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cost of malnutrition?





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## A+A: FEAST OF HEALTH AND SAFETY INNOVATIONS!

A whopping 65 000 people from 80 countries descended on Düsseldorf for the 30th rendition of the A+A. **P20**



## CLOUDING THE RISK

Risk, like change, is an everyday part of life. We have to engage with some perils, as reward seldom comes without risk ... Luckily, there are various new ways to mitigate risk. **P30**



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# Banning burnout!



One of the most popular terms in Germany today, barring “immigrant” or “refugee”, is “burnout”. Everyone seems to be suffering from this malady. Not surprisingly, this was also the word on everyone’s lips at the A+A ...

**B**usiness in Germany must be tough, really tough, because, no matter who I chatted to at the A+A (more about this exhibition on pages 20 to 25 of this issue), everyone was complaining about “burnout”.

It’s not a phrase that we use that commonly in South Africa, so I turned to Google to define it. The *Urban Dictionary*’s explanation was probably not the right one, I figured, although it did make me giggle: “Burnout” is defined as “a high-school or college student who does little else than cut classes and smoke weed”.

According to this source, a “burnout” usually has “long, straight hair and a proclivity toward heavy-metal bands of the 1970s and 80s; can often be found in smoke-filled bathrooms and makeshift basement bars”.

I attempted to explain this to one particularly serious German man at the exhibition; he looked at me as though I was

completely daft (a look I get quite frequently). That’s because, in Germany, “burnout” has little to do with smoking weed (although, it must be said, the two apparently do go hand in hand sometimes).

Instead, it’s a serious medical and psychological condition, which was actually coined in the 1970s by the American psychologist Herbert Freudenberger, and it applies to people who are terribly stressed, exhausted, listless and unable to cope (a la yours truly on deadline).

Burnout is a huge – and growing – problem in Germany. In 2013, the former German Labour Minister, Ursula von der Leyen, reported that psychological illnesses caused by workplace stress resulted in 59-million lost days of work in 2011, costing the country’s economy an estimated €6 billion (almost R93 billion). Today, an estimated 2,7 million German workers are suffering from burnout.

According to Bruno Zwingmann, president of the German Federal Association for Occupational Safety and Health, about 175 000 people gave up work for medical reasons in Germany in 2013. “According to a recent study, the cost of early retirement to society is over €20 billion (about R309 billion) per year, of which about half appears to be caused by pressure at work.

“With an average incapacity rate of 15 days per employee, Germany lost approximately 567,7 million days through sickness and ill health in 2013. Based on this incapacity volume, the Federal German Institute for Occupational Safety and Health estimates that the nationwide loss of production totalled €59 billion (about R911 billion) in 2013 and the loss of gross added value was €103 billion (almost R1,6 trillion),” he reveals.

Not surprisingly, therefore, mental health is a hot topic in Germany. “Mental health

requirements are, indeed, at the top of the list when we look at stress in our modern, globally networked working environment – a world which is currently entering a new phase of far-reaching changes through digitisation.

“Today’s burnt-out individual is subject to communication overkill, is continually under pressure to be creative and positive, while also having to market and manage themselves perfectly. Yet there are many indications that such a person is, as it were, a prototype illustrating the negative impact of our modern working life (and habitat),” says Zwingmann.

The topic also came to the fore at the A+A. For instance, experts discussed and debated Germany’s new Preventive Healthcare Act. “The Act has an impact on the working environment and, above all, on the country’s statutory health insurance companies and collaboration with the relevant responsible bodies,” explains Zwingmann.

This new Act reinforces changing perceptions within Germany. “Compared with the situation about 30 years ago, health and safety now forms part of a different economic environment in Germany. There is good evidence today that, in order to be economically sustainable and, thus, healthy, a company must have healthy, safe and ergonomic working conditions. The official figures certainly give us an idea about the magnitude of the potential in preventive healthcare,” says Zwingmann.

As such, the German government is proposing strengthening workplace health promotion and doubling the associated budget from €250 to €490 million (R3,9 to R7,6 trillion).

Wouldn’t it be wonderful if we could do something like that in South Africa? Tsk tsk. Of course we can’t. We have to pay for things like Nkandla ... **/SHEQ**



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# Global warming:

## Not as bad as we thought?



Jaco de Klerk

Global warming has gained a bad rap, as it is causing the polar ice caps to melt and sea levels to rise. It is disrupting the habitats of various species and bringing about longer, more intense heat waves, but there is some yang to its yin

**B**efore I dive into this controversial conversation, I'd first like to bid thee farewell. A wonderful job opportunity is luring me to Namibia, so this will be my last SHEQ Sound Off – unfortunately.

It has been an amazing ride and I hope you've enjoyed reading this series. Thankfully, I have one last opportunity to dive into this beloved acronym – in true Sound Off style, of course ...

With their noisy banter and untidy nests, crows can be inconvenient for people, but people are convenient for crows, a scientific study has found.

Across much of South Africa the pied crow benefits from modern infrastructure – in particular electricity pylons – and warming temperatures caused by climate change, according to a study by the Percy FitzPatrick Institute of African Ornithology, at the University of Cape Town.

Electricity pylons have provided useful nesting sites in South Africa's steadily warming western scrubland where traditional tree nest sites are a

scarce commodity – much to the crow's satisfaction. The net result is an increase in the regional pied crow population, says the study originally published in the international journal: *Diversity and Distributions*.

"Pied crow numbers have increased in response to climate warming, with their spread facilitated by electrical infrastructure in south-western South Africa," the study says.

Significantly, the study shows that it is the combined effect of climate change and electrical infrastructure that has fuelled the increase and not any single factor.

Findings were based on an analysis comparing two bird atlas surveys, conducted 20 years apart, which were then matched with geographic and climate data. The method produced some intriguing results:

- While there has been an increase in pied crow populations in the warmer south-west, there has been a decrease in the cooler north-east. There is a strong relationship between temperature



warming in the period between the two surveys and crow population changes.

- By contrast, there is no relationship between changes to crow populations and current levels of urbanisation or power-line density. However, in the south-west, where numbers have increased, there is "a significant relationship between increases in pied crow reporting rates and the density of power lines".

Susie Cunningham, co-lead author of the study, says results show how human infrastructure has allowed crows to track a "preferred climate bubble", into the south-west, as this area of the country has warmed under climate change.

"They've been enabled to move into the treeless Karoo by our provision of power pylons on which to nest. As climate change progresses, we expect to see more and more synergies of this kind allowing species to change their distributions in the landscape," Cunningham says.

The range expansion is partly due to the crow's high intelligence and adaptability – qualities that sometimes irk mankind, according to co-lead author Chrissie Madden: "Being generalists, they are not constrained by a specific diet or nesting requirements. With power lines being suitable nest sites, and road-kill a constant supply of food, we are providing perfect crow habitats in the south-west," Madden says.

The new study also provides valuable insight into how species respond to patterns of change: one anthropogenic (human driven) factor, like climate change, might have a different impact on a particular species when combined with another anthropogenic factor, or several other factors.

In the case of the pied crow, although the impact of climate change alone explains some of the increase in pied crow populations between the two surveys,

these increases can be better explained when looking at the combined effect of climate change and power-line density.

"In light of this, we caution that other studies exploring climate-related distribution changes should take into account observed patterns of climate change within the study region, as well as explicitly investigating potential non-climatic drivers," the report says.

The study provides "a clear example of compound influence of multiple global change drivers promoting a significant change in a species range and reporting rate".

Cunningham says the study is important since it links crow population changes with anthropogenic landscape transformation (pylons) and climate change. "We are altering the environment, and, naturally, there will be some losers and some winners. Pied crows are currently winning," Cunningham points out. **|SHEQ**



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## THE SMART GRID WORKS, BUT ONLY WHEN CONNECTED TO SMART BUILDINGS

By linking all supply and demand elements through intelligent two-way communication, the power grid could constantly monitor demand and adjust delivery accordingly. That's the idea behind the "smart grid".

In South Africa, we do not have a "smart grid", per se, but, to solve our energy crisis, the natural progression is to implement the technology in order to connect demand to supply capabilities and deliver bi-directional information between the utility and the consumer.

Facilities will be able to control their energy loads by having them connected to a smart grid. Companies will be able to manage their own load shedding. This will deliver significant financial benefits to organisations and assist the utility to manage demand better. To deliver all the benefits the smart grid has to offer, it needs to be connected to smart buildings.

A smart building provides some (or all) of the following advanced capabilities:

- Optimised coordination of energy loads, on-site energy generation and energy storage;
- Fully integrated control of lighting, heating, cooling, ventilation, information technology, and other energy-consuming systems, using weather data and information from security, scheduling and other business systems to optimise performance;
- Advanced diagnostics and automated measurement, verification and reporting of energy and greenhouse-gas emissions savings;
- Continuous two-way communication between the building and the grid;
- Automatic demand response to dynamic pricing signals from the grid;
- By utilising smart building technologies, owners and tenants can vary electricity usage in response to signals from the grid

when prices change, to consume electricity when it's cheaper, and they can reduce demand when the grid is reaching capacity.

This is known as "demand response". Smart building management systems can automate a short-term reduction in energy demand through load shedding or load shifting. For example, if the owner sets an electricity price threshold for the building and the grid signals that the price will exceed that threshold at a particular time of the day, the system would automatically reduce energy demand in the building at that time. The system could turn off non-critical loads, reduce lighting levels and let building temperatures float within limits, or start the use of stored or on-site energy generation.

**Neil Cameron**  
General Manager  
Johnson Controls Building Efficiency



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## VERY INFORMATIVE AND EDUCATIONAL

I happen to come across your March/April edition, which I found to be very informative and educational. Well done to you and your team!

**Robin Bhagwandass**  
Managing Director  
Pinnacle Protection Enterprises

*Thank you so much Robin! It is absolutely wonderful to get positive feedback. And we're delighted that you enjoyed that edition.*

– Ed





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## SAVE THE DATE

There was a 28-percent increase in the number of visitors at A-OSH Expo 2015. The stage is set now for Africa's leading occupational health and safety exhibition to bring the latest products and services to a discerning audience of industry professionals at the 2016 event.

"We introduced two new features this year: the 'Business Matchmaking Programme', that matched visitors up with the most relevant exhibitors; and the 'Fire Hazard Identification Challenge'. This was based on a simulated office environment with six to eight fire hazards that had to be identified by participants," Joshua Low, event director at Specialised Exhibitions Montgomery, points out.

The Fire Protection Association of



# A-OSH EXPO SOUTH AFRICA | 2016

Southern Africa (FPASA) also ran its InFires conference alongside A-OSH Expo for the first time. "This is a CPD-accredited event, aimed at technical insurance people," Low adds.

"The conference was a great success, attracting over 100 people from some of the leading insurance companies in South Africa. Based on the success of these events, FPASA has agreed to host the conference alongside A-OSH Expo in 2016."

The educational programme at A-OSH Expo was lauded by visitors as

being among the best in the market. In 2016, Noshebo Theatre seminar and the PASMA Working at Height Theatre, will provide industry-riveting content on trends, legislation and best practice.

The ever-popular South African Institute of Occupational Safety and Health (Saiosh) conference will, once again, feature strongly and visitors are encouraged to book early to avoid disappointment...

A-OSH Expo 2016 is scheduled to take place between May 24 and 26, 2016.

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## DREAM, CREATE, INSPIRE

Cummins South Africa has taken upcycling to the next level with the Cummins Dream Machine initiative, which sees employees create arts and crafts from scrap parts found at the company's Master Rebuild Centre in Johannesburg.

The project was initiated in March by MD Schuylla Goodson Bell. "I have a fundamental belief that a happy technician means a happy customer, so I spend a lot of time on the shop floor.

"The initiative resulted from a normal walkabout around the Cummins Master Rebuild Centre. The premise is that engine parts can be used to educate others about upcycling and to create jobs for local artists, crafters and artisans," explains Bell.

To kick-off the project, Cummins employees from varying backgrounds were placed into teams, given a budget of R500, and told to let their creativity loose.

To ensure safety, all work had to be done during business hours on Cummins premises. The time spent by each employee counted towards their community service hours. In total, over 200 hours were logged by the end of June.

A judging and awards ceremony was held at the Cummins South Africa head office during September. A broad spectrum of creations were

displayed and presented. These varied from *objets d'art* to functional items including: lampshades, candle holders, ice bucket holders, photo frames, jewellery, tables with glass tops and wine coolers.

Contestants were invited to share with the judges: the inspiration behind their creations; the uses and benefits of their creations; which parts and techniques were applied; and the link to education, the environment and social justice.

Awards for innovation, originality, creativity and employee choice were handed out, but the overall winner was Team 3, The Design Masters, whose main piece was a side table created from crank shafts, con-rods and pistons. The team also created a "lamp robot" for load shedding.

"It's great to be able to do something creative using scrap materials. We want the young people to be able to sell these sorts of crafts," says the team's Stephen Radzilani.

