Table 38. Overall average regarding government procurement for 2002

	Number applied for in 2002	Value (in R)	% awarded
Parastatal tenders	67	316,790,000	74.5
Local government municipalities	52	35,890,000	82.7
Provincial government departments	14	3,668,000	86
National government departments	5	15,000,000	100

5.4.6 Exports

As mentioned above on page 289, the export performance of the machinery and equipment sector outstrips that of both general manufacturing and the other Metals and engineering sectors. However, faced with increased import penetration, shifts in demand toward high-tech goods and declining domestic sales, South African players have undertaken exporting as a ‘vent for surplus’ response, according to Edwards. He also notes that the large amount of exports destined for African markets are mainly high-tech exports, some of which are imported into South Africa. Some level of re-exporting was suggested from the interviews, particularly in the lift engineering industry, earth moving equipment industry and the food machinery industry, where companies are increasingly import products and focus on providing installation and aftermarket sales support. Exports of this nature have created employment and consulting jobs but also serve to shift the focus of the sector from manufacturing to a more services-oriented approach.

However it is important to note that South Africa does have specialised competencies which are globally competitive e.g. mining processing equipment, agricultural equipment and military equipment which have the potential to be exported, earning premium prices in niche overseas markets.

57.9% of job losers versus 55.3% of job champions did not export. However, among companies that did export, no clear pattern was found between job champions and job losers.

The relatively high incidence of exporting also implies that the exchange rate has an effect on a significant proportion of the sector, although it must also be borne in mind that due to the high level of importation, currency devaluation is a double-edged sword, increasing the competitiveness of exports but putting local players at a disadvantage when importing components or finished products.

5.5 Operating environment

5.5.1 Tariff liberalisation

There has been a rapid reduction in import tariffs and high levels of import penetration in the sector. The high levels of import penetration suggest a lack of manufacturing competitiveness among local machinery and equipment producers, as they have not been able to maintain their share of the domestic market. However, it is noteworthy that local players themselves are responsible for much of the importation. This is interpreted as being an offensive strategy to deal with their relative un-competitiveness not through efficiency improvements, but rather by selling imported, competitive products.

The rationale behind the tariff liberalisation was to facilitate growth and boost competitiveness in the wide range of capital goods consuming industries. This has substantially lowered the protection afforded to the machinery and equipment sector, resulting in increased rivalry which has priced many local players out of the market and forced them to focus on maintenance, second-hand equipment supply, refurbishment as well as after-sales service and support. This calls into question the wisdom of the manner or pace of tariff liberalisation as it relates to this sector.

5.6 Drivers of growth

5.6.1 Government support schemes

Government plays a significant role in supporting the sector through supply-side incentives. Government support schemes are intended to be drivers of growth but are not achieving this, due to a very low level of awareness of the various support schemes on offer, as shown in Table 10. The Small, Medium Enterprise Development Programme (SMEDP) has by far the highest level of awareness and use, although some companies feel that the programme does not assist them sufficiently with respect to their requirements for working capital.

Although 92% of the sector felt that there was a need for change with respect to government support schemes, the very low level of awareness suggests that there is possibly a greater need to market the existing schemes more effectively to the companies in the sector. Companies also claimed that these schemes are difficult to access, which suggests that there is a need to review and modify the schemes to ensure maximum accessibility and ease of use.

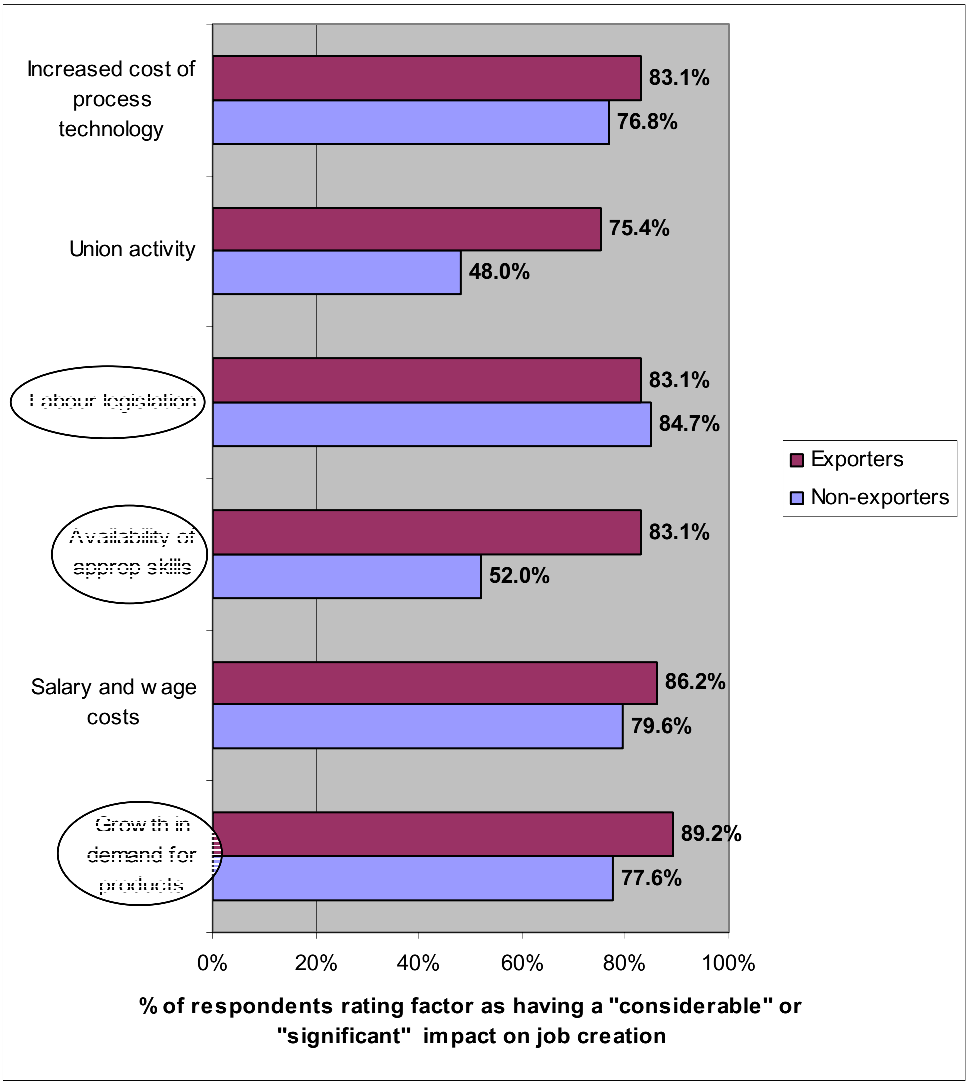
Table 39. Level of awareness, use of, growth and employment results of the various government support schemes (in %)

