defence manufacturer. The Rooivalk is unrivalled in providing forces with protection, mobility and firepower. It provides Denel with lucrative opportunities both locally and internationally, which it is relentlessly pursuing.

Among the new Denel products showcased at the 2016 Africa, Aerospace and Defence (AAD) trade exhibition was the Denel Machine Gun-5 (DMG-5), was a new-generation lightweight gun that opens up opportunities in regions such as South America, Middle East and Asia.

The launch of Africa Truck reinforced Denel's ability to deliver products designed to meet the unique requirements of the SANDF, especially in its deployment during peacekeeping operations on the continent. This is a national flagship programme providing an African solution

by Africans aimed at opportunities locally as well as in the rest of the African market.

Communities and individuals

Denel values and prioritises its contribution to the national socio-economic imperatives of government. These include skills development, job creation and transformation. The group's Mentorship Programme ensures that younger employees are given the necessary support to enhance their development as they enter their careers of choice.

The transformation of Denel's business is a non-negotiable that is implemented in a responsible manner across the group. Currently, black employees make up 62% of the workforce, while female representation has grown to 26%. During the past year, 84% of new appointments came from African, coloured and Indian communities; with more than 50% being female. Further improvements are among the targets for 2017/18.

Denel would not exist without the support of and relationships with its communities. The group places a high premium on national socio-economic imperatives, including transformation and skills development. In the past year, significant financial resources have been allocated to the flagship corporate social investment project, the Schools Outreach Programme (SOP). This programme provides extra maths and science tuition to learners in historically disadvantaged areas. It covers Eastern Cape, KwaZulu-Natal, Limpopo, Free State, Mpumalanga, North West and Gauteng.

Orders far and wide

The Denel footprint is being extended in the key export markets of the Middle East and the Asia-Pacific region. Denel Vehicle Systems has successfully delivered N35 4x4 vehicles to a customer in the United Arab Emirates and has received further orders for RG12 and RG31 mine-resistant vehicles.

Operational excellence

In the past financial year, the group completed the consolidation of its aviation-related businesses at the Kempton Park campus, resulting in the establishment of Denel Aeronautics. The objective is to improve efficiency and productivity and optimise cost structures through operational excellence.

Denel Aeronautics is the leading aerospace company in Africa and a powerhouse in design, manufacturing and MRO solutions to both military and commercial sectors on the continent. It continues to deliver on delivery commitments for the world's most advanced military airlifter, the A400M.

Denel has also grown its footprint in the aviation sector, with the full acquisition of Turbomeca Africa (TMA), after the Competition Commission approved the transaction subject to certain human capital conditions. TMA manufactures engine components – including gears, gearbox casings, shafts and couplings – for Safran Helicopter Engines. It supports 40 customers in 20 countries, including SAAF, the South African Police Service (SAPS) and a number of civilian air operators.



Denel exits the Denel Asia JV

When Denel SOC was inducted into the Top 100 Global Defence Companies hall of fame in 2015, no one could have predicted that the company would work its way up from the 97th to the 84th position within two years.

The climb up to this position has been as a result of relentless efforts by the group claiming market-share in the highly competitive global defence market.

It was the gradual decline on local defence spend in recent years that forced Denel to look to global markets if the company was to survive into the future as a business. Local defence spend currently sits at less than 1.3% of GDP, compared to international benchmarks of 2 to 5%.

For Denel's commercial mandate to be sustained into the future there is no other way but to look beyond the borders of our country. Our business strategy was thus designed at the back of a decline in the local market.

In pursuing this strategy, we identified critical international markets that would be

key to Denel's growth; and this included the Asia Pacific market. This market continues to be a focus area for Denel because of its demand for defence equipment which has seen year-on-year increases in spending - in excess of 20% - making it one of the top spending regions on defence equipment in the world.

It was therefore in search of opportunities in this market that Denel established a Joint Venture (JV) company with VR Laser Asia in 2016. It is our view that this business case was done in compliance with all legislative governance processes. The business case that was submitted in 2015 to both departments - i.e. Public Enterprises and National Treasury - remains valid and relevant.

Since its establishment, Denel Asia has not traded due to differences of opinion

with National Treasury, which have been widely covered in the media, at times based on perceptions and not fact. The Denel Asia JV became the focus of negative attention from the media to the detriment of the Denel brand, both locally and internationally.

Denel also conducted continuous assessments of the untenable atmosphere caused by the establishment of this JV; and took a resolution to exit the Denel Asia JV and explore alternative marketing approaches to access the Asia Pacific market.

