CHAPTER 4

Case Study

PART I

4.1 INTRODUCTORY REMARKS

Africa is the source of numerous, and continual, pleas for help and the recipient of much donor funded technical assistance. African countries are still largely unable to reap sustainable benefit for the vast majority of their people from globalisation. Increased trade is universally proffered as the mechanism for accelerating growth in the many debates regarding poverty reduction in Africa. Both Friedman (2004:43) and Draper and Khumalo (2005:3) note that such an undertaking is beyond government acting alone and that partnerships are essential for success. The problems that will be experienced in Africa, without credible demonstration of compliance with ever sophisticated global technical requirements, are increasingly and painfully obvious. The public sector is already recognised as having an important role in assisting industry to address market access issues. A great deal of donor effort in the area of conformity assessment in Africa is therefore presently directed at public sector capacity building. As such projects move from conception to implementation, doubts on their sustainability are increasingly beginning to surface. A related problem concerns the creation of appropriate and sustainable private sector conformity assessment capability and capacity. Such a concern is justified given the calls that are repeatedly made about the urgent need for a more active and pervasive African private sector.

Significant multiplication of effort is required on many fronts in executing a trade promotion strategy as proposed under NEPAD. Government reforms are increasingly aimed at reducing the role of the state in actually providing services and refocusing their role to one rather of overseeing or monitoring. In Africa, given the dearth of private sector capacity, the role of the public service is still fundamental if short term progress is to be achieved. There are

several technical capacity creation and coordination initiatives that are taking place in Africa at national, REC and NEPAD level. Unfortunately these initiatives are still largely uncoordinated even if sourced from the same foreign donor. Projects tend to reactively focus on very specific technical needs rather than adopting a more holistic and policy driven approach. South Africa is the only country in Africa that has differentiated its SQAM infrastructure to the level envisaged by the NEPAD document. The various SQAM components are also the only ones recognised internationally as technically equivalent to those in Europe and the US. The South Africa government has actively encouraged its public funded SQAM technical experts to take a leading role in SADC and at the international counterparts over many years. The SADC SQAM interventions are recognised by other NEPAD RECs, specifically the Common Market for East and Southern Africa (COMESA) and the East African Community (EAC), as being more advanced compared to their own SQAM related REC projects. SADC REC committees in metrology and accreditation also currently link Africa to the international bodies in Metrology and Accreditation respectively. A comparison of SQAM activities in NEPAD with directly relevant and relatively recent public administration related developments within the European Union was also addressed given the insights that such a study could offer to this research. The chapter therefore focuses on the activities concerning technical infrastructure capacity building at the South African, SADC and NEPAD levels in order to identify challenges that public administration can assist in solving for the benefit of the whole region.

4.2 SQAM TECHNICAL INFRASTRUCTURE IN SOUTH AFRICA

4.2.1 Background

South Africa has been through fundamental changes since the first democratic elections in 1994 and the concomitant creation of a constitution. According to Thornhill (2002:32), '[o]ne of the main characteristics of the present constitutional dispensation is that Parliament as the legislature is no longer the highest authority in the country'. Jreisat (2004:1006) expresses the

concern that a 'constitution may be the basic document that specifies the main structure of a governance system, but it is not a guarantee of practicing democratic governance'. Tapscott (2000:119) declares that '[i]nstead of the inherently conflicting intergovernmental relations which characterize most modern states, the [South African] constitution actively promotes co–operation between the different levels of government'. This is important if we consider the comment by Thornhill (2002:32) that 'any law or behaviour that is inconsistent with the Constitution is invalid, and that the obligations the Constitution imposes must be fulfilled'. Tapscott (2000:119) also points out that the 'drafters opted for an enabling framework rather than a prescriptive one'. Thornhill (2002:35) identifies three foundational elements that drive relationships 'amongst the organs of state'. The first is the South African Constitution. This is followed in importance by 'legislation by the national and provincial spheres of government'. The last and most operational element identified by Thornhill is related to the 'contractual obligations resulting from agreements amongst executive functionaries and institutions' (Thornhill, 2002:35).

According to the local national strategy for sustainable development, '[s]ustainable development that is appropriate and specific to the South African context will entail shared and accelerated growth that is increasingly non–material; poverty eradication; and sustainable resource use' (South Africa, 2006d:6). The same strategy document (South Africa, 2006d:6) also asserts that '[s]ustainable development means the integration of social, economic and environmental factors into planning, implementation and decision–making so as to ensure that development serves present and future generations'. The translation of these intentions into tangible deliverables could become a long and difficult process if one considers the work of Luken and Hesp. These authors (Luken & Hesp 2006:12) claim that '[t]he process of sustainable development strategy formulation (appropriate policies and programmes) must precede the product. The product, defined in scientific and economic terms, is not yet known'.

The Accelerated and Shared Growth Initiative – South Africa (ASGISA) plan was announced by the then South African Deputy President, Mlambo–Ngcuka in 2006. It provides tangible evidence of the ANC led government's desire to use the public service as a major role player in service delivery against specifically defined policy objectives. The plan has also addressed the issue of potential barriers to implementation. Mention is made in a media briefing by Mlambo–Ngcuka (2006:2) of six binding constraints. One of these is '[d]eficiencies in state organisation, capacity, and leadership'. Another is the '[r]egulatory environment and burden on small and medium businesses'. The briefing document (2006:2) also notes that counters to these constraints 'entail a series of decisive interventions'. It identifies 'public administration issues' as one of six specific categories under which responses to the constraints are then developed.

The availability of a plan is an excellent initial step but what are perhaps some of the challenges moving it towards implementation? A former South African Minister of Public Service and Administration, Fraser–Moleketi (2005:11), points out that despite 'programmes that seek to enhance the willingness of public servants to take responsibility and embody the vision and commitment of the political leadership, we continue to confront many instances where the commitment and the provision of resources does not translate into adequate action on the part of the public service'. Findings from Friedman (2004:43) clearly indicate that 'where plans fail to take into account whether officials are willing and able to implement them — and how to persuade them if they are unwilling — then they are unlikely to achieve the desired outcome'. Moss (2006:46) addresses the same issue but from a slightly different perspective: 'Government often commits vast resources in terms of time, money and effort trying to develop its human resources, in order to improve service delivery. However, the high staff turnover in the government sector flies in the face of such efforts.' In the same article, Moss (2006:46) also notes that 'it would appear that the wide discrepancies between the public and private sector salaries are responsible for government's failure to recruit scarce skills'. The reason why this is problematic is reinforced by an example: 'senior engineering posts are advertised at Assistant Director's salary scale [;]this is

far below what the private sector offers to engineers...but the same engineers are then contracted at high costs' (Moss, 2006:46). It appears that the higher salary costs are being paid anyway as part of public service delivery contracts, but via the private sector. This is obviously problematic.

Given that South Africa is now a constitutional democracy, 'a major societal value' according to Moe (2004:473), 'is the idea that public officials should be held accountable for their actions to elected officials and through these officials to the public'. The discussion in paragraph 3.2.4 about government and governance raises some important questions. Halachmi (2005:311) states that three of the most crucial are; 'Can a government abdicate some of its traditional 'governing' responsibilities? Who should decide and what process should be used? Whose responsibility is it to guard the public interest?' This leads to the topic of accountability which, as McGuire (2002:511) argues, 'is fundamental to governance in democratic systems'. Romzek and Dubnick (2000:382) also state that 'accountability plays a crucial role in shaping and directing the day–to–day operations of government'. Diale (2005:59) points out that '[p]ublic managers are expected to be more accountable for their actions and decisions…regardless of the method of service delivery, accountability rests squarely with government agencies'. Mathebula ([s.a.]:114) reminds us that '[t]here are no relationships between governments, there are only relations amongst officials who govern different units'. Findings from Bingham, Nabatchi and O'Leary (2005:549) clearly indicate that '[p]ublic management for the new governance requires a new emphasis on certain skills: negotiation and persuasion, collaboration, and enablement'. 'There seems little doubt', according to Trafford and Proctor (2006:119), 'that in the future public sector management will need to be able to possess the skills, processes, structures, technology and tools required for working across organizational boundaries'. These abilities are vital when considering the important question posed by Bingham et. al. (2005:550), namely 'How can public administrators fulfil mandates to engage citizens and stakeholders in ways that enhance the legitimacy of governance?' That they pose such a question is because they also argue that '[c]itizens who choose

to participate may be a small percentage looking to shape public action for private purposes' (Bingham et. al., 2005:550).

A complicating factor, according to Friend (2006:269), is that '[g]overnmental organisations cannot all be viewed as accountable to the same undefined "public at large"; rather, decision makers within each must account to their own more specific profiles of voters, taxpayers and service users'. Nwankwo (1996:29) notes that the 'notion of "public interest" is value–laden and notoriously difficult to define or measure'. McGuire (2002:512) contends that 'responsiveness to citizens as recipients of service conflicts with responsiveness to citizens as taxpayers'. It is interesting to note that Mathebula ([s.a.]) strongly links service delivery to the topic of Inter–Governmental Relations (IGR) by contending that 'IGR ideologically concerns itself with the operating currencies of the governance exchange market that manifests itself best within a networked environment governed by service delivery as an application protocol' (Mathebula, [s.a.]:112). Another issue is the appropriate interactions between government departments. Thornhill (2002:36) maintains that '[a] system of intergovernmental relations has to be developed to ensure that all services for which the three spheres of government are individually or jointly responsible are administered effectively and efficiently'. Moss (2006:48) also thinks that '[i]f joint programmes are to succeed, it is important to ensure that there is collective ownership of such programmes by all departments'. The need to create such a system has now been addressed in terms of a specific Act, the South African Intergovernmental Relations Framework Act of 2005. This Act specifies in paragraph 9 (1) that: 'Any Cabinet member may establish a national intergovernmental forum to promote and facilitate intergovernmental relations in the functional area for which that Cabinet member is responsible.' Moving to a broader context, paragraph 35 (1) states that: 'Where the implementation of a policy, the exercise of a statutory power, the performance of a statutory function or the provision of a service depends on the participation of the organs of state in different [national or provincial] governments, those organs of state must co–ordinate their actions in such a manner as may be appropriate or required in the circumstances, and may do so by entering into

an implementation protocol' (Intergovernmental Relations Framework Act, 2005:28). If the route of an implementation protocol is chosen, the Act becomes very specific. Some specific issues raised in terms of paragraph 35 (3) include the requirements that '[a]n implementation protocol must (a) identify any challenges facing the implementation of the policy…,and (b) state how these challenges are to be addressed,…(c) give an outline of the priorities, aims and desired outcomes, and (d) determine indicators to measure the effective implementation of the protocol…' (Intergovernmental Relations Framework Act, 2005:28). Another important way that the national government and the provinces interact is the National Council of Provinces (NCOP). Tapscott (2000:125) asserts that its establishment 'provides a direct channel for provincial governments to participate in policy formulation at national level'.

If national efforts to obtain synergistic collaborations were not complicated enough, South Africa also has to consider its role in the region. The South African Institute for International Affairs (SAIIA, 2008:1) asserts that '[s]ince 1994 South Africa has been the primary catalyst for regional and sub–regional integration in Africa'. The same source (SAIIA, 2008:1) notes that, at the same time, in South Africa there has been 'a tireless advocate of Africa's interests on the international stage'. With respect to the international focus of its activities, the South African Department of Trade and Industry (the dti) reports that a substantial amount of time has been expended on 'support for African economic integration within the NEPAD context and with a particular focus on Southern Africa' (the dti, 2008:6). The latter focus is also noted by Ijeoma (2008:141) who points out that 'South Africa's priorities include close co–operation with its partners in the Southern African Development Community (SADC)'. One reason for such a strong South African focus on trade relations within the SADC region is provided by Hirsch. South Africa's policy makers believed, according to Hirsch (2005:137), that by creating stronger and more formal trade and other ties with its neighbours through SADC, their collective 'bargaining power with the rest of the world would be enhanced'.

The South African Institute for International Affairs (SAIIA, 2008:1) notes that 'South Africa's engagement with Africa rests on three pillars'. The first pillar is identified as the 'strengthening Africa's institutions, both regionally and continentally'. A second foundational activity is 'supporting the implementation of Africa's socio–economic development programme, NEPAD'. The final part of the troika is to strengthen 'bilateral political and socio–economic relations by way of effective structures for dialogue and co–operation'. The relative importance of the last activity is emphasised by Qobo. South Africa, according to Qobo (2005:87), still has much to do not only in enhancing its relationships with neighbouring countries but also as far as a more positive input to 'progress in regional integration'. The reason for such an apparent negative perception is alluded to by the SAIIA (2008:2) who report that '[t]he assertive, business–like approach of South African corporates contrasts significantly with that of the SA government'. Such aggression by South African corporates has led to the tendency by other African states 'to perceive South African corporate penetration as part of a grand plan by "South Africa Inc." to dominate the continent' (SAIIA, 2008:2).

A further complication to the improvement of inter African relations is the 'resentment in some quarters on the continent' caused by 'South Africa's pre–eminence as the partner of choice for governments and organisations outside Africa' (SAIIA, 2008:4). While noting the reality of such 'negative perceptions in the region', Qobo (2005:87) opines that these should not 'excuse South Africa from projecting regional leadership, especially in the area of trade and of economic integration'. The ultimate global strategic government objective of a SADC and regional focus is evident in a recent report from South Africa. The dti (2008:6) notes its 'significant role in consolidating the "G20" group of developing countries'. The G20 consolidation, according to the same report (the dti, 2008:6), has 'placed developing countries, at the centre of negotiations, [at the WTO] for the first time in the history of the global trade system'.