	Awareness	Made use of	Resulted in growth	Resulted in employment creation
Competitiveness fund	5.5%	1.2%	0.6%	0.6%
Sector partnership fund	5.5%	0.0%	0.0%	0.0%
Small, Medium Enterprise Development programme (SMEDP)	55.8%	1.8%	1.2%	0.6%
Venture capital scheme	17.6%	0.6%	0.6%	0.6%
Technology and Human Resources for Industry Programme (THRIPP)	5.5%	0.0%	0.0%	0.0%
Innovation fund	3.6%	0.0%	0.0%	0.0%
Support Programme for Industrial Innovation (SPII)	6.1%	0.0%	0.0%	0.0%
Standard leased factor building schemes	5.5%	0.6%	0.0%	0.0%
Export finance guarantee scheme	15.2%	1.8%	0.0%	0.0%
Export marketing and investment scheme	10.9%	1.2%	0.6%	0.6%

5.6.2 Factors impacting job creation

This section compares all the factors discussed above to establish which factors have the most significant effect on job creation by looking at different groups of producers within the sub-sector. Exporters' and non-exporters' perceptions of the relative impact of various factors on job creation are summarised in Figure 134.

Figure 134. Exporters versus non-exporters' perceptions of the impact of various factors on job creation



Both exporters and non-exporters perceived labour legislation to have a relatively significant effect on job creation, which is linked to the dramatic increase in the use of temporary, casual and sub-contracted labour. Interestingly, exporters felt that the availability of appropriate skills had a much bigger impact on their decision to increase the size of their workforce than non-exporters. This is understandable for companies exporting specialised machinery but also highlights that companies engaged in importation followed by adaptation of the equipment and then re-exporting, also require a high level of skills. Success as an exporter would appear to be underpinned by a strong skills and knowledge base.

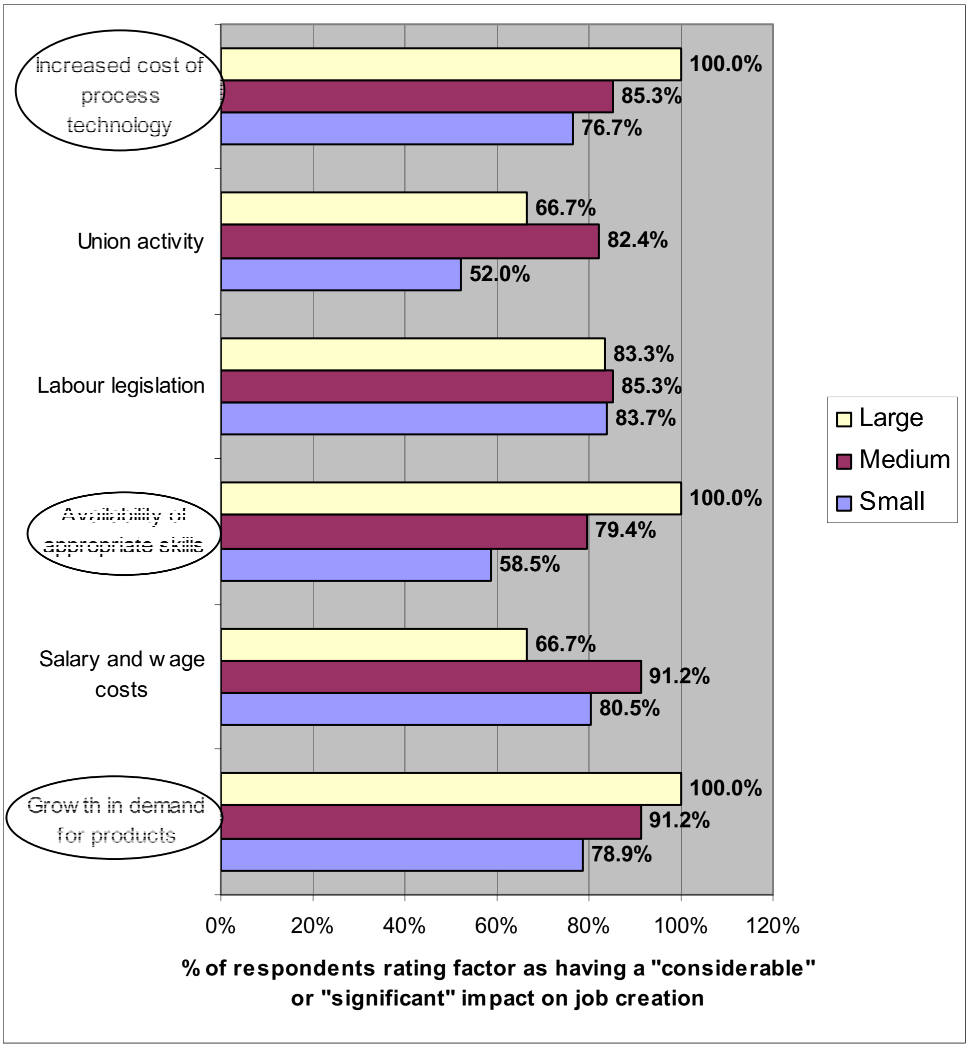
This same analysis was also conducted on companies of differing size to establish whether they perceived different factors to impact on job creation, the results of which are summarised in Figure 135.

The first striking factor is that union activity is not perceived as a significant obstacle to job creation in relation to the various other factors. The second is that larger companies find the cost of process technology increasingly prohibitive, which is understandable as they are more likely to invest in state-of-the-art equipment while smaller companies are more likely to purchase second-hand or refurbished equipment.

The third factor is that the availability of appropriate skills has a relatively greater impact on larger companies. The analysis above that examined small, medium and large companies' use of technology revealed that large capital/knowledge intensive companies tended to create jobs. Figure 135 furthers our understanding of how successful companies compete as it implies that small companies rely on relatively less skilled labour than larger companies, who would require specialised engineering skills to enable them to compete in a "knowledge-intensive" fashion.