This therefore brings us to a point where we can officially report that Denel SOC has ended its involvement in the Denel Asia JV. We have exited the JV.

New talent set to take Denel into the future

Denel's strategic direction during its new growth phase is in extremely capable hands, following the bolstering of the leadership team with the talents of new Group Chief Financial Officer, Odwa Mhlwana, and for Group Company Secretary and Group Legal Officer, Vuyokazi Xaxa. Both have demonstrated that they are a perfect fit for the group.

"The new team members are critical in creating stability and will contribute to our transformation into a self-sustaining state-owned company," says acting GCEO, Zwelakhe Ntshepe.

Both Odwa and Vuyokazi have occupied executive positions in the defence and public sector environments for more than a decade.

Odwa held various leadership positions in the banking sector and the motor industry prior to his appointment as Group Finance Director of defence industry company, BAE Land Systems. This company was acquired by Denel in 2014 and renamed Denel Vehicle Systems. In September 2015, Odwa moved to Denel headquarters as acting Group Chief Financial Officer.

"He has a wealth of leadership experience in the defence industry and contributed greatly towards stabilising Denel during a very challenging period in the company's history," says Zwelakhe. "We are looking forward to him driving an exciting new phase in the growth of our business."

Vuyokazi, an admitted attorney, joined the group in 2007 and was responsible for legal affairs at Denel Dynamics prior to her appointment as acting Group Secretary last year. In the past, she headed the legal department of the

National Gambling Board and recently completed an executive leadership programme through Henley Business School.

As company secretary and group legal counsel, she will play a critical role in the management of Board matters and provide strategic direction to the group's legal professionals. "We are confident that she will ensure the maintenance of a robust corporate governance structure at a time when SOCs are under close scrutiny in the country," says Zwelakhe.

Tsepo Monaheng, who joined Denel in 2002 as a programme manager, is the new Group Business Development Manager. He formerly served as the chief executive of Denel Dynamics, overseeing the company's missile technology and unmanned aerial vehicle systems programmes.

The new CEO of Denel Dynamics, Johan Steyn, has more than 30 years of experience in the defence industry. A qualified mechanical engineer, Johan served as a programme manager at Armscor prior to his appointment as managing director of BAE Land Systems (Denel Vehicle Systems).

Mxolisi Makhatini has been appointed CEO of Denel Vehicle Systems. He has a degree in electrical engineering from the University of KwaZulu-Natal and previously served as deputy CEO of Denel Land Systems.

The strengthened leadership team will play a pivotal role in the implementation of the group's new strategy, which was approved by the Board in June, says Zwelakhe. "I am confident that the team will help us to achieve our strategic objectives of 'one Denel with one vision and one purpose', he concludes.



Odwa Mhlwana, Group Chief Financial Officer.



Vuyokazi Xaxa, Group Company Secretary and Legal Executive.



Mxolisi Makhatini, CEO of Denel Vehicle Systems.



Johan Steyn, CEO Denel Dynamics.



Tsepo Monaheng, Group Business Development Executive.



Theo Kleynhans, Group Executive: Strategy; Mike | Kgobe, CEO of Denel Aeronautics and Tsepo Monaheng, acting Group Executive: Business Development.



Thami Mbele, Denel Chief Operating Officer.

Mainstreaming transformation and innovation

The South African defence industry stands on the brink of a new era. This was the message delivered by Denel Group Chief Operations Officer, Mr Thamsanqa Mbele, at the fourth Aerospace, Maritime and Defence Conference held at the CSIR at the end of September.

While the industry has become a global player in terms of manufacturing, and research and development, more needs to be done to create an enabling environment within which the defence industry can grow and be truly competitive globally, Mbele told those present, among them Secretary of Defence, Dr Sam Gulube, and Chief Executive of Armscor, Kevin Wakeford.

In addition, he continued, the rate of transformation is far from where it should be. 'The fact that it's only in the past year or so that we put together the Defence B-BBEE Charter is an indictment on all of us,' he said.

In the light of this, it was appropriate then that the theme for this year's conference

was 'Mainstreaming transformation and innovation within the South African defence industry'.

For Denel, Mbele explained, transformation is a non-negotiable business imperative. 'We have taken it upon ourselves to drive transformation in our business as well as within the supply value chain,' he explained. 'We have made it an area of focus to ensure that we reflect South Africa in all respects, and that companies that want to do business with us ensure that they have embraced transformation in both word and deed.'