4.2.2 South African trade strategy and policy

Speaking relatively shortly after the establishment of South Africa's new democratic order, Ginsberg (1998:161) spoke of the need to develop 'an export–driven culture'. The same author (Ginsberg, 1998:161) realized that many external obstacles face any company that seeks to export and suggested that 'South Arica's trade policy should be geared to eliminating these obstacles for exporters and thus enabling them to obtain access to high quality inputs at world prices'. Realising the need for appropriate circumspection in adopting his suggested approach, Ginsberg (1998:161) also warned that '[t]his should not be done at the expense of economically viable producers who supply the local market'. With relevant ANC policy insights, Hirsch (2005:3) notes that 'because of the limitations of the domestic and regional markets', the South African government expectation was that 'much of the growth would be driven by exports to major foreign markets. This required both measured trade liberalisation and effective industrial development strategies'.

Another important issue highlighted by Hirsch (2005:3) was the desire to create appropriate policies and remedies that were independent of those being imposed elsewhere in Africa by external financial sources. The Millennium Partnership for the African Recovery Programme document (South Africa, 2002:3) points out that 'past trade liberalisation efforts in Africa have been characterized by frequent policy reversal, not least because these programmes were externally imposed and often lacked national credibility and ownership'. The South African Deputy Minister of Trade and Industry (Davies, 2006a:1) emphasises the need 'for government to facilitate and encourage all stakeholders to engage in a process of self discovery', the aim being to identify the 'key action plans needed to take our sectors from where they are to where we need them to be' (Davies, 2006a:1). The government (the dti, 2007:3) through research and intensive interactions with stakeholders has identified four lead sectors: Capital Transport equipment and Metals; Automotives and Components; Chemicals, Plastic fabrication and Pharmaceuticals; Forestry, Pulp and paper, and Furniture. These sectors,

according to the South African Minister of Trade and Industry (Mpahlwa, 2008:6), continue to enjoy 'focused attention'.

The Accelerated and Shared Growth Initiative for South Africa (ASGISA), adopted in 2006, notes amongst other interventions, the need for an industrial policy. In 2007, the South African Cabinet adopted the dti's National Industrial Policy Framework (NIPF) and the Industrial Policy Action Plan (IPAP)' (the dti, n.d.:2). According to the dti (the dti, n.d.:3), the NIPF 'seeks to ensure that our industrial policy and trade policy are mutually aligned and coordinated, in the context of an increasingly rules–based global trading system centered on the World Trade Organization (WTO)'. The existence of the NIPF has, according to the South African Minister of Trade and Industry (Mpahlwa, 2008:5), also brought important clarifications and enabled the identification of important themes. These themes, according to the same source (Mpahlwa, 2008:5), are 'industrial development, international trade and investment, broadening participation, regulation and administration and coordination'. The Minister of Trade and Industry (Mpahlwa, 2008:5) also notes that such an exercise has also taught his department important lessons about 'how we relate to other departments and the necessity for interdepartmental and intradepartmental relationships'.

The dti (the dti, n.d.:3) report that the South African 'trade strategy continues to strive to leverage global growth for the development of our economy, focusing on both our existing main trading partners and dynamic fast growing emerging markets'. A major challenge from an African perspective is identified by the SAIIA. The SAIIA (2008:2) note the need for the South African government to 'manage its trade relations with the rest of the continent in a way that alleviates some of the developmental problems many of these states are experiencing while playing an active role in the "scramble" for African investment and trade markets'. If South Africa does not devote her energies to the African continent, Lesufi (2004:824) argues, 'she too could fall victim to the forces that have brought ruin to its various parts'.

4.2.3 South African legislative process

A private South African management consultancy firm, Bentley West, was commissioned by the dti to manage a review of the local technical support infrastructure and issued their report in 2001. The consultancy relied almost exclusively on a group of Australian experts (Bentley West, 2001:48) in the various SQAM areas to perform the work and assist with the recommendations. The report recommended several important changes to the Acts of both the CSIR as far as Metrology and the SABS. The report also noted the lack of specific Acts of Parliament to cover the activities of Metrology, Accreditation and Technical Regulation. These recommendations together with an increasing demand from local regulatory authorities for authoritative underpinning in support of their use of accreditation led to a legislative process that is now described.

The revised content of both the existing SABS (South Africa, 1993) and Metrology (South Africa, 1973) Acts and the proposed new Acts for Accreditation and Regulation of Compulsory Specifications (Technical Regulation) was a matter of wide domestic consultation. Such consultation included national Departments and Provincial and Local Government. Workshops were held with local industry and other interested parties. Use was also made of the South African tripartite Government, Business and Labour structure, the National Economic Development and Labour Council (NEDLAC). The proposed and amended bills were also published in the Government Gazette for general public comment.

Once draft bills had been created, they were presented to the Parliamentary Portfolio Committee for Trade and Industry for their input and approval. The meetings of the Portfolio Committee generated several significant amendments for all four bills. The same committee hosted two sets of public hearings in Cape Town to listen to submissions regarding the Bills. Very few public submissions were received. These submissions were duly considered and appropriately incorporated in amended bills. The amended bills for Metrology and Accreditation (South Africa, 2006a) were presented, after

being approved by the Portfolio Committee, to a full sitting of Parliament on 24th October 2006 by the Deputy Minister of Trade and Industry. The Deputy Minister (Davies, 2006b:5) concluded his address to Parliament by informing the members that the two bills were 'aimed at maintaining and strengthening the South African technical infrastructure. This is critical in order to remain relevant as the platform for global economic efficiency and market access for South African products and for the safety of our people'.

The next stage in the passage of the two bills is explained by the PAIR Institute (2002b:4) who report that '[p]articular constitutional arrangements exist for procedures to be followed by the National Assembly if it intends passing a bill falling outside the scope of Schedule 4 (i.e. not a functional area of concurrent national and provincial legislative competence). This provides inter alia that the NCOP [National Council of Provinces] has to take a decision (e.g. to pass the bill), to pass it subject to amendments or to reject it (section 75[1])'. The bills were duly presented to a meeting of the Select Committee on Economic and Foreign Affairs (National Council of Provinces) on 1 November 2006. Tapscott (2000:125) mentions that '[t]he NCOP has been accused by some of being a mere rubber–stamp for central government policies'. This was certainly not evident in this activity. The members were first given a thorough background briefing concerning the bills and then considered them in great detail asking many clarifying questions. Only when they were completely satisfied were they prepared to accept and recommend their adoption in a formal resolution. The two bills were then sent to a full sitting of the NCOP for approval, which was obtained on October 2006.

The final stage was for the president to sign the bills into law. The state law advisors determined that it was not necessary to refer these bills to the National House of Traditional Leaders in terms of section 18(1)(a) of the Traditional Leadership and Governance Framework Act, 2003 (South Africa, 2003), since they did not contain provisions pertaining to customary law or customs of traditional communities.

The National Measurement Standards and Measurement Units Acts (South

Africa, 2006b) and the Accreditation for Conformity Assessment Calibration and Good Laboratory Practice (South Africa, 2006c) were duly promulgated and came into operation on the 1 May 2007 (South Africa, 2007a, South Africa, 2007b). The complete overhaul of the various acts of the domestic technical infrastructure was completed late in 2008. Two further acts, one concerning Standards (South Africa, 2008b) and the other covering the creation of a National Regulator for Compulsory Specifications (NRCS) (South Africa, 2008a) have now also been finalised. They were promulgated in September 2008 following the parliamentary monitoring process previously described.

In an address to Parliament in May 2008, the Minister of Trade and Industry (Mpahlwa, 2008:12) notes that 'trading internationally is a competitive endeavour and we are determined that as we ramp up our manufacturing capabilities, the quality of our product should become a defining feature of trading success'. The same source (Mpahlwa, 2008:12) asserts that '[i]t is therefore important that South Africa improve its technical infrastructure, to support our industrial and trade and investment policies in particular'. According to the South African dti (n.d.:6), future domestic effort 'will focus on the leveraging of the South Africa standards, metrology and accreditation system in support of the priority sectors as identified in the NIPF and ASGISA, and the implementation of South Africa's trade policy specifically as it relates to technical barriers to trade and human resource development in the areas of standards, metrology and accreditation'. In the parliamentary address previously referred to, the Minister (Mpahlwa, 2008:12) also asserted that South Africa 'must reach internationally accepted levels of setting standards, testing against these standards and accrediting various suppliers as competent to perform technical measurements'. The Minister (Mpahlwa, 2008:12), noting the promulgation of the acts covering metrology and accreditation in the previous year, then concluded that '[w]ith the finalisation and promulgation of the new Standards Bill and the National Regulator for Compulsory Specifications (NRCS), the massive project for the legislative reform of the South African technical infrastructure is now complete'. With the South African domestic focus for standards, metrology and accreditation now

firmly established, the next section addresses implementation.

4.2.4 South African technical infrastructure implementation

SQAM provision and coordination are vital to the trade and industrialisation policies of any country. The availability of a commonly agreed and internationally harmonised technical standard is a valuable first step and tool in trade facilitation. A standard also assists in determining the level of sophistication required for a particular activity or product. The existence of such a documented standard normally assumes that a sophisticated technical support infrastructure is readily accessible for local industry to use to demonstrate compliance to its contents. Such an infrastructure includes the ability to access appropriate measurement traceability through the international system of measurement (S.I.) units. Such demonstrated traceability is achieved through a national measurement institution. After standards and metrology, the third part of the required technical infrastructure is a mechanism to allow local public and private conformity assessment bodies to independently demonstrate their competence to perform certain specific tasks. This is normally achieved through an internationally recognised accreditation body. Davies (2006b:4) argues that '[a]ccreditation, together with metrology, forms a vital part of the domestic technical infrastructure required to compete in today's global economy'.

South Africa, fortunately, has been relatively immune to foreign donor assistance linked to prescriptive policy remedies with regard to SQAM related issues. This allows the relative luxury of developing home grown solutions that might also assist others in the SADC sub region. This approach is also encouraged by Naidoo and Kuye (2005:630), who declare that 'a combination of approaches is essential'. The same authors (Naidoo & Kuye, 2005:630) also suggest the incorporation of 'traditional African values' which would 'actively promote governance principles such as accountability, transparency, responsiveness, equality and public participation'. The same sentiments are evident in a speech by the South African Deputy Minister of Trade and Industry (Davies, 2006a:1), who stated 'among the themes which we will be

emphasising in our new approach to industrial policy, will be the need for government to facilitate and encourage all stakeholders to engage in a process of self discovery. Self discovery needs to…lead to the identification of key action plans needed to take our sectors from where they are to where we need them to be'.

The South African SQAM infrastructure is characterised by a combination of well–established, long standing organisations together with organisations that can be considered relatively young. The South African Bureau of Standards (SABS), which was established in 1909 to meet the needs of the burgeoning gold industry, has achieved several milestones in its 90 years of existence, and is a household name. The National Metrology Laboratory of South Africa (NML) was established in 1947 (Bentley West, 2001:32). SANAS was formally established in 1996 and became fully operational in 1998 (Bentley West, 2001:32). Institutional longevity coupled with varying and often unpredictable amounts of governmental financial support over the years led to certain conformity activities being undertaken by both organisations that may no longer be appropriate. Over time, and in order to ensure financial sustainability, some of these publicly funded organisations have further developed their services, not always perhaps in the long term interest of more holistic national objectives. According to a communication by Mutasa (2008b), the SABS pursued aggressive market growth activities within SADC that were perceived to be at the expense of similar national infrastructure in other SADC member states. The legacy of such perceptions has left indelible impressions that make synergistic cooperation between NSBs in the region extremely difficult even today.

In the current global environment, De Vries (1999:129) points out that there should be a 'separation of powers between standards development, standards implementation, and testing/certification'. De Vries (1999:129) argues that the 'intertwining of standards development on the one hand and testing/certification on the other may cause problems'. While such activity may have legitimately been part of a public funded initiative initially, it does not automatically follow that it needs to always remain so. Fox and Maas

(1997:3) emphasise the need for a clearly defined goal for any public service delivery activity, contending that 'the delivery of public goods and services, notwithstanding their efficient and responsive delivery, is of no value if it does not benefit the individual, the community and society at large'. While the benefit of the work is without question, the role that these organisations should initially and continually perform, versus that of the private sector is the issue at hand.

Appropriate consultation in the policy formulation and implementation process and any resultant transfer of activity to the private sector is stressed by Batley (2004). Batley (2004:44) points out 'that users accustomed to public sector provision generally supported its continuation and opposed alternative arrangements'. Such attitudes also assist public SQAM bodies to insist on continued provision of conformity assessment activity. Such continuation may not always be in the best interests of the country as a whole.

The need for managing various accountabilities and different aspirations, even among the same target group, hints at both the complexity of the structures and the skills required of public managers that might be required to achieve a satisfactory outcome in this regard. With regard to the latter, Rasmussen, Malloy and Agarwal (2003:23) have found that 'a professional public service implies three things: a body of knowledge, skills that those outside the profession are unlikely to posses; a set of values and attitudes that determine the culture of the profession; and a set of standards for both of these.' McGuire (2002:512) notes that 'the problems of managing the provision of public services are managerial and political. So accountability must have managerial and political dimensions'. With particular reference to emerging governance networks, Keast, Mandell, Brown and Woolcock (2004:364) note that one of the problems 'is dealing with the conflicts that emerge between the individual members' goals and the need to commit to joint, overriding goals'. The same issue is probed in more depth by Friend (2006:265) who asserts that 'each partner will be subject to many competing motivations from other sources…in the case of the commercial and voluntary

sectors, complex questions usually have to be faced of how the often disparate organisations concerned should be represented'.

The area of TBTs, associated technical infrastructure, and conformity assessment also need such impartial and considered input on a continual basis to ensure that the resultant policies deliver the expected results and associated benefits. Kuye (2005:527) has established that '[p]ractitioners, and a growing number of scholars in Public Administration...are interested in how the performance of public agencies can be improved and how they can gain relevant knowledge to promote such improvements'. Given the leading role in SQAM taken by South Africa for SADC, the lack of activity in this crucial area has serious consequences not only for South Africa but also for SADC and the rest of Africa. Increased collaboration between the local academic community and the public service is actively encouraged by Fraser–Moleketi (2005:12) 'with our academic and capacity–building community, we need to work at ensuring that we restore African influences in public administration and also work at exporting our insights to the mainstream of current public administration and governance thinking'. Davies (2006a:1) is even more direct, '[w]e need to create mechanisms to draw in and build on expertise, which exists outside of the governmental framework, in Universities, research institutions and the like'. These inputs, from former and current Ministers of the South African government, highlight the necessity of drawing appropriately from the local academic community to assist in finding appropriate and sustainable solutions to the issues raised by ASGISA.