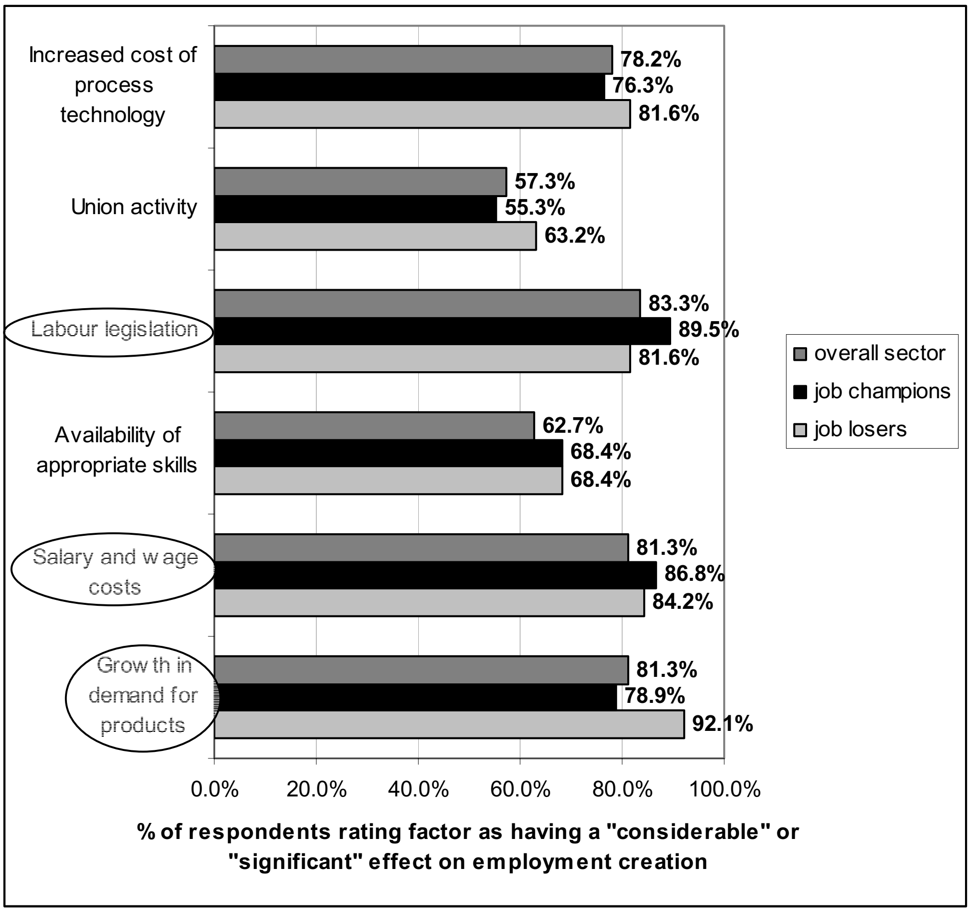
The fourth factor in which the three groups differed considerably was the growth in demand for products. Larger companies believe that they are more susceptible to changes in demand, possibly being more reliant on project-based work, while the smaller companies are more likely undertake a mix of sub-contracting, small-scale manufacturing, maintenance, support and refurbishment.

Figure 135. Small, medium and large companies' perceptions of the relative impact of various factors on job creation



Job champions and job losers were analysed as to what factors they perceived to currently inhibit employment creation, the results of which are illustrated in Figure 136. Both job champions and job losers perceived labour legislation to be the most significant obstacle to employment creation, while wage and salary costs were generally agreed as being the second most problematic factor. Interestingly, job losers felt that product demand to be a relatively more problematic factor than did job champions, which could suggest that job champions are more proactive in their approach to the market, while job losers are more reactive in their views.