The judges were specifically selected with the aim of taking the Dream Machine Initiative further. They included: Raina Washington, wife of Patrick Gaspard, United States Ambassador to South Africa; Masana Chikeka, Cultural Development, Department Arts and Culture; Eugenie Drake, founder of Piece; and Nomvula Mashoi-Cook, executive director, Mpumalanga Traditional Art Market.

"The goal is to create public-private partnerships. Some of the judges are helping us to identify local crafters to get involved, and we're looking for non-government organisations that can help us take this initiative forward," explains Goodson Bell.

"My dream is to make this a global project and to partner with other players, such as small, medium and micro enterprises, to build something sustainable. It can change the landscape and define Cummins differently in South Africa and the rest of the continent," concludes Goodson Bell.



**From Left:** Cummins employees show off some of the creations they made from waste material. Employees from across the company made up diverse teams.

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## PREVENT ALCOHOL RELATED ACCIDENTS – IN AND OUT OF WORK

While alcohol misuse and abuse poses a challenge to many organisations all year round, the increase in alcohol intake over the festive season is a problem that needs particular attention.

### POLICY IS KEY

Setting up a sound health and safety policy is a vital step in protecting both the company and employees. If the company adopts a zero-tolerance policy, then it is important that employees are aware of this. They also need to be made aware of the procedures this may involve, and what consequences they will face if they fail to comply.

### DETECTING THE SIGNS

Signs such as bloodshot eyes, frequent absenteeism, weight loss, redness of the nose and cheeks, poor balance and clumsiness could all be indicative of alcohol abuse. If these signs persist, it is in the best interest of both the employer and employee to take action rather than wait for an incident to occur.

### GET THE RIGHT BREATHALYSER EQUIPMENT

Not all breathalysers deliver accurate

results. Michael Crossland, from PSA Africa, suggests that breath alcohol testing equipment should be fuel-cell based, as this type of equipment won't show up with any false positives and, therefore, the reliability and accuracy of the readings rendered cannot be doubted.

He states that it's important to keep this in mind for any Commission for Conciliation, Mediation and Arbitration (CCMA) cases. He notes that quality breathalysers – such as the Lifeloc range supplied by PSA Africa – are admissible in such cases.

Although breathalysers are known to decrease alcohol-related accidents at work, they can also be used to help prevent accidents after hours. By testing your employees before they leave work, you can help to ensure that any alcohol smuggled in during working hours is detected and, in so doing, contribute to making the roads safer this festive season.

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# The X factor:

## 15 habits of exceptional safety leaders

Nowadays it seems that the world of work is all about leadership. Take a look around your local bookstore, or that kiosk at the airport departure gate and you'll find myriad titles proclaiming the latest leadership brand, process or method. Sure, there's probably something in each of these books that may inspire you, but, with so many choices, where should you begin if you desire to develop your own learning?

**D**espite the wealth of book titles, blogs and research papers, great leadership can still be hard to define – and to understand. What is it really? We've all probably found ourselves working for a great leader at some point – and we've felt it, but even those leaders we hold high in our estimations may have a tough time explaining just what it is that makes them so effective.

Great leadership is fluid, dynamic and complex – there's no one-size-fits-all secret recipe for success, instead it's about how we use a range of skills in certain contexts or situations.

When it comes to matters of safety at work, leadership is the glue that binds everything together. It's the flag that points the way forward. It's the difference between people going home or not.

We've come into the "age of leadership", where everyone has a role to play. Whether you're a leader through bestowal of a title, (such as director, vice president or head of department), or a leader of people, teams,

functions or activities – you are looked upon to lead.

In this new age, however, those without these obvious "leadership responsibilities" also have the potential to lead effectively ... What can we, as practitioners, learn from the art of leadership that will benefit health and safety at work?

### GOING BACK TO OUR ROOTS

Around 430 BC, Xenophon was born in Athens. He went on to become a soldier and an historian, though he is remembered more easily as a student of Socrates. Although Xenophon was not regarded as one of the classical Greek philosophers, his writings have shaped much of the modern-day science of leadership.

In some of his more considered writings, Xenophon pares down the art of leadership and reveals the importance of building culture:

"The true test of a leader is whether his followers will adhere to his cause from their own volition, enduring the most arduous hardships without being forced

to do so, and remaining steadfast in the moments of greatest peril."

In our pursuit of safety excellence, many of us have, like Xenophon, come to learn that effective leadership is about going beyond technical knowledge and a focus on compliance, in order to develop a sense of maturity that allows us to gain an understanding of people, their behaviour, motivation and influence.

Socrates would remind Xenophon that: "wisdom begins in wonder". So, if we could be included in their discussions now, what wisdom might Socrates and his student bestow upon us in order to become great safety leaders? Here are ten essential traits and behaviours that we've identified through our own research on leadership – each supported with a more modern-day quotation.

### 1. Action visualisation

*"Where there is no vision, the people perish."*  
– Proverbs 29:18

Great safety leaders visualise the target, but also clearly see and articulate the steps





required for success. Look beyond your goals and identify the milestones along the journey. Plan each step towards these, and share the results of your progress. As well as pointing to the horizon, also show what's coming up around the next corner, too.

## 2. Big picture perspective

*"The big picture doesn't just come from distance; it also comes from time."*

– Simon Sinek, Author

Seeing the big picture means avoiding getting stuck in narrow mindsets, looking

out with a wide-angle lens and being sure just how safety fits, aligns with, and supports the broader business aims and objectives. It comes from the daily grind: the dust, sweat and tears that make us who we are. Great safety leaders understand this and pull back from the inevitable close-up and use their experience to see the solution.

## 3. Encourage a learning culture

*"The best leader is the one who has sense enough to pick good men to do what he wants done, and the self-restraint to keep from meddling with them while they do it."*

– Theodore Roosevelt, 26th President of the United States of America

Having sufficient emotional intelligence to understand that people are fallible, and to accept genuine mistakes as part of the learning process, is vital in developing a "just culture" in the workplace. Share the opportunity to learn, grow and develop with those around you and watch your safety culture flourish.

## 4. Communicate fluently

*"Speak to a man in a language he understands and it goes to his head. Speak to him in his language and it goes straight to his heart."*

– Nelson Mandela, Former President of South Africa

In matters of safety, it's all too easy to get caught up in our own language – filled with jargon, abbreviations and technical terminology. The best safety leaders recognise this and think carefully about their target audience and stakeholders' needs and preferences before they begin to communicate.

## 5. Flexibility

*"Great leaders are almost always great simplifiers, who can cut through argument, debate and doubt to offer a solution everybody can understand."*

– General Colin Powell

"Black and white" thinking rarely delivers constructive progress when it comes to matters of safety. More often than not it serves to eliminate options and stifle creative thinking. Great safety leaders operate with the purpose of ➤



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providing service for others, including their thoughts, and responding to their concerns.

#### 6. Tolerance of complexity

*"Si tout est compliqué, ça ne colle pas. Si tout est simple, ça ne suffit pas." ("If everything is complicated, it does not stick. If everything is simple, that is not enough.")*

– Alain Bashung

French singer-songwriter Bashung recognised that if "everything is complicated, it doesn't work. But if everything is easy, it's not enough." An acceptance and understanding that things are never simple and, sometimes, things are tough is, of course, necessary, but, beyond this, the ability to find the sweet spot or balance point in each situation can almost always help us find a way forward through the complexity.

#### 7. Gratitude attitude

*"The first responsibility of a leader is to define reality. The last is to say thank you. In between, the leader is a servant."*

– Max DePree

The fast pace of business life – whether at the boardroom or on the shop floor – subtly encourages us to be brief and to move quickly. Great safety leaders consistently acknowledge the worth of each individual in an appropriate manner –

recognising their contributions in word as well as in deed.

#### 8. Horizon Awareness

*"As we look ahead into the next century, leaders will be those who empower others."*

– Bill Gates

Back in the 1990s, Gates recognised the dawn of a new age where empowerment at all levels would become the norm. Continuously scanning the horizon allows us to see what's "coming down the pipe" and helps us to make sense of new ideas, theories and concepts. The smart safety leaders have no hesitation in introducing and championing the contributions of others, and removing the barriers from their paths to enable positive action.

#### 9. Optimistic Influence

*"When inspiring and motivating positive action in others towards their goals, you don't lead by hitting people over the head – that's assault, not leadership."*

– Dwight Eisenhower, former President of the United States of America

In safety, it's not always "sweetness and light", is it? There are rough, dark days aplenty and, as safety leaders, we are not alone in feeling them. Try to find the positive light in which to share safety at work, and show the value and benefits of your approach and ideas. Choose the carrot over the stick.

#### 10. Perseverance

*"Leadership, like swimming, cannot be learned by reading about it."*

– Professor Henry Mintzberg

The ability to self-motivate, set appropriate goals and manage time efficiently are all key skills of the great safety leader. However, the really impactful work is done out there in the field, among the men and women of the workforce. Everyone will not always buy into what we propose, but, come hell or high water, we will show up every day and give our best, no matter what.

#### BUILDING FORWARDS

Being a great safety leader doesn't mean that you have to do all of these things at once. In fact, that might be a recipe for disaster rather than success. Choose one or two things that resonate with you and, as you become more effective, choose others to add to your skill-set.

Remember that emulation is an acceptable form of personal development. It's okay if you need to "act out" some of these traits to get you going in the right direction. The more you practise, the more natural and useful these new behaviours will become. As you step forward on your own journey as a great safety leader, keep in mind this final thought, that a leader always leads by example, whether he intends to or not. | **SHEQ**



*Sharman on Safety is a series of extracts that SHEQ MANAGEMENT is running this year, from Andrew Sharman's new book: From Accidents to Zero: a practical guide to improving your workplace safety culture. Andrew is an international member of the South African Institute of Occupational Safety and Health (SAIOSH) and chief executive of RyderMarshSharman - consultants on leadership and cultural excellence to a wide range of blue-chip corporates and non-government organisations globally. More at [www.rydermarshsharman.com](http://www.rydermarshsharman.com). SHEQ MANAGEMENT readers will receive 20 percent off the price of Sharman's book at [www.fromaccidentstozero.com](http://www.fromaccidentstozero.com) using the code SHEQSA.*

# From Accidents to Zero

## A practical guide to improving your workplace safety culture

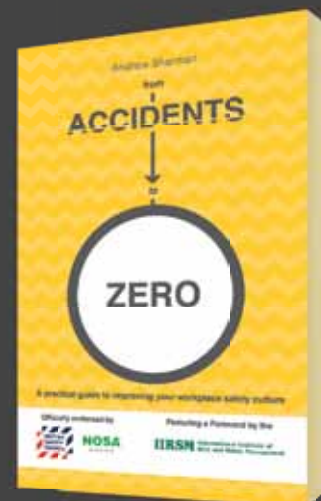
Thought-provoking and insightful. From Accidents to Zero progressively pushed me to see new connections, and new ways to address organisations' safety culture and risk management challenges.

**Mieke Jacobs, Global Practice Leader – Employee Safety, DuPont**

This A to Z of safety represents an eminently practical knowledge toolbox, one filled with tools which will add value to the CEO and the front line Safety Practitioner in equal measures. Relevant, accessible and applicable, this is safety distilled and a 'must-read'.

**Steven Brown, Brewery Manager, Heineken**

Read more at [www.fromaccidentstozero.com](http://www.fromaccidentstozero.com)





# From the president's desk

A very exciting letter has been received from the Department of Higher Education and Training (DHET). It requires that all registered private higher education institutions or colleges must be audited annually for occupational health and safety (OHS) compliance. What is new is that the auditor has to be registered by Saiosh, at graduate level

**T**he DHET sent us a formal letter stating that all private higher education institutions have been advised that all OHS audits may only be conducted by an auditor, registered by Saiosh at graduate level. The auditors' membership details must be included in the audit report submitted to the DHET.

## OHS CONTINUING PROFESSIONAL DEVELOPMENT (CPD) WORKSHOPS

We recently completed another round of OHS CPD workshops in Port Elizabeth, Cape Town, Durban and Johannesburg. The total attendance was more than 400 members and visitors. These workshops are free to members in good standing. Attendance earns valuable CPD points.

The topic for this tour was the latest news on the OHS Bill, as well as the changes to the pressure equipment regulations and notes on the recently published regulations for driven machinery.

The presenters from the Department of Labour (DoL) included Jakes Malatse, Pieter Laubscher, as well as the chief inspector, Tibor Szana – who presented at all four venues. Saiosh is extremely grateful for the time taken by the DoL to speak at our workshops.

Despite his busy schedule, the chief inspector put aside time to be with our members. This is not the first time that Szana has dedicated time to talk to practitioners on the work that he does, and the interaction between the DoL and the OHS practitioners.

For this passionate service to the business of preventing injuries and protecting employees, Saiosh decided to recognise Szana's role by awarding him an honorary membership, which was handed to him at the Johannesburg workshop.

## UNIFIED PROFESSIONAL OHS BODY

A document that has been circulating and was recently published in the *National Safety* magazine, states that there is a "proliferation of OHS bodies" and these should be amalgamated into a single body with a new name, new constitution, new logo, new membership designation and new membership criteria.