At present, only 27% of Denel's R815 million local procurement spend goes to black suppliers, a situation that is not sustainable, Mbele stressed.

The focus must not fade from competitiveness, he continued. 'Improving the competitiveness of the local industry is a critical success factor for all of us. Another challenge is the real impact of disruptive technologies on product portfolios, and what is referred to as the fourth Industrial Revolution. There is also clearly a need to create a viable new value offering that goes beyond the product to include global industrial partnerships. So clearly, partnerships are crucial for sustainable growth.'

'The future looks very bright, but the challenges facing us now are maintaining the relevance of our products and sustaining our markets and value networks. The answer is innovation, innovation and innovation. South Africa has an abundance



Stephan Burger, CEO of Denel Land Systems.



Celia Malahlela, acting GM of Denel Industrial Properties.



Patrick Ndhlovu, Senior Manager: Programmes.



Mr Albert Africa, Business Development executive, Ms Vuyelwa Qinga, Group Executive: Communications and Public Affairs; Mr Llewellyn Hartnick from Reutech.



Ms Vuyelwa Qinga, Group Executive: Communications and Public Affairs; Mr Victor Xaba, acting CEO at South African Express and Ms Thabisa Mgwebi from Reutech.

of youth, who must be brought into our companies to lead the charge and take us to the next level of product development and innovation. How many of us in this room can come up with competitive solutions to deal with the cyber threat looming over the entire global community? Research indicates that the impact of disruptive technologies will mature fully over the next 10 to 15 years. We need to be ready.'

The rapid growth in cyber-related technologies has had a substantial impact on command and control, and on the interoperability of systems. This includes cyber-crime, cyber-warfare and cyber-terrorism; asymmetric command and

control, and changing the pace of R&D and innovation.

'We are at a crossroads: Innovate or risk disappearing,' Mbele concluded. 'We must open doors and explore opportunities for business partnerships that can deliver on the growing needs of the defence and security sectors, while taking cognisance of the real imperative for us to drive transformation and innovation. It's not only for our businesses, but for our long-term sustainability in South Africa, southern African, the continent and the entire global village.'



Denel targets world's top defence show

The world's leading and largest defence and technology exhibition, Defence and Security Equipment International (DSEI) 2017, held in London in September, would not be so but for the participation of major players such as Denel.

The biennial show attracts more than 35 000 defence decision-makers, heads of armed services and industry representatives to the London Docklands. It is accompanied by several international conferences and seminars.

"This was a prime opportunity for Denel to display its products, knowhow and proficiencies to a wide-range of defence decision-makers," says acting Group CEO, Zwelakhe Ntshepe. "Our exhibition focused strongly on our landward defence and infantry support systems.

"Many countries attending are currently modernising their armed forces and reassessing their defence requirements to meet the challenges of a changing geopolitical environment. We're confident that our tried and tested products can penetrate these important markets."

On show in the Denel area were:

- The GI-30 rapid-fire CamGun on mount – able to fire up to 100 rounds a minute with an effective range of 4 000 metres.
- Variants of the Casspir mine-protected vehicle, which offers superior protection against landmines and ordnance, and widely-used by peacekeeping and humanitarian services.
- Machine guns and anti-materiel rifles manufactured by Denel Land Systems, including the DMG-5 and SS77 machine guns, and the NTW 20mm rifle.
- Mine-protected vehicles manufactured by Denel Vehicle Systems and deployed in both the defence and the civilian protection industries.
- The PAW-20 personal assault weapon and various ammunition ranges produced by Denel PMP.
- The PTV transport vehicle designed by LMT Holdings and used to transport high-risk prisoners and high-value assets.

The group's participation in DSEI followed its involvement in a similar exhibition in Poland (see story on page ??) and forms part of the company's drive to expand its presence in key export markets. Currently, Denel markets products in eight western and central European countries, including Sweden, Germany, Poland, Italy and Romania.

"As one of the leading defence companies in the southern hemisphere, we use these events to demonstrate to European clients that our products can also meet their changing security needs," says Zwelakhe.



Prominent presence in Poland

Poland hosted central and eastern Europe's most prominent defence and technology exhibition - the International Defence Industry Exhibition (MSPO) – in September, and Denel was there to show off its expertise.

Now in its 25th year, the expo attracts heads of armed forces, influential defence personnel, analysts and media from across Europe to the historic city of Kielce to view the latest equipment and solutions. Exhibiting for the second time, Denel set its sights on stimulating the interest of countries modernising their armed forces with the best in landward defence, armoured vehicles, mine-protected vehicles and infantry weapon systems.