Figure 136. Relative importance of various impediments to employment creation

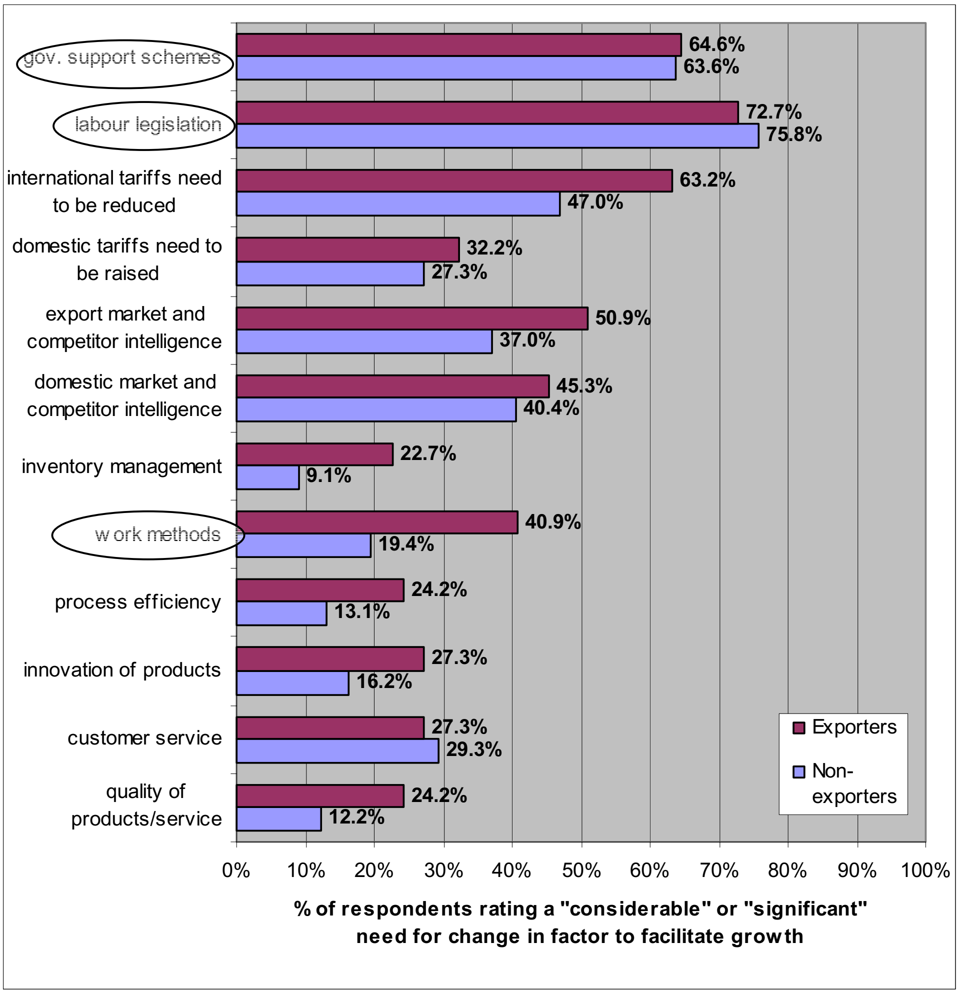


5.6.3 Factors facilitating growth

Companies rated the importance of changing various factors in order to facilitate growth on the premise that company growth is an effective way of promoting employment growth. The relative importance of these factors is examined in Figure 137 to establish what changes would assist the growth of the sector and whether exporters and non-exporters have different requirements. Both groups felt a strong need for change with respect to government support schemes. However due to the very low level of awareness of the different schemes on offer and ever lower utilisation levels, the above recommendations regarding support schemes should be considered. However, a change in labour legislation was rated as more important than a change in government support schemes by both exporters and non-exporters, suggesting that industry perceives the current legislation to be too inflexible for their needs, given the fluctuating demand that is characteristic of the sector.

Global trends in work organisation have involved a more towards leaner organisations, multi-skilled workforces and just-in-time principles. Such trends have had a considerable effect on the size of the workforce and the quality of work within the metals and engineering industry globally (International Metalworkers Association, 2001). Internationally, work methods are increasingly focused on, with a view to improving productivity. Figure 137 shows that exporters were significantly more likely than non-exporters to recognise a need for change with respect to work methods in order to facilitate growth. This is understandable since exporters are more exposed to global trends in work organisation.

Figure 137. The relative importance of various factors in facilitating growth among exporters and non-exporters

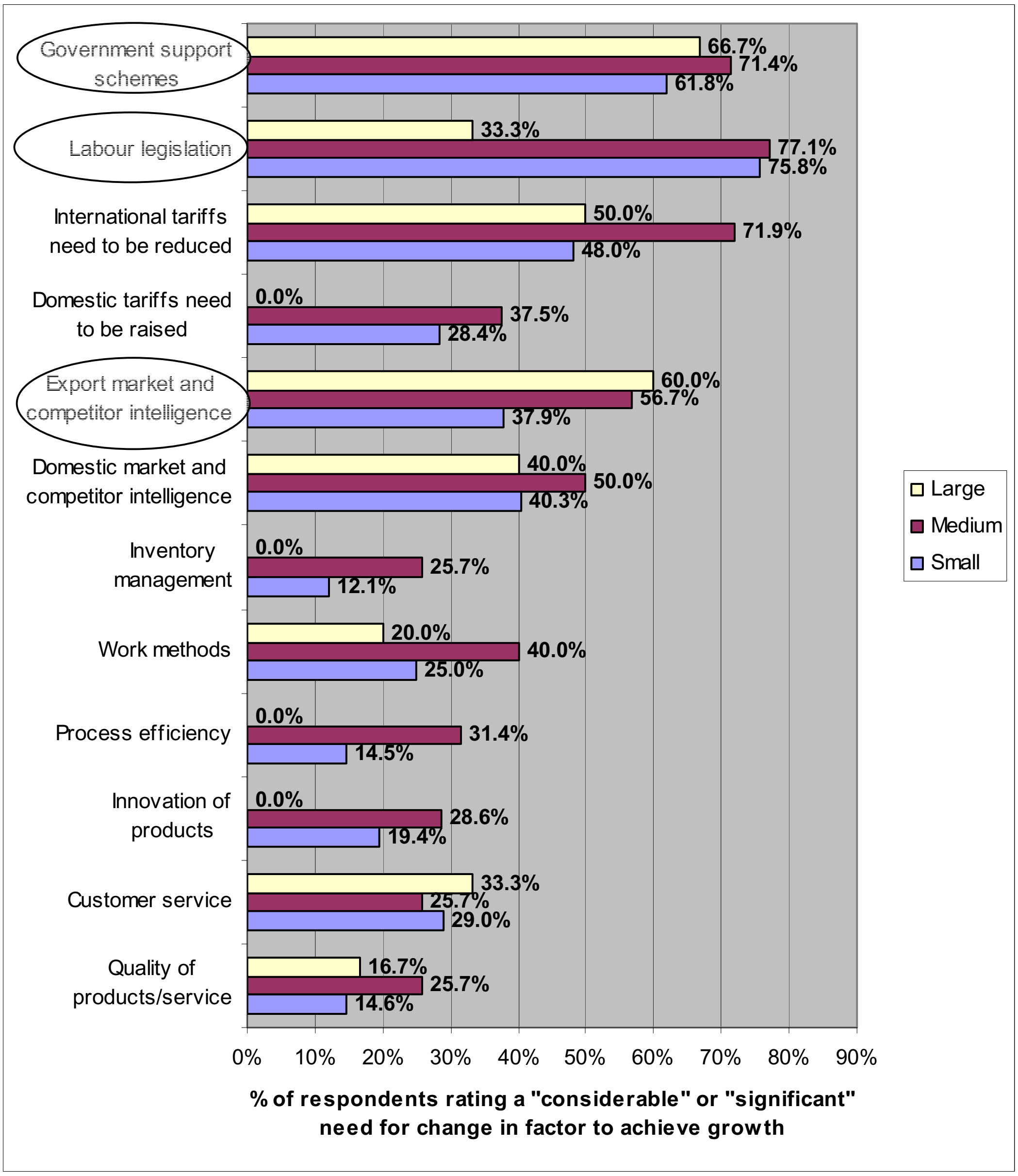


The same analysis was conducted on companies of different sizes to compare their requirements, the results of which are illustrated in Figure 138. Small, medium and large companies were also unanimous that a change in the government support schemes is necessary to facilitate growth.

Interestingly, large companies saw relatively little need to change the labour legislation, while the vast majority of small and medium-sized companies felt that a change in legislation would assist in growth. This is likely to be the result of large companies not adopting a narrow cost-minimisation approach and concentrating instead on quality and innovation, which were shown to be more important determinants of competitiveness (Figure 133). This approach is in line with the global characteristics of the sector.