Given the strategy of South Africa, noted earlier, to take the global competitive market place as its point of departure, the discussion now moves to the area of South African trade negotiations and associated domestic technical regulation. Nicolaidis and Egan (2001:454) report that 'it is no secret that trade negotiations increasingly focus on the impact of differences in domestic regulatory systems and standards upon trade flows, investment decisions and market access'. Domestic regulatory accountability, the same authors (Nicolaidis & Egan, 2001:459) contend, 'is the extent to which Private or public sector bodies involved in standard–setting or conformity assessment

are held accountable to some public authority which in turn may then be able to make credible commitments on market access on their behalf externally'.

The technical objectives of the SQAM review, previously mentioned in paragraph 4.2.3, were aimed at identifying shortcomings and recommending improvements to domestic SQAM provision. The ability of the SQAM institutions to meet the needs of SA commerce, industry and government, was reviewed. The consultants were also asked to establish what financial, effectiveness and efficiency constraints hampered the development of the SQAM infrastructure. The management consultants adopted a private management philosophy that is evident throughout the study. The results (Bentley West, 2001:261) were used to advise business, labour and government on the formulation of a holistic national SQAM policy and the relevant roles of the above mentioned groups in implementing such a policy. The recommendations from the review have now been largely implemented. The recent promulgation of the various SQAM related acts is perhaps the final stage of the intended actions resulting from the study. The study is sound as far as specific technical issues but fails to address the deeper public administration aspects such as holistic policies, planning and subsequent collaborative governance required for sustainability in any significant detail. The need for a collective and harmonised responsibility for ensuring synergistic implementation and maintenance in achieving larger government objectives has still not been understood. Research by Allison (2004:410) leads him to the conclusion that 'the single lesson of private management most instructive to public management is the prospect of substantial improvement through recognition of and consciousness about the public management function'. This would imply that a deep insight of both public and private management philosophy is required. Such insight is required initially when allocating tasks such as the SQAM review. It is also vital during the management of the subsequent implementation of the recommendations to ensure that the desired outcomes are achieved.

Another important output that has been largely missed concerns links between SQAM issues identified during trade negotiations and obtaining

proactive input from the various SQAM institutions. Such important activity at the moment tends to be reactive and the interactions remain largely tenuous. Although certain officials within dti are aware of the role and functions of SQAM, there is no regular interaction between the relevant parties on SQAM trade negotiation issues and larger strategic objectives. The confrontational nature of trade negotiations is also problematic especially if one is seeking regional solutions for technical capacity strengthening as part of implementing such regional and international trade agreements. Another problem is that once such a negotiation has been concluded, the risk moves on to those SQAM organisations that share collective responsibility for the implementation and maintenance of any SQAM related aspects. Turning again to the work done by Nicolaidis and Egan (2001:455), it is important to understand that '[d]omestic regulators accept unprecedented transfers of regulatory sovereignty by recognizing non–domestic standards as valid under their jurisdiction, whether they have taken part in their development (standardization) or not (recognition)'.

4.2.5 South African standards and technical regulation

4.2.5.1 The South African Bureau of Standards

As already stated the South African Bureau of Standards was founded on 1 September 1945. The timing of its creation was auspicious coming as it did towards the close of the Second World War. Verman (1973:154) records that South Africa joined 25 other countries in October 1946, in discussions to 'create a new and permanent international body which could take over the work of international standardization'. The meeting not only agreed to the need but also drafted the 'constitution of the new organization the International Organization for Standardization (ISO)' (Verman, 1973:154). As a 'founder member of the ISO' (Bentley West, 2001:110), the international role and reputation of the SABS is firmly established and has remained almost without peer in Africa.

The experiences of many developed and developing country businesses are

captured by De Vries (1999:3), when he asserts that 'meeting or not meeting certain standards can be the difference between success or failure in the market'. Standardization, according to the same author (De Vries, 1999:3), 'is a lubricant for modern industrial society'. By ISO definition, standardization covers both the creation of a standard and also mechanisms used to prove conformity to such a standard. Many standards bureaus were created on the premise that they would be responsible for both activities. In terms of the revised Standards Act, the SABS is still responsible for promoting the use of standards (South Africa, 2008b:6), and promoting quality in 'connection with commodities, products and services' (South Africa, 2008b:5) and rendering 'conformity assessment services' (South Africa, 2008b:5). According to a report by Standards South Africa (2007:1), 'new standards are developed at a rate of approximately 400 per annum'. The SABS historically published 'SABS' Standards. Research commissioned in 1999 by the dti into the local SQAM infrastructure (Bentley West, 2001:119) noted that 'South Africa is unusual in having the national standards designated as "SABS Standards"…International practice is to clearly label the standard with the country to which it applies'. There was also evidence that the organisation used the resultant market advantage/confusion to offer associated commercial testing and inspection services against these same standards. The latest version of the local Standards Act (South Africa, 2008b:9) now ensures that future standards are published as South African Standards, which is the norm elsewhere in the world.

As previously mentioned, the newly revised Standards Act unfortunately continues the tradition that they should also provide related conformity assessment services (South Africa, 2008b:5). Accordingly, the SABS aims to be 'the provider of choice for conformity assessment services, certification, testing, training and consulting' (the dti, n.d.:19). In recognition of changes in philosophy, these services are now provided on a commercial basis (Bentley West, 2001:113) and are sometimes in competition with private service providers, even those companies established by previous staff members. The SQAM research (Bentley West, 2001:135) encouraged the identification of 'any functions and facilities within the Certification or Test House Divisions

that are potentially of national importance, and that would not be sustainable in the market place'. The same research (Bentley West, 2001:135) argued that such activity 'should not be included in the corporatisation drive'. To date, there is no evidence that the recommendation has been acted on.

Another anomaly identified by the SQAM research (Bentley West, 2001:55) was that delegations to the SABS under the previous Standards Act (South Africa, 1999:24) created confusion as to its role relative to other 'ministries in administering, or potentially administering, technical regulatory requirements'. The source of government funding did not help to resolve the inherent confusion. The SABS was classified (Bentley West, 2001:113) as a Science Council and therefore received funding in competition with other science councils, such as the Council for Scientific and Industrial Research (CSIR) (with responsibility amongst other things, for local metrology). The SABS is managed by a council. Nominations for Council Membership are widely advertised and although 'any organisation can submit a proposal' (Bentley West, 2001:114), such positions are ultimately appointed by the Minister of Trade and Industry. The same ministry (the dti) 'also provides policy direction' (Bentley West, 2001:113). Given such a tangled structure for government funding and authority, it is not surprising that confusion has arisen both within the SABS and among the wider stakeholder population as to its ultimate purpose and future direction.

A related tension is that South African participation in international standards development activities (Bentley West, 2001:107) 'is covered primarily by the SABS, a variety of Government Departments such as the Department of Health, Department of Agriculture, and the Department of Transport, as well as industry'. An important part of the SABS managed standards generating process is the technical committee and subcommittee structure. These committees are populated by unpaid expert volunteers in a particular area of expertise. The SABS manages more than 460 such committees (Standards South Africa, 2007:1) as part of their custody and maintenance of approximately 5 000 standards. These local mirror technical committees (TCs) assist the SABS in providing input internationally. In 2000, the SABS

had active participants in 'approximately 300 committees and observer members in approximately 150' (Bentley West, 2001:110). The SQAM research previously referred to (Bentley West, 2001:110) pointed out that 'South African effort tends to be focused where South African industry is an active participant in world trade'. Such inputs are usually provided by individual specialists whose travel costs are sometimes partly funded by the SABS.

4.2.5.2 Technical regulations

In order to address safety, health, consumer protection or environmental issues, the previous Standards Act of South Africa (South Africa, 1993:22) allowed the minister to declare a standard as a compulsory specification. The declaration of a compulsory specification effectively created a technical regulation based on a consensus standard. A SQAM research report (Bentley West, 2001:68) noted that in 2000, there were 'approximately 250 cases' where national standards had been 'referenced in legislation'. In spite of the availability of such a mechanism in South Africa, the dti noted in 2003 (SADC, 2003b:8) that there was no 'uniform approach of developing technical regulations, resulting in a number of shortcomings'.

The role of regulatory conformity assessment and its sole provision by the SABS had been highlighted earlier as a problem. The SQAM research (Bentley West, 2001:68) pointed out that 'in some instances the SABS has been given the responsibility to provide conformity assessment services to enable Government departments to fulfil their regulatory obligations'. The same study argued the need 'for an even playing field for all accredited conformity assessment bodies to be able to demonstrate compliance with both compulsory specifications and technical regulations in general' (Bentley West, 2001:56). The SABS also regulates 80 compulsory specifications that deal with health and safety of the public (the dti, n.d.:19). As previously mentioned, older types of legislation not only specified the tests for different products and produce but normally also indicated that a specific, and public funded, institution had to be used to prove conformance. A levy was then

normally imposed to cover the cost of such regulatory conformity assessment activity. Research by Bentley West (2001:55) highlights much criticism under the previous SABS legislative dispensation of the 'sole provider status for conformity assessments associated with compulsory specifications' and the associated and substantial income stream generated by 'fee levying'. Unfortunately, a similar methodology is prevalent in most of the SADC member states. Such practice actively discourages domestic private sector creation of such capacity. A further complication for the regulatory division of the SABS is that it no longer has any laboratories of its own. It "lost" its laboratories during the commercialisation of the SABS laboratories and now pays the SABS "commercial" rates for these services (Kruger, 2003:26).

South Africa is now developing a best practice technical regulatory framework to address the need for a more coherent approach. One of the aims of the framework is to create 'a best regulatory model with the following key elements: legislation, the regulator, the technical requirements, the conformity assessment requirements and the sanctions for non–compliance' (SADC, 2003b:8). The South African Department of Trade and Industry has now published a document entitled 'Government Strategy towards an Efficient National Technical Regulatory Framework for South Africa' (South Africa, 2008). The purpose of the strategy is 'to improve and establish a common South African approach in terms of its technical regulatory responsibilities' (South Africa, 2008:1). Importantly, the document highlights (South Africa, 2008:12) the lack of a central coordinating mechanism for technical regulations. The lack of a suitable system has led to the creation of gaps and overlaps. The guidance, for all departments involved with domestic technical regulations, is therefore needed to ensure that South Africa remains within the bounds of the WTO agreement on TBTs. The model promotes the appropriate use of the government created technical infrastructure, in selecting conformity assessment service providers. The new strategy (South Africa, 2008:9) stresses the need to utilise performance based international standards. The document (South Africa, 2008:9) also notes that conformity assessment requirements should be clearly defined and commensurate with the identified risks. The SABS, SANAS and NMISA are then specifically

mentioned (South Africa, 2008:4) as being part of South Africa's technical regulatory infrastructure. If implemented, such improvements would substantially address the concerns raised by the SQAM research. The South African proposal could also act as a catalyst for further work within the wider African region, in a cost effective manner.

The new National Regulator for Compulsory Specifications (NRCS) Act (South Africa, 2008a) will not only change the corporate form of the Regulatory Division of SABS into an independent public entity, but also address the various anomalies previously referred to but only in the South African context. The NRCS will in future be responsible for the independent administration of technical regulations, also called compulsory specifications (South Africa, 2008a:6). The NRCS has already indicated that it will adopt a different and more transparent mechanism to prove conformity to the regulations under its control. Such an approach will require careful consideration. 'When competition is feasible', Prosser (2006:383) promotes the adoption of 'a version of regulation which is concerned only with market failure'. 'Where equal standards of service and guaranteed provision are required' the same author (Prosser, 2006:383) opines that 'a different approach to regulation will be more appropriate'.

4.2.6 South African metrology

4.2.6.1 Measurement traceability

At the international level, ultimate responsibility for metrology resides with the *Bureau International des Poids et Mesures* (BIPM) (Verman, 1973:192). The BIPM was created in terms of the *Convention du Metre* signed by 18 states on 20 May 1875 (Verman, 1973:192). The BIPM is governed by the *Conference General des Poids et Mesures* (CGPM) which meets every six years. The CGPM consists of government appointed delegates from all the member countries who have signed the Metre Convention treaty. The CGPM decides on 'all policy matters including finances and programmes for future developments' in metrology (Verman, 1973:192). The CGPM also appoints

members of the management body called the *Comiti International des Poids et Mesures* (CIPM). The CIPM consists of a maximum of 18 specialists chosen from the signatory countries. The CIPM, according to Verman (1973:192), 'is charged with the functions of following up the decisions of the Conference and looking after the operation and management of the Bureau'.

The creation and maintenance of a credible national measurement system is, according to McDowell (1997:3), inextricably linked to the ability to trace values 'to those accepted internationally as maintained by the BIPM in Paris'. McDowell (1997:3) points out that such access can only be 'realised by ratification of a diplomatic treaty referred to as the Metre Convention'. In Africa, McDowell (1997:3) notes, 'only three countries have adhered, namely South Africa (1964), Cameroon (1971) and Egypt (1962)'.

The BIPM is not the only source of international research and development activity for metrology. Important work is also performed, according to Verman (1973:193), in many 'important national laboratories dealing with standards of measurements'. The local SQAM review (Bentley West, 2001:161) noted that South Africa, through the National Metrology Laboratory (NML) 'participates in the forums that are established under the [Metre] Convention to coordinate the global system of metrology'. That this is a public funded activity is argued by McDowell. McDowell (1997:4) asserts that '[t]he assurance of measurement traceability to the BIPM would for any private company (even if permissible) not be economically feasible'. He (McDowell, 1997:4) continues '[f]or this reason, this function is and will remain a core responsibility of the Department of Trade and Industry'.

