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The SABS remains committed to its objectives of providing uncompromised value-added standardisation services aimed at protecting our consumers, and creating a competitive advantage for South African industry by supporting access to local and international markets. We continue to focus on developing national standards that are relevant and offer Testing, Certification and Training services that will assist both the private and public sector in effective and efficient management of their operations.

This edition of the Standards Journal features the involvement of the SABS in a wide selection of innovative technologies and the provision of support programmes geared towards the contribution of innovation and design in promoting market access of products and services.

Our drive to partner more rigorously with government and the industry has seen many collaborative ventures being initiated. One such initiative is the provision of standardisation support in Indigenous Knowledge Systems (IKS). Programmes are underway in the crafts and the African Traditional
Our drive to partner more rigorously with government and the industry has seen many collaborative ventures being initiated.

Medicine (ATM) sectors. These sectors have great potential for growth in terms of employment and economic development. The SABS strives to assist developing sectors in gaining fair and favourable platforms to compete in national, regional and international trade.

There have been recent reports that inferior olive oil is being brought into South Africa without abiding to the country’s laws on labelling. Not only do these products have consequences for consumers due to incorrect labelling, but they also harm local suppliers, who cannot compete on pricing while offering a superior product. We are developing a national standard which will follow a rigorous process of consensus building among the South African role players in order to mitigate these concerns.

Mining has contributed significantly to South Africa’s economy. However the country’s long history with mining is not without consequence to the environment. Damages to the environment include Acid Mine Drainage (AMD). This is a result of mining undertakings over several decades of mining activities. This article examines the origins of the problem and evaluates the resourcefulness of environmental management standards in the rehabilitation of mining sites.

As we address the potential threat of climate change, various energy sources are currently being explored to provide alternate sustainable solutions for South Africa’s energy security. The SABS continues to provide valuable contribution to this national agenda by developing relevant national standards in support of the green economy initiatives as well as energy efficiency solutions. This edition looks at various cutting edge alternative energy technologies that support the government’s green economy strategy which includes interventions such as the rollout of solar water heaters.

Government procurement is significant and can be exploited to substantially support local manufacturing and in turn employment sustainability and job growth. To ensure that public expenditure is utilised to support South African industry, goods and services procured by government must meet a predetermined quota of local content. The SABS has been appointed the local content verification (LCV) authority of government. The LCV office opened for business in July 2013. It will verify local content declaration of suppliers to government. This requirement is designed to support local entrepreneurs and grow local manufacturing which is labour intensive and thus a cornerstone to growing employment. The article evaluates the impact of standards in public procurement.

We have also featured two guest contributors who share the benefits of standardisation within their business operations, CBI Electrical and NRCS (National Regulator for Compulsory Specifications). CBI Electrical designs and manufactures electrical power cables. It also specialises in the installation and maintenance of medium and high-voltage cables. Standards are vital to the electro-technical industry.

The NRCS is mandated by the dti to administer Technical regulations and Compulsory specifications based on standards that protect human health and safety, and the environment. In this article, a beneficial relationship between the SABS and NRCS is expressed.

An exciting highlight in this edition is the hosting of SABS’s annual convention in October 2013. The Convention was scheduled to coincide with World Standards Day, which is celebrated annually on the 14th of October. The Convention was themed “Our Economy, Our Jobs” – to emphasise the importance of standards and quality assurance in supporting industrialisation, and ultimately job creation.

The pillars of the SABS are our stakeholders who persistently participate in our technical committees and our customers who play an important role in the sustainability of our business. I would like to take this opportunity to once again convey my sincere gratitude to our stakeholders for their valuable and professional contribution in the SABS goal of becoming a winning organisation.
Sustainable job creation through Arts and Crafts

The significance of cultural industries and its potential to make positive impact on the local economies through job creation is becoming more and more valued. It is for this reason that the South African government is now deploying strategies to assist this sector to be more formalised by prioritising it as one of the dti’s Industrial Policy Action Plan (IPAP) clusters classified under IPAP Cluster 2, Creative industries Craft, Music and Film. IPAP 2013/2014 - 2015/16 further notes that the crafts sector contributed 0.14% to GDP in 2010.

To date the SABS has ventured into two new areas of Indigenous Knowledge Systems (IKS), the crafts sector and African Traditional Medicine (ATM) sector. This is part of the SABS’ strategy to grow these sectors by supporting them to attain commercialisation and formalisation.

Sustainable job creation through Arts and Crafts

The iconic Zulu Mama Chair is an integration of South Africa’s first and third world reality by combining indigenous Zulu basket weaving craft with modern materials. The weaving work contributes to the economic empowerment of township crafters. Image courtesy of Haldane Martin™.
This observation is also supported by the feasibility study commissioned by Department of Arts and Culture to research the cultural industries and to propose strategies for their growth and development, which attests that according to the Development Bank of Southern Africa (DBSA) “the informal economy currently absorbs between four and five million workers (roughly 28% of the national labour force).”

The most predominant reason for the growth of the informal sector is the increasing inability of the formal economy to provide employment for South Africans.

The sector development strategy of the dti defines crafts as the creation and production of a broad range of utilitarian and decorative items produced on a small scale with hand processes being a significant part of the value-added content.

The Customised Sector Programme for Craft (CSP Craft) has been identified by the dti to address challenges faced by this sector, which includes the potential to increase market confidence and access opportunities for crafters. This programme will assist the sector to deal with competition from imported goods, address skills deficits, quality control and equip the sector to handle intellectual property right issues, and increase its ability to access markets.

Strategies that have been identified would amongst others, ensure that this sector is formalised and properly statistically classified. This will also ensure that its contribution to the economy is quantifiable.

The sector development strategy of the dti predicts that continuing on its current growth path, the overall creative industries sector could be contributing R3.6bn to GDP by 2015. However with more targeted interventions as proposed in this CSP, a growth of 15% could be reached ensuring a contribution of R5 billion to GDP and an increase of 20,000 jobs. Its successful implementation will require:

- Strong and collaborative leadership;
- Stakeholder commitment to a common vision and implementation strategies;
- Focussed and outcome based interventions;
- Consolidation of resources for maximum impact;
- Establishment of appropriate institutional arrangements; and
- Systematic collection of data and impact analysis.

The success of this priority sector is critical to our economy. The development of standards will be a means towards the realisation of this strategy. The SABS is partnering with the dti to engage relevant stakeholders (government, SMMEs, manufactures, designers, formal and informal art sectors) in the development of standards for this sector, to be used as benchmarking tools for international competitiveness. The purpose for developing standards in this sector is to:

- Increase competitiveness of South African craft enterprises through high quality,
Set specifications and guidelines for the production of some of handmade products;
Ensure that craft products manufactured in South Africa have a traceable place of origin;
Protect South African producers from illicit transactions; and
Entrench the notion of legal compliance in areas involving consumer consumption as well as ensuring that products are produced in an environmentally friendly manner.

As the SABS, we have a mandate to ensure that products are safe for use, fit for purpose, durable and environmentally friendly, by setting up minimum requirements in the form of standards to serve as guidance for manufactures and test procedures for products. The dti’s request includes a certification mark for crafts, which will be issued in accordance with relevant standards. It will provide purchasers with confidence in the suppliers, help businesses compete fairly, facilitate trade, create market advantage and provide a visible link between standards and the market.

A technical committee (TC) consisting of a balanced stakeholder representation has been established to develop standards on crafts.

Furthermore, traditional cultural expressions such as crafts and basket weaving are expressions with meaning and establish identity. The works of art are made from clay, paper, cardboard, wires and plastic bags, among others. Some of these designs are manufactured from properties that have a link to South Africa as a country of origin.

The role of standards will ensure that the requirements are clearly articulated to further safeguard the authenticity of a craft product.

The SABS intend to proactively educate this sector to use standards as a basis of addressing intellectual property right issues, where geographical indicators (GIs) can be used to protect the artistic work of crafters. A GI is a sign used on products that have a
specific geographical origin and possesses qualities or reputation that is due to that origin. It is a means to preserve traditional knowledge and traditional cultural expressions as it recognises and protects products that have traditional extraction and processing methods specific to a country of origin.

Crafters would be able to use Trade Marks (TMs) alongside GIs. A TM is linked to a specific company and can be assigned and licensed to anyone and used anywhere in the world, while a GI on the other hand, is linked to a country of origin but cannot be assigned or licensed to someone outside that place or not belonging to the group of authorised producers.

This distinction clearly protects producers of crafts from exploitation in the international market and also creates brand equity and stimulates the element of design. Increasing knowledge in the sector on these various legal instruments will assist in the protection of indigenous designs.

A large portion of South Africans earn their living through crafts and related trade areas. The key is to strengthen the sector and to create enabling conditions for it to flourish. This collective creativity provides basis for social cohesion and sustainable development. It is in this context of contributing to the building of South Africa as the creative industries are critical for nation-building. The creative industries have both an economic and cultural dimension and they create critical opportunities to uplift and empower people. On the one hand, globalisation poses abuse of intellectual and cultural capital, and on the other, the growing global cultural diversity and fair trade movement offers expanding opportunities.

**SABS and the African Traditional Medicine Industry (ATM)**

The SABS is on a quest of assisting traditional medicine practitioners, consumers and other stakeholders in experiencing reliable, quality and safe products common amongst commercial products. Since 2011 the SABS
SABS has undertaken an industry probe to determine the level of standardisation assistance necessary to catapult African Traditional Medicine into mainstream alternative medicine on par with Chinese and Indian traditional medicine. Our research approach includes active involvement in ISO TC249, Traditional Chinese Medicine. Through this technical committee we were able to make contact with traditional medicine specialists in China, Korea and Japan. This culminated in tours of traditional Chinese medicine facilities in China facilitated by the secretariat of ISO TC249. We also had the opportunity to visit a Traditional Korean Medicine pharmaceutical company as well as a manufacturer of equipment for presenting herbal medicine in the traditional way.

Participation in standards development activities of ISO TC249, has resulted in SABS being in a position to advocate to important stakeholders. We have been able to address government officials and traditional health practitioner associations in South Africa on the possibilities for developing this industry. In these engagements, emphasis was given to the importance of developing standards for the industry to support ATMSA industry to take its rightful place as part of the official healthcare system of the country.

SABS has also observed practical interventions by India and China aimed at ensuring the sustainability of the industry. This includes a strong focus on cultivation of medicinal plants and an increased focus on scientific validation of their traditional therapies.

When dealing with natural resources sustainability is paramount. A subcommittee has been established to develop standards relating to cultivation of medicinal plants and sustainable harvesting of traditional medicinal plants. This has culminated in a draft ARP (recommended practice) or guideline on good agricultural and collection practices based on the World Health Organisation (WHO) Guidelines.