A change with respect to export market and competitor intelligence was deemed as an important factor for facilitating growth by both medium and large companies but not by small companies. Small companies' response is understandable as most of these companies are domestically focused, while medium and large companies are more likely to have the capacity and expertise to export and are eager to acquire more knowledge about their target markets. Interestingly, knowledge regarding domestic markets was rated as less important, possibly because companies have a better understanding of this market or possibly because they feel that there are few unexploited opportunities in the local market and are turning their attention to exports.

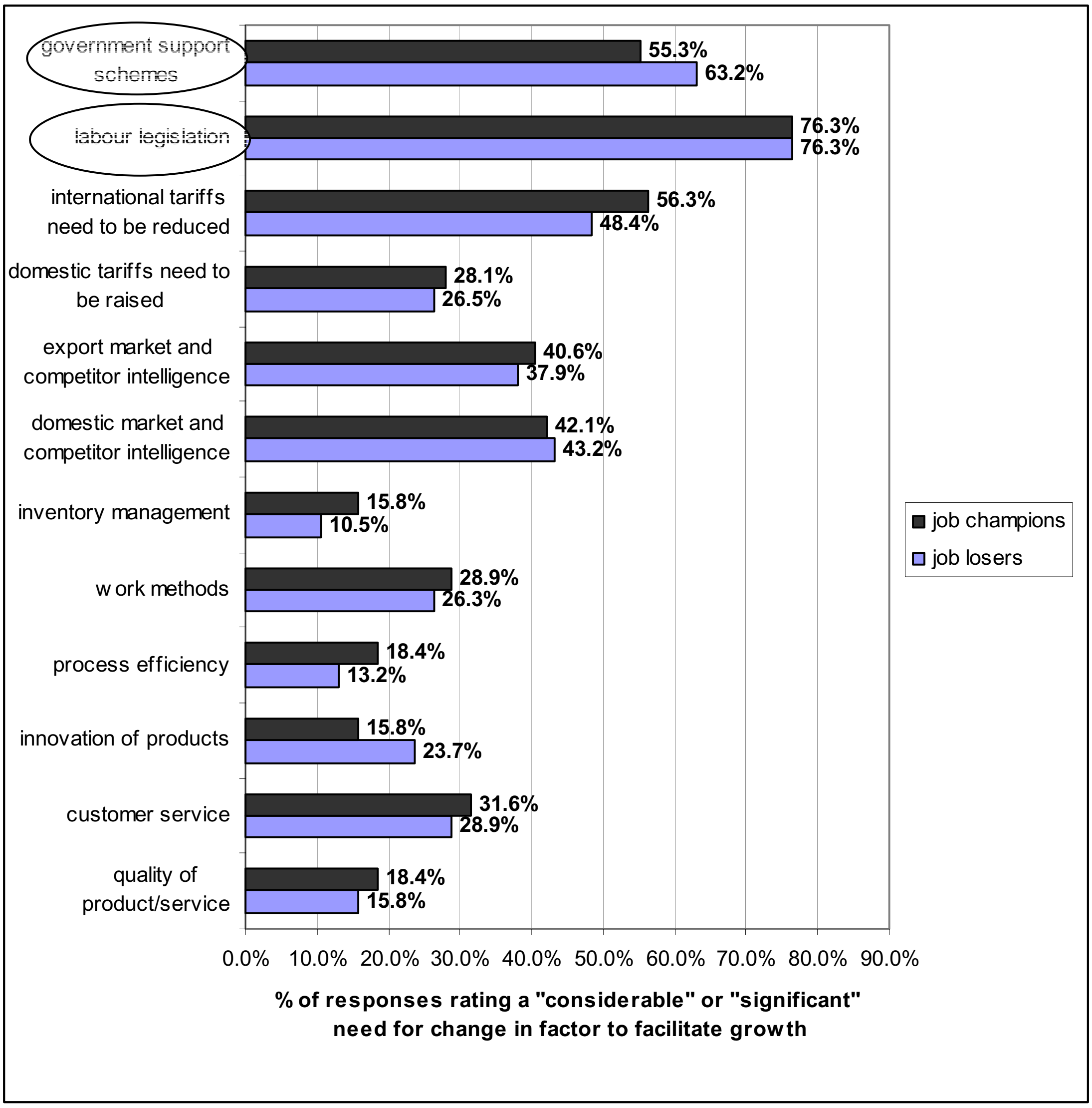
Figure 138. The relative importance of a change in various factors to facilitate growth among small, medium and large companies



The relative importance of the above factors was also considered for exporters and non-exporters who identified the same factors as small, medium and large companies as being the most important for facilitating growth.

The above analysis was also conducted on job champions and job losers, the results of which are reflected in Figure 139. Understandably, job losers were more likely to view a change in government support schemes as being important in order for growth to be facilitated. Both job champions and job losers were unanimous in rating a change in labour legislation as being the most important factor for growth. Although both groups rated inventory management as relatively unimportant, there was a difference of opinion, with job champions viewing a change in this factor as being relatively more important in order to facilitate growth. This may be reflective of the higher complement of middle managers in job champion companies who would be likely to view inventory management as important.

Figure 139. Relative importance of change in various factors to facilitate growth in job champions and job losers



5.7 Key issues for consideration in strategy and policy formulation

The survey, interview and focus groups identified and highlighted a number of key issues, the consideration of which is considered essential in the formulation of an appropriate and effective strategy for this sector. These key issues are discussed below.

5.8 Key characteristics of the sector

Although the machinery and equipment sector originally focused on the mining industry, it has subsequently developed manufacturing competence in machinery and equipment for the construction, defense, agriculture, forestry, utilities, industrial air-conditioning and refrigeration. However, the sector experienced substantial restructuring in response to trade liberalisation post 1994. Although there have been pockets of success and domestic manufacturing strength, at an aggregated level the sector has experienced fluctuating demand which has resulted in stagnant sales growth. This has necessitated that companies shift their focus from purely manufacturing to the provision of after-sales service and support with the aim of ensuring a more constant revenue stream.

There has been overall employment loss in the sector, notably among permanent employees, with fluctuating demand patterns forcing the sector's labour structure to become more flexible by increasing the proportion of temporary, casual and sub-contracted labour. The sector displays a low level of investment in capital equipment as well as low levels of capacity utilisation, which hinder efficiency and are likely to impact negatively on the sector's future competitiveness.