To ensure international credibility and compatibility, any measurements that are based on national measurement units and standards must be compatible with international measurement units and standards. There are ever increasing global demands, contends Davies (2006b:2), for those countries involved in international trade 'to demonstrate equivalence in measurement systems'. In South Africa, the National Metrology Institute of South Africa (NMISA) is now mandated by The Measurement Units and Measurement

Standards Act (South Africa, 2006b:8) to provide local traceability for measurement units of the International System of Units (S.I.) and certain other measurement units. NMISA is also responsible for the designation of national measurement standards and for 'keeping and maintaining national measurement standards and units' (the dti, n.d.:19). The same Act also establishes NMISA as an independent public entity (South Africa, 2006b:10). Its predecessor, the National Metrology Laboratory (NML) was a part of the CSIR and was tasked with the same responsibility as long ago as 1973 (South Africa, 1973). According to Davies (2006b:3), this change to a more independent organisation was predicated by 'the need to demonstrate organisational independence equivalent to that of international peers'. There were also important public administration related issues that led to the change that will be addressed in the next section.

4.2.6.2 National Metrology Laboratory (NML) to NMISA

The Measuring Units and National Measuring Standards Act was originally created as Act 76 of 1973. Through the enactment of Act 76, the CSIR became legally responsible not only for all national measuring standards in South Africa but also for comparing these on an international basis (McDowell, 1997:33, Bentley West, 2001:167). Act 76 also made provision for a Schedule of National Measuring Standards to be published from time to time in the Government Gazette. 'In the event of a legal dispute' the same Act stated that 'data produced by the NML are to be deemed correct unless proven otherwise' (Bentley West, 2001:167).

The need for the state to take financial responsibility for accurate measurement was not immediately realised. According to McDowell (1997:33), '[i]t was not until 1984 that the responsibility for the implementation of Act 76 was formally accepted'. The same author (McDowell, 1997:33) notes that '[a]t this time the Department was to accept the obligation to provide the funding for the establishment and maintenance of national measuring standards'. The SQAM research (Bentley West, 2001:182) also pointed out that 'the dti as the representative of government does not

participate formally in the priority setting process in forming the NML budget'. Such a distant approach to an important technical function led to important and negative consequences during the subsequent restructuring of the CSIR into a more commercially driven entity.

A member of the staff at the time, McDowell (1997:39), asserts that the 'restructuring process which took place at CSIR probably has no equal for an R&D organisation, at any time or place in the world, before or after'. Another CSIR staffer, Basson (1996:97), remembers that 'fears were expressed about overemphasising short–term financial performance'. The same author (Basson, 1996:97) contends that 'government and industry presented contrasting views, as could be expected, given the CSIR's dual role'. Government departments, according to Basson (1996:97), viewed 'the CSIR as the scientific arm of government and thought it should not be forced to greater commercialism to compensate for the shrinking Parliamentary grant'. Local industry was quick to emphasise the importance of 'transferring technology, from local and international sources, to assist exporters to become more competitive in world markets' (Basson, 1996:97). They were also willing to pay for such assistance. A major unintended consequence of the focus on the private sector and their management philosophies only became clear much later. 'The commercial orientation carried the message that working with the private sector was the highest good, and in the process the public sector became increasingly neglected' (Basson, 1996:111).

The focus on commercialisation did not unfortunately leave national metrology activities unscathed. McDowell (1997:42) mentions a 'CSIR executive decision that [the department of] Trade and Industry must assume full responsibility for the maintenance of the national measuring standards in terms of Act 76 of 1973'. The consequence of this decision was a 're–direction of measuring standards activities into more commercial areas in order for the programmes to generate additional income to be able to maintain their existing staff levels' (McDowell, 1997:42). Such was the situation during the SQAM research project in 2000 when the NML was positioned within the Materials and Manufacturing division of the CSIR

(M&MTEK). The researchers (Bentley West, 2001:170) noted that the 'CSIR claims that there are distinct benefits to NML of being part of this larger organisation'. The researchers challenged the prevalent CSIR view by asserting that 'these benefits appear to be mainly of an infrastructural nature for which the NML pays in the form of an overhead levy from the DTI grant' (Bentley West, 2001:170). The same report noted that 'NML overhead payments to CSIR amount to more than R 4 million per annum (17% of turnover) and this amount excludes overheads such as accommodation and security' (Bentley West, 2001:176). A major factor of contention was that the overhead amounts were taken off the dti grant up front, leaving the remainder for what the grant was originally intended for, that is, to appropriately address the South African metrology landscape. The SQAM report (Bentley West, 2001:170) noted that '[t]here are clear advantages to CSIR of retaining the NML in its structure'. Some of these rather narrow and potentially self–serving advantages were identified as 'the DTI grant is counted as external earnings by M&MTEK and CSIR; there is potential to use the NML resource to complement other M&MTEK resources in the pursuit of external commercial activities; potential to redirect resource for divisional interest; a contribution to divisional overheads' and finally 'a gain in marketing credibility by being the holder of national standards' (Bentley West, 2001:170). All of which, together with 'a strong focus on becoming less dependent on Government funding and more commercially orientated' caused the authors of the report to declare that 'the NML's national interest responsibilities have only a small representation within the much broader range of CSIR's activities' (Bentley West, 2001:171). The report argued that the 'NML profile and its relevance to other elements of the SQAM are largely lost within the M&MTEK and CSIR structure' (Bentley West, 2001:183). It was with such a realisation that the report concluded that '[t]he significance of the NML for South Africa's long–term position in domestic and international trade is too great to risk gradual, even if inadvertent, attrition of its mission. Therefore it is desirable that NML be a separate entity within CSIR' (Bentley West, 2001:171).

The new Measurement Units and Measurement Standards Act (South Africa, 2006b:14) has gone much further and establishes the National Metrology

Institute of South Africa (NMISA) as an independent public entity with a separate Board of Directors. The role of NMISA is to keep and maintain national measurement standards and units, provide local traceability for measurement units of the International System of Units (S.I.) and for the designation of national measurement standards (South Africa, 2006b:12, the dti, n.d.:19). An important issue for trade related measurement is that NMISA now has a legal responsibility to ensure compliance with the stipulations of the CIPM mutual recognition arrangement (South Africa, 2006b:12). Membership of the CIPM recognition arrangement relies on two important activities. According to the President of the CIPM (Göbel, 2008:2), 'The backbone of the CIPM MRA is the participation of the NMIs in key and supplementary comparisons, the results of which are published in the Key Comparison Data Base (KCDB) maintained by the BIPM'. Comparisons are made using artefacts with known but undisclosed values that are circulated amongst the different NMIs. Their values are then initially reviewed by technical committees of the relevant Regional Metrology Organisation (RMO). A second review by all of the other RMOs is also required before the values can be published as a recognised Calibration and Measurement Capability (CMC) of the specific NMI in the KCDB maintained by the BIPM. A second aspect of the CIPM MRA (Göbel, 2008:2) is the need for each NMI to operate a quality system which is also 'reviewed by a special TC for Quality in the respective RMO'. NMISA have chosen to have their activities accredited by SANAS. To provide the necessary international credibility, SANAS uses internationally recognised technical experts for the various areas of metrology supported by NMISA.

While still part of the CSIR, the NML (CSIR NML, 2007:1) noted that its activities 'were specifically referenced in the New Africa Initiative, now superceded [sic] by NEPAD, as being a crucial component'. It should be noted that the NML is a full member of eight of the ten technical consultative committees (CCs) of the CIPM and an observer of one (CSIR NML, 2007:2). Such exposure is critical not only for South Africa but for the whole region. Davies (2006b:3) also emphasises the fact that NMISA 'is the most advanced on the African continent therefore it has a critical role to play in uplifting

regional and continental peer institutes'. The continental activities of the staff of the NML have culminated in the establishment of AFRIMETS. AFRIMETS was created with the vision of establishing an inter Africa metrology system (CSIR NML, 2007:1).

4.2.6.3 Trade metrology

An historical trend in separation and focus regarding metrology has been identified by Birch (2003). Metrology, according to Birch (2003:11), was separated in many countries 'into scientific metrology, led by the [National Metrology Institutes] NMI's, and practical or legal metrology, administered by weights and measures authorities'. An important international development reflecting such a split was the creation of a second international treaty for this latter metrological function. The second treaty led to the establishment of the International Organization of Legal Metrology (OIML) in 1955. Although the OIML originally focused on trade metrology, Birch (2003:12) mentions that 'the rapid expansion in the use by governments of regulatory measurements has seen OIML become increasingly involved in establishing international requirements for a wide range of environmental, occupational health and safety and medical measurements'.

Trade metrology in South Africa predates the international development of the OIML by several centuries. Weights and Measures, according to Carstens (2002:41), were introduced to South Africa by the Dutch during the 1600s. The same author (Carstens, 2002:41) notes that '[d]uring the British occupation acts were passed in all the colonies and in 1923 a National Department was established in the Department of Mines and Industry'. Trade Metrology is governed by a specific act that was promulgated in 1973 and amended in 1993 through a linkage to the Standards Act of the same year. The function of trade metrology was transferred from the Department of Trade and Industry to the SABS in 1991 (Bentley West, 2001:220; Carstens, 2002:41; Carstens, 2008). There are several important public administration issues that need highlighting. The move from the Department of Trade and Industry to the SABS was agreed to for several reasons (Carstens, 2008).

These included increased prestige and better technical understanding of the work that it was thought would be gained. The close relationship that could be obtained with the standards development process within the SABS was also considered as a positive, allowing the possibility of developing WTO TBT compliant technical regulations. Access to the certification business of the SABS encouraged the trade metrology department to develop a system of outsourcing that subsequently allowed its officials to concentrate on more important core business activities. Such core activity included type testing which could be performed by trade metrology personnel in the SABS laboratories that they now had access to.

The SQAM research (Bentley West, 2001:75) points out that '[t]he legislation that covers legal metrology may be formulated in any of a variety of Government Departments (e.g. police, health, energy, environment, and consumer affairs or fair trading in the case of trade metrology)'. A further complication is that the South African Constitution of 1994 identifies consumer protection as a provincial responsibility. According to Bentley West (2001:221), 'this led to responsibility for the inspection function associated with trade metrology being transferred, in theory, to the Provinces'. Although due process was followed in effecting the transfer of responsibility under the Act to the Provinces, the reality is that they 'have inadequate resources and skills to provide inspection services and, in practice, SABS maintains an inspectorate capability and performs this function on behalf of some of the Provinces' (Bentley West, 2001:221). Such a discovery led the authors (Bentley West, 2001:75) to highlight the need 'to agree on a set of principles to be adopted across government and to coordinate the approach to implementation'.

A SABS specific Peer Review exercise, which was also funded by them, was undertaken during 1997/98. The review had already identified the under–funding of trade metrology functions by government, particularly in regard to inspection services. That review recommended that the problem be addressed by the departments of trade and industry and science and technology. There is no evidence that these recommendations were ever

acted on. The same Peer Review also recognised that the under–funding together with the identified capacity and capability constraints could be partly ameliorated by the judicious use of competent private sector providers to deliver services such as calibration and verification. The review did point out (Bentley West, 2001:229) that government must be ready to offer financial assistance in cases of market failure (e.g. servicing rural areas) to ensure a equitable delivery of trade measurement control to the whole country. The government managed SQAM study that followed later (Bentley West, 2001:221) reported some progress in that 'the delivery of most verification services is provided by accredited private sector laboratories. SABS provides verification services in some areas that are not viable for private sector delivery e.g. remote rural areas'. The same study also noted (Bentley West, 2001:221) that 'accreditation of verification laboratories has been undertaken by SABS in the past but is being passed to the national accreditation agency, SANAS'.

In spite of minor improvements, the comprehensive SQAM wide review performed by Bentley West (2001:233) identified that the 'lack of effectiveness of the overall trade metrology system in South Africa is a significant concern, with many industry sectors indicating that the inspection function devolved to provincial level is near collapse. In fact in three provinces there are no inspectors at all'. The same research (Bentley West, 2001:233) pointed out that '[t]here is general agreement that the overall trade metrology function is under–funded and in dire need of re–building the capacity lost over the past years'. Carstens (2008) notes that the move to the SABS in 1991 resulted in a staff reduction from 170 to 45 staff with the resultant loss of 'hundreds of years of experience'. The outsourcing of verification also did not achieve the intended benefits. The lack of inspectors on the ground allowed organisations to use non-compliant instruments. The private laboratories that had been tasked to do the work under the new arrangements were only interested in financially lucrative work leaving the understaffed regulator to cope with the 'non–profitable activities' (Carstens, 2008). A further unintended consequence with the down scaling and outsourcing was that the trade metrology function lost its previous visibility. In spite of the difficulties

experienced, Carstens (2008) is optimistic that the creation of the separate National Regulatory Body for Compulsory Specifications, and the transfer of the trade metrology function to it, is a major step in the right direction. Carstens (2008) believes that the transfer of responsibilities and enhanced funding will also assist their strategy to move into legal metrology.

In spite of the difficulties that have already been highlighted, it should be noted that South Africa is a full member of the global treaty organisation for trade metrology, namely the OIML. The high standing of South Africa in that organisation is reflected in the fact that Carstens, the current Director of Trade Metrology, is also one of the Vice Presidents of the OIML. South Africa, through the local trade metrology organisation, are also members of 30 OIML Technical Committees and Subcommittees (SABS Legal Metrology, 2007:1).