In Denel's sights were Romania, Kazakhstan, Serbia, Italy and Sweden, in particular.

Denel PMP displayed its small- and medium-calibre ammunition range as well

as the PAW-20 personal assault weapon, which fires grenades over 400 metres with pinpoint accuracy.

The Denel Overberg Test Range was also highlighted, positioned as one of the most advanced facilities in the southern hemisphere for the testing of aircraft weapon systems, missiles and unmanned aerial vehicles. The range has hosted a number of European defence forces in recent years.

Denel Land Systems showcased its prowess in landward defence, focusing particularly on its track record in the design and manufacturing of artillery systems, infantry combat vehicles and combat turrets. Both Denel Vehicle Systems and

LMT Holdings provided information on their military vehicles and mine-protection technology.

MSPO was another winning component in the Denel marketing arsenal in 2017. Consistently bringing in more than 600 exhibitors from 46 countries, and with around 22 000 visitors surging through the gates over five days, it certainly was worth the 14 500km journey.



New Sovereign Security Solutions at Denel

Denel Integrated Systems and Maritime (Denel ISM) has split into two business units, namely Denel Maritime and Denel Sovereign Security Solutions (Denel S3).

When Denel ISM was established in December 2014, it enabled the group to diversify into the maritime, sovereign and non-defence security domains. "We need increased focus in these areas to realise our business objectives," acting GCEO, Zwelakhe Ntshepe, said at the time. "This is a step in the right direction and signifies promising growth in new capabilities."

Denel Maritime, located in the hometown of the South African Navy (SAN) and naval dockyard in Simon's Town, Western Cape, is headed by Ismail Dockrat. Its primary focus will be the management, operation and commercialisation of the dockyard, and it is ideally positioned to enable Denel to participate easily in naval projects and ensure maximum operational availability of the SAN fleet for effective protection of South Africa's large maritime borders and resources. Responsibilities also include the naval base at Salisbury Island in Durban.

The division's long-term vision is to become a leading developmental player in the southern African region. It will establish a market position in line with the national vision of Operation Phakisa.

Denel Sovereign Security Solutions (Denel S3), based at Irene campus, will establish the Denel Tactical Cyber Command Centre (DTC3). Starting with a basic cyber-security operations centre, it will provide Denel with protection against cyber threats.

Ultimately, DTC3 will protect defence and security interests through accredited cyber-security services aligned to the National Cybersecurity Policy Framework (NCPF), the Defence Review 2015 and the National Security Strategy.

DTC3 will ensure that the organisation's leadership, staff, policies, processes, practices and technologies provide ongoing oversight, management, performance measurement and course correction of all cyber-security activities.

Headed by the current Group Executive for Strategy, Theo Kleynhans, the division will intensify efforts to secure projects in command and control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) solutions within national and provincial security institutions and/or government departments.

"We will also coordinate the group's relationship with the CSIR, aimed at

partnerships and cooperation on various projects," says Theo, who, given the high priority of Denel S3 activities, will report directly to the acting GCEO.

Elaborating on the need for two divisions, Zwelakhe says: "The split gives us the opportunity to place the company's developmental agenda at the very heart of expanding and building new capabilities."

"The move is exciting and encouraging for the continued viability and growth of our company."

Translating the opportunities into profitable projects will require significant capacity building, he adds, and that means an intensive recruitment drive in the coming months.

"Recruitment, training and skills development programmes for both units will provide us with an opportunity to further expand and strengthen the Denel Group's transformation agenda," he explains.

Black women and youth, in particular, will be targeted, with preferential procurement and focused enterprise supplier development ensuring that previously marginalised groups are developed into enduring suppliers.

Turbo growth for Denel Aeronautics family

The first day of September certainly put a spring in Denel's step, as the group welcomed aboard the restructured Turbomeca Africa.



The move follows the completion of regulatory and legislative processes, including approvals in terms of the Public Finance Management Act, the Competition Commission and the South African Reserve Bank, and the restructure of Turbomeca Africa into Safran Helicopter Engines.

It was a marriage 15 years in the making. In 2002, Safran Helicopter Engines and Denel concluded an equity partnership establishing Turbomeca Africa (a 51% Safran and 49% Denel shareholding), thereby creating a world-class engine

manufacturing and maintenance repair and overhaul (MRO) capability. In June 2016, Safran announced its intention to restructure Turbomeca Africa in a depressed world helicopter market. It would exit the manufacturing business and retain the engine MRO business, which, after extensive engagements between Denel and Safran Helicopter Engines, was transferred to Denel to ensure continued support to the South African Air Force (SAAF) Oryx medium transport helicopter, Rooivalk attack helicopter and Leonardo A109 light utility helicopter.