Although tariffs were reduced across the board with a view to improving the competitiveness of the overall manufacturing sector and facilitating its entry into global trade, the rationale behind the decrease in import tariffs in the machinery and equipment sector was to facilitate the competitiveness of the manufacturing sector by decreasing the cost of capital equipment. However this had severe consequences for the machinery and equipment sector as it resulted in a flood of imported goods, which encroached on local manufacturers' share of the domestic market and forced them to export increasing amounts of machinery and equipment, resulting in a negative overall trade balance. In addition to this, many companies' exports account for a relatively small proportion of their overall revenue, implying that the domestic market is still an extremely important source of demand for companies in the sector.

The survey results suggest that medium companies have a slightly greater potential to create jobs. Small and medium companies are more likely to export to African destinations while large companies tend to export relatively more to developed countries, which is a reflection of larger companies' capital and knowledge intensive production methods which yield products of sufficient quality for developed markets.

5.9 Growth prospects for the sector

General economic growth is crucial for the machinery and equipment sector as the sector's outputs are largely used as intermediate goods in downstream industries or as investment goods, particularly within the mining and quarrying sector but also the construction sector. A recovery in investment and output within the rest of the economy will thus boost demand for machinery and equipment through demand for intermediate goods and derived investment.

The positive outlook for the mining industry over the next five years will impact positively on the machinery and equipment sector. The exported products and associated services into Africa are likely to continue to create employment and consulting jobs. The South African government plan to set up an aerospace coalition consisting of US and domestic companies to bid jointly for the manufacture of US aircraft and engines (Engineering News, 2003). Although this plan is still in its early stages, it could provide a much needed boost to the transport equipment industry.

However, economic growth alone is not sufficient to boost the machinery and equipment sector, given the weak sales growth, fluctuating demand, relatively low profit margins and high levels of import penetration within the sector, which suggest a lack of manufacturing competitiveness within the domestic sector. In summary, the short to medium term growth prospects for the majority of the sector are likely to be below average relative to the overall Metals and engineering industry. Companies that are best positioned to grow in the short to medium term are those that have a niche product and/or service offering for which they can earn a premium price in their target market segment.

5.10 Employment

The sector's employment declined by 5.0% per annum since 1999 and it is estimated that there are currently 63 284 employees in the sector. This was largely due to a reduction in permanent employees, which was partially offset by increases in the numbers of temporary, casual and sub-contracted employees. Much of the job loss has been the result of large companies restructuring, while most of the job creation occurred through many companies increasing their employment in small amounts. Although most companies are not planning to reduce the size of their workforce in the next year, the shrinking domestic demand and high levels of import penetration impact negatively on employment prospects, with job shedding being likely to continue over the next 4 years, albeit at a slower rate than previously.

5.11 Drivers of employment growth

The positive outlook over the next five years for the gold and platinum mining industry will be arguably the most important driver of growth within the domestic machinery and equipment sector.

Capital or knowledge intensive approaches underpin the employment growth in larger companies, as these methods enable them to achieve consistently high levels of quality and where appropriate, economies of scale. This makes it critical for such companies to continuously invest in new process technology as well as technical skills and knowledge. These companies tend to export, although they are still very dependent on the domestic market, making it important for them to improve their market and competitor intelligence both locally and within target export markets.

Successful players also offered a mix of products and services, rather than relying solely on products, which enabled them to minimise the fluctuations in sales. This suggests that developing competence in services such as adaptation, rentals, second-hand sales, refurbishment and maintenance is vital for ensuring a more constant revenue stream and thereby retaining employment.

Companies that have emphasised the quality and innovation of offerings have been more likely to create jobs than those that have focused merely on price competitiveness. This suggests that in order to facilitate growth, companies should focus on their current competencies and emphasise innovation and the creation of innovative and high quality product and service offerings, which will enable them to target niche markets and earn premium prices. Companies who created jobs were also characterised by a higher incidence of sub-contracting which enables them to focus on their core competency while drawing on the expertise of sub-contractors in other areas. Given the importance of sub-contractors to the sector, it is of vital importance that these employees are given access to training, if the sector is to remain competitive in the future.

Exports in both machinery and other transport equipment have increased dramatically compared to the overall Metals and engineering industry, notably in the area of specialised deep-level mining processing equipment, agricultural equipment and defence equipment. However, although about 40% of the sector's companies currently export, the proportion of revenue derived from exports is generally below 10%. Much of the sector's exports are destined for the SADC region and Africa, although a third of the exports from large companies are destined for the EU. It is important that the sector increases their knowledge of export markets and becomes more market-oriented rather than using exports as a vent for surplus product due to a shrinking local market share, as is presently the case with some of the smaller domestic players. However, it is important to recognise the significant effect of currency appreciation and relative unit labour cost on the competitiveness of exports.

The increase in procurement on a total project or whole package basis has led to a growth in engineering intermediaries. This is a trend that has helped the sector retain jobs, but has resulted in a change in skills profile towards higher skills, making training a critical factor for companies competing in this market segment.

There are niches within the domestic machinery and equipment sector that display local linkages and have developed competitive advantages e.g. mining and defence equipment.

The challenge is to promote market-oriented lateral migration of these competencies into other niche market segments in which there is potential demand, which requires support from R&D.

5.12 Impediments to employment growth

The sector exhibits relatively low levels of capital investment compared to the other sectors within the Metals and engineering industry with investment accounting for only 2.6% of turnover. These low levels of investment are likely to impede future growth in this knowledge and capital-intensive sector, especially among large companies.

Declining import tariffs have had a negative effect on domestic manufacture, pricing many local producers out of the market. This has resulted in high levels of imports which currently impact negatively on players' domestic market share which in turn hinders job creation. However, much of the importation is done by local players who then modify and re-sell the equipment.

GDFI in general remains a major driver of employment in the sector but levels of GDFI in the economy remain low, although there are some medium-term opportunities.

The nature of the sector is such that technical skills and knowledge are a key source of competitive advantage. The shortage of engineers and artisans therefore hinders players' competitiveness, especially in developed export markets.

The lack of awareness among companies in the sector with respect to government support schemes, as well as domestic and export market competitor intelligence currently hinders their competitiveness.

Since the sector's demand tends to fluctuate, they require a flexible workforce in order to be responsive. The increase in atypical employment picked up in our study demonstrates how companies are taking advantage of current flexibility that is afforded to them. However, labour legislation was cited by employers as being an area in which change is needed in order to facilitate growth.