When this document was first received, our council gave it serious consideration and finally rejected it as an unworkable proposal.

These are our reasons:

- There may be different related bodies working in the occupational health and safety (OHS) field, but they perform specialised work and have their own identities. These include the South African Institute of Occupational Hygiene (SAIOH) and the Institute for Working at Height (IWH);
- There is only one professional body recognised by name and that is the South African Institute for Occupational Safety and Health Professionals (Saiosh);
- There are already other organisations, each doing similar work, but with different specialities, which are recognised by the South African Qualifications Authority (SAQA). The accounting/auditing professions, which centre on finance, have 12 professional bodies. If we add in bankers, tax advisors, finance advisors (broadly involved in finance) there are another six professional bodies;
- Saiosh is the largest professional body in the OHS field with over 5 000 members;



**From left:** Saiosh president, Robin Jones, handing over an honorary membership certificate to Tibor Szana, chief inspector at the Department of Labour.

- Subject to an official audit, I would claim that our membership is greater than the total of all the three other bodies in the OHS field;
- Our two objectives are simply to do whatever we can to educate, guide, motivate, mentor and lobby for the OHS profession and to do the same for the professionals;
- We have too many member benefits to list here. Interested persons are invited to check the benefits on the website: [www.saiosh.co.za](http://www.saiosh.co.za).

Our final thought is that if OHS professionals are looking for a body that will look after them, then a professional body – Saiosh – already exists. **| SHEQ**



# Other side of the story

In the July/August 2015 edition, we discussed the insurance and management of the first category of employment risks. Essentially, the discussion focused on risks of a physical nature, such as bodily injury, sickness, or death of employees in the course of employment. This is the second part of that discussion

It was pointed out in the previous discussion that risk management efforts relating to these risks revolve around occupational health and safety interventions. We also noted that both employers' liability insurance and workmen's compensation are common methods of financing compensation payable to those affected by these risks.

In most countries, workmen's compensation is by far the main source of compensation, while in a minority of countries employers' liability insurance dominates.

In this article, we consider the second category of employment risks and discuss some perspectives on how these risks can be insured and managed.

Employers need to understand that not all risks associated with the workplace result in bodily injury, sickness or death. Some employment risks arise from wrongful practices adopted by the employer resulting in legal liability.

Risks of this nature include: discrimination of an employee at work, sexual harassment, wrongful dismissal, breach of the employment contract by the employer (this could be on the basis of race, religion or sexual orientation), defamation, failure to promote, negligent supervision, invasion of privacy and retaliation.

These risks do not result in bodily injury or death of employees. They are collectively known as employment practice liability risks. They can be as financially damaging as risks causing injury or death, if not worse – to the extent that they affect the financial stability and reputation of a firm.

For some empirical results of employment practice liability risks on companies, it is perhaps helpful to turn to the most litigious country on the planet, the United States (US). Studies from the US indicate that, since the late 1990s, employment practice liability risks have been increasing at a much faster rate than

risks causing bodily injury or death.

According to the US Equal Employment Opportunity Commission (EEOC), private sector workplace discrimination cases, filed with commission, peaked at 99 922 in 2010. Other studies have also shown that six out of ten employers in the US faced an employment practice lawsuit from 2006 to 2011.

It has also been observed that nearly 75 percent of all civil cases filed against companies in the US involve an employment practice dispute. Another interesting observation is that the frequency of employment practice liability claims tends to increase in periods of economic stagnation.

An explanation for this could be that when the economy is not in good shape employers are hard pressed to cut costs, which results in infringement of employee rights. In highly litigious countries like the US, such infringement rarely goes unchallenged.



How then can employers manage their exposure to employment practice liability risks? An obvious answer is by taking out insurance. Employment practice liability risks are generally insured under Employment Practice Liability (EPL) policies. This type of insurance is relatively new, having been introduced in the early 1990s.

EPL policies exclude coverage of all risks associated with occupational health and safety, which, as we saw in Part 1 of this article, are covered under workmen's compensation or employers' liability insurance. Claims constituting wrongful employment practice are invariably arbitrated and a significant number are settled through litigation.

As a consequence, coverage of defence costs is an integral component of EPL insurance. In a significant number of cases it is not unusual for the claim to be settled for an amount significantly lower than the cost of the defence. In addition, insurers take great care in defining what constitutes

a wrongful employment practice for purposes of coverage.

Naturally, there is a lot of variation among insurers on how this term is defined, with some defining it more narrowly than others. Generally speaking, however, the term "wrongful employment practice" incorporates a variety of objectionable practices such as discrimination, sexual harassment and wrongful dismissal.

Apart from buying insurance, there is a lot more that employers can do by way of risk management to reduce their exposure to employment practice liability risks.

New insurance products like EPL are bound to be highly priced by insurers as they build expertise in assessing the risks covered.

Risk management should, therefore, be the primary focus area for employers. Any effective risk management intervention must be premised on a sound understanding of the risks that it seeks

to mitigate. Employment practice liability risks arise from three main sources.

The first is failure by the employer to adhere to or uphold the company's own employment policies. This can easily happen if implementation of those policies is deemed to cost money against a background of faltering business fortunes.

Another source of employment practice liability risk is the employer's failure to comply with contractual obligations.

The last source is the employer's failure to comply with legal obligations. Effective risk management interventions will invariably be those that target these sources of exposure. A simple four-stage risk management strategy can be adopted by employers to manage employment practice liability risks:

1. There must be a clear, comprehensive and context-specific set of workplace rules and policies.
2. The rules and policies must be well communicated – especially to people >>



who are more likely to breach them and create vicarious liability for the employer in the process. Middle and senior managers are particularly important in this regard.

3. There must be a mechanism of ensuring that managers and supervisors comply fully with company rules and policies. One way of ensuring this would be to make this item a key performance area on which they are regularly assessed.
4. A framework must exist to monitor and evaluate compliance with rules and policies across the company. Adjustments can be made where necessary. A properly functioning risk management system, premised on a

good understanding of employment practice liability risks, can even make the purchase of insurance unnecessary.

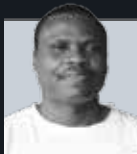
Employment practice liability risks are a product of a company's internal architecture or relationships. Firms should constantly strive to build a good understanding between themselves and their employees based on honesty, trust and accountability.

In other words, companies should build their operations around clearly communicated values, which are shared by employees. However, as is often the case, things can go wrong. It is, therefore, important that firms have structures and measures in place to deal with situations when they arise.

Employment practice liability is a fast-growing source of exposure for firms, certainly in the US, and this trend is expected to spread to other regions as well. It would, therefore, be unwise for local firms to simply wish this type of exposure away.

Unlike in the past, when employees used to shun taking their employers to court, things are rapidly changing, as a result of increasing awareness by employees of their rights at the workplace.

Recurring litigation of this nature could seriously damage the reputation of a company. Simple risk management measures discussed in this brief can make a big difference between avoiding or settling financially crippling claims. **|SHEQ**



*Legally Speaking is a regular column by Albert Mushai from the school of Economics and Business Sciences, University of the Witwatersrand. Mushai holds a master's degree from the City University, London, and was the head of the insurance department at the National University of Science and Technology in Zimbabwe before joining the University of the Witwatersrand as a lecturer in insurance.*

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# If you only have a hammer



It is not uncommon to hear leaders complain about their workforce's poor performance, unwillingness to take responsibility and, in particular, their unsafe actions. Managers often wish workers would just listen, follow orders and comply to set procedures. The burning question is: how do they, as leaders, influence their team's behaviour?

**O**n the surface it seems like a valid question. However, it too easily overlooks the reality that people's behaviour is often a reflection or response to their working culture. For example, if a supervisor is habitually overbearing, unreasonable and, at times, demeaning toward their team members, this can produce resentment, which can have a significant impact on the team members' commitment and feelings towards the company.

To create a healthy working environment, we might want to consider a different strategy. Could we be more effective if we moved away from the notion of trying to change our workforce's behaviour, toward creating working conditions where people naturally want to give their all?

Results are always the outcome of behaviour. This is why we naturally gravitate to implementing systems. These are an attempt to coordinate or control the behaviour of our people.

Logically, if you can get the appropriate, or necessary, behaviour, the results will naturally follow, but a critical component is

missing; behaviour is always a reflection of one's attitude.

Attitude is the way someone thinks and feels about something. Attitude drives behaviour. The working conditions and how leaders interact with their staff have a direct bearing on the attitudes of their team members.

Wouldn't it be a joy if we no longer had to monitor employees on a regular basis? This can only happen in an environment where they give their best and choose to work safely, because of a positive intrinsic attitude. It can never happen in a culture of forced compliance.

There is an old saying that "you manage systems and lead people". Management is critical when it comes to systems and processes; however, when it comes to our team, it requires leadership.

Perhaps it is time to re-evaluate how we choose to lead our teams and the culture we have created. Instead of trying to change people's behaviour, it might be more advisable to ask ourselves: "How effective is my leadership? How much of my team's performance is actually a reflection of how I treat and engage them?" Maybe the change required lies with us as leaders first.

As leaders, could we change the questions we are asking, and get a better result? Consider these questions to reflect on your teams' safety culture:

- What type of working environment do I need to create that will stimulate responsibility, initiative taking, innovation and safe practices?
- What benefits would come from focusing on building internal motivation instead of relying on external reward schemes or disciplinary processes?
- What could I do to empower my people to take responsibility for their safety?
- What systems or policies are counter-productive to the culture we desire?
- What changes do I need to make?
- How can I engage my team in a way we get more buy-in?

As leaders, we can become comfortable with our style and overly reliant on the same tool to deal with many varied situations. If what you are doing currently isn't influencing change in the team, is there a different approach that could? As the saying goes – if you only have a hammer, everything looks like a nail. **| SHEQ**



*Dr Brett Solomon is a principal consultant at Sentis, and has been involved in numerous safety culture change initiatives with progressive thinking organisations such as Anglo American, Glencore Alloys, PPC and Aveng Moolmans. Currently he is working closely with BHP in South Africa and Impala Platinum.*



# A+A:

## A feast of health and safety innovations!

A whopping 65 000 people from 80 countries descended on Düsseldorf, in Germany, for the 30th rendition of the A+A. CHARLEEN CLARKE was among them ...

**T**he workplace is a promising place to be! Companies are investing in health and safety! Those were the upbeat messages to emerge from this year's A+A! In fact, there was a whole lot of good news to emerge from this year's event ... There were more visitors than before (up from 63 000 two years ago). Total exhibition space grew – from 60 700 m<sup>2</sup> to 65 000 m<sup>2</sup>.

Not surprisingly, everyone was happy. "As before, A+A has reached record numbers of exhibitors and visitors, thus reconfirming its position as a global leader among trade fairs and conventions on occupational health and safety. It is providing major market stimuli and political debate, both in Europe and beyond," confirmed Joachim Schäfer, managing director of Messe Düsseldorf, summing up the upbeat atmosphere in the exhibition halls.

Andrea Nahles, the German Minister for Employment and Social Affairs, spoke at the opening event and focused on the importance of preventative healthcare in

the changing world of labour, pointing out that a flexible compromise is needed.

"When we talk about the future of the workplace, we must always include occupational health and safety. The digitisation of the workplace offers a large number of opportunities. Companies can boost their productivity, and employees can achieve better working conditions and more flexible working hours.

"However, there are also risks. Performance optimisation, pressure of time, sensory overload and continuous availability can cause mental stress," she pointed out. (Also see the editor's column on page 2 of this issue of SHEQ MANAGEMENT.)

Visitors appeared keen to invest and appeared interested in high-quality personal protection equipment (PPE) and clothing. This was confirmed by a study on the German PPE market, submitted at A+A 2015 by the market research company Macrom.

According to the study, the market volume has again increased by over four percent in sectors where PPE is

particularly vital (such as construction and manufacturing), reaching a total of €1,8 billion (about R27,8 billion) over the last two years – despite stagnating payroll figures. This is about one tenth of the world's entire market.

When it comes to PPE items for specific parts of the body, protective clothing and workwear (with its current emphasis on corporate fashion), the message at the A+A was clear: modern workwear needs to be cool; it should be similar to fashionable outdoor clothing, in shape, design and colour.

Nevertheless, functional aspects do, of course, continue to be vital. Thanks to modern high-tech textiles and materials, for instance, emergency response staff can wear special protective clothing that is extremely heat-resistant and, at the same time, also breathable and water-repellent.

While PPE was – quite literally – everywhere at the show, A+A exhibitors also took the opportunity to present the entire bandwidth of products and services. Here are just some of the highlights of the show:





**RIGHT:** Harm Daems, global director of Bata Industrial (left), and Adam Pugh, Bata Industrial regional manager for Africa, with the new Bright range of safety shoes.



**BELOW:** Elvex launched a bevy of new products and Jose Montalvan, director Latin America, reported lots of interest from visitors.