Further engagements with government officials and associations of traditional health practitioners were held in 2012. These culminated in a report which contains recommendations which will be the base input into a South African Strategy for developing African Traditional Medicine.

Through our various engagements in South Korea, South Africa has been invited to participate at the World Traditional Medicines Expo scheduled for September 2013 in Korea. This was an ideal opportunity for African traditional medicine to be showcased on an international stage.
A new certification scheme initially aimed at certifying medicinal plants and later incorporating Traditional Medicine Remedies. We are consulting India as they have a voluntary certification scheme for medicinal plants, Ayurvedic products and Ayurveda Health Centres in operation.

The role that SABS is taking in the ATMSA industry charts a new and exciting course for the organisation. Standards are recognised as having the potential to spur innovation and in turn economic development.

Notes

2. The dti Sector development strategy for crafts

Infographic illustrating possible interventions for mainstreaming the African traditional medicines industry. Image courtesy of the SABS Design Instute.

The role that SABS is taking in the ATMSA industry charts a new and exciting course for the organisation. Standards are recognised as having the potential to spur innovation and in turn economic development.

Infographic illustrating possible interventions for mainstreaming the African traditional medicines industry. Image courtesy of the SABS Design Instute.
The Volkswagen South Africa plant in Uitenhage is the largest vehicle factory in Africa. Photo courtesy of Volkswagen South Africa.

The automotive industry is one of the oldest industries in South Africa with the first production plant assembled in February, 1924 in Port Elizabeth, by Ford. Model T’s were assembled in an old wool packing shed in Port Elizabeth pioneered by H.G. Holmes and H.F.A. Stockelbach. The plant produced 13,000 units in that year. The second plant followed in 1926 by General Motors SA also in Port Elizabeth, and then in 1937 Chrysler opened a plant in Johannesburg. The trend continued with other manufactures such as Mercedes Benz, Toyota, Datsun, Volkswagen and BMW opening assembly plants across the country in East London, Durban and in Pretoria.
Policy evolution

The automotive industry has grown over the years, in size, employment, its value add and has gone through different phases of economic regimes, thus has undergone changes in policy management. In 1961 the automotive industry adopted a policy to support the industry, known as the Local Content Programme, which its main aim was to protect the local market via high tariffs, provide incentives to the local manufacturers and increased requirements for the local content.\(^1\)

The local content policy has gone through six different phases over the years since its inception in 1961 until it was abolished in 1995. The local manufactures were steered towards producing heavy cars for the producers to gain full benefit of the policy. With higher local content measured in mass, more rebates would accrue to the producer. Ad valorem tax to protect the local industry was set at 35% plus and additional percentage up to a maximum of 100%, depending on the value and weight of the car. Throughout the different phases in which the policy was rolled out, adjustments were made on the percentages on import tax and local content requirements. These policy tools were increased from one phase to another, further protecting the local market and supporting the import substitution policy of the day. However, the last phase (VI), which prevailed between 1989 and 1995, introduced changes in the calculation of local content, now based on value as opposed to mass as was previously done. Import duties were further increased and rebates on excise duties increased on producers’ meeting the local content requirements.

Post the 1994 elections, the new government implemented new policies hence the automotive policy also had to change and adapt to the changing environment. The government had adopted export led growth approach in its industrial policy as opposed to import-substitution driven economy, which was dictated by the sanctions imposed to South Africa. In 1995 the Motor Industry Development Programme (MIDP) was introduced to the industry and has since been replaced by the Automotive Production and Development Programme (APDP) in January 2013.

The key objectives behind the APDP are not different from MIDP in that the following objectives are still in place, namely to:
- improve the international competitiveness of the South African automotive industry;
- continue to encourage growth, particularly through exports and thereby improve the industry’s current trade imbalance;

- stabilise and potentially increase employment levels;
- encourage the rationalisation of platforms so as to achieve economies of scale in assembly; and
- encourage further capital investment into South Africa.\(^4\)

### Summary outline of MIDP versus APDP

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<tr>
<td><strong>Tariffs</strong></td>
<td>The level of protection offered by tariffs reduced consistently from 65% and 49% for Completely Built Up (CBUs) and Completely Knocked Down (CKDs) respectively in 1995 to 25% and 20% in 2012.</td>
<td>The level of protection offered by tariffs will remain constant at 25% and 20% for CBUs and CKDs respectively from 2013 to 2020.</td>
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<tr>
<td><strong>Local OEMs</strong></td>
<td>DFA (Duty Free Allowance): 27% of local assembled vehicle’s wholesale price is rebated against the duty payable on imported components that are used in the domestic market.</td>
<td>VAA (Value Assembly Allowance): 20%-18% of local assembled vehicle’s wholesale price is rebated against the duty payable on imported components that are used in the production of vehicles, irrespective of where the production is sold, as long as annual units per plant exceed 50,000.</td>
</tr>
<tr>
<td><strong>Industry incentives</strong></td>
<td>Export linked duty credits earned: Benefits calculated on local material used.</td>
<td>Market neutral PI (Production Incentive) in place: Benefits calculated on local production value.</td>
</tr>
<tr>
<td><strong>Investment assistance</strong></td>
<td>PAA (Productive Asset Allowance): Only benefits OEM and 1st tier suppliers whose investment is linked to a local OEM. 20% benefit, payable over 5 years (4% per year).</td>
<td>AIS (Automotive Investment Scheme): Benefits OEM and auto component suppliers as long as investment is auto focused. 20%-30% benefit, payable over 3 years (6.67% per year).</td>
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Source: www.bmais.co.za

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**APDP and IPAP**

With the new policy implementation, to support the IPAP initiatives, implies that local producers will have to embark on a learning process, consolidation and innovation for them to meet requirements of the new policy. The key objectives of the APDP are to raise volumes to 1.2 million vehicles per annum by 2020 and substantially diversify and deepen the components supply chain.\(^5\) This means that South Africa needs to continually develop technologies to establish a globally competitive industry, which will attract foreign investment and enhance its productive mechanisms for the industry, vis economies of scale, improved labour productivity, etc.

APDP also focus on the medium and heavy commercial vehicle (MHCV) sub-sector, notably bus production. The roll-out of Bus Rapid Transport Systems (BRT) in the leading Metros has induced demand for the production of more buses and as more metros implement the BRT system, demand will increase. The MHCV sector’s demand would also be complemented in areas such as infrastructure, construction, mining and agriculture, while at the same time a strong policy focus continues to be placed on the so-called ‘yellow metals’ manufacturers.\(^6\)

According to the South African National Energy Research Institute (SANERI), the automotive sector is a major source of CO\(_2\)
emissions (30% contribution in industrialised economies of the Organisation for Economic Co-operation and Development (OECD)) and about 20% worldwide. South Africa is the largest emitter of CO₂ on the African continent.

The motor industry plays a pivotal role in controlling CO₂ emissions via the motor vehicles produced. The cleaner technology in engine manufacturing, aiming for green or at least blue, will greatly reduce the amount of carbon emissions into the atmosphere. A strong focus will need to be placed on ensuring that these technological developments are incorporated throughout the South African automotive production landscape, with particular attention to be given to the opportunities afforded by Electric Vehicle (EV) production. In this venture a road map for Electric vehicles has been laid and key elements identified.

The EVs are designed to emit at most 50 grams of CO₂ as opposed to 100-150 grams of CO₂ e per kilometre by the Internal Combustion Engines (ICE). This is possible given that fact EVs are battery powered. The EV are designed and produced locally, to stimulate demand, increase viability of local manufacture of EVs and increase investment in the automotive industry by OEMs and related EV components manufactures.

According to Mike Whitfield, managing director of Nissan South Africa, Nissan is the first manufacturer to officially introduce EV into the market. The Nissan Leaf retails at R446k, with approximated running cost of about R300 per month. Since its launch in 2010, more than 78 000 Nissan Leaf models have been sold worldwide. The car has a

With the new policy implementation, to support the IPAP initiatives, implies that local producers will have to embark on a learning process, consolidation and innovation for them to meet requirements of the new policy.
The Nissan Leaf electric vehicle. Image courtesy of Nissan.

195 km range and a top speed of 145 km/h. The battery can be fully charged at home in seven hours. A quick charge (up to 80%) takes about 30 minutes. BMW South Africa also has plans to introduce its i3 and i8 electric models in SA in the near future.

SABS

The Automotive Investment Scheme (AIS) is an incentive within APDP designed to grow and develop the automotive sector through investment in new and/or replacement models and components that will increase plant production volumes, sustain employment and/or strengthen the automotive value chain. The nature of the industry is highly technical and is subject to a vast number of standards, some of which are industry and the majority being national standards. SABS is offering a range of services for management system certification, product testing and certification, and standardisation. The primary activities carried out in this sector ensure that components and systems produced by the automotive supply industry comply with the relevant standards.

The SABS transportation laboratory is a SANAS (South African National Accreditation System) accredited testing laboratory and is also accredited by the International Automotive Task Force (IATF) to certify in accordance with the automotive standards – one of sixty such certification bodies internationally. SABS has representatives that liaise with VDA (German automotive oversight body) regularly to ensure updates on all automotive developments. Growing environmental awareness and the increasing awareness of quality implies the need for standardised requirements and test methods.

SABS has restructured the Automotive and Mechanical cluster shifted its strategy towards meeting customer needs, improving turnaround times and delivering on government initiatives (IPAP). The Department has budgeted R6.5m over the past two years to invest into capital expansion and upgrading of testing facilities. This would include tyre testing, helmet testing, brakes, tow and roll bar and the microdot facilities. Over and above the SABS budget on Capex, the dti allocated R6.1m to enhance the passenger vehicle testing facilities at the East London SABS site. The SABS has budgeted R7m, towards the East London testing facilities, for the upgrading in order to comply with Euro6, on emissions. This would enhance the passenger vehicles produced for the export market globally.

SABS facilitates various tests on motor vehicles to ensure quality and safety. These include crash test facilities, vehicle testing, testing of brake components, exhaust emission testing, engine testing, noise level testing, seat and anchorage testing, homologation of vehicles, replacement brake lining assemblies, hydraulic brake and clutch fluid, replacement safety glass for use in road vehicles, incandescent lamps for motor
vehicles, vehicle test stations, tow bars, automotive glass, seat belts, number plates and automotive secondary lights.

The motor industry stands to be one of the highly regulated industries in the country. There are 22 compulsory specifications, which translate into 127 SANS. This is evident in a range of tests that need to be run, for a prototype motor car to be approved for production and used on South African Roads.

SABS is further involved in the certification processes in areas such as the management system services and solutions. This entails certification and assessment services and training for all the transportation processes, equipment, accessories, services, and standards. Certification is also done on products in order to offer a qualification scheme for the transportation industry. This scheme provides the transportation components industry with an independent qualification service that enables them to demonstrate compliance through a qualification certificate.