Accessibility and cost of finance, input materials, skills and process technology currently inhibit the competitiveness of the sector, suggesting that interventions that address these issues would assist in creating employment. Increasing players' market and competitor intelligence will enable them to make more informed and sound business decisions which are appropriate in the current business environment.

6 AN EMPLOYMENT CREATION STRATEGY

A co-ordinated, holistic strategy aimed at retaining the current level of employment within the sector is recommended. The pursuit of this strategy will facilitate the achievement of the overall vision for the sub-sector, which is as follows:

> **The medium to long term vision for the machinery and equipment sector is to stem employment loss and position it to achieve future growth and competitiveness by focusing on value-added services and the manufacture of differentiated products in order to protect and grow domestic market share and exports through increased support and collaboration.**

It is intended that this recommendations section is read in conjunction with the overarching recommendations section that considers the metals and engineering industry a whole. If the reader has not read this section, she/he is urged to do so now. To avoid repetition, this section seeks to emphasise specific areas unique to the sector in relation to the overarching metals and engineering recommendations. Consequently, the key overarching recommendations are not included in detail here.

6.1 Input costs

The high degree of import penetration suggests that a large portion of the domestic sector is not competitive. Taking steps to improve the competitiveness of the domestic sector will not only produce direct benefits, but also serve to stimulate the level of investment in the sector. The cost of finance and process technology was highlighted as problematic for the sector and the provision of more effective government support schemes would assist in this regard. In addition, the sector raised the issue of pricing policies of suppliers as a major impediment to growth in the sector. These issues are, however, covered in the overarching recommendations section of this report; we turn now to specific interventions that would assist this sector in growing.

Address impediments associated with input materials by facilitating discussion with upstream sectors

The sector is characterised by weak upstream linkages which often results in quality and delivery problems. Access and cost of input materials were cited as factors which currently impact negatively on competitiveness. Long-term collaboration and co-operation are necessary for both upstream and downstream players to realise benefits, such as improved quality and product delivery. These will translate into increased opportunity for beneficiation, in line with the IMS.

Upstream collaboration can be achieved through the co-ordination of various organisations. The industry associations should play a role in facilitating discussion between producers in the machinery and equipment sector and their upstream suppliers for instance the foundries and industry organisations in the electrical and electronics sector in order to discuss the current problems experienced with respect to input materials. This will enable the supply of input materials to be better suited to machinery and equipment companies' needs with respect to quality, product type and delivery times. Establishing closer supplier relationships would enhance the competitiveness and beneficiation potential within downstream producers, while providing revenue opportunities for the upstream suppliers. The formation of horizontal relationships among smaller companies would also assist them in accessing input materials at more competitive rates, which would in turn assist them in retaining employment. Since medium-sized companies were shown to have a relatively good potential for job creation, they should also be targeted to participate in this intervention.

For a more detailed discussion of metal input materials, please refer to the recommendations in the overarching section of this report.

Responsibility: industry associations

Develop manufacturing capability in the machine tool and tool-making industry

There is presently an initiative being undertaken by the CSIR in this respect which works closely with the Automotive Industry Development Centre. This study has been informed by the Portuguese toolmaking initiative which was highly successful. The project has undertaken a benchmarking study and is looking at collaboration, competitiveness and marketing. This project is a key initiative for revitalising this industry and should be considered as a candidate for receiving direct government support.

Responsibility: CSIR

Develop a dti support scheme specifically for the machine tool industry

This support scheme should be informed by the model which Portugal used to develop their industry, with modifications where necessary. However it is important to have industry buy-in, hence it is critical that the SA Capital Equipment Export Council, along the CSIR toolmaking initiative and companies in the sector are consulted in drawing up the scheme and communicating it to companies in the industry. This scheme should aim to increase worldclass manufacturing capability within the machine tool industry with the long-term goal of attracting FDI into this area of the industry.

Responsibility: CSIR, dti, SA Capital Equipment Export Council

Establish and support a toolmaking industry association

The CSIR tool-making initiative is presently trying to do this, however it is important to transfer ownership of this association to companies in the industry in order to obtain their buy-in. A strong industry association is vital to ensure further development of toolmaking capacity in the future and promoting collaboration and sharing of information between companies in the industry.

Responsibility: CSIR, newly established toolmaking companies

6.2 Skills

Given the knowledge and skills-intensive nature of the sector, there is no doubt that it is critical to address the current skills shortage if the sector is to retain and create employment. Capital/knowledge intensive companies were the most likely to have created employment, supporting the importance of developing skills to enable more of the sector to compete in this way. All of the interventions that are outlined in the overarching recommendations apply to this sector; we turn now to sector-specific recommendations.

Increase tool-making training

Developing a resource of skills in this area is necessary in order to support the machine tool industry as there is now a skills gap developing where government formerly trained apprentices. The CSIR toolmaking initiative has drawn up a toolmaking curriculum, on which the Merseta will devise a toolmaking learnership. However it is essential that this new learnership is demand-driven and thus companies should work closely with the metal chamber within the Merseta in order to devise an effective learnership programme that meets their needs. Once sufficient skills are built up in this area, South Africa can market its capabilities to potential overseas investors.

Responsibility: CSIR, the Merseta, toolmaking companies

Develop the Merseta courses in project management and value-adding services

The addition of services to companies' product offerings enabled them to minimise the fluctuations in revenue, although not all companies were able to do this effectively. Prior to 1994, many companies were initiated by technically proficient people who had decided to branch out and form their own business. However, the change in business environment that occurred post 1994, resulted in a greater need for management skills. The development of project and services management courses by the Merseta would enhance companies' ability to compete both domestically and overseas. Since medium companies showed relatively higher potential for job creation, this initiative should be specifically targeted at them, as their growing capacity increases the importance of management skills in gaining a competitive advantage.

Responsibility: the Merseta

Build technical and management skills among women

This can be achieved by the intervention above and also by giving preference to girls in the Merseta bursary scheme.

Parastatals have come up with some innovative training schemes that incorporate a package of leadership and management skills; especially in the area of employment equity e.g. Denel has got a management programme for women. News of such innovative approaches should be communicated to the broader sector via the above-mentioned the Merseta newsletter to encourage wider adoption.

Responsibility: the Merseta

Improve accessibility of the Merseta training for labour broker employees

Given the increasing reliance among companies on sub-contracted labour, it is essential that labour brokers' employees are given access to training if the sector is to remain competitive in the future.