### 3M

Jaco Combrinck, respiratory business manager Middle East and Africa (MEA) at 3M South Africa, was on hand at the 3M stand to demonstrate the company's latest and greatest products to SHEQ MANAGEMENT. The first of these was the 6055i A2 organic gas and vapour cartridge. It comes with a service life indicator and is launching in South Africa as you read this magazine.

The big news with this cartridge is, of course, the indicator, which is visual and simple to use. Combrinck says that this product, which is a world first, should sell extremely well in South Africa – because it is cost effective, easy to use and offers worker confidence.

The company also launched a powered air-purifying resuscitator – the Versaflo TR-600. "It takes the entire Versaflo system to new levels of confidence, control and comfort. It incorporates a visual, audible and vibratory motor/blower alarms for extra peace of mind," Combrinck explained. It was interesting to learn that, while both products were launched globally at A+A, they would also be available in South Africa this year.

### ANSELL

Ansell announced several industry firsts in protection solutions at the A+A. For instance, the company showcased seven new Microflex single-use gloves; two with Ergoform styles (Ansell gloves designed with Ergoform are engineered to deliver musculoskeletal support and reduce the risk of ergonomic injury caused by prolonged or repetitive manual tasks).

Ansell exhibited its AlphaTec isolator box glove range; one made from an extremely soft and supple formulation of the ultra-resistant synthetic glove material CSM (or Hypalon), and the other made using EPDM (similar to CSM but re-sterilisable).

Ansell is one of the few manufacturers to launch gloves in this expensive, high-performance material and has achieved flexible formulations without compromise to resistance from chemicals, temperature extremes, and ultraviolet light. The gloves are used in applications where high integrity is important, such as vaccines and biohazards.

Ansell also launched Ansell Protects Triple Active Gel, the world's first specialised under-glove gel for workers who

wear gloves. Designed and marketed in partnership with Deb, Ansell Protects Triple Active Gel's anti-allergenic, anti-irritant and anti-perspirant properties help maintain skin health and improve wearer comfort.

The gel encapsulates common workplace allergens known to cause irritation, allergic skin reactions and allergic dermatitis, helping stop them from being absorbed into the skin. Independent scientific tests have shown that Triple Active Gel reduces the rate of water loss from the skin by 63 percent and skin redness by 31 percent.

Seven new cut-resistant medium- and light-duty HyFlex Intercept glove styles, engineered with next-generation Intercept Technology yarns, were also presented at A+A. Visitors to the booth got to the opportunity to see the gloves being "tortured" in a machine designed to mimic extreme cut injuries.

### BASF

BASF presented its fascinating thermoplastic polyurethane (TPU) portfolio for work and safety shoes at the A+A. The world's first





expanded thermoplastic polyurethane (E-TPU) is now being used for the first time in safety shoes – in the guise of Infinergy.

The closed-cell, elastic particle foam features low density, high elasticity, high abrasion resistance, high tensile strength and good long-term durability over a wide temperature range (down to minus 20°C) along with good chemical resistance. The outstanding property of Infinergy is, however, its high resilience.

Testing of the rebound elasticity in accordance with ISO 8307 (ball rebound test) and DIN 53512 (with a defined pendulum hammer) demonstrates that Infinergy achieves a rebound height of more than 55 percent, putting it well ahead of

manufacturer and retailer of footwear in the world. "We're active in 60 countries and we have about 6 000 retail outlets. Africa is considered one of the growth areas for the company and we've been producing leather gumboots in South Africa for about 40 years. We started producing safety shoes locally a year ago," he told SHEQ MANAGEMENT.

More news from Bata Industrial is the launch of a new app, which gives information pertaining to the range and location of distributors. Also watch this space for a new sock range that will launch in South Africa shortly.

#### BRADY

Brady focused on its safety and facility

explained Lori Aeschbacher, global product manager for benchtop printers at Brady.

#### CAPITAL SAFETY

Capital Safety, which was recently acquired by 3M, presented what it termed "the most comfortable, lightest-wearing, truly innovative safety harness ever created" at the A+A.

The Exofit Strata incorporates the company's Lifetech load-distribution system, which, literally, takes the weight off the workers' shoulders and redistributes it down to the hips (which is around the centre of anyone's gravity). The result? Weight is redirected to an area of the body that is better suited to carry it. The Exofit Strata

**BELOW:** Jaco Combrinck, respiratory business manager MEA at 3M South Africa (extreme right), hosted two Namibian visitors on his stand: Gielie Loubser, branch manager at Cymot, and Penda Ikkuva, brand manager: Namibia at Cymot.



comparable foams. Infinergy also does not lose its high resilience even with continuous use, making it the ideal material for midsoles in safety shoes.

#### BATA

Bata launched its funky and aptly named Bright range at the A+A and Adam Pugh, Bata Industrial regional manager for Africa, revealed that these safety shoes are coming to South Africa soon!

According to Pugh, these lightweight shoes are indicative of the trend towards more fashionable PPE. "They are completely metal free, there is no steel in the toecap and they also feature the Bata Cool Comfort lining," he explained. Colours include pink and turquoise (they're quite gorgeous, really).

Pugh revealed that Bata, a third-generation family business that has been around for 120 years, is the largest

identification solutions, including lockout/tagout, which has widely been described as a lifesaver in maintenance operations. With a lockout/tagout programme, companies can prevent a great number of maintenance-related accidents from happening.

We also liked the look of its brand new BBP37 cut and colour and BBP35 multicolour sign and label printers. These new printers feature multiple print colours, text- and shape-cutting capabilities and fast print speeds to give users the power to make signs and labels that make an impact – right at their own facility.

"The unprecedented capabilities of these printers truly set the new standard in safety and facility identification. They're designed to help improve workplace visuals, with colour that gets noticed, shapes that look and fit just right, and unbelievable ease of use so anyone can walk up and print,"

also features PolarMesh padding, which keeps users' backs cooler.

#### CHARNAUD

South African company AJ Charnaud & Company launched the Metal-Safe Charnaud hot metal boot at the A+A and it was good to chat to founder of the company, Andrew Charnaud, who explained that it is the first boot to be tested to over 1 000 °C.

"We actually tested this leather smelter and furnace boot (which boasts a rubber sole and external metatarsal guard) at 1 050°C," he revealed. Significantly, it has a quick-release system to take the boot off in case of an emergency.

The boot – ideal for use within the aluminium industry (although it can be used in other applications too) – was designed in South Africa and is produced in Europe.



Also on display on the Charnaud stand was the innovative Survive-Arc range, which protects workers against the thermal effects of electric arc flash. "The Survive-Arc switching suit is the only triple-certified arc-flash suit on the market, plus it is important to note that we offer a full "head-to-foot" solution," Charnaud commented.

A long-time A+A exhibitor (the company has been present at the show for at least 15 years), it is interesting to note that exports now account for some 60 percent of turnover. "Our export sales are growing much faster than the local business. Some 85 percent of people who try to export fail – so we are very proud of our achievements

Dräger has specifically developed the X-plore 8000 to provide the wearer with the best possible protection, while not hindering performance.

The company also launched the SPC 3700, a new liquid-tight protection suit (type 3) which, in combination with the CVA 0700 ventilation vest, provides a high level of protection and comfort, too.

#### DUPONT

It was a case of "something old, something new" at the various DuPont stands at this year's A+A. The "something old" was Kevlar – the company was celebrating its 50th anniversary!

Invented by DuPont, after its scientist

The A+A also marked the introduction of DuPont's Tychem ThermoPro, a new single-layer, triple-threat protection garment. Conceived for industrial workers facing multiple hazards – in the oil and gas industry for instance, as well as firefighters and those involved in the emergency response to chemical incidents with a risk of flash fire – Tychem ThermoPro combines the chemical protection of DuPont Tychem fabric and flame and arc-flash protection of Nomex fibre in a single garment.

To be launched as a full-body coverall, combi-suit (consisting of bib overall and jacket) and gown, Tychem ThermoPro is slated for CE certification by the end of



**ABOVE RIGHT:** Proudly South African! The Neptun Boot team launched two new products: the Stimela XP gumboot and Strident safety boot.



**RIGHT:** Andrew Charnaud, founder of AJ Charnaud & Company, with the remarkable Metal-Safe Charnaud hot metal boot, which was launched at the A+A.



in this regard," Charnaud pointed out. And so they should be!

#### DRÄGER

Dräger launched a number of new products at the A+A. For instance, it lifted the lid on DrugCheck 3000, a drug testing kit that establishes, within minutes, if a person has recently consumed certain drugs. The compact and quick oral fluid-based drug test yields reliable results hygienically and easily. The device does not require electricity and can be used anywhere.

As we well know, the conditions in many workplace environments often place high demands on the respiratory equipment used. Enter the new Dräger X-plore 8000 powered air-purifying respirator, which combines intuitive handling with intelligent electronics for maximum safety. This allows users to fully focus on the task at hand.

Stephanie Kwolek discovered the first liquid crystal polymer in 1965, Kevlar is an advanced material synonymous with strength, durability and performance in extreme conditions. The polymer has been used in applications ranging from space suits and body armour, to gloves, sporting equipment and cellphones.

One of the many new products on display was the Nomex multi-hazard protection fabric, which represents the next-generation of protection against heat and flame, arc flash and small molten-metal splashes for industrial areas.

Nomex MHP has been designed in response to growing market demand for multi-hazard protection, providing durability and high levels of protection, while remaining breathable and comfortable: a significant step forward in performance. A blended fabric, Nomex is both light and breathable.

2015. It should be commercially available in Europe in 2016.

Yet another fascinating development was the news that the Johns Hopkins University and DuPont have signed licence and collaboration agreements. These allow DuPont to commercialise a garment, with innovative features from Johns Hopkins, to help protect people on the front lines of the Ebola crisis and future deadly infectious disease outbreaks. DuPont intends to have the first of these garments available in the marketplace during the first half of 2016. Great news for Africa!

#### ELVEX

Elvex introduced lots of new products at the A+A, but its enhanced eyecare range and a nifty LED light particularly caught our eye.

The Elvex LED Clip-Light clips onto PPE, such as safety glasses, face shields and







**BELOW:** Paul Manning, who is responsible for testing and certification, PPE, workwear, textile and footwear at Intertek, and Raj Gohil, business manager at the company, were inundated with leads at the A+A.



safety helmets. It is lightweight and features a 360° swivel base (so you can point it where the light is needed). Furthermore it's housed in a water-resistant case.

The bold and stylish Elvex Impact Safety Eyewear Series caught the fancy of many a visitor. They come in a wide range of bright colours and lens tints. We also liked the look of the Elvex TTX and RX-450, the company's cheapest safety glasses with an anti-fog coating. The TTX weighs just 24 g, while the RX-450 has a soft nose bridge for added comfort. Both prove that anti-fog coating can be affordable too.

#### HONEYWELL

Visitors to A+A were able to see the latest safety solutions from Honeywell at the company's stand, as well as in the Innovation Park area where a number of Honeywell's products were on display (having been given innovation awards by an independent panel of judges).

We found the Ne-Hon 6 – the industry's first single-use High Visibility (HV) coverall with certified chemical protection – particularly fascinating. This new coverall, which keeps workers safe and visible at all times when undertaking particularly dirty tasks in high-risk sectors, is ideal for use in industries such as rail, aerospace, construction and oil and gas.

"The Ne-Hon 6 combines chemical protection to recognised EU standards with Class 3 High Visibility," said David Guiho product manager at Honeywell Industrial Safety: Europe, Middle East and Africa.

"Following a major research and development programme, the Ne-Hon 6 was designed to be worn over, or as an alternative to, every-day high visibility

clothing to protect it from getting dirty. It allows challenging tasks to be tackled in the normal way, while ensuring responsibilities for worker safety are met. It also significantly reduces high laundering costs. The coverall is simply removed and disposed of at the end of a shift."

Being a member of the fairer sex, this writer also took a fancy to Cocoon – a new range of safety footwear engineered specifically for women – launched by Honeywell at the A+A. As Boris Dodin, product manager of footwear for Honeywell Industrial Safety, pointed out, women often have to opt for safety footwear that has essentially been designed for men.

"The Cocoon range has, however, been created from the sole up with women's feet in mind. Wearers like Cocoon's combination of sport-chic inspired styling, great fit and the very latest safety features," Dodin noted.

The Cocoon range is certified to EN ISO 20345:2011 requirements for general-purpose safety footwear, with four of the six styles also S3 HI CI SRC and S1P HI CI SRC approved, offering the highest level of slip resistance available.

#### INTERTEK

It was a case of business as usual at the Intertek stand, but the guys manning it really made me chuckle when a visitor asked about a certain service. "I don't do that, but I am sure that someone in the group does," was the response.

That's because the company – with a network of more than 1 000 laboratories and offices and over 38 000 people in more than 100 countries – is growing at such a rapid pace, and it's offering new services all



the time (at the time of going to print it was launching new microbiology capabilities in its Abu Dhabi Technology Centre, recently opened in Abu Dhabi, for instance).

Lest you don't know the company, Intertek performs a whole range of SHEQ-related services ... from auditing and inspection, to testing, training, advisory, quality assurance and certification.