Future research and development is envisaged to bias towards battery technologies, electric motors and charging technologies in light of the newly invented electric powered motor vehicle. The East London facilities are mostly involved with the noise bypass tests and car battery test. The car battery tests would be beneficial with introduction of electric cars to determine the lifespan and performance of the battery, since currently they are fully imported with the car. To supplement the direction of research SANS 1103 (Electric Vehicle Propulsion System) has been proposed and registered for development.

The automotive industry, a sector which contributes approximately 7% to GDP, employing approximately 80 000 people, with capital injections growing at the rate of about 15% annually and export earnings of R86.9bn, is one of the drivers of economic growth.
growth in South Africa given the multiplier effect across all sectors of the economy. Hence, appropriate policy need to be administered for the sector to ensure growth, competitiveness and growing sustainable employment. The new policy for APDP, with proper implementation is estimated to create 160,000 direct jobs over the next ten years. Investment levels exceeding R20 billion have been projected for the period between 2009 and 2013, with the potential for a further annual R3 billion up until 2020. All of this needs to be supported and maximised by empowering the South African automotive industry to continuously develop its levels of manufacturing competitiveness, drive further localisation and exploit value chain opportunities. The SABS plays a crucial role in the development of the industry, via standardisation, testing and certification of products and processes to attain targets and objectives of the policy.

List of abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AIS</td>
<td>Automotive Investment Scheme</td>
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<td>APDP</td>
<td>Automotive Production and Development Programme</td>
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<tr>
<td>CBU</td>
<td>Completely Built Up</td>
</tr>
<tr>
<td>CKD</td>
<td>Completely Knocked Down</td>
</tr>
<tr>
<td>CSP</td>
<td>Company Specific Percentage</td>
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<tr>
<td>DFA</td>
<td>Duty Free Allowance</td>
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<tr>
<td>EPC</td>
<td>Eligible Production Certificate</td>
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<tr>
<td>IRCC</td>
<td>Import Rebate Credit Certificate</td>
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<tr>
<td>ITAC</td>
<td>International Trade Administration Commission of South Africa</td>
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<tr>
<td>MIDP</td>
<td>Motor Industry Development Programme</td>
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<tr>
<td>OEC</td>
<td>Original Equipment Component</td>
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<tr>
<td>OEM</td>
<td>Registered Light Motor Vehicle Manufacturer of Specified Motor Vehicles</td>
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Appropriate policy need to be administered for the sector to ensure growth, competitiveness and growing sustainable employment. The new policy for APDP, with proper implementation is estimated to create 160,000 direct jobs over the next ten years.

Notes

1. www.rupert.net/~lkool/
2. International Trade Administration Commission.
4. Deloitte and Touche.
5. IPAP 2013/14.
7. IPAP 2013/14.
8. www.sabs.co.za
SABS reports

The truth in olive oil – standards provide a solution!

It is often said that not all olive oil products sold in the market are the ‘real’ olive oil and governments around the world have developed standards to increase consumer protection from mislabeled olive oil products, and also protect from threats of poor quality import products.

Olive oil – the superior vegetable oil

Olive oil is a fat obtained from the olive, a traditional tree crop of the Mediterranean Basin. The oil is produced by pressing whole olives. It is commonly used in cooking, cosmetics, pharmaceuticals, and soaps and as a fuel for traditional oil lamps. Olive oil is used throughout the world, but especially in the Mediterranean countries and, in particular, in Greece, which has the highest
consumption per person. The oil extracted from the olive fruit comes in different grades, which consists of edible oils (extra virgin; virgin; and olive oil – refined or olive pomace) and oils not suitable for human consumption (i.e. lampante). The different grades are briefly described below and the labeling standards as prescribed by the International Olive Council (IOC) are provided in brackets:

- **Virgin** means the oil was produced by the use of mechanical means only, with no chemical treatment. The term virgin oil with reference to production method includes both Virgin and Extra-Virgin olive oil products, depending on quality. (Extra-virgin has a free acidity, expressed as oleic acid, of not more than 0.8 grams per 100 grams. Virgin has a free acidity, expressed as oleic acid, of not more than 2 grams per 100 grams).

- **Refined** means that the oil has been chemically treated to neutralise strong tastes (characterised as defects) and neutralise the acid content (free fatty acids). (Has a free acidity, expressed as oleic acid, of not more than 0.3 grams per 100 grams).

- **Olive pomace oil** means oil extracted from the pomace (the solid remains of the olives) using solvents, mostly hexane, and by heat. (Has a free acidity of not more than 1 gram per 100 grams).

- **Lampante oil** is olive oil extracted by virgin (mechanical) methods but not suitable as food. Lampante oil differs from virgin oil in that it comes from bad fruit or careless processing. This grade of oil is used for burning in lamps. The term ‘lampante’ is an Italian meaning for ‘lamp’, referring to the use of such oil for burning in lamps. Lampante oil...
can be used for industrial purposes, or refined to make it edible. (Has a free acidity, expressed as oleic acid, of more than 3.3 grams per 100 grams).

The refined olive oil and olive pomace oil are regarded as lower-quality oils due to the further refinement after the first pressing when the olive oil was initially produced. Oil producers have also created what is referred to as 'lite olive oil', also called 'light' or 'mild' oil. This type of oil has undergone an extremely fine filtration process, meaning without the use of heat or chemicals, to remove most of the natural colour, aroma and flavour, making them suitable for baking and cooking purposes where they give a fruity flavour (Alleman, 2007).

Although olive trees, like all other plants, are threatened by natural enemies such as the pest called ‘olive fly’, and also fungus, consumers can enjoy organic olive oil. This is olive oil that is made with olives that were grown without chemicals. It is also a good idea to purchase organic olive oil whenever possible as this is one way to help protect the environment.

Perceived health benefits of olive oil

Many are devoted to using this type of oil because of the health benefits it offers, from preventing cancers and strokes, reducing the risk of diabetes, and may protect individuals from depression as discovered by some researchers. These perceived benefits of olive oil have also been confirmed by scientific studies which indicated that populations consuming the Mediterranean diet, where a high consumption of olives and olive oil as the primary source of dietary fat is a common feature, exhibit lower frequencies of chronic diseases and enjoy good health (Evangelista et al., 2006; International Olive Council, 2012).

Despite the health benefits that individuals can enjoy from consuming olive oil, this essential oil has other valuable uses beyond cooking, from personal care to home improvement, natural remedies and beyond. Some surprising uses for olive oil are said to be:4
- Get healthy skin (and fight cancer!);
- Tame tangled and damaged hair;
- Care for your cat;
- Ease snoring;
- Polish furniture and metal (and condition leather);
- Fix stuck zippers;
- Fix squeaky doors; and
- Cure an earache.

Government response to industry needs

Food fraud usually involves misleading the purchaser of the true nature, composition, or quality of the products being exchanged between the seller and the purchaser. This practice can take the form referred to as adulteration, whereby a commodity is diluted with less expensive materials. In olive oil production, the adulteration of olive oil with various seed oils is a common problem affecting the quality and commercial value of the product. As a result, countries producing olive oil have adopted legislation in order to protect olive oil producers and consumers from such fraudulent practices.

In South Africa, government responded to industry needs in order to solve two main problems when it comes to olive oil production in the country: i) to lock out unsafe and poor quality imports; and ii) to lock in access to increasingly demanding export markets. These are, amongst others, common concerns that countries globally, such as the European Mediterranean countries, seek to address with the olive oil legislation they adopted.

But why is correct labeling of extra virgin olive oil so crucial, the South African Olive Industry Association (SA Olive) points to the important reasons:
- the oil is completely natural and unadulterated, with no additive;
- the oil is free of any defects – not rancid, winey, musty, fusty;
- the oil has a fruity characteristic;
- the oil has a free acidity level of LESS than 0.8%; and
- the oil has been cold-pressed which means that it retains all its wonderful aromas, natural antioxidants and minerals.
In South Africa, government responded to industry needs in order to solve two main problems when it comes to olive oil production in the country, i) to lock out unsafe and poor quality imports; and ii) to lock in access to increasingly demanding export markets.
It is therefore important that Extra Virgin Olive Oil is correctly labeled because it is the best quality oil available and consumers should be guaranteed a quality commensurate to the high retail price paid for this superior oil.

Standards provide a solution...development of voluntary standards for olive oil

Similar to international practices in olive oil producing countries around the world, the South African Olive industry also needs protection from unsafe and poor quality imports which can cause health threats to consumers. SA Olive is responsible for representing the common interests of the South African olive industry and its members consist of olive growers, olive oil producers, table olive producers, tree nurseries and olive importers. It has come to government’s attention, through the Department of Trade and Industry (the dti), that there’s substantial evidence suggesting that South African consumers are being exposed to olive oil products which are mislabeled, are of poor quality and pose potential health risks.

Because olive oil, particularly extra virgin olive oil, has nutritional and health benefits
Because olive oil, particularly extra virgin olive oil, has nutritional and health benefits (which include the reduction of cancer, heart disease, diabetes and cholesterol), government saw a need to develop voluntary standards for olive oil products which is a key role played by the SABS.

(which include the reduction of cancer, heart disease, diabetes and cholesterol), government saw a need to develop voluntary standards for olive oil products which is a key role played by the SABS. The standards, which are developed through consensus among all stakeholders, will help address the threats that the country’s olive oil industry currently faces. The importance of a standard is to ensure that quality ‘Extra Virgin Olive Oil’ is recognised and consumer confidence gained. The SABS is currently in the process of developing a voluntary standard for olive oil and olive pomace oil and once published, the standards will help correct the current mislabeling practices in olive oil products in South Africa. This will also ensure that the country’s olive oil products are of good quality, and meet export market requirements. The development of the South African National Standard on olive oil and olive pomace oil (SANS 1377) is targeted for publication prior to the end of 2014.

This approach is not unique to South Africa; in 2011 Australia initiated a process of developing a standard for olive oil in an attempt to address cases of mislabeling practices discovered in their market. These involved the labeling products as extra-virgin olive oil and sold at a premium when in fact they were of a lower grade.7

Although the primary reason for developing a standard for olive oil is to ensure the correct labelling for different grades of olive oil, the existence of a standard on olive oil will play an important role in the Agro-processing sector which has been identified in the dti’s Industrial Policy Action Plan due to its potential for substantial job opportunities.