Currently labour brokers are required to pay their Skills Levy to the Service SETA, resulting in sub-optimal training of labour brokers' employees, which in turn lowers workers' quality of work and work opportunities and lowers the overall skills pool within the sector.

Companies should be allowed to choose what Seta they wish to pay their Skills Levy to (or apply to change their currently allocated Setas). This will ensure that companies will pay their levy to the Setas where they feel that they are benefiting the most and ensure that increased training of labour brokers' employees takes place. Having done this, the Merseta then need to focus on communicating this very clearly to all labour broking companies with the assistance of the industry associations and companies in the sector who make use of labour brokers.

Responsibility: the Merseta, industry associations

Support the entire innovation cycle

Globally, the machinery and equipment sector is a knowledge-intensive industry, with high levels of innovation necessary for companies to create and sustain a competitive advantage. In line with this, domestic players that had grown employment emphasised the importance of quality and innovation in competing both domestically and internationally. Worryingly, the sector in general did not rate innovation as being particularly important. It is thus essential to develop a more innovation-oriented outlook in the sector, in order to ensure its future competitiveness. It is of particular importance to encourage product innovation, as this has a relatively greater employment creation potential than process innovation.

It is not feasible for the vast majority of South African companies to be market leaders; they should instead adopt market follower and/or market niche approaches, by adapting or improving products of foreign design for local conditions or nurturing and developing competencies that already exist, for example in the area of in deep-level mining, mineral processing and defence equipment. By following market leaders, products can be developed at a fraction of the cost that market leaders incur. It is essential to focus on these existing competencies and encourage the development of additional competencies, in order to increase beneficiation and offer premium products and associated services to niche market segments, which will earn more attractive margins and in turn enhance growth prospects and employment within the sector.

Government support schemes should be utilised to encourage innovation and are discussed in detail in the overarching section of the report.

Responsibility: dti

6.3 Domestic demand

Growth in domestic demand currently constraints the growth of the sector and is a factor which must urgently be addressed in the short and medium term to stem job loss and ensure long-term survival of the sector.

Establish an "early warning system" that identifies product categories in which import penetration is growing rapidly

Industry associations and the Department of Trade and Industry should work together to obtain more detailed information regarding imports, which would assist monitoring and early detection of increased import penetration in particular product types. SEIFSA should publish information regarding companies who are importing input materials and exporting products and are thereby exempt from the Board of Trade and Tariffs.

This is an issue which is common to all the sectors in the Metals and engineering sector and is extensively dealt with in the overarching Metals and engineering sector recommendations.

Responsibility: dti

Formation of downstream relationships

Since the sector is dependent on levels of demand within a number of industries, notably the mining and construction industries, the formation of stronger relationships with these demand drivers would benefit the sector. Industry associations are in an ideal position in which to form contacts with industry associations in the sectors which drive demand in the machinery and equipment sector and thereby bring suppliers and customers in closer contact and encourage the formation of long-term vertical relationships.

Responsibility: Industry associations

6.4 Export demand

Although the sector has exhibited a dramatic growth in exports over the last five to eight years, it has tended to be largely crisis-driven in response to many players' shrinking domestic market shares. Companies surveyed felt that they lacked export market and competitor intelligence, a factor which if corrected would facilitate growth.

The African market is an important one for the sector as South African players are ideally suited to adapting products for the African environment and South Africa enjoys a comparative advantage in the machinery and equipment sector. The sector has made good inroads into the African market but it is important that companies remain focused on changing customer needs within this market in order to realise the Integrated Manufacturing Strategy's (IMS) goal of regional production. Focusing of the provision of value-added services that are associated with the product will enhance growth within the market.

Drive towards ISO certification and accreditation of testing facilities

Compatibility of local testing facilities with their overseas counterparts is essential to enable domestic players to export their locally devised innovations to markets which demand compliance with various technical and quality directives. The Competitiveness Fund has the potential to leverage the sector by enabling the production of more competitive products for both the domestic and export market. This fund should be re-enabled by the Department of Trade and Industry and utilised to fund ISO 9000 and 14 000 accreditation, compliance with technical regulations with respect to health and safety[44] as well as the accreditation of testing facilities. The dti should use the industry associations as a vehicle to aggressively market the fund to companies in the sector. Using this approach affords industry the opportunity to lobby for additional funding should the level be insufficient. It is also important for companies and industry associations to partner in educating customers about standards. The expertise of the South African Capital Equipment Export Council should be sought on the subject of technical barriers to trade.

The Competitiveness fund should also be utilised to assist in alleviating the problem regarding the cost of capital and process technology in the sector.

Responsibility: dti, industry associations, companies in the sector

Promote the South African Capital Equipment Export Council, supported by the Export Marketing and Investment Assistance Scheme (EMIA)

The EMIA scheme needs to be reviewed and revised to increase ease of use and more timely payments. It also needs to be more aggressively marketed through a partnership between the SA Capital Equipment Export Council and the various industry associations to target non-exporting companies who are not currently aware of the schemes and their potential benefits.

Responsibility: SA Capital Equipment Export Council, industry associations, dti

[44] for example the European Union Directives for Safety of Machinery and Pressurised Equipment

Increase assistance given to companies with respect to export finance

The current administration of export credit finance by Khula requires commercial banks to motivate before lending of funds takes place. Since the maximum amount is R1 million, this process is generally not worth commercial banks' while, resulting in sub-optimal use of the funds. The administration of the fund should be taken over by TISA or alternatively an Export/Import Bank formed by the various export councils in conjunction with TISA to increase the availability of funds to companies. The scheme could then be more aggressively marketed to companies in the sector.

Responsibility: South African Capital Equipment Export Council, TISA

Improve export prospects for the sector by conducting a market opportunity study

This study should be government funded and should be administered by representatives from the SA Capital Equipment Export Council, industry associations and companies with the aim of identifying markets in which there are opportunities for high value-added products. This would be achieved by specific in-depth research regarding markets for particular products and services. Companies in the sector could lodge applications for specific areas to be researched. These applications would then be evaluated and preference given to those with greater employment creation potential. Being government funded would enable information regarding the research findings to be distributed back to all companies in the industry, thereby increasing the sector's overall export markets and competitor knowledge, which would in turn facilitate more informed decisions within industry and the adoption of a more market-oriented export approach for the sector in future.

Responsibility: South African Equipment Export Council, industry associations