Following the latest development, the retained employees and capabilities form part of the aircraft engine MRO, special processes and the materials technology function, which will ensure continued SAAF support.

The boost will enable Denel Aeronautics not only to support SAAF, but to expand its business footprint in other markets in both military and civil aviation. It also provides the launch-pad for a diversification strategy focused on ensuring long-term sustainability of the group's engine capability.

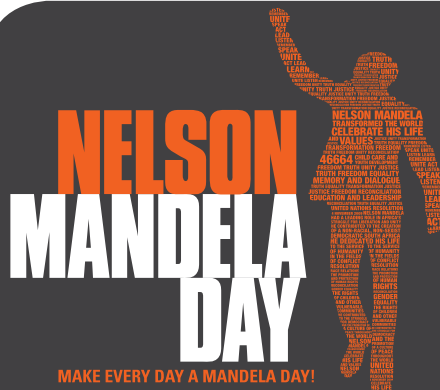
Careers in full throttle at Newcastle Airshow

The Newcastle Airshow is in its eighth year of success, thanks to the support of major sponsors such as Denel Aeronautics. The 2017 event, held in June, attracted more than 3 000 aircraft enthusiasts.

Alongside the airshow, the town also hosted a career where Denel participated, advising around 1 000 learners who attended and showed interest in aviation careers. The South African Air Force was there, and the Chief of the South African Air Force attended.

Denel Aeronautics proactively promotes aviation as a career by sharing knowledge with youngsters, especially in rural communities. Duduzile Malatse shared her career story at the event. Mike Kgobe, Denel Aeronautics CEO says, that by

sharing stories about qualified artisans who made it into aviation careers, "we create a love for and stimulate interest in the aeronautics industry and the wonderful career prospects it offers".



Inspired to live Madiba's values

South Africa has put July firmly on the world events calendar, with Mandela Month commemorated and celebrated the world over.



Mobile library handover to an early childhood development centre (ecdc) in Mooiplaas.



A group photo of the teacher, learners and team from Denel Dynamics. It was a good experience and the school is appreciative of Denel making a positive difference!



Thendo Managa, the Chief Technology Manager at Denel Dynamics handing over the Defence made Easy book to the principle leader at the school.



With the UN General Assembly unanimously launching International Mandela Day on 18 July 2009, it was one small step to making it a month-long event.

Many a true word was uttered by the former South African president and global statesman Nelson Rolihlahla Mandela, and Denel identifies with the values of the man whose inspiring thoughts included: "What counts in life is not the mere fact that we have lived. It is what difference we have made to the lives of others that

will determine the significance of the life we lead."

In this spirit, Denel joined millions around the world to remember the country's beloved Madiba.

Appropriately in honour of the man who said that 'education is the most powerful weapon which you can use to change the world', Denel Mandela Day activities took place at several schools. They included the donation of a refurbished container to an under-resourced school for use as a classroom and the presentation

of six mobile libraries to various needy communities, such as the Moleboheng Day Care Centre in Mooiplaas, Pretoria West, and Irene Middle School, which serves the farming community around Irene. Three of these libraries went to high schools with deserving learners.

"Denel is part of the broader South African society and the global community that seeks to make the world a better place," says acting GCEO Zwelakhe Ntshepe. "As Madiba told the youth in 2008: 'It is in your hands to make the world a better place'."

Careers abound: air and ground

To mark Youth Month in June, SAA hosted a youth career summit under the theme 'Limitless opportunities on the ground and in the sky' and Denel was a proud participant.

The summit showcased the wide variety of career options at SAA in disciplines such as engineering, flight operations, aircraft maintenance, aviation medicine and aviation law.

Denel exhibited alongside other SAA stakeholders, including Ekurhuleni Metropolitan Municipality, Civil Aviation Authority, SAPS and the Transport Education and Training Authority.

As a state-owned company whose mandate includes supporting the national

developmental agenda, SAA – like Denel – contributes to the transformation of the country by creating economic empowerment opportunities, as well as training and skills development for the youth.

As SAA acting CEO, Musa Zwane, said at the summit: "Often all it takes for the start of a great career is the seed of inspiration to be planted."