4.2.7 South African accreditation

4.2.7.1 Background to accreditation

The activity of laboratory accreditation has a relatively long history in South Africa. McDowell (1997:15) reports that '[w]ork on the development of a local accreditation service started in 1976 and the South African National Calibration Service (NCS) was inaugurated in 1980 with 13 calibration laboratories'. The CSIR Act of 1988 (South Africa, 1988:5) required the CSIR to 'approve…facilities for the testing and calibration of precision instruments'. The same act (South Africa, 1988:5) also required the CSIR to 'monitor such facilities for the purpose of ensuring the accuracy and reliability of their work'. The NCS was the natural vehicle for such work. Another important reason for the creation of the NCS was the increasing global popularity of the quality management system concept using harmonised standards such as the British Standard (BS) 5750 document. The South African Bureau of Standards, as the local counterpart of the British Standards Institute (BSI), was also actively involved in both encouraging and servicing this new demand for such standards by creating SABS 0157. McDowell (1997:36) reports that in line with its responsibility for national quality, the 'SABS introduced its 0157

[quality management related] scheme during 1979, following the example of the UK with its BSI 5750 [equivalent]'. It is interesting to note that the international equivalent ISO 9000 series of standards only appeared in 1987. The implementation of a compliant quality management system in terms of these documents (McDowell, 1997:36) created the need to access traceable measurement capability. Up to that point such measurements had only been available through the NML.

The accreditation of laboratories for testing in conformity assessment was, until 1996, an SABS responsibility in terms of the Standards Act (South Africa, 1993:6). The attainment of international recognition of the work of the NCS in accrediting calibration laboratories by the Western European Calibration Cooperation (WECC) in 1993 was ground-breaking. South Africa was the first country outside of Europe to obtain such WECC recognition which confirmed that local laboratories were operating as technical equivalents to their European counterparts (McDowell, 2000:48). It was during this period of interaction with the international bodies that, according to McDowell (1997:147), it became evident 'that local control of Accreditation and Certification bodies by the CSIR and SABS (who themselves possessed calibration, ISO accreditation and testing facilities) was not acceptable'. McDowell (1997:44) maintains that '[b]oth SABS and CSIR had over the years vied for the right to control accreditation, but the market need for transparency had destroyed the privilege of any organisation being able to accredit its own laboratories'. Such an outcome occured in spite of both organisations being empowered by their, conflicting, Acts to do so.

Increasing pressure created by globalisation, together with increased focus on credible conformity assessment by bodies such as the WTO, finally prompted the South African Government to re–intervene. Any previous work towards the creation of an independent laboratory accreditation body in South Africa had, according to McDowell (1997:148), been 'kept in limbo through the politicking of the main players, CSIR and SABS'. The conflicting requirements of their two acts regarding their separate roles in "approving" other laboratories did not assist in finding a solution. The creation of an

autonomous NCS in 1994 under Section 21 of the Companies Act of 1973 driven in large part by industry provided the dti with a real opportunity to overcome the stalemate. The dti then moved rapidly to put the NCS in the leadership role for this body (McDowell, 2000:77). The creation of an holistic accreditation infrastructure for South Africa is covered in the next section.

4.2.7.2 Creation and role of SANAS

In late 1994 the dti contracted the National Laboratory Accreditation Service (NLA), the successor to the NCS, to expand its internationally recognised activity focused on laboratories to incorporate all aspects of accreditation, including the certification bodies and test laboratory accreditation. In terms of a cabinet decision passed in 1994, the NLA was tasked to create the South African National Accreditation System (SANAS) also as a section 21, not for profit, organisation. In 1996 (McDowell, 2000:79; Bentley West, 2001:191), SANAS incorporated the accreditation of testing laboratories previously done by the SABS. International recognition followed for this activity in 1997 (McDowell, 2000:82). The initial recognition from Europe, and the experience gained, allowed SANAS to become one of 35 inaugural signatories to the global multilateral Mutual Recognition Arrangement (MRA) of the International Laboratory Accreditation Cooperation (ILAC) on 2 November 2000. According to the SQAM review (Bentley West, 2001:194), 'this should enhance the acceptance internationally of SANAS accredited laboratories and should thus support market access for products and services accompanied by accredited test data'.

Today SANAS is the ninth largest, internationally recognised, accreditation body in the world. Davies (2006b:4) argues that '[t]he credibility of SANAS as an accreditation body is of immense value to our economy'. SANAS has grown exponentially from an initial 135 accredited laboratories inherited from the NCS/NLA in 1995 to just less than 1 200 accredited organisations in 2009. That this growth has taken just over ten years provides an indication of the local demand for such a service given the post 1994 ANC led government's strategy to compete in the global marketplace.

The creation of a single national accreditation body, SANAS has allowed South Africa to independently confirm the competence of its technical infrastructure. SANAS has made substantial progress in a relatively short time, in achieving additional international recognition for the activities of its accredited certification and inspection bodies to supplement that already obtained for laboratories. A large part of domestic accreditation activity was initially focused on the voluntary area of conformity assessment. The local accreditation infrastructure was built and maintained through the efforts of members representing industry, commerce and academia building on the strong sense of camaraderie originally created by the laboratory community.

Although substantial progress was made while SANAS operated as a section 21 company, the SQAM–wide review identified the need to create legislation to support local accreditation and change the status of SANAS to that of a public entity. As previously stated, SANAS had since its inception, operated as a section 21 company. The Accreditation for Conformity Assessment, Calibration and Good Laboratory Practice Act (South Africa, 2006a:8) changed the corporate form of SANAS from a not for profit company to a public entity. Given that a global trend in public administration is to identify and move areas of activity out of the public sector, it is worthwhile to investigate why in this situation, the reverse occurred.

One way that regulators are increasingly using to mitigate against risk in the area of technical standards, is to rely on independent but credible bodies that confirm a particular organisations ability to supply conforming product or, in the case of agriculture and agro processing, produce. These organisations are called Accreditation bodies. Each member country of the EU has one and, without exception, they are all public entities. The United States has limited accreditation activity in the public domain and has relied mainly on the market to supply accreditation services. This has unfortunately created a plethora of bodies that in many cases do not enjoy the same measure of confidence in their ability to perform to the required level of competence. Pattberg (2006:245) erroneously alludes to this activity as a ‘fourth category of certification wherein public actors monitor compliance with standards’ and

also states that 'this possibility has so far been limited to the traditional form of global business regulation through intergovernmental organizations'. This view is challenged by the South African department of trade and industry who, as previously explained, managed the process of creating a specific act to underpin the local accreditation of conformity assessment activity.

In his opening address to the debate on the act in the South African parliament, one of the deputy ministers of Trade and Industry (Davies, 2006b) highlighted a significant issue. The deputy minister (Davies, 2006b:3) noted that one of the purposes of the new Act was to recognise 'SANAS as the only accreditation body in South Africa for conformity assessment and calibration'. The deputy minister (Davies, 2006b:5) also declared that the change to a public entity was, amongst other things, to facilitate the use of accreditation by government departments, especially in support of the use of conformity assessment in regulation and have the SANAS Board appointed by the Minister of Trade and Industry. The use of accreditation by South African regulators will now be addressed.

4.2.7.3 Accreditation and regulation

Accreditation is increasingly being used by South African regulators, as part of managing local regulatory risk, to ensure both the competence and consistency of outcome of service providers used in the local regulatory domain. Technical regulations are of little use if the associated conformity assessment capacity and capability are insufficient. Increasing global demands call for an independent and impartial accreditation service to be provided in support of local regulatory activity. Government departments in South Africa such as the Department of Labour were therefore investigating the creation of similar structures to support their work that would have effectively duplicated the work of SANAS. Such duplication did in fact occur, in part, with the creation of the South African Qualifications Authority (SAQA). SAQA is tasked by an enabling act to accredit educational intuitions. This occurred in spite of the fact that all ministries had signed the original cabinet memorandum in 1994 that led to the creation of SANAS. This is perhaps due

to misunderstandings of its possible role at such an early stage of the new democracy. As already mentioned, the new act specifically addresses the fact that SANAS is the only national body responsible for its scope of activity (South Africa, 2006c:2). The existence of the act immediately moves the dialogue between SANAS and other government departments to a much higher level. The thrust of such discussions now focuses on how to increase appropriate cooperation on mutually agreed outcomes rather than the incessant arguments as is why SANAS should be used by them at all. Such debates were a potential stumbling block in many previous pre Act discussions between SANAS and local regulatory authorities.

According to the SQAM study (Bentley West, 2001:209), there are possible scenarios within South Africa where the establishment of accreditation services for specific market segments is deemed to be a national interest activity. Factors such as market size might mean that such activity would never become fully self-sufficient. In such cases there could be merit in the government funding the establishment and maintenance of such services. The report (Bentley West, 2001:209) noted that 'SANAS does not have an appropriate long term market development in place. It is therefore difficult for SANAS or the DTI to know to what extent existing or anticipated services could become self–sufficient'. Such a view immediately exposes the private sector background and insights of the consultants who were tasked with the review. A team of local management consultants were joined by a group of Australian SQAM technical experts to initially tender for the work. The same consortia were eventually successful in their bid to conduct the SQAM review. The comprehensive review was funded by Japanese donors but managed by the dti. The report that was ultimately generated gave some valuable guidance and many of the recommendations were ultimately implemented. Public administration insight was, however, notably absent from this and the previous local attempts to address this important technical area.

Accreditation is rapidly becoming the solution of choice in technical service provision to solve that part of a wider issue raised by Bloomfield (2006:409) who suggests that '[o]ne mechanism for achieving the benefits of long–term

contracts, as well as the discipline of competition, might be to empower an "accountability" agency to compare the performance of private companies across communities'. The proper use and focus of the activities of SANAS will therefore be very important. Key outcomes are translated in the new act (South Africa, 2006c:8) into a comprehensive set of functions and objects for SANAS in its new guise. These requirements replace the constitution created when SANAS was a section 21 company. The content of Chapter Two of the Act (South Africa, 2006c:8) provides a definite set of criteria against which the performance of SANAS can be measured. This aspect is important if one considers that Ngema (2004:66) believes that '[o]ne of the big problems in the public service today, for instance, is that there tends to be no clear standards of the quality of service that is required'. Ngema's other concern, that there is 'no consequence to the failure to achieve that standard' (Ngema, 2004:66), leads to the topic of governance and initially the appointment of a Board. Both aspects are covered later.

SANAS is one of only two fully operational and internationally recognised national accreditation bodies in Africa. The other African based accreditation body, albeit with a much smaller scope of activity, is situated in Egypt. As the only such body in the SADC region, SANAS needs to continue to provide essential sub regional support in accreditation. Such scarcity of internationally recognised accreditation capacity within Africa leads to many requests to SANAS not only from SADC but also from the rest of Africa for assistance. Without a longer term Afro centric solution, increased demand could easily swamp the local resource that is available. In this context SANAS on behalf of South Africa continues to play a pivotal role in the creation of a SADC regional accreditation infrastructure. Staff from SANAS has held the SADC accreditation regional coordinator position since its inception. This position includes the responsibility for the secretariat of SADCA, as defined in the SADC SQAM MoU (SANAS, 2007:1)

4.2.8 South African conformity assessment

The public and private provision of laboratory capability and capacity for calibration and testing in South Africa has been complex and is now a largely uncoordinated activity. Emphasis by the pre 1994 regime on military capability and manufacturing self–sufficiency led to the creation of sophisticated measurement capabilities that were on par with the best in the world. The necessity for such an activity was greatly influenced, according to McDowell (1997:35), 'by the expansion of the local armaments industry and the critical need for a proper quality assurance system and also by the decision to build the Koeberg atomic power plant'. These and other similar needs, backed by appropriate funding, enabled a multiplicity of public sector establishments to create sophisticated calibration and testing capacity. The majority of these facilities, owing to the nature of the work being supported, were in physical metrology and chemical testing and many were independently accredited. Post 1994 there was a dramatic downturn in demand for such services leading to the closure of the laboratories. According to the Manager of the National Laboratory Association (Sydney, 2007:2), 'Highly competent metrologists, with vast experience in high accuracy measurement gained through years of experience were retrenched'. The same source (Sydney, 2007:2) notes that due to their limited ability to do other work, some of them 'tried to make a go of it in the private sector'. Owing to the substantial investments required, they no longer had access to the highly sophisticated instrumentation that they had previously mastered. A distinct lack of business acumen further exacerbated an already difficult situation. Accruing from the number of competing facilities that were suddenly available to the local market post 1994, an inevitable price war ensured. Although prices were held artificially low, to ensure short term survival for these small independent laboratories, such a strategy was not sustainable. The result was that measurements were increasingly made in accordance with the available budget rather than required technical best practice. According to Sydney (2007:3), '[i]ndustry, being largely unaware of their technical requirements, accepted this level of calibration because it was low cost'.

A further complication in the local metrology environment concerns the role of the CSIR, particularly the National Metrology Laboratory. The CSIR Act of 1984 (South Africa, 1988:5) required them to 'establish and control facilities for the testing and calibration of precision instruments, gauges and apparatus and for the determination of their degree of accuracy'. The creation of a wider group of accredited calibration laboratories allowed the CSIR's limited pool of metrologists, in theory at least, to concentrate on non–repetitive, higher accuracy calibration tasks (McDowell, 1997:38). According to McDowell (1997:38), 'a conflict situation was occasionally perceived with private–industry laboratories, who sometimes viewed CSIR as a government–subsidised competitor for calibration income'. Such a situation was not helped by a commercial drive within the CSIR during the same period that was previously mentioned. CSIR metrology experts were extensively used to independently assess the competence of the accredited laboratories. Such exposure did not always motivate them into sending work to these accredited laboratories when contacted by industry seeking measurement support, a fact that was even more evident when faced with the prospect of securing fee generating work from industry for CSIR laboratories. Such conflicts have since largely been resolved but leave unfortunate after-effects that take a long time to work out of the system.

Another important factor was an important amendment in 1998 to the act specifically covering the activities of the National Metrology Laboratory created in 1973. The original act stated that the CSIR may issue certificates related to their measurement work. The amendment (South Africa, 1998) significantly improved the legal status of these certificates. The amendment (South Africa, 1998:4) decreed that in 'any criminal proceedings' a certificate issued by the NML 'shall, upon its production, be evidence of the facts contained therein'. Given the increasingly negative perceptions of local industry of the small privately owned calibration laboratories and the new legal status of the certificates issued by the CSIR NML, the environment for conflict was complete.

With an inevitable increase in technical requirements and the availability of foreign measurement data, the gradual emaciation of local measurement capacity is only now becoming evident. Substantial investments would be required by these privately owned laboratories to correct the situation, leading inevitably to higher prices for their services. Local industry, being comfortable with the current prices, appears to be reluctant to agree to the large fee increases required to redress the situation on their own. The resultant stalemate is still largely unresolved.