References


Notes

3. www.internationaloliveoil.org/glosario_terminos/index
5. Dourtoglou et al. (2003).
6. SA Olive website.
Acid Mine Drainage refers to the flow, or seepage, of polluted water from old mining areas. It is a problem that is very harmful to the environment and humans, this is compounded by the fact that it is also exceedingly complex to deal with. AMD is a serious environmental hazard, not only does it damage water and the soil system, but it also affects human health, particularly in those communities living near active or abandoned mines. Toxic heavy metals and radioactive particles from mining sites are deposited into vast areas when water flows into streams, dams and sources of groundwater. This contamination impedes vegetation and results in the agricultural industry being badly affected due to contamination of groundwater for irrigation or drinking purposes.

The mining industry has been one of the drivers of economic growth in South Africa. Unfortunately this industry has also left an extremely undesirable legacy, Acid Mine Drainage (AMD).

SABS reports Acid Mine Drainage problems in South Africa
The impact is also negative for tourism as AMD is also unpleasant to see.

While AMD is treatable, one of the major drawbacks of treatment is the amount of waste that is produced. The ideal situation would be to find a solution that maximises the amount of reusable by-products and minimise the amount of hazardous waste. Another major concern is the rehabilitation of abandoned mines. The government should establish and enforce legal, financial and technical procedures to ensure that mine sites are rehabilitated for another economic use after the operation ceases, and that acid mine drainage is controlled before the toxic water begins to flood to the surface. This can be achieved by involving the mining sector.

The issue of AMD dates back to many centuries ago, and today it has reached a level where controlling it would be extremely costly and rehabilitation would be an extensive process. This is echoed by the CSIR report affirming that “The threat of AMD to the environment will not be solved in the short to medium term, and is likely to persist for centuries to come. It is also not going to be solved by a single intervention, but will require integrated implementation of a range of measures.” It is estimated that draining disused mines could cost about R1,7bn in the immediate term.

A debate was conducted by EE publishers in August, in Midrand as a venture to look

Acid Mine Drainage is a serious environmental hazard, not only does it damage water and the soil system, but it also affects human health, particularly in those communities living near active or abandoned mines.
into various solutions and funding models to address AMD problems in South Africa. Some of these interventions that were proposed include the following:

- **Reverse osmosis:** Reverse Osmosis is a process in which dissolved inorganic solids (such as salts) are removed from a solution (such as water). This is accomplished by water pressure pushing through a semi permeable membrane. The membrane (cellophane – has a low permeability to air, oils, greases and bacteria) allows only the water to pass through, not the impurities or contaminants. These impurities and contaminants are flushed down the drain.4

- **Integrated algae pond systems (IAPS):** IAPS treats water passively to provide a renewable carbon source for sulphidogenesis to mitigate AMD, and can be integrated easily into existing traditional Waste Water Treatment Plant and as part of water treatment which can be integrated into mining operations.5

- **Ion exchange technology:** Refers to a reversible chemical reaction between an insoluble solid and a solution during which ions may be interchanged, used in water softening and in the separation of radioactive isotopes.

- **Chemical extraction:** Refers to extraction of chemicals from AMD that have economic value, such as sulphur and potassium nitrate. This enforces recycling and further application in the chemical industry.

These solutions will realise high recovery of discharge compliant water, reusable or salable residues and low volume of other residues. Emphasis was also made that mining was not the only source of AMD as cities were also a source of a phenomenon that sometimes occurred naturally and was also called ‘acid rock drainage’. 
The SABS on its mandate to develop and promote standards that will minimise health, safety and environmental impacts, has through its technical committee, SABS TC 207: Environmental management systems, developed a standard, SANS 10286 that can be used as a mechanism to rehabilitate the negative environmental impacts of AMD. This committee deals with standardisation in the field of environmental management systems and tools in support of sustainable development.

SANS 10286: Mine residue, deals with the management of mine residue in residue deposits. This residue includes that portion of the mined ore that remains after the extraction of the sought after minerals. In some instances the minerals may only be extracted at a secondary industrial plant remote from a mine, but the waste remains mine residue. Slimes dams, tailings dams, slurry ponds, ash dams and dumps, rock dumps, including heap leach dumps, and discards and similar deposits all fall within the scope of this standard. Mine residue deposits are considered to be potentially hazardous structures that can threaten human health and safety, third party property and the environment over the full life cycle of residue deposits are therefore needed.

Four major universities in South Africa, North-West University, the University of Johannesburg, the University of Pretoria and the University of Witswatersrand are currently conducting a study to treat AMD with Moringa-based technologies. They believe that the Moringa tree can remove suspended metals and improve salinity by neutralising the acidity in the runoff water. Over and above the challenges the mining industry is posing, it has been the country’s steady source of employment for decades. The sector’s positive contribution to the GDP is depicted in the table above.

South Africa is naturally limited in terms of water resources, and AMD is a real life threatening problem and a national challenge which needs to be alleviated by using the most cost effective treatment and rehabilitation initiatives. Failure to do this will lead to irreversible widespread ecological degradation and compromising of human and animal health. This level of change calls for unsurpassed corporate responsibility to be deployed by all parties involved. But above all, prevention has always remained better than cure.

<table>
<thead>
<tr>
<th>Quantec Mining quarrying table</th>
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</tr>
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<tr>
<td>Variable (Rm)</td>
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<tr>
<td>Real gross domestic fixed investment</td>
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<tr>
<td>Exports of goods and service</td>
<td>83 989.00</td>
</tr>
<tr>
<td>Growth rate</td>
<td>-17%</td>
</tr>
</tbody>
</table>

Notes
1. www.earthlife.org.za/?page_id=584
6. www.answers.com/topic/ion-exchange
The role of standards in support of green economy initiatives

Greening the South African economy represents a critical lever for bringing about the structural transformation needed for a more equitable and inclusive economy. Coordinated activity is required to achieve the envisaged economic shifts to transition the country to a low-carbon and greener economy, with the ultimate objective of a carbon-neutral economy by 2050.
The Green Economy Summit, held in May 2010, identified the need for flagship programmes to demonstrate green economy activity. This was proposed as an initial step towards the development of a more integrated and comprehensive approach to the green economy, for adoption by government. As an attempt to fast-track the implementation of Green Economy initiatives, the Summit agreed on the following themes as green economy programmes:

- Resource conservation and management
- Environmental sustainability
- Clean energy and energy efficiency
- Sustainable waste management practices
- Green buildings and the built environment
- Agriculture, food production and forestry
- Water management
- Sustainable transport and infrastructure
- Sustainable consumption and production

Solar water heaters have been identified as an important intervention for shifting demand by replacing electricity consumption with solar heat. Image: SABS.

The concept of a green economy emerged amid calls for growth strategies that are economically and environmentally sustainable. The green economy concept is viewed as one of the vehicles for national sustainable development action. It is a system of economic activities resulting in improved human well-being, while not exposing future generations to significant environmental risks or ecological scarcities. Government has embarked on a number of policy reforms in support of green economy initiatives. These policy reforms are as follows:

- National Green Economy Summit (Policy direction and themes)
- New Growth Path, Green Economy Accord and Green Jobs Report
- Industrial Policy Action Plan
- National Strategy for Sustainable Development and Action Plan
- National Climate Change Response Policy
- National Development Plan Vision 2030
- Science and Innovation Plan
- Integrated Resource Plan and Integrated Energy Plan
- Environmental Fiscal Instruments (e.g. Carbon tax, REFIT)

These government policies were drafted to support green economy programmes. The prioritised programmes described herein propose practical interventions which, if implemented, will have a significant impact on mainstreaming green economy approaches to the benefit of the environment, economy and society. It is proposed that these programmes will promote growth while reducing pollution and greenhouse gas emissions, minimise waste and inefficient use of natural...
resources, maintain biodiversity and strengthen energy security.

According to the Green Economy Accord, South Africa has a unique opportunity to create jobs on scale and address the concerns about climate change, through a partnership between business, labour, government and community to promote the green economy and processes to green economy. The parties agreed on the following key commitments in respect of green energy initiatives:

**Rollout of solar water heaters**

As one of the interventions with the greatest potential to contribute to meeting the government’s renewable energy target, parties recognised that the installation of solar water heating systems can help with climate-change goals and increase the number of South Africans who have access to hot water. Government committed to a target of ensuring the installation of 1 million solar water heaters at household level by 2014. Business committed to working with government to develop, establish and then publicise a sustainable funding plan to support the installation of the solar water heaters. Solar water heaters have been identified as an important intervention for shifting demand by replacing electricity consumption with solar heat.

**Investment in the green economy**

New sources of funding and finance will need to be developed and tapped to ensure that green economy investment levels are rapidly improved. In this instance, both public and private sector funding will be required. According to the accord, The Industrial Development Corporation will set aside a capital allocation of R22 billion for green projects over the next five years and a further R3 billion will be made available for manufacturing of green products and components.
In terms of the Green Economy Accord, viable investment projects need to be identified and supported in order to ensure take-up of available funding.

**Rollout of renewable energy**

Government committed to the procurement of renewable energy as part of the plan to expand the energy-generation capacity of the country. To this end, government will secure commitments for the supply of 3 725 MW of renewable energy by 2016 as a first step to realising the goals for renewable energy under the Integrated Resource Plan 2010 – 2030. Together with the procurement of renewable energy, government, business, labour and community structures commit to support efforts to increase the local industrial manufacture of components for renewable energy.

**Waste recycling, re-use and recovery**

A range of industries are engaged in a variety of activities to recycle, re-use or recover waste. Government commits to finalise a Waste Innovation Programme that aims to promote reduced waste generation during the production processes. Business on the other hand, commits to work with Government to pursue opportunities in the recycling, re-use and recovery of industrial waste.

According to the Green Economy Accord, South Africa has a unique opportunity to create jobs on scale and address the concerns about climate change, through a partnership between business, labour, government and community to promote the green economy and processes to green economy.
National payment for ecosystem services programme

Payment for Ecosystem/Environmental Services (PES) systems aim to compensate land users for the environmental services they generate. Given that natural resource management is the key pillar of green economy, a PES programme recognises that the ecosystem/environmental service is essential to economic growth, job creation and technological advancement. In summary, the benefits of PES are as follows:
- **Efficiency**: The conservation effort is focused on the greatest benefits.
- **Sustainability**: The system is based on self-interest and on services that are required in perpetuity.
- **Poverty alleviation**: It establishes a steady income stream for rural communities.

Promoting non-motorised transport in metropolitan areas

Promoting non-motorised transport provides an opportunity to leapfrog the country’s transport system into a new era of sustainability and efficiency. Non-motorised transport projects include urban design, infrastructure and vehicle components, such as cycling, pedicabs and walking. Government committed to reviewing the investment in rail infrastructure and rolling stock in order to ensure a greater shift of freight transport to rail instead of road transport.
Biofuels

The production of biofuels for mandatory blending in the petrol and diesel national fuel pool can contribute to lower carbon emissions, greater fuel-supply security and significant job creation in the growing of feedstocks that do not compete with local food needs. As a result, government has published mandatory blending regulations that set targets of 2% bio-ethanol and 5% biodiesel standards to be applicable in the South African market. Government also commits to finalise an incentive system to kick-start the development of a local biofuels industry.