According to the Intertek team, the future looks exceptionally bright: they say that the global testing, inspection and certification market will continue to benefit from exciting growth prospects driven by global trade flows, global demand for energy, expanding regulations, more complex supply chains, technological innovation and increased demand for higher quality and more sustainable products. Voila!

#### MSA

MSA showed lots of innovations in the



fields of gas detection, fall protection, head protection and respiratory protection.

It demonstrated its new Altair 5X PID gas detector; the first portable gas detector with innovative XCell Pulse Technology. With XCell Pulse Technology, a daily bump test can be performed without the need for calibration accessories or bottled calibration gas.

The company also launched two new suspensions designed for the popular MSA V-Gard Industrial Safety Helmets: Push-Key and Fas-Trac III. These new hardhat suspensions maximise wearing comfort and ensure quick one-hand use with innovative systems.

provides users with respiratory protection while escaping from toxic atmospheres.

It was designed with extensive input from global oil and gas customers, who highlighted the need for a fast-to-don and easy-to-use respirator with components that withstand high levels of potential industrial gas leaks and harsh chemical environments.

With its intuitive donning procedure that takes less than five seconds, the PremAire Escape enables the wearer to easily escape from a potentially hazardous environment. It offers an air supply lasting 10 to 15 minutes to enable a safe escape.

protector, this 2,35 kg boot (average weight) is hard wearing and has excellent grip and sole support," he enthused.

The launch of the Strident safety boot was especially significant, because this marks the company's diversification into the industrial shoe market. "This is a metal-free, lightweight industrial safety shoe, designed with a water-resistant, breathable upper and dual-density PU direct-injected sole.

"It offers full safety protection to the toe and midsole and has an average weight of 1,25 kg. It is hard wearing, has excellent grip and is slip resistant. It offers three times



**RIGHT:** Exhibitors made every effort to attract visitors to their stands... even body painting was the order of the day!



The Push-Key suspension is the first economic sliding adjustment with 1-Touch solution: simple push to loosen, squeeze to tighten. It offers greater retention capacity than any other sliding suspension, because it's so much easier to select the best adjustment position with one hand – even when worn.

Two different sweatband options are available depending on application or preference: sewn in PVC perforated wipeable, or sweat-wicking replaceable foam. Extensive customer research showed the Fas-Trac III wheel-ratchet suspension was preferred by most users over what they were currently wearing, because it improved helmet comfort, retention and stability while being easy to adjust with only one hand.

MSA also introduced the new PremAire Escape, a compressed-air Emergency Escape Breathing Device (EEBD) that

#### NEPTUN BOOT

South African company Neptun Boot is on the boil! As recently as 2009 it employed 40 people; now it has 200 employees! In addition to servicing the African market, it is also exporting to Chile, Peru, Hong Kong and China ... and it's now eyeing the European market too!

The reason for its growth is obvious: Neptun has developed a range of quality products. That range is growing, too; the global launch of two new products, namely the Stimela XP gumboot and Strident safety boot, took place on its stand.

Allister Robertson, marketing director, was understandably proud of his stand and his new product launches. "The Stimela XP is a world first! Completely metal free, it is a heavy-duty, knee-length PVC mining gumboot with safety toe protection.

"Offering an anti-penetration textile midsole and a fully integrated metatarsal

the life of the equivalent leather boot," Robertson revealed.

#### UVEX

Uvex launched lots of new products on its busy stand, but we really liked the Pheos safety glasses – because they are just so cool. Of course, they don't just look good; these rimless safety glasses incorporate highly innovative technology (the core component is the duo-spherical lens, which not only offers a wide field of vision, but is extremely scratch-resistant on the outside and permanently anti-fog on the inside thanks to Uvex's unique supravision lens-coating technology). They're metal free, too.

Well that's it folks for this year's event; we have given you just a titbit of feedback from this brilliant event. The next A+A will be held in Düsseldorf from October 17 to 20, 2017. See you there! **|SHEQ**



# Nearly 30 Noscars and still aspiring for more

Dubbed the “ultimate benchmark in occupational health, safety and environmental management”, the Nascar Awards are revered by all in these disciplines. We talk to Thabo Modumela, SGB-Cape’s national health, safety and environmental manager, about these accolades

**W**hat does “occupational health and safety” mean to SGB-Cape, and how do you pursue it?

Occupational health and safety is our core value. We want to achieve our Zero Harm goal by ensuring that employees go back home safely, and in good health, after work.

while striving to beat our stellar health, safety and environmental (HSE) records.

**What are your sentiments regarding the Nascar Awards, and what do they mean to the company?**

For me, these awards are like the “HSE Oscars”. They celebrate and recognise the excellence in achieving great HSE standards and, ultimately, ensuring that

**What value do these accolades add to the industry?**

They instil a sense of pride, both for individuals and organisations, and they add value and trust to a brand.

**How many Noscars did the company win this year and how many have you won thus far?**

We won nine this year, and 17 in previous years, which brings it to 26 Noscars that we have won in total to date.

**Why did SGB-Cape win these awards?**

This year we have won more awards than in any previous year – we even won an international award in the CMB 253 (integrated HSE certification) Sector F category.

Management’s passion and commitment to investing in health and safety has definitely led to all these accolades. Our appetite to improve our standards is growing and we are our own critics – hence a continual-improvement campaign is gaining ground from

a wide variety of people in our organisation.

**What are your health and safety plans going forward?**

We are on a journey towards health and safety excellence – that destination can only be reached through a Zero Harm goal achievement at all SGB-Cape branches. **| SHEQ**



*A proud Thabo Modumela – SGB-Cape’s national health, safety and environmental manager – showing off the company’s accolades.*

We pursue our goals by investing in the skills development of our people. We continue to improve our systems by introducing new products and new technology.

SGB-Cape, a division of Waco Africa, subjects itself to vigorous internal and external risk-based audits – building on past achievements as benchmarks –

peoples’ lives are safeguarded.

They inspire us to improve on our past achievements and motivate us to want to win more awards into the future.

These awards also demonstrate that a company is doing something right. It’s great when efforts to establish a healthy and safe work environment are recognised.



# Walking the talk

Many companies say that they offer excellent service, but talk is cheap ... DEKRA Industrial RSA lives up to this promise and has the Nascar Awards (plus some other accolades) to prove it

**B**rian Sayer-Hickson, DEKRA's group special operations manager, points out that occupational health, safety and environmental disciplines form an integral part of the company's overall objectives in affording clients an excellent service in the field of non-destructive testing.

"These services are also carried out strictly in accordance to the rules and regulations, as prescribed by the Occupational Health and Safety Act of South Africa," he explains.

This tenacity hasn't gone unnoticed as DEKRA obtained its second Nascar trophy at this year's Noshcon. The award ceremony was held on the last day of NOSA's occupational health and safety conference and exhibition. A fitting venue as it played host to leading industry experts, all converging at the Champagne Sports Resort, in KwaZulu-Natal, from September 15 to 18.

"DEKRA won one Nascar this year and one last year – in the name of our former company, Raysonics, which was bought out by DEKRA," Sayer-Hickson points out. "In addition to the Nascar Award, DEKRA was also the winner of the 2014 NOSA National Sector Industry Category."

He adds that the company won these awards through hard work, effective communication, motivation and constant reviews, as well as updating of policies and procedures. Staff training at all levels and a dedication in achieving the desired results to enhance the safety of its staff, as well as all other persons on any of its operations throughout the country, also played its part.

"A Nascar Award is the most prestigious



**From left:** Justin Hobday, NOSA's managing director; Christopher Morsner, HSE manager for DEKRA's Medupi operations; Brian Sayer-Hickson, DEKRA's group special operations manager; Carina Brink, the HSE manager for DEKRA's Secunda operations; and Duncan Carlisle, CEO of NOSA Global Holdings.

award in the field of occupational health, safety and environmental risk management in South Africa," Sayer-Hickson notes.

"This award is recognised internationally. It shows that an organisation has measurable and remarkable dedication in maintaining the highest levels of excellence in its occupational risk management performance."

He continues: "What is interesting to note is that, last year, only seven percent of all NOSA clients attained this remarkable award."

"A Nascar indicates – to our board of directors, as well as to all our clients – that, as a company, we are committed to ensuring that our entire workforce performs in a safe manner, so as to minimise any risk of injury," Sayer-Hickson points out.

"It also shows that safety, health and environmental matters form an important and integral part of our activity in the field of non-destructive testing," he adds.

DEKRA isn't planning to stop this "quality onslaught" anytime soon. "We will continue to strive for excellence in the field of occupational safety," Sayer-Hickson reassures. "Excellent performance is in our nature as leaders in the non-destructive testing industry in southern Africa. All our management and staff are committed in retaining the excellent name and status that we are proud to hold in the industry we serve."

He adds that DEKRA achieved a 5 Star group rating for the NOSA 5 Star Integrated HSE Audit in May, 2015 – "so DEKRA will be in line for another Nascar in 2016".

Keep walking the talk, DEKRA. **| SHEQ**





# Quality

## management: then, now and in the future

The reach and depth of quality assurance and quality improvement have been greatly expanded, given increases in technology and the adoption of the principles of continuous quality improvement. We take a look at the evolution of quality management

**T**he concept of “quality” has evolved to mean far more than the integrity of a manufactured product. Quality now represents a philosophy and a system of methodologies and practices. It is an ongoing commitment to business excellence that encompasses all issues – and engages all individuals – within an organisation.

### WHERE DID IT START?

The use of inspection to assure conformity to specific requirements dates back to the Middle Ages. For instance, craft guilds established standards to differentiate their goods and safeguard the reputation of their trade. Skilled craftsmen performed inspections and problems were remedied right there at the workbench.

Through the early years of low-volume manufacturing, informal inspection of products and arbitrary review of worker output sufficed. As organisations and production yields became larger during the Industrial Revolution, the need for “quality control” through more effective operations became evident.

In 1911, the concept of quality took a huge leap forward when Frederick W. Taylor published *The Principles of Scientific Management*, using statistical theory to provide a framework for improving worker productivity in industrial organisations. Taylor introduced several important concepts, including:

- Functional specialisation: defining and allocating tasks to be performed under standard conditions (with inspection as just one of the tasks);
- Process analysis of time and motion to increase productivity; and
- Quality control (by inspection of the final product) formalised as a distinct function conducted by individuals not directly involved in the production process.

Taylor’s contributions are recognised as precursors to several engineering tools and methods to reduce cycle time, which are still in use today. While Taylor focused on productivity gains, in the 1920s, Walter Shewhart introduced quality control as a proactive function rooted in process, rather than relying strictly on reactive measures resulting from inspection.

Applying statistical theory to the management of quality, Shewhart developed the first modern control chart and demonstrated that eliminating variation in the process leads to a good standard of end products.

He also pioneered the Shewhart Learning and Improvement Cycle, which contains four continuous steps leading to total quality improvement: Plan, Do, Study and Act – later adapted by W. Edwards Deming (one of his protégés) as the PDCA cycle.

Shewhart’s belief that constant evaluation of management practices, as well as the willingness of management to embrace new ideas and disregard unsupported ones, form the philosophical basis for several of today’s quality management methodologies.

Deming went on to stress the importance of management’s role in the delivery of quality, both at the individual and company level. According to him, 80 to 90 percent of quality problems were under the control of management. He emphasised organisation-wide cultural change and worker/management cooperation as the



path to achieving high quality.

Since 1947, the International Organisation for Standardisation (ISO) has developed management and leadership standards for businesses, governments and communities. These range from environmental management to business applications of risk and quality management.

The ISO 9000 series are standards that focus specifically on quality management and quality assurance. They were developed to help companies achieve customer satisfaction, continuous improvement and regulatory requirements, as well as effectively document the elements needed to maintain an efficient quality system.

The series now includes ISO 9000:2005 (definitions), ISO 9001:2008 (requirements) and ISO 9004:2009 (continuous improvement), and is based on eight quality management principles that can be applied by management for organisational improvement:

- Customer focus
- Leadership

- Involvement of people
- Process approach
- System approach to management
- Continual improvement
- Factual approach to decision-making
- Mutually beneficial supplier relationships

After a major update in 2000, the new standards are built around business processes, emphasising improvement and meeting the needs of customers. Adaptable to all types of organisations, ISO 9001 is unique in that it specifies the requirements for a quality management system, as well as providing tools and a philosophical basis.

#### WHAT DOES THE FUTURE HOLD?

Deming proposed that an organisation's commitment to quality signalled its intent to stay in business. As industries today face the fierce competition of a global economy, his statement remains as true as ever.

At the 2010 Global Forum on ISO

Updates, a new category of standards for social responsibility and sustainability were introduced, as were increased standards for sectors such as local governments, oil and gas, and education.

With healthcare reform's call for bundled services, accountable care and pay for performance, quality management is rapidly becoming as firmly entrenched in the culture of service organisations as it has been in manufacturing.

The healthcare industry's need is fuelling the growth of integrated quality management systems (IMS) to find the correct balance between quality, risk, environmental and social-responsibility, costs and efficiencies.