As previously mentioned, Trade Metrology was transferred from the Department of Trade and Industry to the SABS in 1991 (Bentley West, 2001:220; Carstens, 2002:41; Carstens, 2008). There are several important public administration issues that need highlighting. In order to obtain financial efficiency several important and far reaching decisions were made as part of the transfer of responsibility. The services being performed at that time were prioritised and dramatically rationalised. It was assumed that the private sector could play a larger role under the supervision of reduced trade metrology section at the bureau. Subsequent experience has shown that the outsourcing of verification to the private sector has not delivered the intended benefits. A lack of inspectors on the ground created the scenario where an organisation could use non compliant instruments with little prospect of legal consequences. The private laboratories that had now been tasked to do the work under the new arrangements were only interested in financially lucrative work leaving the understaffed regulator to cope with the 'non–profitable activities' (Carstens, 2008). A further unintended consequence with the downscaling and outsourcing was that the trade metrology function lost its previous public visibility. The comprehensive SQAM–wide review performed by Bentley West (2001:233), nearly ten years later, identified that the 'lack of effectiveness of the overall trade metrology system in South Africa is a significant concern, with many industry sectors indicating that the inspection function devolved to provincial level is near collapse. In fact in three provinces there are no inspectors at all'. The same research (Bentley West, 2001:233) pointed out that '[t]here is general agreement that the overall trade metrology function is under–funded and in dire need of re–building the capacity lost over

the past years'.

Domestic inspection and certification activity was, initially, largely driven by the SABS owing to their active involvement in the standards work that predicated the need for such capacity. Their sense of responsibility in large part is due to a certain interpretation of the word "standardisation". The internationally harmonised, and rather innocuous, definition of standardisation is the 'activity of establishing with regard to actual or potential problems, provisions for common and repeated use, aimed at the achievement of the optimum degree of order in a given context' found in Guide 2 published by ISO (ISO/IEC, 1996:2). The intended or unintended licence to provide conformity assessment can be found in note 1 of the Guide 2 definition. The note (ISO/IEC, 1996:2) further explains that, specifically, standardisation as an activity 'consists of the processes of formulating, issuing and *implementing*' [emphasis in italics added] a specific standard. It can be, and is, logically argued that there is no proof that a standard has been implemented until appropriate testing, inspection and or certification has taken place. Given such an important responsibility from an internationally renowned source, it is little wonder that the previous Standards Act (South Africa, 1993:6) notes that among the objects of the SABS is to 'examine, test or analyse articles, materials and substances' and also to 'assess quality systems and to administer the certification by such systems thus assessed'.

Other important foundational work in this area was undertaken by government inspectors working for local regulatory agencies. Some of this work has now begun to slowly move across the accredited laboratories in the private sector as previously explained. Self-preservation tactics of specialist individuals can easily derail such projects unless sensibly handled and will potentially remain a short to medium term impediment to full utilisation of such resources.

4.2.9 South African governance and coordination mechanisms

Government recognition of the domestic SQAM institutions is now defined in the various new acts pertaining to the individual SQAM institutions. For

metrology, these are Act 18 of 2006, the Measurement Units and Measurement Standards Act (South Africa, 2006b). The new act replaces the previous National Measuring Standards Act (Act 76 of 1973). The Accreditation for Conformity Assessment, Calibration and Good Laboratory Practice Act (Act 19 of 2006) creates a new relationship with government that was previously covered by a Memorandum of Agreement (MoA) with the Department of Trade and Industry. The new Standards Act (South Africa, 2008a) replaces the Standards Act, Act 29 of 1993. The new National Regulator for Compulsory Specifications Act (South Africa, 2008b) is a completely new piece of legislation as these activities were previously managed within the SABS.

In terms of the various acts, each organisation in the South African SQAM infrastructure now has its own Board of Directors (South Africa, 2006b:14; South Africa, 2006c:12; South Africa, 2008a:6; South Africa, 2008b:5). The acts contain very specific requirements for the various boards, for instance about the process and conditions of appointment, the number, the composition and the operating procedures. Among their duties and responsibilities, the boards are the accounting authority for their specific entities in terms of the Public Finance Management Act (PFMA) which specifies particular responsibilities in respect to financial governance. The boards are appointed via a public process that invites potential candidates to offer their services. The final selection process is managed by the Department of Trade and Industry where the minister appoints those that have been successful. In terms of the Public Management Finance Act (PFMA) (South Africa, 1999:31), each public organisation must formulate and submit a rolling three–year strategic plan and associated annual budget to the national treasury. Each organisation uses information provided by government as well as internal strategic planning exercises to formulate their peculiar requirements. These plans and associated budgets are submitted, via the individual boards for approval, to the Department of Trade and Industry. Collated budgets are then submitted via the department to the treasury and ultimately to parliament.

The SQAM review (Bentley West, 2001:59) noted that '[t]here is no formal mechanism or process in place whereby this is consolidated in a 'whole of SQAM' strategy and policy'. The same report did however note that the appropriate section within the dti does 'play a meaningful role, on an informal basis, to coordinate such strategies by acting as a gatherer and disseminator of information' (Bentley West, 2001:59). The dti officials involved currently have separate quarterly meetings with the individual organisations to ensure that the agreed activities within the approved budget are on track. The overwhelming focus of interactions today is on ensuring that appropriate financial governance is exercised rather than coordinating the entire SQAM activity to achieve specified holistic strategic goals. A chief director currently attends meetings of the SANAS Board as an observer and in a personal capacity. SANAS as a section 21 company also appointed a SADC sub-regional representative onto its board. Whether dti and SADC representation will now continue and in what capacity is unclear. The nature and future of some of the services offered by the Standards Bodies, referred to earlier, is also an important point that needs further consideration.

The SQAM review (Bentley West, 2001:93) noted two concerns with regard to funding and holistic management of the SQAM institutions. The funding issues identified were connected to 'security of funding' and 'the accountability of spending'. The new acts have largely addressed these concerns. It must be remembered that the funding levels were set at a point in time based on individual organisational perceptions of their responsibilities. Any increases in such funding will now be linked to inflation indices unless substantial justification can be made for a different criterion. The other concern raised (Bentley West, 2001:93) was the lack of 'an adequate management process'.

The SQAM review report (Bentley West, 2001:51) encouraged a careful investigation of 'what is funded in the national interest, as well as mechanisms which ensure proper allocation of funds to priority areas'. A very specific concern raised was that the 'funding mix of the institutions (government and commercial) needs to be carefully defined' (Bentley West, 2001:51). In

summary, these concerns were encapsulated in a recommendation (Bentley West, 2001:93) that a 'more sophisticated system, aimed at ensuring that appropriate levels of funding are determined, secured and managed, is required'. The Public Finance Management Act (PFMA) sets a legal requirement that periodic reports be generated by organisations using public funds focused on the use of funds allocated through the national treasury. Such reports are thus available but are reactive in nature and therefore can only be used to see what was done by the individual organisations. The creation of four independent public bodies to cover the foundational areas of SQAM gives rise to many possibilities for intergovernmental activity. Such coordination activity could embrace both the areas covered by their founding acts as well as their support of relevant higher level government strategies.

The recently promulgated Metrology and Accreditation Acts as well as the two bills covering Standards and Compulsory Specifications require that the respective boards must establish an advisory or consultative forum (South Africa, 2006b:16; South Africa, 2006c:14; South Africa, 2008a:7, South Africa, 2008b:7). The forums need to be established so that they represent a balance of interests of organisations concerned with the matters contemplated in the various acts. This is an important requirement in terms of governance. It is interesting to note that each act requires the respective board to establish a constitution and, if necessary, rules for their advisory forums. Such direction coincides with De Bruijn and Dicke (2006:722), who assert that '[o]ne solution dominates in the instrumental reflections on how these [public] values can be protected: a strong government translates the values into clearly delineated standards and formulates clear rules for the protection of these standards'.

The appointment of the various boards by the minister, coupled with the requirement that they in turn create a consultative mechanism, covers two important governance and accountability issues for public bodies. The first is ensuring that the government takes appropriate ownership and provides sufficient strategic direction. The reciprocal responsibility from the boards is to ensure that the entities are properly accountable to government for the effective and efficient discharge of appropriate and pre–agreed activities. The

second is to ensure that the needs of a wider group of stakeholders are taken seriously in all relevant issues including the maintenance of effective communication channels. In discharging their many and varied responsibilities, the boards and their associated advisory/consultative forums will need to consider, on the one hand, Jackson's (2001:7) finding that '[b]ecause of the extensive scope of market failures the government could potentially intervene in almost every sphere of life'. The possibility of too much intervention, on the other hand, must be carefully balanced with the concern of Lamothe and Lamothe (2006:775), who are concerned that 'Governments cannot efficiently and effectively assess whether, and to what extent, vendors hide their true performance, thus maximizing the potential for opportunistic behavior'. Accreditation of service providers can go a long way to alleviate this potential problem.

In order to facilitate better communication within the dti group, the minister has created a Council of Trade and Industry Institutions (COTII). COTII comprises the minister and his two deputy ministers, the director general (DG) and his senior management staff and the board chairpersons and CEOs of all of the dti agencies including the four SQAM–related institutions. COTII, chaired by the minister, meets on a periodic basis to discuss high level strategy and associated issues. Altenburg and von Drachenfels (2006:406) note that in 'several fields of private–sector development, governments have an important role to play in defining targets and subsidizing programmes for their achievement, regardless of who finally delivers the respective services'. The interactions within COTII allow such issues to be raised and discussed but only at the highest strategic level given the diversity of the membership.

The SQAM review (Bentley West, 2001:60) did suggest that '[c]ross–representation on the governing bodies of official SQAM institutions be increased. Such representation should be formal, and in a decision making capacity'. The creation of the new Boards does not consider such a cross representation. The CEO of the accreditation body SANAS sat on the interim board of the metrology body NMISA. The CEOs of both SANAS and NMISA sat on the interim Board of the regulatory body NTRS. These positions were

part of assisting each organisation to learn from one another in the creation of the various policies and procedures. There is no intention that such cross representation will continue once the boards are formally appointed due to concerns about governance. The issue of holistic cooperation between the four new SQAM entities is therefore still left largely unsolved.

In order to promote closer inter organisational alignment in SQAM, it was originally intended that attendance at COTII meetings would be supplemented by regular meetings of the SQAM CEOs with the DG. Such a need requires further explanation. There is increasing recognition internationally, driven mainly by the EU, that the activities of Standards, Accreditation and Conformity Assessment have no grounds for creating confidence unless based on a solid basis of measurement where this is appropriate. Such a need is recognised internationally. Regional organisations for Standards, Accreditation and Metrology are increasingly being seen as providing the necessary links between the emerging regional trade blocs and the appropriate international body for a specific technical activity. Such a development has a major impact on emerging regions such as SADC. The regional activities of standards creation in Europe, CEN/CENELEC and the Asia Pacific region, PASC, have been mirrored in a SADC committee, SADCSTAN. Similar regional bodies exist for Accreditation, SADCA, Metrology, SADCMET, and Legal Metrology, SADCMEL. The SADC sub-region is considered in more depth in the next section.

Regular meeting between the Director General and the CEOs of the domestic bodies responsible for SQAM would have allowed strategic discussion of cross cutting national, SADC, NEPAD and international SQAM issues. Unfortunately, after a few meetings chaired by lower level dti staff and attended by even lower level SQAM institutional staff such a forum quickly fell into disuse. The minister appoints the board members of the four SQAM institutions and as previously mentioned, the dti have chosen not to include cross representation by CEOs in appointing the SQAM boards for governance reasons. Such a scenario has unintentionally created a silo effect to which there appears to be no apparent solution. Although the budgets of all four

SQAM organisations are coordinated by the same section within the dti, the strategic and financial oversight is a function allocated to the individual boards which further exacerbates the silo effect. There is no intention presently, as far as can be determined, to request the boards to periodically meet with the minister so that the strategic direction of the various institutions can be harmonised and synchronised. The mix of old and new public institutions in the SQAM environment has also led to very different interpretations of what their local, regional and international role should be.

In order to facilitate appropriate SQAM-wide input from stakeholders, the review (Bentley West, 2001:40) recommended that a 'stakeholder based SQAM Advisory Forum be established to advise Government on national SQAM policy and strategies relevant to SQAM activities, and to review submissions and prioritise funding support for development programs'. As previously discussed, each of the four new acts now requires each organisation to form their own separate advisory forum. The intention of such a forum is to obtain appropriate representation from all stakeholders involved in the specific activities of the organisation concerned. Given the limited amount of volunteer time and effort available, time will tell if such individual forums will be sustainable and serve the intended purpose. The use of the limited funds that were previously made available to the individual SQAM institutions was also highlighted in the SQAM report. The review stated (Bentley West, 2001:93) that the 'general soundness of the existing SQAM infrastructure is testimony that these funds have been utilised to the advantage of the country'. On what basis this judgement was proffered is unfortunately not clarified. Given the specialist technical nature of the expertise used, it is doubtful that such a conclusion was based on anything but a narrow, and technically focused, perspective.

PART II

4.3 SOUTHERN AFRICAN DEVELOPMENT COMMUNITY (SADC)

4.3.1 History

The beginnings of regional integration in Southern Africa can be traced to efforts started in 1975 by the so-called 'Frontline States' to 'promote regional co–operation and integration' (SADC, 2003a:1). The original members Angola, Botswana, Mozambique, Tanzania and Zambia were initially concerned with the coordination of efforts in the fight against 'colonialism, racism and white minority–rule' (SADC, 2003a:1). Qobo (2005:49) is more specific and notes that the establishment of the Southern African Development Coordination Conference (SADCC) was a direct result of 'the socio–political situation in South Africa' and its 'increasingly hegemonic encroachment in regional affairs'.