Opportunities for SABS in these initiatives

As South Africa moves towards the new green economy era, there will be numerous opportunities for the SABS to play a crucial role in ensuring that all these new products are tested and meet the required standards. The green economy is broader than renewable energy and energy efficiency. It includes land use, water and materials. There is a need for the SABS to be aware of all the products that will be entering the South African market so that systems can be put in place to meet the demand for products that need to be tested. As the country becomes green, there might be a need for new laboratories that will test the green products.

Standards set requirements with which products or services, including their production and distribution methods, must comply with (mandatory) or should comply with (voluntary) for the product or service to benefit from certification or labelling. Environmental standards can inform consumers about products, services and production processes and thus stimulate markets in sustainable goods and services. The demand for environmental standards is going to grow substantially and the SABS needs to be prepared for this growing trend of green products in South Africa.

With regard to the rollout of solar water heaters, the SABS is already playing a very important role by publishing relevant standards. Currently, there are five standards published on solar water heaters. For example, SANS 1307: domestic storage solar water heating systems, and SANS 6210: 2013 domestic solar water heaters – mechanical qualification tests. The latter specifies test methods for the mechanical qualifications of domestic solar water heaters.

Therefore, there will be a need to develop more standards on other green economy products that are in the pipeline in South Africa. The future and contribution of the SABS in the green economy initiatives are bright.

Notes

2. DBSA Working Paper Series No. 24 Programmes in support of transitioning South Africa to a green economy.
The impact of standards in public procurement

Standards can play an important role in procurement, particularly in government, by improving efficiency to bring about better delivery of services and avoiding wastage of public resources. Through improved procurement processes both the public and private sectors can unlock potential especially in sectors that are key to industrial development and growth.
Public sectors are major buyers of products ranging from building materials to food and, globally, public procurement accounts for close to 20% of GDP. In South Africa, consolidated government expenditure for the 2013/14 financial year is estimated at 32.7% as a percentage of GDP according to the 2013 Budget Review publication. Procurement plays a key role in ensuring that government is able to deliver goods and services of the required quality and on time. Given the current economic climate and the lower-than-anticipated government revenue experience in the previous financial year (2012/13), government has had to find ways to do more with less, i.e. using the current available resources to maintain the required levels of service delivery.

Ensuring that goods and services are delivered on time and are of the expected quality requires an efficient procurement process. Efficiency can be defined as “those reforms to delivery processes and resource utilisation that achieve reduced numbers of inputs whilst maintaining the same level of service provision”. Because procurement is one of the business functions most significantly impacted by standards, it is important that government use standards in their procurement processes. For instance in procurement, standards are used as a basis for material and parts specifications (primarily metals), thereby making easy for suppliers to know exactly what products are required and what is the expected quality. The use of standards can make this possible and can impact positive benefits for both players (i.e. procurer and supplier).

**Briefly on what standards are...**

A standard is a collective work that is created by bringing together the expertise and experience of all interested parties, such as manufacturers, sellers, buyers, users and regulators of a particular material, product, process or service. Standards are designed for voluntary use and do not generally impose any regulation, but some laws and regulations may refer to standards and even make compliance with them compulsory.

In South Africa, standards that help address the health and safety of the people, and impact on the environment are mostly referenced in legislation, making compliance to these standards compulsory.

**What is public procurement?**

Public procurement is the process whereby public sector organisations acquire goods and services from third parties. It includes a number of areas that support the work of government and ranges from routine items (e.g. stationery, temporary office staff, furniture or printed forms), to complex spend areas (e.g. construction, Private Finance Initiative projects, aircraft carriers or support to major change initiatives).

**What is the link between procurement and standards?**

Effective public procurement is an essential part of good governance which governments needs to abide with. This implies that government must apply the highest professional standards when it spends public money on behalf of taxpayers, to ensure it gets a good deal and to provide appropriate and necessary goods and services to the quality required to meet user needs. In South Africa, public procurement is regulated through Preferential Procurement Policy Framework Act (PPPFA), Act No. 5 of 2000. The objective of this piece of legislation is to provide for categories of preferences in the allocation of contracts and the protection or advancement of persons disadvantaged by unfair discrimination. This Act and the Regulations of 2011 impact on everyone doing business with government in the procurement of goods and services.

*Effective public procurement is an essential part of good governance which governments needs to abide with. This implies that government must apply the highest professional standards when it spends public money on behalf of taxpayers, to ensure it gets a good deal and to provide appropriate and necessary goods and services to the quality required to meet user needs.*
actual progress.\(^7\) In this way, the benefits of standards may be realised through increased efficiency in public procurement.

**What benefits can standards bring in procurement?**

Not following standards in procurement can put danger to consumers because products of substandard quality can be harmful and do not perform to the level required or expected. Standards therefore bring quality assurance in procurement. Standards bring predictability and confidence to procurement, and also help ensure that procurement meets other policy objectives, such as requirements to buy from small businesses.\(^8\) For instance, in South Africa, government identified and designated certain sectors (e.g. clothing and textiles) where the procurement requires the use of ‘local content’ in the goods being procured. Suppliers doing business with government in these designated sectors are required to prove a certain level of local content before government can enter into a procurement agreement (i.e. awarding of tender contract) with a supplier.

In addition, by specifying certain standards that suppliers must adhere to prior to providing certain goods to government, government will have the comfort that such products are of the required quality.

Brief overview on local content verification office and applicable legislation (PPPFA)

SABS has developed a technical specification, SATS 1286 :2011, *Local goods, services and works – measurement and verification of local content*, which specifies measurements and procedures to define, measure, declare and verify the local content of goods, services and works when required for procurement and other purposes. To give effect to this government imperative in public procurement, Section 9 (1) of the PPPFA Regulations of 2011 empowers the dti to designate specific industries where tenders should prescribe that only locally manufactured products with a prescribed minimum threshold for local production and content will be considered. Government procurement
is quite significant and the intention is to bring in value-for-money in products and services being procured, and standards can be used as a benchmark against quality assurance of procured products.

**What are some of the challenges in procurement that can be addressed by using standards?**

In the ICT sector for instance, government procurement is often faced with the problem of varying specifications for tenders when commissioning hardware, software and IT services from external suppliers. As a result they end up taking away their flexibility to move with technological innovation and are locked to old systems. To address this problem, the European Commission for instance, has drawn up detailed guidelines on how to make best use of ICT standards in tender specifications. This means public authorities should select standards which can be implemented by all interested suppliers, allowing for more competition and reducing the risk of lock-in.

Challenges of poor quality products can be addressed through administering requirement that suppliers/service providers adhere to specific standards to ensure government procures the required products that meet expected standard of quality. In road construction for instance, adherence to certain applicable standards can go a long way in ensuring that roads don’t collapse within a few months after construction under extreme conditions, such as heavy rains; and additional road rehabilitation. This will minimise reconstruction costs.

Provinces and municipalities have a responsibility of providing and maintaining road infrastructure in their jurisdictions, and substantial financial resources are invested to provide this service. Standards can play an important role in ensuring that products (for example road signage) procured from suppliers that adhere to the required standards and can deliver quality products. Examples of standards available include SANS 1329-1:2004 *Road signs – Retro-reflective and fluorescent warning signs for road vehicles Part 1: Triangles* and SANS 1519-1:2006 *Road signs – Part 1: Retro-reflective sheeting material,* which suppliers can follow to ensure that provinces and municipalities receive value for money.

**Sources**


**Notes**

1. Public Procurement and Sustainability Standards, ISEAL Alliance
   www.isealliance.org
2. BSI: British Standards publication. Improving the efficiency of public procurement – the role of standards
8. BSI: British Standards publication. Improving the efficiency of public procurement – the role of standards
Non-tariff barriers to trade are moving to the forefront as an issue preventing market access. The competitiveness of products is of importance for the export market as well as the resulting income level and contributing benefit of such exports to the country. Trade facilitation often concerns the simplification and synchronisation of trading procedures and in this process, standardisation is often touted as a route to eliminate such regulatory
complexities (Spence & Karingi, 2011). In general it is agreed that regulatory reform in the form of adaptation of good regulatory practices can generate gains in terms of trade facilitation. This is generally referred to as SMART regulations.

Technical regulations lay down compulsory technical requirements for products and/or services, including the related processes that they should undergo, and the production methods that should be used. Technical regulations also contain specific mandatory administrative provisions and conformity assessment requirements. Regulatory authorities can develop technical regulations without making reference to standards (requirements are written into the regulation itself), in which case the requirements are not consensus based and the World Trade Organization (WTO) regulatory best practice principles are not applied. This practice results in a rigid regulatory approach that can only be amended through the revision of the legislation, but also has an advantage as it allows for direct and swift intervention by the government on important national issues. The fluidity as well as the positive benefits of a regulation that references harmonised standards are, however, restricted with this approach.

National standards are voluntary documents that are approved and published by recognised bodies, such as the South African Bureau of Standards (SABS). These standards are established through consensus by representative stakeholder groups (manufactures, consumers, regulators, state, academia, etc). Voluntary standards are not technical regulations unless and until they are referenced by a regulatory authority, such as the National Regulator for Compulsory Specifications (NRCS).

This publication endeavors to provide information on the important and close relationship between standards and regulations. It sketches the symbiotic interdependency between technical regulations and national standards that cumulatively results in internationally acceptable best regulatory practice. The standards development process provides a consultation forum for the setting of technical requirements that assists the regulator in understanding the views from all stakeholders. By adhering to the WTO TBT principles, the regulator supports the primary pillars of best regulatory practice that allows Technical Regulations to play a decisive role in the competitiveness and success of an industry. Knowledge and a clear understanding of the technical framework also acts as catalysts to allow
companies to build institutional quality in areas, such as export promotion and innovations, as critical factors driving the economy.

**WTO Regulatory Best Practice Model**

South Africa adopted a technical regulatory reform framework based on the WTO regulatory best practice principles and model (the dti, 2006). These principles include the following:

- The non-discriminatory principle that requires the equal treatment of domestic and imported products in terms of technical regulations.
- The necessity principle that allows the use of discriminatory domestic technical regulations aimed at the achievement of national policy goals where safety, health, environmental control and consumer protection are necessary.
- The trade restrictiveness principle that requires legislators to choose technical regulations that cause the least distortion to trade.
- The proportionality principle requesting that the cost of technical regulations should be proportional to the benefits that they are expected to bring.
- The use of harmonised measures principle where the use of harmonised international technical regulations are encouraged to improve production efficiency, facilitate free trade and minimise any negative effects of domestic technical regulations on trade.
- The mutual recognition of equivalence of regulatory measures principle that entails the mutual recognition by countries of the equivalence of technical requirements as well as conformity assessment procedures.
- The transparency principle that requires the publication of proposed technical regulations for comment prior to the adoption of a final technical regulation (Nsingo & Steyn, 2007).