Moreover, the lightning speed at which technology is changing products, services and delivery methods, requires large organisations to be ever more adaptable and agile. The challenge for quality managers moving into the future is largely about allowing for change in a field that relies on constants. **|SHEQ**



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# Clouding the risk

Risk, like change, is an everyday part of life and we have to engage with some perils, as reward seldom comes without risk ... Luckily, there are various new ways to mitigate risk

## DIFFERENT STROKES FOR DIFFERENT FOLKS

"Small business owners have plenty of choice when it comes to affordable technology that helps to run an efficient, responsive and productive company," Daryl Blundell, general manager for Sage Pastel Accounting, points out. "Yet, choosing the right software and hardware for small and medium enterprises (SMEs) can be challenging when working with a limited budget."

He offers some tips on how to choose the best information technology (IT) solutions to suit a company's needs ...

"Start with your business needs, not the technology: Many SME owners focus more on the brand or the technology that they want to buy, rather than on their business needs.

"Look at your online options: You don't necessarily need to set up your own servers or buy software licences. Instead, you can use free, or affordable, online offerings such as DropBox, Google Mail, and Office 365 for many of your business needs.

"Go mobile. This can have huge benefits for your business. According to the Sage Business Index 2014, for South Africa, 50 percent of South African businesses use a tablet or smartphone to communicate with customers, suppliers or colleagues.

"Look at the supplier's track record. It's important to have good technology, but also check on issues such as support infrastructure, customer satisfaction and local expertise when you buy an IT product or service."

**A**ccording to Jeremy Waterman, managing director for Sage ERP Africa and Middle East, manufacturing companies across Africa are under pressure to grow revenues, reduce costs and increase profitability – regardless of their size or speciality.

While large-scale enterprise resource planning (ERP) initiatives could help, many African manufacturers are reluctant to implement them. "They fear that the consulting and infrastructure costs would be prohibitive, that the implementation cycles would be long and disruptive to their businesses, and that they would end up with a new set of monolithic applications, which would not be able to evolve alongside their businesses," Waterman explains.

"Luckily, however, we are seeing a new class of cloud-enabled business management solutions coming to the fore. Such enterprise applications are flexible and modular to cater for the complexities of a global business," he adds.

Waterman points out that these solutions could provide several benefits to manufacturing companies.

First, a good cloud-based business management platform will allow a manufacturer to automate and accelerate processes and reporting, control performance and improve insights for smarter decision-making within one comprehensive solution.

"The modular nature of a modern, cloud-based application suite means that it's easy for manufacturers to plug in integrated functionality to support industry-specific processes; such as regulatory compliance, quality assurance and supply chain management," Waterman continues.

"The speed of deployment is another plus – with a modular, cloud-based solution, manufacturers can quickly go live with functionality that addresses their most immediate pain points. Rather than focusing on the technical nuts-and-bolts, companies can, instead, work on process improvements."

Waterman says that a robust cloud platform will also give manufacturers insight into what is happening throughout the business – across suppliers, contractors, partners, and customers – complete with multi-language and multi-currency capabilities.

"Enterprise applications have traditionally been expensive. Costs include licences as well as hardware infrastructure, integration, customisation, implementation and support," Waterman points out.

"The cloud turns the cost of the application into a monthly subscription fee. The capital outlay is less and the operating cost may be less, too. This lowers the barriers of entry to business management solutions for manufacturers that are struggling with a lack of budget." **|SHEQ**



# The A to Z of alcohol testing

Alcohol testing in workplaces should be conducted to ensure that machine operators, drivers and workers are safe and sober to do their jobs. Angus MacArthur, general manager and co-owner of Alcohol Breathalysers, highlights some benefits and provides tips on how to ensure a speedy testing process

**T**he benefits of on-site alcohol testing include: reducing the risk of alcohol-related accidents; increased productivity of your workforce (by ensuring that workers are not under the influence of alcohol while on the job); cost savings in terms of damage to machines and company property; and, ultimately, saving the lives of workers and drivers.

An "ideal ratio", between a company's number of employees and the number of breathalysers it needs, depends on whether random, voluntary or mandatory alcohol testing (or a combination of the three) is implemented.

For evidentiary-type alcohol testing, just one machine is required per site.

For mandatory entrance-point testing – if hundreds of staff, visitors and contractors have to be tested daily – then high-speed industrial breathalysers, such as the Vuvuthela (handheld), or

Alcoscan Entrance Breathalyser Systems (EBS) (fixed system) are required. These can perform tens of thousands of tests within a six- to 12-month calibration cycle.

If 500 to 1 000 people need to be tested daily, using Fixed Entrance Breathalyser Systems, then between five and ten industrial machines would be needed at any given entry point, to ensure that long queues don't build up every day and that breathalyser machines are not overburdened.

If handheld breathalysers are used for random alcohol testing procedures, then fewer machines would be needed and, again, the number would depend entirely on the number of staff tested daily.

If handheld breathalysers are used for mandatory alcohol testing, then at least one industrial breathalyser would be needed for up to 50 staff. Two would be required for 50 to 100 staff, and two

to four would be required for 100 to 200 staff.

The "ideal ratio" would be one industrial breathalyser for every 50 persons to be tested daily. Another factor would be whether a company wants to test employees with a breathalyser that requires a mouthpiece.

Employers should install automated Alcoscan Entrance Breathalyser Systems, such as the EBS010, on their turnstile gates if they want to speed up the testing process.

The EBS010 provides a four-second test procedure – one second to warm up, one to blow, one to display the result and trigger a release for the turnstile gate to open (or remain closed), and one second to reset for the next test.

This system is ideal for manufacturing, mining and other industrial sites, as it speeds up alcohol testing procedures and reduces long-term calibration expenses. **| SHEQ**

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## ALCOSCAN Breathalysers



AlcoScan  
AL2500



AlcoScan  
AL2500 Elite



AlcoScan  
AL5500



AlcoScan  
AL6000 Lite



AlcoScan  
AL6000  
Professional



AlcoScan  
AL7000  
Premium



AlcoScan  
AL8000



AlcoScan  
AL9000  
PC Model



AlcoScan  
AL9000  
Printer Model



AlcoScan  
ALC-1  
Professional



AlcoScan  
AL1100F  
Vuvuthela



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# The top ten South African risks



The Institute of Risk Management South Africa (IRMSA) released its first 2015 South African Risks Report highlighting the country's top risks that organisations need to consider. THATO TINTE shares the results of this "must-read" report

**B**usiness risks are unavoidable. For that reason, businesses need to have a robust risk-management framework to identify potential risks and minimise the impact.

External factors, such as a country's political, economic and social situation, must also be observed – particularly in a volatile and dynamic country such as ours.

Earlier this year, a country-specific report of risks that could affect businesses, was published by the IRMSA – a professional body for risk management that represents groups (within the private and public sectors) who are committed to enhancing the discipline of risk management in the country.

Christopher Palm, chairman of the IRMSA Risk Intelligence Committee, recommends this report as a "must-read" for business leaders and risk practitioners.

"Our report was formulated in the context of the World Economic Forum (WEF) Global Risks Report and presents the

most significant risks that South African organisations must consider," he states.

He explains that the objective of the report is to improve the culture of risk management in organisations, to help businesses better manage their risk context and risk-governance processes, as well as to enable a more effective risk response.

Evaluations of the report took place between 2013 and 2014, through a series of workshops, conferences and a survey of 620 risk-management experts in the country.

The respondents were professionals from various industries, who proactively manage risks regularly. These industries included: financial services; communication and technology; petrochemicals; transport and logistics; manufacturing; mining; engineering and construction; government and public services; and the healthcare sector.

The highlighted risks were evaluated on "perceived likelihood" and "potential

consequence". The country's top ten risks over the next two years were in the following order:

Increased corruption; high unemployment; shortfall of critical infrastructure; political and social instability; major escalation in organised crime and illicit trade; escalation in large-scale cyber-attacks; failure of a major financial institution (African Bank); severe income disparity; mismanaged urbanisation and massive incidents of data fraud/theft.

Seven other risks identified, but not explicitly surveyed, were: skills shortage, increasing strike action, Ebola virus outbreak, insufficient electricity supply, lack of innovation, economic slowdown and banking reputational risk.

The increase of corruption and the escalation of organised crime and illicit trade topped the list of risks. Based on the findings of the Special Investigations Unit (SIU), the report states that, as a result of corruption, there is an estimated annual loss of 20 to 25 percent of state



procurement – representing a cost of approximately R180 billion.

Terrance Booysen, executive director at Corporate Governance Framework (CGF) Research Institute says that, among other things, the corruption risk factor distorts market competition and further increases the cost of doing business.

Nico Snyman, founder and owner of Global Leaders Academy, Africa, warns that the country is already feeling the brunt of corruption as South Africa's reputation in the international community decreases.

"We are losing our credit rating as confidence decreases. We are also losing corporates that are selling up to move their risk overseas. The increase in the repo rate and inflation are also having knock-on effects in other areas such as education and electricity," he says.

In the report, the 2014 Global Economic Crime Survey states that in the last 24

months, 70 percent of business executives in the private and public sectors have experienced some form of economic crime.

The leading economic crimes noted include: asset misappropriation, illegal insider trading and fraud in procurement, tax and financial statements.

Referenced from the 2012/13 Norton Security Report, cybercrimes were also reported and South Africa ranked third on the list of cyber-crime victims internationally – following China and Russia.

To counter data fraud and theft, Andrew Allison, the group chief operating officer at Quirk Agency Group, advises organisations that process large volumes of personal information and financial transactions to take these risks seriously.

He notes that an increase in threat of attacks is possible as a result of the global perception that South Africa is a weak player in the information-security space.

"If they can afford it, organisations should employ a data-security specialist. This needs to be supported by extensive programmes of educating staff and stakeholders on the need for increased security, compliance and vigilance," he adds.

He also strongly advises businesses to source appropriate insurance and to comply with third-party security governance standards such as ISO 27001 and Sarbanes Oxley requirements.

IRMSA states that, through this report, it aims to help businesses become more proactive in identifying the risks impacting the country and, in turn, their operations. It hopes the report will be extensively used and shared by business leaders and risk managers across the board.

The full report, which will be expanded on in 2016, is available for download on the IRMSA website. **|SHEQ**



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# The future

## of alternative transport is exciting

SHEQ MANAGEMENT shows you three possible futuristic solutions if “green” cars are too expensive

**T**hey say that if you tug at a single thing in nature, you will find it attached to the rest of the world. We live in an era where conserving energy and saving the planet for future generations have become principal objectives of everyday life.

Global warming is no longer just a term used exclusively by scientists on PowerPoint presentations. Climate Communication, a non-profit science and outreach project, summarises it best: “Recent weather events, such as deadly heat waves and devastating floods, have sparked popular interest in understanding the role of global warming in driving extreme weather.

“These events are part of a new pattern of more extreme weather across the globe, shaped, in part, by human-induced climate change.”

Mankind’s constant urge to be mobile is a major contributor to one of the biggest challenges of the 21st century.

As consumers, we strive to buy vehicles that reflect our personality and social status. Some people think that the better we look while travelling somewhere, the faster we will get there,

or the more noise we make on the way to a destination is directly linked to our self-respect ...

Transport running on alternative energy sources isn’t as new as you might think – it has been experimented with since the 1900s and, at times, there have been some short-lived successes.

One example is the Stanley Motor Carriage Company, which was an American manufacturer of steam-engine vehicles. It produced various models from 1902 to 1924, but, ultimately, lost the “car race” against the internal combustion engine.

Later, we once again started to experiment with alternative propulsion forms such as hybrid-driven vehicles. These transport modes commonly run on both an electric and a petrol engine, making them a more “environmentally friendly”

choice compared to standard petrol or diesel-powered vehicles.

Interestingly, the Toyota Prius was introduced in 1997, but only released in 2000. The Audi Duo, the first commercially available hybrid vehicle, was released in 1997. It did not, however, achieve commercial success.

Then there are the plug-in hybrid electric vehicles (PHEVs), also known as electric vehicles (EVs). Although one of the oldest concepts for alternative transport, electric vehicles were never very successful, due to the many challenges associated with powering them.

Vehicle manufacturers are currently building stunningly beautiful EVs, such as the very sporty Tesla Model S. Although these transport modes are “greener” alternatives to petrol engines, an electric

*The electric Uno could only be described as the reinvention of a one-wheeled bicycle.*





car could be challenging to own in South Africa ...

Plans to erect recharging facilities in our country aren't moving forward at the same pace as electric vehicles. Another problem is the cost of these vehicles, which makes them less accessible to the masses.

There is, however, hope in the not-too-distant future for some exciting alternatives to these already-available forms of alternative transport.

The electric Uno could only be described as the reinvention of a one-wheeled bicycle. The dangerously unstable-looking motorbike actually uses two wheels, side-by-side, with gyroscopic technology to stay upright.

According to Science and Inventions the bike goes in the direction that the rider leans. The more you

Imagine a future with an entire copper road network? This might not be too far-fetched as a Californian company, Arx Pax, has come up with a hover board that can be used as a form of personal transport.