By 1979 the original states had been joined by Lesotho, Malawi, Swaziland, and Zimbabwe. These states met in conference in Arusha, Tanzania, in July of that year and agreed on a strategy to create the SADCC which was launched the following year in April 1980 in Lusaka, Zambia (Thornhill, et al., 2002:1, SADC, 2003a:1, SADC, 2004b:2). According to Thornhill, et al. (2002:1), '[t]he basic aim of SADCC was to reduce its members' economic dependence on South Africa'. 'From the outset' SADCC, according to Qobo (2005:49), was preoccupied 'with national interests and economic autonomy'. 'This logic', Qobo (2005:49) asserts, 'is still pervasive even though SADCC evolved into SADC in 1992'. Such a view is challenged in part by Thornhill. According to Thornhill, et al. (2002:2), 'SADC recognizes the sovereignty of member states, but also acknowledges the need to promote co–operation amongst member states in order to address the challenges of the dynamic and increasingly complex regional and global environment'. Such inherent complexities are also mentioned by Marsh, Smith and Hothi (2006). The exposure to external economic pressures varies from country to country in both form and extent (Marsh, et. al., 2006:179). What really matters in

country research in the area, according to Marsh, et. al. (2006:179), is 'its [specific] position rather than the overall global picture'. Such an evaluation of the 'domestic economic situation' is required owing to the fundamental impact this has on a government 'response to international economic pressures' (Marsh, et. al., 2006:180).

The SADCC was transformed into the SADC (as noted) following a meeting in Windhoek in August 1992 (Thornhill, et al., 2002:2, SADC, 2004b:3, Qobo, 2005:49). Transforming SADCC into SADC was predicated on the need for promotion of 'deeper economic cooperation and integration' (SADC, 2003a:3). African leaders wanted to use the positive experiences in the pursuit of a broader agenda of economic and social development based on an understanding 'that political independence alone would not lead to improved living standards for the people of the region' (SADC, 2004b:2). The SADC secretariat informs us that the 'SADC vision is one of a common future, a future in a regional community that will ensure economic well–being' (SADC, 2003a:4). The same source (SADC, 2003a:4) points out, however, that '[t]his shared vision is anchored on the common values and principles and the historical and cultural affinities that exist between the peoples of Southern Africa'. Thornhill, et al. (2002:2) reports that 'South Africa acceded to the Treaty in 1994'.

The distribution of responsibilities for various activities, including Trade to Tanzania, as part of the launch of SADC unfortunately did not deliver the intended results. Accordingly during 1999, the 'SADC Heads of State and Government directed that the organisations and all its institutions be restructured' (SADC, 2004b:4). 'A report on the Restructuring of SADC Institutions was adopted by an Extra–Ordinary Summit on March 9, 2001 in Windhoek, Namibia' (SADC, 2004b:4). In terms of the restructuring process, the responsibility for trade matters was moved under the Trade, Industry, Investment and Finance (TIFI) Directorate at the SADC Secretariat based in Gaborone. Kaakunga (2004) provides insight into the role of Article 9.1 of the SADC Treaty in the establishment of SADC institutions. Among the SADC institutions highlighted by Kaakunga (2004:2) are the 'Summit of the Heads of

State or Government, the Council of Ministers and the Secretariat'. These are now described in more detail.

4.3.1.1 SADC Summit of Heads of State or Government

The SADC Summit of Heads of State or Government is, as its name suggests, made up of the heads of state or government of the member states. This Summit is the ultimate policy–making institution. It has the responsibility for the overall policy direction and control of functions of SADC and usually meets once a year at which a new chairperson and deputy are elected (Thornhill, et al., 2002:3, SADC, 2004b:5). Thornhill, et al. (2002:7) express concerns about the 'shortage of skilled, trained professional personnel, managers, policy analysts and entrepreneurs to advise ministers and the Summit on policy issues'. Although South Africa might have some capacity in this regard, their input might unfortunately still be viewed with suspicion.

4.3.1.2 SADC Council of Ministers

The Council consists of ministers from each member state, usually from the Ministries of Foreign Affairs and Economic Planning or Finance. This Council is responsible for overseeing the functioning and development of SADC and ensuring that policies are properly implemented. The Council of Ministers meet four times a year (Thornhill, et al., 2002:4, SADC, 2004b:6).

4.3.1.3 SADC Secretariat

The Secretariat is the principal executive institution of SADC. It is headed by an Executive Secretary, appointed by the Summit and has its headquarters in Gaborone, Botswana, as just mentioned. The Secretariat is responsible for strategic planning, as well as the coordination and management of SADC programmes including interactions with cooperating partners (Thornhill, et al., 2002:5 SADC, 2004b:8). According to Thornhill, et al. (2002:6), '[t]he SADC budget for operational costs of running the Secretariat and the various commissions are funded from contributions by member states'. He (Thornhill,

et al., 2002:6) points out that 'membership contributions are, however, not equitable and the system does not take into account the capacity and circumstances of member states to contribute'.

Another important constraint is mentioned by the SADC secretariat. The secretariat (SADC, 2004b:4) laments its '[l]imited capacity to mobilize significant levels of the region's own resources for the implementation of its Programme'. The same source as well as others (Thornhill, et al., 2002:6, SADC, 2004b:4) also expresses concerns about the 'high level of reliance (± 80%) on donor funding for projects and programmes'. Such high reliance on such funding does not bode well for sustainability. Even if funding were freely available in the longer term, another issue raised by Thornhill, et al. is more problematic. Thornhill, et al. (2002:3) argue that there is a perception that 'the SADC common agenda has not been articulated unambiguously and can, therefore not be operationalised effectively'. Such a task should clearly be a priority for the secretariat.

4.3.2 Trade and SADC

4.3.2.1 Economic size of SADC

According to a SADC report (SADC, 2003a:22), the regional grouping attracted 'an average of US$ 691 million' Foreign Direct Investment (FDI) in the early 1990s. The impact of the accession of South Africa in 1994 is evident in the same report. In the period 1995–98, the amount of FDI 'quadrupled to US$3 061 million'. The dominant role of South Africa is shown by the fact that 'of this investment, South Africa accounted for two–thirds' (SADC, 2003a:22). A report by Hess (2005:1) finds that in 2003 the cumulative GDP of SADC was US$ 235 billion. A major part of this amount '(around 70 per cent)' was paid by South Africa (Hess, 2005:1). A SADC report written in 2003 (SADC, 2003a:7) noted that the relative size of the SADC market is 'only comparable to Belgium or Norway'. The same report (SADC, 2003a:7) however contextualises the SADC market as 'double that of ECOWAS' and also 'equivalent to more than half the aggregate GDP of Sub Saharan Africa (SSA)'. More recent research by the South African Institute of

International Affairs (SAIIA) (2008:2) notes that South Africa's economy is '40 times larger than that of the average sub–Saharan economy'. Further insights from the same report (SAIIA, 2008:2) confirm that the GDP of South Africa 'accounts for almost two–thirds of the GDP of SADC and 60% of all intra–SADC trade'. The report (SAIIA, 2008:2) also informs us that South Africa's trade 'with the rest of the continent has grown by roughly 659% since 1994'. Such rapid growth reflects the normalisation of the internal political situation within South Africa as well as the new democratic government's strategy focused on export led growth.

There is a downside to South Africa's growing economic dominance in Africa. Draper and Khumalo (2005:17) assert that South Africa's expanding economic muscle and influence in the region are met with increasing resentment in some quarters in Africa. They (Draper and Khumalo, 2005:17) point out that such a negative environment 'limits the potential for co–operative efforts to solve the continent's problems'. A major casualty, according to the same authors (Draper & Khumalo, 2005:17), is 'regional integration in southern Africa'. A further challenge to regional integration in Southern Africa arises from the negotiations with the European Union (EU). The European Commission (SADC SQAMEG, 2006b:1) has identified the need to assist 'SADC to establish a Free Trade Area and Customs Union and to integrate regional markets' as a priority. The need for assistance in terms of the Economic Partnership Agreement (EPA) between the EU and SADC is also identified (SADC SQAMEG, 2006b:1). An EC SQAM project (SADC SQAMEG, 2006b:1) 'has been programmed…for a total budget of € 14.2 million'. One important precondition (SADC SQAMEG, 2006b:1) was the need for SADC to appoint and maintain one full–time dedicated SQAM expert from its own staff who will be responsible for supervising the implementation of the SADC SQAM programme'. The report to the SQAM EG meeting in 2006 by the commission (SADC SQAMEG, 2006b:1) noted that the SADC Executive Secretary 'has committed himself at the occasion of the signing of the financing agreement to put a SADC expert post in place'. The subsequent reality was a little different. The various SQAM–related project issues are discussed later in the text.

Commenting on individual SADC member state bilateral Economic Partnership Agreement (EPA) negotiations with the European Union, the dti (2008:7) expresses the concern that the EPA process threatens to undermine the SADC agenda. Keet (2008:1) points out that '[m]any of the SADC countries are willing to sign agreements [with the EU] which will undermine their own economic advancement'. The reason for such behaviour, according to the same source (Keet, 2008:1), is that these same countries 'fear that the millions of dollars that are annually poured into these countries will be withdrawn if they do not sign EPAs'.

A related problem that is preventing whole hearted commitment by some SADC member states to more rapid integration is 'the issue of overlapping membership of SADC countries in a number of other regional bodies and the conflicting obligation arising thereof' (SADC, 2003a:23). The South African Minister of Finance (Manuel, 2008:2), in an address to the national assembly prior to a recent SADC Summit, raised the same issue. Manuel (2008:2) pointed out that several SADC countries were members of other regional groups within Africa, each of which 'had its own way of negotiating with EU members'. There are some positive signs regarding closer cooperation between some of these same regions within Africa which are covered later in this study.

4.3.2.2 Trade protocol: content and implementation

SADC member states signed a Protocol on Trade on the 24 August 1996 (SADCA, 2005:1). It was subsequently ratified during 2000 and implementation began with a launch on 1 September 2000 (SADC, 2004b:10; SADCA, 2005:1). The SADC trade protocol 'provides for the elimination of tariff and non–tariff barriers to trade within a time frame of eight years' (SADC SQAMEG, 2001:1; SADCA, 2005:1). The SADC secretary (SADC, 2004b:10) notes encouragingly that the 'implementation of the trade protocol is on track and the region hopes to attain a free trade area by 2008'. Qobo (2005:59) earlier rejected such a view and noted that although the protocol had been in force since 2000, 'so far progress has remained elusive'. The same author

(Qobo, 2005:59) argues that '[r]egional commitment towards full market integration has been characterised by considerable inertia at best and at worst by political neglect'.

According to a SADC report (SADC, 2004b:10), the trade protocol was created in order 'to position the region to meet the challenges of the dynamic, ever changing and complex globalisation process as well as to take advantage of the opportunities offered by globalisation'. In order to achieve such an aim (SADC, 2003a:22), the SADC Protocol on Trade 'envisages the establishment of a Free Trade Area (FTA) in the region by 2008'. The goal of a SADC FTA is 'to further liberalise intra–regional trade in goods and services' (SADC, 2003a:22). Specific strategies have already been agreed upon in order to reach such a goal. These strategies include a gradual elimination of tariffs and the attainment of internationally acceptable standards, quality, accreditation and metrology (SADC, 2003a:22).

Article 6 of the SADC Protocol on Trade addresses the issue of NTBs. The protocol (SADC, 2004a:7) requires member states to 'adopt policies and implement measures to eliminate all existing forms of NTBs, and refrain from imposing any new NTBs'. Article 17 of the SADC Protocol on Trade (SADC, 2004a:11) concerns Standards and technical Regulations on Trade. Article 17 requires each member state to 'use relevant international standards as a basis for its standards–related measures, except where such standards would be an ineffective or inappropriate means to fulfil its legitimate objectives' (SADC, 2004a:11). In terms of this article, member states 'have a duty to ensure that they make compatible their respective standards–related measures so as to facilitate trade in goods and services within the community'. More specifically, if their standards–related measures conform to an international standard, it is then 'presumed not to create an unnecessary obstacle to trade' (SADC, 2004a:11). Member States are also required 'to the greatest extent practicable, make compatible their respective standards–related measures, so as to facilitate trade in goods and services within the Community' (SADC, 2004a:11).

Research by Pressman and Wildavsky (2004:342) has found that successful 'implementation requires understanding that apparently simple sequences of events depend on complex chains of reciprocal interaction'. Their research (Pressman & Wildavsky, 2004:342) clearly indicates that 'the separation of policy design from implementation is fatal'. From a South African perspective, Friedman (2004:42) refers to 'several weaknesses in policy itself which help explain why intention has often not become reality'. Friedman (2004:42) notes that 'these include excessively ambitious goals…inadequate prioritisation and costing of policy' and, perhaps the most important in the present context, 'a failure to undertake risk analysis which would highlight the potential obstacles to implementation'.

Article 31 of the trade protocol specifically addresses institutional arrangements for implementation. In terms of Article 31 (SADC, 2004a:17), the various mechanisms involved in the execution of protocol are named as the Committee of Ministers (CMT), the Committee of Senior Officials responsible for trade matters, the Sector Coordinating Unit and the Trade Negotiation Forum (TNF). The Committee of Ministers (CMT) is allocated some specific responsibilities including the 'supervision of the work of any committee or sub–committee established under this Protocol' (SADC, 2004a:18). The Committee of Senior Officials (SADC, 2004a:18) report to the CMT on implementation issues and are responsible for the supervision of the work of both the Sector Coordinating Unit and the Trade Negotiation Forum (TNF). SADC has also created an Industrial Development Forum (IDF). A recent report from the SADC Secretariat (SADC, 2008c:2) explains the difference between the TNF and the IDF. According to the SADC Secretariat (SADC, 2008c:2), the TNF 'reviews all matters related to trade before they are submitted to Senior Officials and Ministers of Trade for final processing'. The same report (SADC, 2008c:2) notes that the 'IDF is the equivalent of TNF but deals with issues relating to industry'. The report adds the important caveat that '[m]ost SADC countries have Ministries of Trade and Industry and so TNF and IDF report to the same authority' (SADC, 2008c:2).