**NRCS Compulsory Specifications/Technical Regulations**

The NRCS is a key regulator of consumer products in South Africa. The NRCS is a regulatory body that is mandated by the Minister of Trade and Industry (the dti) to regulate consumer products which pose a risk to public health, safety or the environment (NRCS Act, 2008). The technical regulations published by the NRCS are known as Compulsory Specifications. Compulsory Specifications are applicable to certain products and commodities at their point of sale (including points of importation, wholesale and retail distribution), and are typically used to regulate safety-critical items where market failures would otherwise occur in the absence of regulation. All manufacturers, importers, and builders of regulated products in South Africa must comply.

Table 1 provides an overview of the Technical Regulations under the mandate of the NRCS and the number of standards referred to within the technical regulations. The Trade/Legal Metrology Act as well as the National Building Regulations and Building Standards Act, also resides under the auspices of the
The NRCS is a key regulator of consumer products in South Africa. The NRCS is a regulatory body that is mandated by the Minister of Trade and Industry (the dti) to regulate consumer products which poses a risk to public health and safety or the environment.

NRCS. The same principle is applied in the execution of these acts, namely technical regulations referencing the applicable and relevant national standards.

The incorporation of standards in legislative instruments by means of a reference constitutes a method of drafting a regulation in such a way that a detailed statement of technical requirements is replaced in the text of the regulation by a reference to one or more standards, or to the relevant parts thereof.

According to the NRCS Act, South African National Standards (SANS) documents or certain provisions in SANS documents may be declared as mandatory in Compulsory Specifications/Technical Regulations in the following ways:

- By referring to the title and the number of that standard only, without indicating the year or edition number. If the referenced SANS is amended, the amended SANS is deemed to have been incorporated; or
- By referring to the title, number and year or edition number of the SANS. If the referenced SANS is amended, the new edition of the SANS will only become mandatory when the Compulsory Specification is amended to include the new year or edition number.

When a new Compulsory Specification/Technical Regulation is proposed and a suitable SANS is not available for referencing, the NRCS will request the SABS to draft a SANS that is suitable for regulating the proposed commodity, product or service. The NRCS regulations do, however, allow the regulator to develop a Compulsory Specification and to incorporate the technical regulatory requirements in the regulation through a consultative process, if a SANS cannot be developed through the consensus-building process of the SABS (NRCS Regulations, 2011).

The NRCS follows a defined process and procedure for the development of technical regulations. The procedure prescribes processes for the assessment of feasibility, risk and impact, stages of drafting, extensive stakeholder consultation, and approval. The final draft regulation is published in the Government Gazette for public and international comment through the WTO enquiry point at the SABS.

Compliance with NRCS technical regulations are monitored through pre-market approval as well as market surveillance activities. For pre-market approval, manufacturers, importers and builders must submit samples and test reports from testing facilities that are recognised by the NRCS. The NRCS published a conformity assessment policy, in which different options are provided for proof of conformance. These options are aligned with the requirements of international recognition and agreements for testing facilities.

<table>
<thead>
<tr>
<th>Table 1: NRCS Technical Regulations (including referenced SANS) per industry sector.</th>
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</thead>
<tbody>
<tr>
<td>Industry sector</td>
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<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td>Automotive</td>
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<tr>
<td>Chemicals, Mechanical and Materials</td>
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<td>Electro-technical</td>
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<tr>
<td>Food and Associated Industries</td>
</tr>
<tr>
<td>Trade/Legal Metrology Regulations</td>
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<td>National Building Regulations</td>
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The NRCS is a key regulator of consumer products in South Africa. The NRCS is a regulatory body that is mandated by the Minister of Trade and Industry (the dti) to regulate consumer products which poses a risk to public health and safety or the environment.
National and International Standards

The WTO and the Organization for Economic Cooperation and Development (OECD) recognise the role of international standards in support of regulation and specifically encourages harmonisation towards international standards. Both organisations support the use of internationally harmonised standards as a basis for domestic technical regulations. International standards, such as standards published by the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC), reflect the best experience of industry, researchers, consumers and regulators worldwide and cover common needs in a variety of countries. These standards constitute one of the important bases for the removal of unnecessary technical barriers to trade.

South African National Standards (SANS) are developed as voluntary documents through a consensus-building process by SABS Technical Committees. The development of SANS adhere to the Code of Good Practice for the Preparation, Adoption and Application of Standards as specified in the TBT agreement and the SABS complies with the TBT agreement and the Code. It is advantageous to reference SANS, developed in accordance with the code, in technical regulations because:

- The standardisation process is highly transparent, as all affected and interested parties can be involved.
- The advantages of democracy are combined with the ability to reflect technological state of the art.
- Standards are regularly aligned with technological developments through reviews.
- The costs for the development and setting of technical requirements are transferred to the standardisation body and the private sector.
- Increased confidence and cooperation from the industry are promoted, as expertise is drawn from the industry to foster a consensus-based process in the development of standards.
- The increased reliance in international trade on international standards has enhanced the importance of linking domestic regulatory and standards development initiatives to international trends.
- National standardisation bodies have, through their membership of the international standardisation bodies, direct access to international standards, and the automatic right to incorporate or adopt the relevant requirements in national standards.
- The WTO and its member countries are notified of all proposed national standards and can submit comments before final publication.
Harmonised Compulsory Specifications

Several NRCS Compulsory Specifications are harmonised with international standards through the referencing of SANS publications that have adopted ISO or IEC technical requirements. Examples include the following regulations:

- **VC 8055 Safety of Electric and Electronic Apparatus**: Refers to the SANS 60335 series of standards for the safety of household and similar electrical appliances, which is an adoption of the IEC 60335 series of international standards.

- **VC 9002 Personal Protective Equipment - Safety Footwear**: Refers to specific clauses in the SANS 20345 for safety footwear, which is an adoption of ISO 20345.

- **VC 8032 Personal flotation aids**: Refers to the SANS 12402 series of standards for personal flotation devices, which is an adoption of the ISO 12402 series of international standards.

The WTO and the OECD recognises the role of international standards in support of regulation and specifically encourages harmonisation towards international standards. Both organisations support the use of internationally harmonised standards as a basis for domestic technical regulations.

References


In an ever changing and developing world, the demand for electricity which is generated and consumed in both first world, to the rapidly developing third world countries, is forever growing and has become one of the most important necessities to sustain a healthy economy.

The electrical reticulation and distribution network and systems form part of the most important components, of how this necessity is conveyed to worldwide consumers. Energy is generated in many ways which might include thermal, hydro, wind, photovoltaic and nuclear and then reticulated at high, medium or low voltages which may
Protection devices are designed to detect electrical faults and promptly disconnect the faulty component in order to reduce the effect of the fault on the rest of the installation. One of the most extensively used and hence costly components, in the low voltage network is the cable, which guides the electricity from its point of generation to the point of application.

The image that people may have of an electrical installation is the large and impressive components such as the power stations, transformers, overhead lines, cables and lastly the distribution boards in their homes. The most important component affecting performance and ultimately the safety of the consumer under abnormal conditions is the protection system.

Protection devices are designed to detect electrical faults and promptly disconnect the faulty component in order to reduce the effect of the fault on the rest of the installation. One of the most extensively used and hence costly components, in the low voltage network is the cable, which guides the electricity from its point of generation to the point of application.

It is indeed possible for a circuit breaker to be installed in a circuit and it may not be required to function for years. It is therefore of utmost importance that the circuit breaker chosen for a particular circuit be properly designed, manufactured and above all proven to be safe.

Circuit breakers are designed to have one of the following possible overload sensing means:

- Thermal-magnetic sensing
- Hydraulic-magnetic sensing
- Solid state electronic sensing.

Hydraulic-magnetic sensing, which is widely used in South Africa, eliminates the inconvenience of early tripping of thermally operated circuit breakers at elevated ambient temperatures. Hydraulic-magnetic circuit breakers offer the advantage of a more accurate calibration of tripping curves, together with the ease of achieving a variety of tripping curves to suit specific application requirements including fractional ampere ratings.

During this movement, the dampening fluid regulates the core’s speed of travel, thereby creating a controlled time delay which is

...
inversely proportional to the magnitude of the current.

This time delay is useful in that if the overload is of short duration, i.e. start-up of motors etc., the core returns to its rest position once the overload disappears.

If the overload persists, the core reaches the pole piece after a time delay particular to that current. In so doing, the reluctance of the magnetic circuit drops considerably so that the armature is attracted to the pole face with sufficient force to collapse the latch mechanism and consequently ‘trip’ the breaker. The contacts separate, current ceases to flow, and the core returns to its rest position.

The actual time-current characteristic in such devices is easily controllable through a combination of the opposing spring force and the viscosity of the silicon oil that is sealed inside the tube assembly. At very high over-currents, such as short circuit, the armature is instantly attracted, without the influence of the moving core.

Hydraulic-magnetic circuit breakers are particularly suitable for installation protection and reticulation purposes, in which cases the level of current that is expected by or contracted to the consumer is independent of the ambient temperature.

A circuit breaker’s primary function is to detect over-currents and interrupt the flow of electricity when required, which in turn will prevent unnecessary damage to equipment.

**Physiological effects of electric shock**

Earth leakage protection has been designed primarily for the protection of human beings using electrical apparatus. Throughout the world, a considerable amount of experimental work has been carried out on the effect of electric current on the human body. It has been shown that the physiological effects of an electric shock depends on the magnitude of the electric current that flows through the body, the duration of that current and the path that it follows. Generally, the higher the current and the longer the duration of that current, the more serious the consequences.

The magnitude of the electric current that will flow through the human body under the influence of an electric shock depends on the applied voltage and the electrical resistance of the current path through the body and other external resistances. The electrical resistance of the body is made up of the internal body resistance (which is low), the skin resistance (which is usually high but varies greatly from person to person), and the contact resistance (which depends on the type and pressure of contact,
humidity and the state of the surface of the skin; sweaty, wet).

The minimum value of overall body resistance for a current path between hand and foot is generally accepted as being roughly 500 Ω. The duration of electric shock depends on many external factors, but the longer the time, the more serious the consequences.

The path that the current takes through the human body also influences the physiological effects. Currents flowing through the heart or through the lower part of the brain are particularly dangerous. For example, a current of 200 mA hand to hand has the same effect as a current of 80 mA left hand to feet.