Denel treks to Utrecht to inspire the youth

At the invitation of the Deputy Minister of Public Enterprises, Ben Martins, Denel participated in the Utrecht career expo and youth supplier forum alongside other SOC's such as Transnet, Eskom and Safcol.

High schools and further education and training colleges from the region sent their learners, and small businesses led by youth and women also attended. Denel shared details of the requirements and procedures for inclusion in the SOC supply chain, and promoted its skills programmes. A skills programme beneficiary, Nokuthula Khanyi, attended to chat to interested youngsters. Nokuthula, from Ladysmith, matriculated from Intando Yesizwe High School in 2008 and is currently building a rewarding career as a member of the Denel Aeronautics team.

Learners were given more detailed information at the SOC's' stands. The Denel stand was managed by Nkanyiso Msomi, an artisan from Denel Aeronautics, Theo Kubjana of Denel Land Systems and Solly Thamaga, the corporate social investment representative from Denel Pretoria Metal Pressings.

Paarl expo



Denel was present in Paarl for the Minister's Youth Day Career Expo on 16 June.



Deputy Minister, Ben Martins visited the Denel stand during the career expo.



Cyber attacks are real: Beware!

Cyber Netiquette

A DTC³ Initiative



Do's

- ✓ Give your email address only to people you know and trust.
- ✓ Scan all email attachments for viruses before opening them.
- ✓ Be wary of emails asking for confidential information—especially of a financial nature. Legitimate organisations will never request sensitive information via email.
- ✓ Be especially wary of any Microsoft Office email attachment that advises you to enable macros to view its content. Unless you are absolutely sure that this is a genuine email from a trusted source, do not enable macros and instead immediately delete the email.
- ✓ While you are banking, shopping or paying your bills online, check if the website's URL begins with 'https'. In addition to this, look for the padlock icon, which indicates that the connection is secure.
- ✓ If possible, use a credit card instead of a debit card for online transactions, as credit cards have more security than debit cards do.
- ✓ For social media sites, use an email address that you do not use for important communications.
- ✓ Hold and hover your mouse over any suspicious links. At the bottom of your screen, the URL for a website will be displayed. Many phishing websites will display a different link.
- ✓ Turn off file sharing and network discovery when using a public wireless network.

Don'ts

- ✗ Don't open email attachments from unknown sources.
- ✗ Don't send, forward or reply to junk email or hoax messages.
- ✗ Don't buy things or make charity donations in response to spam email.
- ✗ Never respond to or click on pop-up ads that may come up on your screen.
- ✗ Don't accept any and every request on social networking sites as these could be imposters' phishing for your personal details to use to their advantage.
- ✗ Don't go onto websites that you think are illegitimate, i.e. sites that may have an address very similar to a legitimate site, but whose pages have misspellings, bad grammar or low resolution images. Don't download files from any untrusted websites or agree to terms and conditions without reading them thoroughly.
- ✗ When choosing security questions on various websites, don't choose options for which the answers can be easily accessed, such as "What is your mother's name?" as this information can be easily retrieved via social media.
- ✗ Don't post personal information such as your address, email address or contact number on social media.
- ✗ Don't instal unauthorised programmes on your work computer.

Youngsters do the maths at holiday camps



Learners during the youth camp.

A technical career will never fly without maths and science expertise.

With this in mind, Denel gave 244 high school learners from Mpumalanga, North West, Limpopo and Gauteng a rare opportunity to brush up on their maths and science performance through tuition and exposure to living examples from the innovation that is embedded in aviation and defence products.

This year, the Denel annual youth camps were hosted at the Denel Aeronautics campus in Kempton Park and in Queenstown, Eastern Cape, during the school holidays.

Young engineers from Denel gave camp-goers extra tuition in algebra, geometry and science, while SAAF engineers brought physical science and mathematical concepts to life by offering insights into specialised areas such as the principles of flight, propulsion and navigation.

"We gave participants two weeks of solid learning in science and maths, while adding exciting access to a stimulating environment where theoretical classroom concepts

could be seen, touched and experienced in the workplace," says Vuyelwa Qinga, Group Executive for Communication and Public Affairs.

The camps included drills, exercises, daily flag-hoisting ceremonies, and, to make it a once-in-a-lifetime experience, a flight in an SAAF plane on 18 July to mark Mandela Day.

The attendees received instruction from young engineers such as Phumzile Nkosi of Denel PMP, Naadira Hassim of Denel Aeronautics, and Judith Masemola and Marumo Talane of Denel Land Systems.