The Hendo Hoverboard, with the Hendo 2.0 launched in October, uses magnetic engines to levitate the board

For around R100 you can buy the "Alpha" bicycle. Designed by Izhar Gafni, it is able to carry more than 200 kg and is perfect for getting exercise, reducing pollution and saving money. It is made out of 100-percent recycled materials, weighs just ten kilograms and has a cardboard frame, which is supposedly

**RIGHT:** The Hendo Hoverboard uses magnetic engines to levitate the board and "rider" around.  
**BELOW:** The "Alpha" bicycle is made out of 100-percent recycled materials.



lean the faster you go, as the gyroscope works in unison with the control unit to determine acceleration or braking.

The 18-year-old Canadian inventor, Ben Gulak, says that the bike is fairly easy to ride, "it just takes a bit of getting used to, because you have to learn to trust it". The Uno has a top speed of about 40 km/h and a battery life of about 150 minutes.

and "rider", four centimetres from a conductive surface. Arx Pax founder, Greg Henderson says that in the initial phase the boards will be sold for around US\$ 10 000 (around R130 000). The price will decrease as the systems are made more efficient.

stronger than its carbon-fibre counterpart.

This is quite impressive if you consider that carbon-fibre is stronger than steel. In fact, the British Broadcasting Corporation showed just how much stronger on its show: Richard Hammond's Engineering Connections.

Here, a steel drive shaft, which connects a motor vehicle's engine to its wheels, broke at 1 376 Nm, when tested – compared to a carbon-fibre alternative, which broke at 4 728 Nm in the same test.

We find ourselves in a decade where we are urged to "go green and save the environment", but, due to less than favourable economic conditions, it is sometimes easier said than done. There are, however, cheaper alternatives, such as public transport. **| SHEQ**



# Mercedes-Benz drives wellness across southern Africa



A huge part of our economy is carried on trucks travelling the length and breadth of South Africa. These workhorses depend on those who drive them where they need to go ... Mercedes-Benz South Africa (MBSA) and its partner organisations place fleet owners and drivers at the forefront with their innovative Fleet Owner Workplace Programme

**T**he Fleet Owner Workplace Programme, designed by MBSA and its partner organisations – Corridor Empowerment Project (CEP) and Trucking Wellness – is an extension of the company's workplace wellness strategy.

The concept for this programme came about as a result of MBSA's involvement in the Trucking Wellness project – an initiative of the National Bargaining Council of the Road Freight and Logistics Industry (NBCRFLI).

The Trucking Wellness project provides an education and basic healthcare service to truck drivers along the major freight routes in southern Africa. This includes the dissemination of information, testing and treatment of HIV/Aids and other lifestyle illnesses.

Kobus van Zyl, executive director of

Daimler Trucks & Buses South Africa, explains the reason behind MBSA's decision to expand its value-add service to the commercial vehicle sector: "South Africa's trucking industry forms the veins and arteries of the economic heart of this country, pumping prosperity to our people.

"As a commercial vehicle supplier, the accomplishments of the trucking sector are also the success of Daimler Trucks & Buses South Africa. We, therefore, cannot disregard the issues that affect the larger trucking community."

The commercial vehicle giant isn't going at this alone ... joining the good fight is Aspen Logistics, a specialist service provider to the fast-moving consumer-goods market, and OneLogix United Bulk, which specialises in providing a solution to any liquid transport requirements, whether the product is agricultural, chemical, food

grade, or liquid petroleum gas.

"Our people really are our most precious assets," says Sujen Padayatchi, managing director of Aspen Logistics. "We operate within an extremely demanding and fast-paced industry and the challenge for us, as an organisation, is how we navigate meeting the demands of our industry while ensuring the well-being of our people."

He continues: "It is in how we align our policies and procedures to ensure that we create an environment where our employees are cared for in the best possible way, so that they can flourish in every way. The Fleet Owner Workplace Programme is one such platform that we will passionately drive within our business."

The key outcomes of the programme include: increased understanding around HIV/Aids and other lifestyle diseases; an increased capacity to prevent and





*Onelogix United Bulk teams up with Mercedes-Benz South Africa, and its partner organisations, to enhance the wellness and safety of the company's employees, their families and other road users.*

manage the impact of diseases, in order to benefit employee health, life expectancy and job retention; information education and screening around health issues; and assisting fleet owners to develop, implement, monitor and evaluate a sustainable workplace wellness programme – including the development of policies, systems and processes.

"We are incredibly excited to be one of the companies selected by MBSA to pioneer such a valued initiative," Padayatchi points out. "Our strategic partnership with MBSA and Trucking Wellness will assist Aspen to leverage off the platform created through the Fleet Owner Workplace Programme to drive our own internal wellness initiatives and programmes."

Van Zyl adds: "Collaborations such as this are crucial as we strive for the sustainability of the transport sector in

South Africa, with employee wellness being our priority."

Dirk Meyer, brand manager for Freightliner South Africa, a division of MBSA, agrees: "Collaborations are key, not only for Freightliner, but for the whole of MBSA, as we strive for the sustainability of the transport sector in southern Africa, with employee well-being as a key contributor."

Onelogix United Bulk is one of the most valued customers of Freightliner Trucks. The duo celebrated the launch of Onelogix's Fleet Owner Workplace Programme at the company's Vanderbijlpark and Worcester depots on October 22 and 28, respectively.

"The Onelogix United Bulk Workplace Wellness Policy is a commitment by our company towards the wellness and safety of our employees, their families and other road users," says Patrick Pols, managing director of One Logix Bulk United.

"As a dangerous-goods transport company, we are committed to maintaining a healthy and safe work environment by protecting the health and well-being of all our employees by raising awareness,

promoting wellness and educating staff about specific diseases such as HIV and tuberculosis," he adds.

Meyer continues: "The OneLogix United Bulk and MBSA Fleet Owner Workplace Programme will be impactful in that it places truck driver health and safety firmly on the centre stage."

Van Zyl comments: "This initiative is truly tremendous. Our drive for excellence translates into benchmark achievements in the field of occupational health and safety."

He concludes: "Pockets of excellence can never be sustainable, however, so, for more than two decades now, we have made it our mission to share the lessons we have learned around employee health management with businesses and communities around us.

"We have first-hand experience of the benefits of a healthy workforce to the sustainability of all businesses involved. This is an initiative that we are backing fully, as we realise that healthy truck drivers mean a healthy road transport industry." **|SHEQ**





# Another notch on the (sustainability) belt ...

MAN has again been included as one of the most sustainable companies in a world-leading sustainability ranking this year. The 2015 Dow Jones Sustainability Indices (DJSI), and the sustainability rating agency RobecoSAM, again ranked the company in the Dow Jones Sustainability World and Europe Indices

**T**he Dow Jones Sustainability World Index was launched in 1999 as the first global sustainability benchmark. The DJSI family is offered cooperatively by RobecoSAM and Standard & Poor (S&P) Dow Jones Indices.

"The family tracks the stock performance of the world's leading companies in terms of economic, environmental and social criteria," the organisation's website points out. "The indices also serve as benchmarks for investors who integrate sustainability considerations into their portfolios, and provide an effective engagement platform for companies that want to adopt sustainable best practices."

"We applied to be listed, back in 2010," explains Geoffrey du Plessis, managing director of MAN Truck & Bus South Africa. "One of the main motivations was that we wanted to ensure that all of our internal projects, in terms of sustainability, were, in fact, delivering."

He adds that the DJSI provides a very measurable reference point on how a company is doing in all its different categories. "By measuring it, you can actually track it and ensure that your improvements do deliver and advance sustainability."

Du Plessis continues: "It was a case of us using the mechanism to ensure that all our sustainability issues were delivering what we required. If you measure something, it will change – it generally doesn't stay the same; it either gets better or worse – and we have been getting better."

He adds that there were three major areas of improvement in this year's listing: "One was in the economic area, where we increased by four points; environmental was another, where we increased by five points; the third was on social matters, where we increased by eight points." Compared with the previous year, MAN scored five more points, achieving an overall result of 85 out of 100.

MAN is also still the only German company to be represented in the Indices in the machinery and electrical equipment industry category. The Group showed the most noticeable improvements in: "Talent Attraction" (plus 20), "Human Resources Development" (plus 17), "Customer Relationship Management" (plus 16), and "Supply Chain Management" (plus 12).

"What we really are looking for is continuous improvement in all of the macro issues that impact sustainability," Du Plessis points out.

More than 100 mechanical engineering companies were judged on their performance in economic, ecological, and social sustainability. The DJSI is one of the most important performance indicators for financial investors of the world's most sustainability-driven companies.

"It recognises that we are a sustainable company. This, in itself, is important when it comes to our customers, who can see that we are a sustainable organisation. It is also important internally for our staff and our shareholders. They can see that we have actions and activities that actually support the sustainability of the organisation," Du Plessis tells SHEQ MANAGEMENT.

Josef Schelchshorn, chief human resources officer of MAN SE, adds: "Our corporate responsibility strategy for a sustainable future is paying off. Today's award is, first and foremost, thanks to our employees worldwide, who are making MAN one of the most sustainable companies in the world."

Du Plessis concludes: "We are very proud of what we have achieved. It makes for a proud company and proud employees – and we can engage the market with a good conscience." **| SHEQ**





# Centre for Business Management

## PROGRAMME IN ADVANCED SAFETY MANAGEMENT (76914)

### FIRST INTAKE 2016

This course focuses on a broader view of Safety Management and the safety responsibilities of both line managers and staff safety practitioners. This programme investigates the advanced elements of safety management. These elements include the management of safety culture, the role and importance of safety supervisors, system safety engineering and the system safety programme plan; the importance of managers in safety and a more advanced understanding of hazards.

### MODULES:

- Managing Safety Culture (APSM01N)
- Safety Supervisor (APSM02M)
- Safety Systems (APSM03O)
- Design for Safety (APSM04P)

### REGISTRATION DATES

December - February

### FEE:

R7 500.00

### COURSE DURATION:

12 Months  
NQF level 7, Total 48 credits

### ADMISSION REQUIREMENTS:

A Senior Certificate, equivalent qualification or appropriate experience and completed Programme in Safety Management (PSMP) with the Centre for Business Management.

### CONTACT PERSON:

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Email: [psmp@unisa.ac.za](mailto:psmp@unisa.ac.za)  
Tel: 012 352 4378

### CBM CONTACT DETAILS:

Email: [cbm@unisa.ac.za](mailto:cbm@unisa.ac.za)  
Tel: 012 352 4288  
Webpage: [www.unisa.ac.za/cbm](http://www.unisa.ac.za/cbm)

## PROGRAMME IN SAFETY MANAGEMENT (72435)

### FIRST INTAKE 2016

This course focuses on the science of Safety Management and the safety responsibilities of both line managers and staff safety practitioners. This programme introduces line managers and safety practitioners to the very basics in safety management. Such basics comprise the sciences of safety management and the roles of line and staff functionaries pertaining to safety risk assessment, safety management in industry and the analysis of safety incidents.

The focus and contents of the programme is unique in the sense that it prepares both managers and safety practitioners for performing their roles and functions on a professional and scientific basis. The programme focuses on meeting the needs of line managers and staff safety practitioners in achieving their legal responsibilities and professional accountability in making the workplace and the work procedures as safe as possible for all involved.