The physical condition of the person at the time of shock, such as the state of health (fitness, fatigue, and worry), sex and age can also influence the physiological effects. Consequently, the protection against electric shock offered by an Earth Leakage Circuit Breaker depends on the current sensitivity level of the unit and its disconnecting speed. Internationally, Standard Specifications covering Earth Leakage Protection Units specifies that the maximum nominal sensitivity should be 30 mA (tolerance of +0 % -50 %) and the maximum overall tripping time for differential currents greater than 60 mA should be less than 200 milli seconds. The aim is to prevent the possibility of heart fibrillation, as this is recognised as the major cause of fatalities. In choosing the sensitivity, it should be recognized that although it is desirable to have the lowest possible sensitivity to prevent injury, care must be taken to prevent unnecessary supply interruption due to normal leakage currents in electrical installations.

### The regulatory environment

The Occupational Health and Safety Act (OHASA) is a South African Act of Parliament defining the laws applicable to Occupational Health and Safety in the workplace. The OHASA includes several Regulations which are prescribed in the interests of persons at work, in connection with the use of plant and machinery, or in the interests of persons in general arising from or connected with the activities of persons at work.

Several health and safety standards are incorporated into the regulations of the OHASA through notices published in the Government Gazette.

SANS 10142-1: 2009 *Code of Practice for the Wiring of Premises*, is a mandatory standard covering all Low Voltage electrical installations in South Africa.

A fundamental principle forming the basis of this standard is the intention to “ensure the safety of persons, livestock and property against hazards that may arise in the reasonable use of an electrical installation.

The two major hazards inherent in the use of an electrical installation are shock currents and excessive temperatures that may cause burns, fires and other injurious effects”.

To this end, persons and livestock must be protected against contact with live parts of the electrical installation. This is achieved by the full insulation of all exposed live parts and the provision of barriers and enclosures where this is not the case.

South Africa is in the unique position of being one of the oldest users of Miniature and Moulded Case, where Circuit Breakers, having had a local manufacturing base already in place in the early 1950s, based on North American standards.

In compliance with South Africa’s commitment to adopt IEC standards, using IEC 60947-2: low-voltage switch gear and control gear Part 2: circuit breakers as a basis and as a reference document.

Western regulations make provision for the identification or control of low voltage protection devices according to their field of application. In the absence of any such identification, control is obviously impossible.
The Standards convention is an annual event that coincides with our national standards day, which is celebrated on 14 October every year. Standards day recognises the establishment of standardisation activities around the world and is one of the major highlights on the SABS calendar. These were the opening remarks of Ms Elis Lefteris; CFO of SABS at the event’s plenary held on 10 October 2013 at Sandton Convention Centre.

Ms Lefteris highlighted that South Africa is a co-founding member of ISO (International Organisation for Standardisation), and our country’s footprint is and will forever be prominent in international standardisation work, where experts hold special leadership

Dr Bonakele Mehlomakulu speaking on the theme “our economy, our job” at the 2013 SABS Convention.
positions in these forums. She announced this year’s international standards day theme as “International standards ensure positive change”. She also introduced the national theme as “Our economy, our jobs”.

According to Ms Lefteris, standardisation activities are indispensable to the country’s economic growth, where globalisation has a significant impact on our economy; standards are benchmarked interventions to these issues. They remove barriers to trade and allow interoperability and through the implementation of standards, increased quality and safety are also realised.

The CEO of the SABS, Dr Bonakele Mhlo- makulu in bringing the theme “our economy, our jobs” to life, elucidated on some of the following institution’s initiatives:

**Establishment of the local content verification office**

The CEO explained that the SABS has been mandated by the government to conduct the verification of local content in procurement processes of the industry to ensure that industry complies with set baselines as per PPPFA requirements.

**Deployment of electronic platforms**

- **E-committees** – the CEO explained that the Standards Division of the SABS is implementing an e-committee programme as part of the new strategic direction of the division. The server will provide an electronic working environment to support national committee work. The aim is to make documents available electronically to committee members.
- **Webstore** – offers purchasers a secure platform to access and purchase a range of products without leaving their location.
- **Implementation of IP systems** – The CEO raised concerns relating to the infringements of Intellectual Property rights where standards are illegally distributed in various forms. She emphasised that the SABS, as an affiliate member of ISO, is the recognised copyright owner of ISO standards in South Africa and has a mandate to monitor any violations and report such behaviour to ISO. She urged industry to guard against such conduct.
Stimulating our economy

The CEO informed the delegates that the SABS has revised its strategy to position the organisation as a powerful brand, where the execution of the “made in South Africa” concept will be the key in building the economy of this country. This is a mechanism to address the current influx of sub-standard goods into the country which leads to unfair competition, loss of jobs and compromised consumer safety.

Equated to her last year’s convention’s speech which focussed on her strategies to align the institution with industry requirements, this year’s speech was mainly focussed on the role of the industry through compliance with SABS’ due diligence processes to assist SABS in delivering its mandate which has an elevated benefit to the country as a whole.

The title “Affecting positive change” was presented by Dr Phil Mjwara, Director General at the Department of Science and Technology (DST). He shared various Research and Development (R&D) strategic initiatives, for instance, the DST resource based approaches and R&D led industry development. He highlighted the current research that is championed by the CSIR within the mining sector, which has established that South Africa has significant Titanium Ore reserves. Titanium is a metal that is critical in the aerospace industry due to its strength and lightweight characteristics. Dr Mjwara shared various R&D strategic initiatives. Bottom left: Mr Asogan Moodley, emphasised the role of NRCS in locking out poor quality products and locking in good quality ones. Bottom right: Pannelist, Mr Frank Makamo, SABS Executive: Certification, expressed the need to hoist SMMEs to enable them to meet testing requirements.
anticipates future long-term relationship with the SABS as DST intends to test their end products at the SABS test facilities.

Mr Asogan Moodley, CEO of the NRCS emphasised the role of NRCS in locking out poor quality products and locking in good quality ones, which he views as a joint effort with SABS since specifications/standards that are developed by the SABS are used as a basis to support NRCS’s regulatory function in order to enforce its role in the country.

Mr Frank Makamo, as the SABS panellist during the morning’s plenary session, expressed the need to hoist SMMEs to enable them to meet testing requirements, and it is for this reason that the SABS has established SMME section to assist this sector in procuring services and testing.

**Break-away session on the role of technical regulations**

In the break-away sessions after lunch, several pertinent topics were discussed. One of these was the role of technical regulations in underpinning the economy, which was facilitated by Mr Bongani Khanyile of the NRCS.

The NRCS is a public entity responsible to the Minister of Trade and Industries for administration of technical regulations including compulsory specifications based on standards that protect human health and safety, and the environment.

Government is also obliged to ensure that national and international trade is fair and based on reliable measurements. The NRCS administers the Trade Metrology Act on behalf of the Minister of Trade and Industry. The Act and regulations set requirements for measurements of quality for trade purposes.

In his presentation, Mr Khanyile pointed out that there were four economic underpinnings for the development of regulatory policy:

1. **Externalities**;
2. **Asymmetric information**;
3. **Economies of scale**; and
4. **Public policy goals**.

These economic concepts can be quite complex, so simple definitions follow.

**Externalities** refer to a situation in which the cost or benefit arising from any activity does not accrue to the person or organisation carrying out the activity. **Asymmetric information** describes a situation in which two parties engaging in a transaction have different levels of information. **Economies of scale** refer to the ability of larger organisation or countries to produce goods or services more cheaply than smaller ones. Lastly, **public policy goals** essentially refer to the improvement of social welfare.

The SABS has revised its strategy to position the organisation as a powerful brand, where the execution of the “made in South Africa” concept will be the key in building the economy of this country.

In helping to resolve these ‘market failures’, the NRCS is driving ‘smart’ technical regulations. Smart technical regulations contribute to economic development and societal well-being. Furthermore, they support the rule of law and are guided by three principles: Decreasing business costs, Increasing confidence and control and lastly, there must be wide realisation of the economic benefits.

The economic benefits of technical regulations are determined through conducting a feasibility study and consequently a risk and impact assessment. In this way, the NRCS is making a positive contribution to the South African economy.

**Design Democracy Breakaway Session**

“Good design = Responsible design = Social impact”

The breakaway session marked the launch of the 20x20 Design Democracy Project and this project was the main focus in the session. The 20x20 Design Democracy Project aims to bring together design and related disciplines to activate 20 design interventions in celebration of 20 years of democracy in 2014. A first design scrum was hosted by the Design Institute at the Design Breakaway session of the annual SABS Convention on 10 October 2013 and generated about thirty ideas in response to the question, what are some of the key priority areas
where design can be activated to support nation building and social upliftment?

The breakaway session was also an opportunity for the Design Institute to showcase some of the latest supported innovation, the EVA paraffin stove, for one. EVA is an environmentally friendly product which is said to benefit poor communities that are still using non-electric heating and cooking methods. Another new initiative is The Go-To Hub project, which offers design support for entrepreneurs. It aims to assist high potential businesses integrate design into all aspects of their operations, including a design culture, design thinking for business strategy, a branding strategy and innovation of new products or services.

Breakaway session on local content verification

The break-away session on local content verification dealt in detail with the process flow of local content verification between the dti and the SABS Local Content Verification Office. The local content requirements are legislated through the Preferential Procurement Policy Framework that was enacted in 2000, its Regulations promulgated in 2001 and amended in December 2011. Paragraph 9 of the Regulations empowers the dti to designate specific industries where tenders should prescribe that only locally manufactured products with a prescribed minimum threshold for local production and content will be considered. The table on the following page shows the designated sectors and the percentage for designation.
The session also discussed important documents that guide the verification of local content. The following documents were listed as necessary:

- **SABS**: Technical specification SATS 1286: 2011 on the measurement and verification of local content
- **The dti**: Guidelines on calculation of local content & templates (annexures) for calculation of local content
- **National Treasury**: Standard Bidding Documents (SBD/MBD 6.2) & instruction notes for each designated sector.

Since the establishment of SABS Local Content Verification Office, the procurement process flow at the dti has changed. The process flow works as follows:

1. Information, Standard Bidding Documents (SBD or MBD 6.2) documentation forwarded to the SABS Local Content Office;
2. Scoping of the verification process by Local Content Office;
3. The audit is planned as per the organisation schedule at least three weeks in advance;
4. Verification of the documentation by the SABS (to ensure local content is as per the designated requirements);
5. The SABS auditor will also do factory shop technical verification of the local content as described in the documentation verified above;
6. Once the verification process is done, the SABS Audit Team prepares an audit report which contains audit trail of information & documentation verified and conclusion with respect to the verification process against the designated sector;
7. Standard SABS approvals process follows independently of the audit team;
8. Approval process will minute the decision of either compliance or non-compliance against the designated sector; and
9. The database will contain all the relevant information as per the certificate.