The 10-day Eastern Cape camp in Queenstown hosted 200 learners from the province and nearby KwaZulu-Natal. Seretla Mahlagare, a junior engineer from Denel Dynamics, Mike Dzulane, an electronics and computer engineer from Denel Land Systems, and Suna Kutalo and Lesego Selemela from PMP provided the tuition. The Queenstown group also had an opportunity to visit a military base in East London.

Enrichment through outreach

The youth camps are part of Denel's CSI campaign, whose flagship project is the School Outreach Programme (SOP), which provides enrichment classes to learners from disadvantaged communities during weekends and school holidays.

The initiative has resulted in pass rates of more than 95% in end-of-year exams and more than 60% of learners gaining university entrance in science and technology-related courses.

Camps held in the Free State in 2016 are credited with elevating the province to top position in the country's matric pass rate rankings last year.



Convoy of Casspirs on route to African client.



More Casspirs for the continental fleet

Twenty-one Casspir mine-protected vehicles are en route to northern Africa to join 26 delivered in December 2016.

The 45-strong fleet is based on the Denel New Generation Casspir NG2000 Series, a cutting-edge product derived from the well-known and battle-proven Casspir MPV, 3 000 of which were manufactured.

The vehicles are earmarked for a newly established peace support contingent mainly for African Union (AU) peace support missions, says Peter Faro, General Manager of Mechem, a global leader in the detection and destruction of landmines.

The new generation Casspir has improved features, but has retained the affordability, easy of maintenance and cost effectiveness that have secured its success. The drive-train and most components are interchangeable on the 15 variants on the Casspir base

line. The family of vehicles offers a wide spectrum of solutions in a 'one force concept' and a real-force multiplier for any user in an operational theatre.

The client in this case ordered eight of the 15 variants available on the Casspir platform. The order included troop carriers, ambulances, and command and control, cargo, recovery, fire support, and water and fuel variants systems. Denel also offers training for drivers and technicians, as well as spares to facilitate repairs from levels 1 to 3.

"To strengthen Denel's commitment, we have two in-country technical representatives who assist the client on all technical matters, and facilitate fleet management and support training," says

Peter. This is a welcome change from the previous situation, where many products were procured and delivered with very limited or no support."

In view of the good relationship between the client and Denel, future orders are a real possibility and are expected to include a very large number of Casspirs and mine-protected logistical trucks that share the same drive-train and armoured hull, thus reducing the costs of maintenance and repair, and fleet management.

The new Casspir is doing very well in African markets, Peter comments, and demand is high. Since 2010, more than 200 vehicles of various variants have been sold to clients in Africa and to the United Nations.

Talented trio armed with core stem skills

Three young female engineers have sharpened their leadership skills, built networks and been armed with practical tools to thrive in the science, technology, engineering and mathematics (STEM) field through a Denel-funded week-long programme for women in innovation in Kigali, Rwanda as part of Youth Month celebrations.

The programme was in line with the national priority to develop the next generation of engineers, artisans, scientists and researchers, says Vuyelwa Qinga of Denel Group Executive and Public Affairs. The three participants were 26-year-old Robin Nxele, a young scientist with a Masters of Science degree in Chemistry; 24-year-old Amy Dove, a mechanical engineer, and 29-year-old Mahlatsi Machete, a junior systems engineer.

"This development includes exposure, excelling in STEM subjects, studying

further in areas of critical and scarce skills and sharing information with peers," says Vuyelwa.

"The government expects us to be responsive to our mandate and to contribute to the socio-economic imperatives of our country, among them skills development. And, naturally, Denel is committed to developing and finding new opportunities for bright young minds.

"Our aim is to contribute to the holistic education and development of young people as part of our CSI strategy. Our

investment focuses on STEM education, from school to university or technical school and, ultimately, the company. At times, our beneficiaries are absorbed by the broader industry, but ultimately, South Africa benefits."

The Kigali initiative supports young scientists and innovators through partnership with Next Einstein Forum (NEF) and the African Institute for Mathematical Sciences (AIMS).

Top-shelf delivery record for top shells

Aerostructures Manufacturing has achieved 70 consecutive on-time deliveries of top shells (TS) for the Airbus A400M military transport aircraft.