### MODULES:

- Introduction to Safety Management (PSMP015)
- Assess Safety Risk (PSMP026)
- Manage Safety in the Workplace (PSMP038)
- Analyse Safety Incidents (PSMP049)

### REGISTRATION DATES

December - February

### FEE:

R6 600.00

### COURSE DURATION:

12 Months  
NQF level 6, Total 48 credits

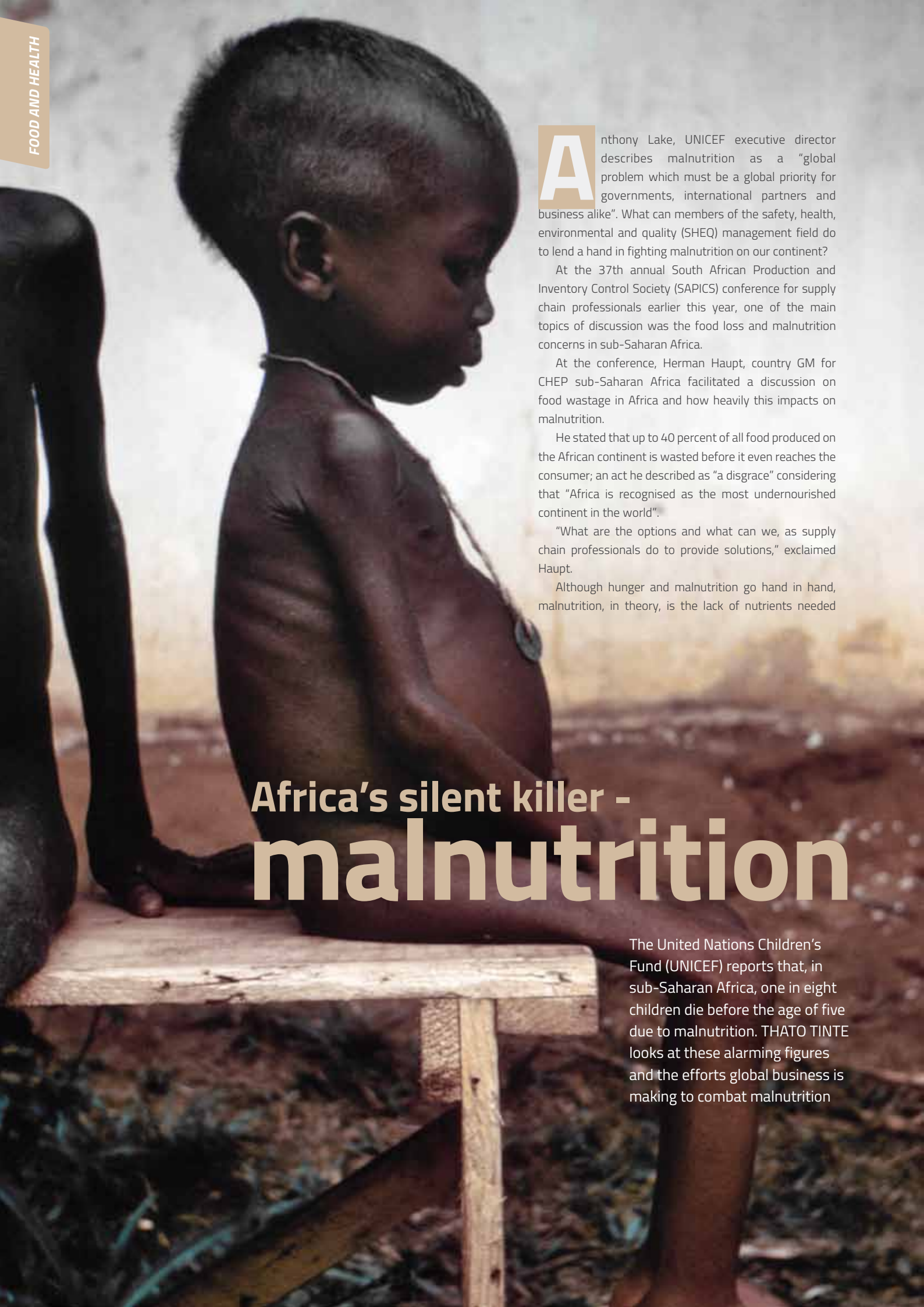
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Tel: 012 352 4378





**A**nthony Lake, UNICEF executive director describes malnutrition as a “global problem which must be a global priority for governments, international partners and business alike”. What can members of the safety, health, environmental and quality (SHEQ) management field do to lend a hand in fighting malnutrition on our continent?

At the 37th annual South African Production and Inventory Control Society (SAPICS) conference for supply chain professionals earlier this year, one of the main topics of discussion was the food loss and malnutrition concerns in sub-Saharan Africa.

At the conference, Herman Haupt, country GM for CHEP sub-Saharan Africa facilitated a discussion on food wastage in Africa and how heavily this impacts on malnutrition.

He stated that up to 40 percent of all food produced on the African continent is wasted before it even reaches the consumer; an act he described as “a disgrace” considering that “Africa is recognised as the most undernourished continent in the world”.

“What are the options and what can we, as supply chain professionals do to provide solutions,” exclaimed Haupt.

Although hunger and malnutrition go hand in hand, malnutrition, in theory, is the lack of nutrients needed

## Africa's silent killer - malnutrition

The United Nations Children's Fund (UNICEF) reports that, in sub-Saharan Africa, one in eight children die before the age of five due to malnutrition. THATO TINTE looks at these alarming figures and the efforts global business is making to combat malnutrition



for proper health and development; whether from a lack of food or an overconsumption of foods lacking in nutrition. When experienced over time, hunger consequently leads to malnutrition.

Malnutrition from nutritional deficiencies has been linked to many health problems, which, if severe enough, can inhibit physical and intellectual development. In adults, it can lead to increased infections, heart-diseases, cancer and anaemia; in children, stunting and poor neuro-motor development.

Malnourished children are unable to cry; they develop smaller-sized heads, grow up mentally underdeveloped and are without coordination and vigour. It's reported that, a third of the children in developing countries have these conditions.

In a continent battling with diseases such as HIV/Aids and tuberculosis, food and nutrition become essential for the health and well-being of those affected; further intensifying the need for global intervention.

The World Food Programme encourages corporates to work together to end hunger and global malnutrition by contributing resources and expertise within corporate social responsibility (CSR) initiatives.

Within the supply chain management process, Haupt identified the following solutions to help the supply chain industry alleviate food wastage: increasing production yield; improving harvest processing through proper timing and storage; using suitable packaging to reduce product damages while in transit; forecasting accurately to reduce excessive buying wastage; and closely monitoring product sell-by dates.

Research by McKinsey Global Institute (MGI) in 2012 reported that close to 600-million hectares of uncultivated land in Africa is arable. This is said to be 60 percent of the global total – a clear indicator of how significant agriculture is in helping to reduce poverty and the continent's high levels of malnutrition.

The research revealed that, in countries such as Ethiopia and Kenya, agricultural growth was shown to reduce poverty twice as fast as any other sector. Smallholder farming leads to food production. It creates jobs, which further reduces poverty and, ultimately, feeds the hungry. This is a snowballing chain of opportunity that

may be Africa's solution to reducing malnutrition.

One of the many problems, however, is that several African countries still have outdated farming techniques and agricultural technologies, which result in lowered productivity. Reports state that, as much as 80 percent of Africa's agriculture is still dependent on rain and not irrigation. This is concerning, considering the global climate change and increase in drought.

The International Food Policy Research Institute (IFPRI) reports that, by 2030, the effects of climate change will push a further one million children into malnutrition.



The global community needs to step up its support to mitigate climate change. From the SHEQ management industry, reducing carbon emissions and boosting energy-efficient technologies becomes essential.

The World Bank reports that removing some of the barriers in Africa's food trade could help tremendously in avoiding food shortages. It highlights the "web of rules, fees and high costs" in regional food trade as the problem contributing to food shortages in Africa.

Makhtar Diop, World Bank vice president, for Africa, adds that borders are also to blame and often get in the way of food reaching needy communities. Furthermore, he says roadblocks and bribes at border posts add to the cost of getting food to markets.

"Removing cross-border restrictions could help avoid food crises; more so if farmers were allowed to trade easily with each other," he says. He also notes

that reducing transport costs, increasing investment in Africa's agriculture and offering incentives will encourage transporters to invest in modern trucks.

The MGI research provides additional steps on how businesses can help increase agricultural productivity in Africa. These include: investing in Africa's infrastructure; assisting with the improvement of roads; and helping farmers get better access to markets by providing storage facilities that help to retain the quality of produce.

Land grabs are another important issue in Africa. MGI states that Africa is the epicentre of global land deals and

that foreign investors use the continent's scarce resources to supply food to other countries. MGI proposes that African governments work together with the African Union (AU) to develop frameworks that will manage foreign investment in agriculture.

The social costs of malnutrition are huge and cannot be avoided. The World Bank warns that malnutrition costs poor countries from three to 11 percent of yearly gross domestic product (GDP).

Failure to reduce the rate of malnutrition breeds a society of poor, stunted, sickly and mentally underdeveloped children. How will these children lead our countries in future if they are unable to grow healthily or function optimally in life?

We all need to invest our efforts of fighting malnutrition to build a society that will help grow our economies; and maybe one day, our dream of Africa being able to feed itself will come true. **| SHEQ**



# Safety signs

## – not just for decoration

Did you know that there are over 150 safety signs in South Africa; each symbolising a warning, or a safety feature? Are you sure that your business has the correct signs displayed? THATO TINTE explores

**W**e see them every day and make use of them regularly. Graphic signs and visual symbols are all around us, helping us make sense of our world.

The safety signs in the workplace each have a specific meaning and function to help us to avoid potential workplace hazards. In order for us to take heed of the warnings, it is important to be able to differentiate them and identify their different functions.

To be compliant with the Occupational Health and Safety Act (OHSA), employers are legally required to display certain safety signs on their premises. Morne' Louw, sales

manager - South Africa, at Grafo Wiremakers Africa, which is owned by Brady Corporation, says that safety signs are divided into five categories: warning, prohibition, mandatory, and emergency and fire-equipment signs.

It's important that signs conform to the South African Bureau of Standards (SABS). Warning signs convey messages of danger or safety risks. These include signs

warning of slippery walking surfaces or high-voltage alerts. Prohibition signs are the "don't" signs which forbid behaviour or action. These include signs prohibiting smoking, fire/open flames or the use of cellphones. Louw says that mandatory signs are standardised and regulated by law. They include road signs, safety signs and emergency signs. These are the "do" signs which convey information and specify instructions to be followed.

Brady Corporation says these signs indicate that a particular course of action must be taken. Failing to display mandatory signs at your workplace is a legal offence.

dangerous situations or simply give general information about one's surroundings.

These include emergency exits directing to escape routes, ladies'/men's toilets or signs indicating location of first-aid equipment. Fire-equipment signs and fire-action signage are included in this category.

Louw says it is not a legal requirement to have "glow-in-the-dark" signs. "While these may be required in some municipalities, there are benefits far beyond compliance with local fire codes," he adds.

Whether glowing or not, it is vital that signs are clear, visible, unobstructed and easy to understand. To ensure visibility, it is recommended that safety signs are placed above eye level and that the bottom of the sign is two metres above floor level.

Although signs should not be placed on moving objects such as doors or elevators, Louw says the more signs you have, the better – safety signs, warning signs, pipe markers, floor marking and even product identification. "These are always needed in any facility," he says.

Safety signs promote a safe work environment and help minimise injuries. Employers must fully comply with regulations applicable to signs to highlight the importance of safety precautions among employees. | SHEQ



**Warning**



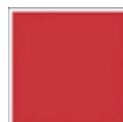
**Prohibition**



**Mandatory**



**Emergency**



**Fire**

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Warning signs convey messages of danger or safety risks. These include signs

Other mandatory signs include; caution signs, hazardous chemical signs, safety directions, notice signs, electrical power signs and signs of restricted areas. All the respective hazards found in your workplace must have their relevant signage.

Emergency signs are "general information" signs designed to direct or guide. Emergency signs can direct people out of

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# Giving safety the boot!

The first in our series of personal protective equipment (PPE) reviews, we take a walk in the Bova Maverick safety boot

**B**eier Safety Footwear products are categorised LightWear, HeavyWear, ExtremeWear and those for Paramilitary applications. The Bova Maverick falls into the Core range within the HeavyWear category. The Core range might be entry-level HeavyWear, but the Maverick is considered a “rugged, hard-wearing safety boot”.

While these safety boots are, indeed, ruggedly designed, they really are something of an everyday all-rounder. Out of five, Beier rates its abrasion, heat and water resistance at a three, with slip resistance at a four. The company has achieved this in numerous ways.

The shoe’s upper section is constructed with 2,0 to 2,2 mm barton-print water-buffalo hides, for strength and high-wearing durability. The foam-padded bellows tongue is from a soft PVC-coated fabric for extra comfort, while the Bova Comfort vamp lining is made from a special needed hi-tech fibre blend.

This offers excellent perspiration absorbency resulting in a low heat build up

– which means a more comfortable shoe for the wearer. Additionally, this material has undergone “Ultrafresh” treatment, which imparts additional hygienic and anti-bacterial properties to the lining.

Beier has also looked at the finer details – the speed rings are made from steel, and are treated with a corrosion-resistant brass coating; while the lace is braided using a polyester yarn, with high abrasion resistance, and a central core for additional strength.

The insock is cut from a specially developed anti-static, non-woven material that provides exceptional directional stability, durability and comfort, while the moulded footbed insock is made from a synthetic woven fabric.

The outer sole comprises foamed dual-density polyester polyurethane, for lightness, comfort and flexibility. The midsole has a shore hardness of 0,45 for soft comfort next to the foot, and the outer sole has a shore hardness of 0,64 to 0,65 for durability and slip resistance. A steel or kevlar penetration-resistant midsole is also available.

An excellent insulator against the cold, the polyurethane sole also has a heat resistance of between 100 and 110°C.

The shoes are fitted with steel toe caps, which are imported from either Europe or South America. These comply with the South African Bureau of Standards (SABS) specification to withstand an impact load of 200 joules. The toe caps used in the Maverick have an extra-wide fit to accommodate the largest variety of feet possible. Beier uses six different sizes to cover the men’s size range of 4 to 13.

The Maverick safety boot conforms with SANS/ISO 20345 Type S1, and can be made as a Type S2 if so required.

So, what do we think of the Maverick boots? The shoes are well-shaped and are, indeed, comfortable enough to wear every day. The soles offer a good amount of impact absorption and provide good levels of grip on dry, loose and wet surfaces. The ankles are also snugly supported. Beier’s claim of a low heat build-up holds true as well. **| SHEQ**








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