### Industry/sector/sub-sector

<table>
<thead>
<tr>
<th>Industry/sector/sub-sector</th>
<th>Minimum threshold for local content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buses (bus body)</td>
<td>80%</td>
</tr>
<tr>
<td>Textile, clothing, leather and footwear</td>
<td>100%</td>
</tr>
<tr>
<td>Power pylons</td>
<td>100%</td>
</tr>
<tr>
<td>Canned/processed vegetables</td>
<td>80%</td>
</tr>
<tr>
<td>Rolling stock</td>
<td>65%</td>
</tr>
<tr>
<td>Pharmaceutical products (oral solid dosage tender)</td>
<td>73%</td>
</tr>
<tr>
<td>Set-top boxes for TV digital migration</td>
<td>30%</td>
</tr>
<tr>
<td>Furniture</td>
<td></td>
</tr>
<tr>
<td>• Office Furniture</td>
<td>85%</td>
</tr>
<tr>
<td>• School Furniture</td>
<td>100%</td>
</tr>
<tr>
<td>• Base and Mattress</td>
<td>90%</td>
</tr>
<tr>
<td>Power and telecom cables</td>
<td>90%</td>
</tr>
<tr>
<td>Solar Water Heaters (collectors and storage tanks/geysers)</td>
<td>70%</td>
</tr>
<tr>
<td>Valves products and actuators</td>
<td>70%</td>
</tr>
</tbody>
</table>

The dti presentation on local content verification.

**Location of Local Content Documents**

The session also discussed important documents that guide the verification of local content. The following documents were listed as necessary:

- **SABS**: Technical specification SATS 1286: 2011 on the measurement and verification of local content
- **The dti**: Guidelines on calculation of local content & templates (annexures) for calculation of local content
- **National Treasury**: Standard Bidding Documents (SBD/MBD 6.2) & instruction notes for each designated sector.

### Preferential Procurement Policy Framework Regulations

The dti is empowered to designate specific industries where tenders should prescribe that only locally manufactured products with a prescribed minimum threshold for local production and content will be considered.

**Current projects: Workshops**

The Local Content Office is currently involved in a number of workshops informing stakeholders about the local content verification process:

- Transnet for rolling stock
- WC & KZN Municipalities Procurement Officers
- Eskom – Localisation Division
- Department of Energy on Solar Water Heater Components
- Bus Builders Association

**Current projects: Audits**

- Bus Bodies: scoping of the audit conducted at Marcopolo or Jo’burg Rea Vaya phase 1B. Verification commenced October 2013.
Eskom: Localisation Division identified suppliers as per Competitive Supplier Development Program. Suppliers to undergo Local Content Verification as per Eskom’s Local Content Verification. Process to commence end of 2013 or early 2014.

Young Standardisers Session (Standards and Education)

The deliberations and presentations of the Young Standardisers Session focussed on how to make standards appealing and acceptable to the younger generation both in employment and at tertiary institutions.

It has been recommended that the SABS has to make dissemination of standards through different modes of media such as slides, videos, and upload to the website. This makes accessibility easier and hence reading will follow with the intention of applying the requirements of the standard.

The targeted market which is the youth are comfortable and are gadget friendly, and the prescribed modes of dissemination are electronically based, which will therefore enhanced the uptake of published standards.

The SABS should embark on a number of road shows to create awareness and in this venture it would be ideal to cooperate with tertiary institutions.

Visual facilitator James Durno documented the Convention in real time by drawing live commentary.
with the relevant stakeholders be it academia, industry, municipalities or other users of standards.

It is with conviction that standards for them should become a way of life to be introduced early in the life of citizens hence the effort to find ways of attracting the youth in appreciating standards and the perfect sowing ground is at tertiary level, so that when they graduate and enter the workforce, standardisation should be intrinsic in them. Therefore, there should be a drive to involve academia in this venture, given the infrastructure and the time at their disposal. Academia may embark on the following:
- Curriculum should include references to standards, mostly technical specifications;
- Classroom lectures should have sessions where SABS facilitate and provides inputs; and
- Textbooks should include material on standards.

For standards to become appealing to youngsters there needs to be a concerted effort to change the culture by the presently managing employers and organisations.

Usage of standards should be more evident, which will elucidate the impact of standards, thereby attracting youngsters to practical implementation of standards.

**Note**


The plenary panel discussion provided feedback on all the breakaway sessions.
New standards:

SANS 689:2013 *Automatic rail-weighbridges*

SANS 689, *Automatic rail-weighbridges* was developed to align present legal metrology technical requirements with international requirements that cover the latest technologies as well as to offer protection to all parties using rail-weighbridges for the measurement of product by rail. Rail-weighbridges are installed on the lines of Transnet for the purpose of weighing goods on rail trucks.

The need for a controlled environment was identified as one of the key factors to ensure that our rail infrastructure is sustained and protected against overloading, especially in view of plans to increase export loads via the rail system.

The standard regulates the technical requirements for automatic rail vehicle scales used for trade purposes and by Transnet to ensure correct transport tariffs are collected. The standard will be made compulsory by
SANS 1393:2013
Construction management systems – Requirements

The construction industry contributes significantly towards the country’s GDP and employment growth. This industry has a large number of smaller contractors who can contribute to economic growth and job creation if they can give assurance to prospective clients that they can meet minimum environmental management, health and safety and quality management requirements. Large contracting organisations have predominantly adopted the more well-known management systems in their organisations such as SANS 9001, SANS 14001 and SANS OHSAS 18001.

The construction industry has demonstrated positive growth – even through the 2008 global economic crisis – since 2000. The largest boom in the sector was in the six year period leading up to the 2010 soccer world cup; the sector averaged a growth rate of 10.5% for the 2004-2009 period.

### Contribution of the percentage change in real value added by industry to the total real annual economic growth rate (real GDP at market prices)

<table>
<thead>
<tr>
<th>Industry</th>
<th>Relative size 2012 (per cent)</th>
<th>Real annual percentage change for the year 2009 (compared with 2008), 2010 (compared with 2009), 2011 (compared with 2010) and 2012 (compared with 2011)</th>
<th>Contributions to the total real annual economic growth rate (percentage points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry and fishing</td>
<td>2,2</td>
<td>-1,6</td>
<td>0,4</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>5,2</td>
<td>-5,4</td>
<td>5,7</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>15,3</td>
<td>-10,1</td>
<td>5,5</td>
</tr>
<tr>
<td>Electricity, gas and water</td>
<td>1,8</td>
<td>-1,4</td>
<td>2,5</td>
</tr>
<tr>
<td>Construction</td>
<td>3,0</td>
<td>7,8</td>
<td>0,7</td>
</tr>
<tr>
<td>Wholesale, retail and motor trade; catering and accommodation</td>
<td>12,3</td>
<td>-1,2</td>
<td>3,8</td>
</tr>
<tr>
<td>Transport, storage and communication</td>
<td>9,0</td>
<td>0,9</td>
<td>2,0</td>
</tr>
<tr>
<td>Finance, real estate and business services</td>
<td>21,3</td>
<td>1,0</td>
<td>2,2</td>
</tr>
<tr>
<td>General government services</td>
<td>13,7</td>
<td>3,9</td>
<td>3,1</td>
</tr>
<tr>
<td>Personal services</td>
<td>5,4</td>
<td>-0,9</td>
<td>0,4</td>
</tr>
<tr>
<td>Total value added</td>
<td>89,2</td>
<td>-1,3</td>
<td>3,1</td>
</tr>
<tr>
<td>Taxes less subsidies on products</td>
<td>10,8</td>
<td>-3,1</td>
<td>3,7</td>
</tr>
<tr>
<td>GDP at market prices</td>
<td>100,0</td>
<td>-1,5</td>
<td>3,1</td>
</tr>
</tbody>
</table>

1/ The relative size of each industry for the year of 2012 is the share of its real value added of the GDP for the year 2011. Similarly, the relative size of taxes less subsidies on products is the share of its value of the real GDP for the year 2011.

2/ The contribution is calculated by multiplying the percentage change of each industry (and taxes less subsidies on products) by its share of GDP in the previous year (i.e. its relative size).
The table on the previous page highlights sectors that contribute most to South Africa’s GDP, as measured by their nominal value added in the second quarter of 2013. The construction industry makes it at number nine on the list, contributing 3%. While the contribution to GDP may not be very significant, it is important to keep in mind the large number of South Africans employed by this sector.

SANS 1391:2013

Construction management systems – Requirements

SANS 1391 was developed at the request of the Construction Industry Development Board (CIDB) to assist smaller contractors when they bid for more complex construction work contracts to prove their ability to comply with minimum industry standards.

The standard is based on the well-known model of PLAN>DO>CHECK>ACT – which will assist smaller companies with familiarising themselves with the more rigorous requirements of ISO 9001 and the rest of the management systems – ultimately allowing them to obtain certification against these internationally recognised standards.

SANS 30300:2013 and SANS 30301:2013

Organisational success and business continuity depends largely on the implementation of a management system for continual improvement of the organisation’s performance.

Records is an integral part of any business activities, but more often the management of important company records are often neglected or seen as a subsection of other business practices such as policy development. Companies can also fall into the trap of thinking that records management is the same as filing - which it is not.

In the wake of recent failures in corporate governance, two new ISO standards have been developed and adopted as SANS by SABS with the aim of assisting organisations to disclose corporate information quickly and effectively as increased pressure by industry regulators obliges companies to provide such information due to irregularities in certain areas such as financial management, ethical dealings, disclosure, and transparency of decisions.

Implementing SANS 30301 will enable a company to manage their records in a cost-effective way through effective operational processes, such as storage, information retrieval, information re-use, and litigation and due diligence.

In a world where all companies have to become more effective to remain competitive, the implementation of a records management system will allow them to be able to lead in areas of e-commerce, new ways of effectively communicate and disseminate information through the internet as well as protect themselves from heightened
Creation of records is integral to any organisation’s activities, processes and systems. A management system for records enables business efficiency, accountability, risk management and business continuity and empowers organisations to capitalise on the value of their information resources as business, commercial and knowledge assets.

security risks from natural disasters as well as security threats such as hacking.

It is expected that companies and organisations, with a need to disclose relevant company information in a legal and organised way, will greatly benefit from implementing a MSR.

memory, in response to the challenges of the global and digital environment.

Creation of records is integral to any organisation’s activities, processes and systems. A management system for records (MSR) enables business efficiency, accountability, risk management and business continuity and empowers organisations to capitalise on the value of their information resources as business, commercial and knowledge assets. At the same time, an MSR contributes to the preservation of organisational memory, in response to the challenges of the global and digital environment.