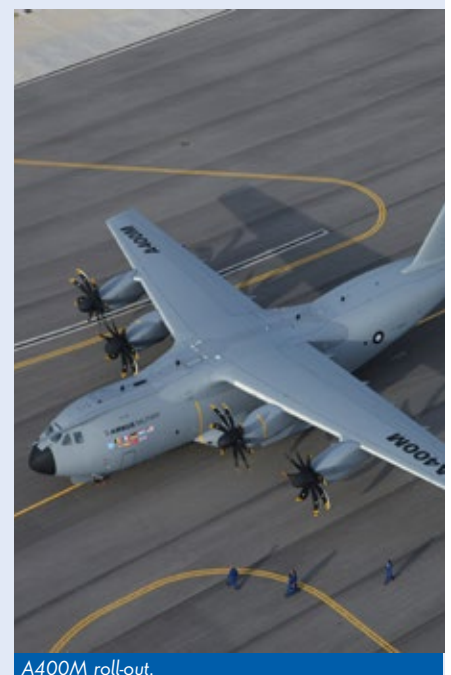
The shells constitute roof sections of the pressurised fuselage and are positioned directly in front of the wing section of the aircraft. Aerostructures Manufacturing received the design-to-build contract in 2005 and, to date, has produced 115 ship sets, with the successful completion of aircraft MSN113.

As a result of its ship-in-place agreement with Airbus, the company is allowed to produce structures in advance of Airbus's overall build programme. This is performed in accordance with a fixed schedule and strict requirements for 100% completion of the physical build and the e-CAIR, which details electronically the entire build history of all the produced sets.

This successful run of on-time deliveries started with an aircraft MSN44 build in 2014, and culminated in the delivery of MSN113 in May 2017. The achievement thus spans almost three years. But it is not enough for the project team, which is determined to clock up even more consecutive on-time deliveries.

"The achievement would not have been possible without persistent determination in the face of significant challenges and the continued commitment of employees," says Programme Manager, Richard van Wyk.

Well done to all for a sterling top-shell performance.



A400M roll-out.

Solomon mines his creative depths to take solar to hot new heights

Most people are familiar with the concept of solar energy, but Solomon Smit, an electronics engineer and line manager at the Hardware Development Section at Denel Overberg Test Range, took it to a new level.

As part of a team of five under the leadership of lecturer and researcher at the Cape Peninsula University of Technology, Dr Wilfred Fritz, Solomon developed an automated solar cooker. It focuses the sun's rays on a pot to boil water or cook food as an alternative to electricity for 'green users' and people in underdeveloped areas.

For the latter, a key benefit is that the cooker purifies water by boiling it.

Solomon's brainchild takes the tedious out of conventional manual solar cooking, which requires the user to adjust the focal point every two minutes. The automated electronic control system relies solely on the sun's rays to move the solar dish

automatically, while also recharging a battery.

The invention, which Solomon and Co call Water&Solar100, is the first effective and low-cost solution for commercial purposes and it won first prize in the environment category of the international Phoenix Contact Explore International Competition in 2015.

Further honours ensued. Following a training session in Rwanda recently, Solomon and his team were shortlisted in an innovation competition hosted by the Royal Academy of Engineering in the United Kingdom. They pitched the innovation as a business idea to Prince Andrew, Duke of York, and other important investors.

After the Pitch@Palace presentation in London, the South African team headed for Nairobi, Kenya in May 2017 to attend the last round of the competition.

Solomon, who defines himself as a researcher, innovator, motivator and entrepreneur, describes the experience as extraordinary, noting especially how many potential investors are actually interested in new companies. With his broadened knowledge, he would like to initiate plans to encourage the youth of the local community in Bredasdorp to develop their own ideas.



Solomon Smit (left), from Denel Overberg Test Range, and Dr Wilfred Fritz with the Auto-track Solar Cooker called Water&Solar100 which they invented.



Solomon Smit, from Denel Overberg Test Range, presented his team's innovation as a business idea to Prince Andrew, The Duke of York, and other important investors at St. James's Palace in London.

Blow The Whistle on Fraud and Corruption

Call The DENEL Ethics Hotline



SOUTH AFRICA ONLY

0800 20 48 80

Ethics Hotline:

KPMG HOTLINE:
0800 20 48 80 (SA) AND
+27 12 543 5418
(OUTSIDE SOUTH AFRICA)

KPMG HOTPOST: BNT371, P O
BOX 14671, SINOVILLE, 0129

KPMG HOTFAX:
0800 200 796

KPMG HOTMAIL:
FRAUD@KPMG.CO.ZA



DEFENCE TECHNOLOGY MADE EASY



Minah Sindane Bloem
Llewellyn Hartnick