The Sector Coordinating Unit (SADC, 2004a:19) is responsible for

coordinating daily operations concerning the accomplishment of the objectives of the protocol. They are tasked with the provision of both technical and administrative assistance to the CMT, the Committee of Senior Officials and the TNF and IDF. Also included are any subsidiary committees, sub–committees and panels established to implement the protocol. Other duties include the need to work closely with the private sector and identify research needs and priorities in the trade area (SADC, 2004a:19). The TNF is responsible for the conduct of trade negotiations including issues pertaining to the removal of non–tariff barriers. Another important responsibility of the TNF (SADC, 2004a:18) is to build expert research and monitoring capacity. Such a resource is required to 'monitor the impact of measures already implemented, and offer advice on the potential impact of offers under discussion' (SADC, 2004a:19). In theory, the task of establishing 'a regional framework on the phased reduction and eventual elimination of tariff and NTBs to trade among Member States' (SADC, 2004a:19) is also important. There is no evidence, however, that such an important task has ever been undertaken. This is hardly surprising given the adversarial nature of trade negotiations and the limited resources available to SADC.

A Regional Strategic Indicative Development Plan (RISDP) for SADC has now been created by the SADC Secretariat. The RISDP (SADC, 2003c:55) considers trade and economic liberalisation for deeper integration and poverty eradication as one of its key catalytic intervention areas. The pursuit of this intervention area would ultimately lead to the establishment of the SADC common market. The RISDP (SADC, 2004b:13) is a 'key instrument in translating SADC objectives and Common Agenda into a coherent implementation framework'. The RISDP provides SADC member states, institutions and policy makers with a coherent and comprehensive development agenda on social and economic policies. The RISDP document (SADC, 2004b:13) also recognises 'other Africa-wide initiatives, which impact on SADC such as the New Partnership for Africa's Development (NEPAD)'. The RISDP document is not a prescriptive plan (SADC, 2003c:5), but rather it 'is indicative in nature and outlines the necessary conditions that should be realised towards the attainment of SADC's regional integration and

development goals'. The document encourages managers of programmes to adopt the principle of subsidiarity. This is further explained as a methodology (SADC, 2004a:75) where the use of 'institutions, authorities, and agencies outside SADC structures to initiate and implement regional programmes using their own generated resources should be promoted and encouraged' (SADC, 2003c:75). A related issue (SADC, 2003c:75) 'is the maximum engagement of regional expertise and institutions for programme management and implementation' in order to 'further enhance capacity building and local ownership'.

The adoption of a SADC Memorandum of Understanding (MoU) on SQAM in September 2001 (OECD, 2005:76; SADCA, 2005:1) is another important milestone in meeting the objectives of Article 17 of the Protocol on Trade. Article 4 of the SADC SQAM MoU specifically declares the objectives of the SADC SQAM Programme to be the 'progressive elimination of technical barriers to trade (TBTs) among the member states and between SADC and other Regional and International Trading Blocks and the promotion of quality infrastructure in the member states'.

So how might SADC member governments discharge their responsibility as far as accountability for ensuring that an enabling domestic environment is created and maintained to facilitate export led growth? Pongsiri (2002:490) declares that 'regulation is a key element to maintain competitive market discipline on public service provisions in developing countries'. Research by Prizzia (2001) into various contract methodologies has found that there needs to be a set of remedies that is then adjusted, as appropriate, for a specific set of circumstances. Prizzia (2001:452) argues that 'performance contracts worked the least well. Management contracts worked better, but only in specific circumstances. Regulatory contracts worked well for enterprises in monopoly markets, provided that they were properly designed and implemented'. These remedies presuppose the existence of an appropriate legal framework. Henderson and McGloin (2004:392) emphasise the need 'for the establishment of a legal framework involving a complex mixture of regulatory activity' and continue that 'these legal frameworks function to

reduce opportunistic tendencies'. The same authors (Henderson and McGloin, 2004:392) note that 'without these legal frameworks, disputes are likely to occur and projects can and will be delayed'. Pongsiri (2002:489) shares the same opinion and claims that 'without thoughtful and professional legal frameworks and contracts disputes are likely to occur and projects can and will be delayed and terminated'.

A considerable amount of work has already been done but problems in implementation are an ever present reality. One example is that member states are required to 'accept as equivalent' the technical regulations of others 'even if these regulations differ from their own' (SADC, 2004a:12). Given the differing legal traditions inherited by the member states, there is proviso that is added. In order to assist in finding pragmatic solutions to specific problems, the parties are asked to determine if the product proffered 'adequately' meets the objectives of the regulation in question (SADC, 2004a:12). Qobo (2005) hints at the reality behind such subjective evaluations. Qobo (2005:58) claims that SADC member states expected a level of generosity from South Africa given that it 'is much the largest regional economy'. He (Qobo, 2005:58) points out that, instead, South Africa applies 'various forms of protective barrier to shut out regional exports from its domestic market'. Given the lack of coordination among the various departments, negotiating teams and SQAM institutions, this is more likely to be an unintended consequence than a deliberate policy.

The same cannot be said with regard to SADC/European Union relationships. The Commission has negotiated Economic Partnership Agreements (EPAs) with various SADC member states on a bilateral basis. According to the South African Deputy Minister of Trade and Industry (Davies, 2008:9), the 'EPA process has already divided members of the Southern African Development Community into 5 different negotiating configurations, each with somewhat different obligations'. Such a scenario could easily split the fragile economic block. The potential winner if such a split occurred would be Europe. Qobo (2005:84) succinctly articulates the problem. According to Qobo (2005:84), 'countries in southern Africa would be hard put to withstand the challenges of

globalisation on their own, and deeper regional integration will be necessary to deal effectively with the twin problems of globalisation and underdevelopment'. Such understanding makes the EPA strategy adopted by Europe even harder to justify if they indeed want to help Africa.

A study was undertaken in 2003 by the SADC Secretariat on the state of implementation of the WTO TBT Agreement in SADC member states. The resultant report, including the key findings and recommendations, was discussed at a SADC TBT workshop held in 2003 in Gaborone. In opening the workshop, Pamacheche (SADC, 2003b:1), of the TIFI Directorate at the SADC Secretariat, 'emphasised the fact that SADC Ministers of Trade at their August 2002 meeting in Windhoek prioritized the need for addressing standards and technical regulations, particularly the development of Member States' capacity in managing technical regulations'. Pamacheche (SADC, 2003b:1) also stressed that such work was non–negotiable 'if Member States are to effectively implement the SADC Protocol on Trade as well as meet their commitments with respect to the multilateral trading system'. An expert from Europe on technical regulations, O'Brien (SADC, 2003b:3) argued that 'there was no doubt that the existing technical regulations in many SADC countries were applied in very imperfect ways'. The workshop participants agreed (SADC, 2003b:3) on 'the need to give technical regulations/standards a serious political priority'. The workshop participants (SADC, 2003b:4) were informed that 'SADC Member States should begin to develop a comprehensive approach to govern the development and implementation of technical regulations that would be applicable to all Ministries and Regulators at national and sub–national level'. Pamacheche (SADC, 2003b:1) concluded that the research had amplified the need to operationalise 'a process of advancing regulatory best practices on the development and management of technical regulations in the Member States, with meaningful participation of stakeholders – the SQAM experts, trade policy makers, regulators, private sector agents and civil society at large'.

Once the issues of standards and technical regulations had been addressed, the focus of the workshop moved to addressing the SQAM–related

compliance mechanisms required. The research found that in almost all SADC member states, compliance of commodities with the requirements of the technical regulations is not yet verified effectively and efficiently (SADC, 2003b:4). Contrary to international developments, a number of regulators within SADC member states, especially those with some laboratory capacity, also tend to favour the approach of testing in their own laboratories (SADC, 2003b:34). The same source notes that some authorities make use of their legal powers in this regard to ensure income for their commercial operations. Unfortunately, technical regulations serve little purpose if the supporting conformity assessment system is weak or non–existent. Kalenga and Kirk (2003:25) maintain that in SADC, given the limited availability of financial and human resources, the emphasis should be on the regional provision of conformity assessment services rather than building specific institutions in all of the SADC member states. Pamacheche (SADC, 2003b:1) opine that '[l]imited resources do not allow each country to absorb the cost of setting up and maintaining the SQAM infrastructure alone, and there is a need to identify cost effective and efficient approaches of providing SQAM related services'. Regional work on standards, metrology and accreditation is the subject of separate SADC committees. These are discussed in due course in this thesis.

An indication of the challenges ahead for SADC can be gained from the logistics surrounding the TBT workshop itself. The workshop was donor funded (by the European Commission), as was the participation of officials from SADC member states. Even with such funding available, Seychelles, Swaziland and the Democratic Republic of the Congo (DRC) were unable to send a delegate to the workshop (SADC, 2003b:1). Urging for some caution, Davies (2008:11) argues for a revisiting of the 'regional integration programmes with a view to accelerating our cooperation and coordination agendas, in real economy areas such as infrastructure, [and]industrial policy. The same author (Davies, 2008:11) notes that 'this should be the basis upon which we eventually, and at an appropriate time, move towards a properly negotiated and constituted Customs Union'.

Subsequent research by Kruger (2003:250) concluded that '[t]here is still no indication of how many technical regulations are on the statute books in SADC member states'. The same research (Kruger, 2003:251) also identified that as far as SADC is concerned '[t]here are no reliable studies that give an indication of the increased trade that might result from a harmonised regulatory regime'. More problematic is the fact that '[t]here are also no studies that have identified the product sectors affected by technical regulations' (Kruger, 2003:251). Such a paucity of information is understandable when one considers both 'the complexity of technical regulations and the fact that the responsibility at national level is shared amongst a number of Ministries and/or Regulators' (SADC, 2003b:5). A consultancy for the SADC regional trade facilitation programme on regional non–tariff barriers was also undertaken during the same period (SADC, 2004c). The report notes (SADC, 2004c:2) that 'over the last decade', trade liberalisation and tariff reform processes have been implemented within SADC. According to the report (SADC, 2004c:2), the prevailing Non–Tariff Barriers (NTBs) were 'more arbitrary, qualitative and non–transparent.'

The reality for SADC is that most exports are subject to mandatory standards in international markets. These requirements assume the existence and availability of sophisticated SQAM infrastructure in order to prove conformance. Given the nature of the product or produce, such proof of conformance should ideally be located as close to the producer as possible. Non conforming items are then still available for local consumption. Such redirection is normally not possible if products or fresh produce are rejected at a foreign destination. The reshipment cost implications usually make a return of product to the original supplier untenable. In addition, and in the case of fresh produce, the items may have already become unfit for consumption. In order to fully understand the specific challenges involved, the SADC report previously referred to (SADC, 2003b:10) argues that SADC countries should 'be assisted in undertaking an assessment or analysis of their exports which are faced with mandatory standards in export markets and develop strategies on how to improve on their competitiveness'. A related SQAM issue is also highlighted. The report (SADC, 2003b:8) encourages SADC member states to

'review the organizational structures and responsibilities of the different elements of standardization and conformity assessment, namely standards development, accreditation, testing, metrology and certification to ensure they meet government objectives in the most efficient manner'.

It is increasingly evident in sub regional discussions that many SADC member states agree that there is no way that they can afford the time or investment required to create the sophisticated infrastructures that exist in South Africa to cope with this issue. Qobo (2005:69) also points out that 'the SADC integration process has been characterised by inertia and lack of commitment, including poor articulation between the political and the bureaucratic, or technical, processes'. SADC member states appear to agree that a regional solution is best but this is taking time, a commodity that is becoming increasingly scarce given the deadlines set for SADC integration. All of which points to increased regional cooperation in the search for mutually beneficial solutions. Such an environment is almost impossible to create under the auspices of the Trade Negotiation Forum (TNF) the modus operandi of which is, by the very nature of the work, confrontational. In spite of this reality, there was consensus at the SADC TBT workshop (SADC, 2003b:11) that there is a need to bring standards and technical regulations within the trade policy process, particularly to bring them up as a standing item in the TNF process. For this to happen, high level political awareness of the role of standards and technical regulations in growth and development within SADC needs further attention.

Whatever was prioritised in Windhoek in 2002 by the SADC ministers for addressing standards and technical regulations does not appear to have translated into any of urgency at the TNF. According to independent research (Kruger, 2003:250), 'the SADC trade negotiators are still tinkering with the implementation of the SADC Trade Protocol' with an emphasis on 'trying to finalise the rules of origin and increase the pace of tariff phase down'. According to the same source (Kruger, 2003:250), SADC Ministers of Trade perhaps see the subject of SQAM 'as too technical, one that should be left to their National Standards Bodies (NSBs)'. This should come as no surprise

given the NSBs overwhelmingly dominant role in the SADC SQAM domain and their close links in most cases to high political office. The role of these NSBs in SADC is covered in the next section.

4.3.3 SADC technical infrastructure coordination and implementation issues

SADC countries have been encouraged over a period of many years, often with donor support, to establish a body that creates and also participates in the harmonisation of standards. The research on non–tariff barriers in SADC previously mentioned (SADC, 2004c:2), identified that non acceptance of standards was an arbitrary NTB. The report (SADC, 2004c:2) notes 'the lack of regional accreditation processes' but erroneously then suggests that the remedy was to '[i]ncrease national investment in Standards Authorities' (SADC, 2004c:2). Such bodies as already exist in SADC also provide a technical regulatory and inspectorate function on behalf of their government in terms of legislation. Many also provide test and/or inspection services to prove compliance with both national and, where appropriate, internationally harmonised standards. They are typically given the name of National Bureaus of Standards or National Standards Bodies (NSBs). Mutabazi (2003:4) points out that through an establishing act, these bodies were given a legislated monopoly to perform all activities related to conformity assessment. Gilmour (2002:5) also points out that 'some of the current SADC [NSB] members are authorised to provide a complete range of standards and conformity assessment services'. Mutabazi (2003:4) also asserts that, apart from South Africa, other non NSB conformity assessment activity in SADC currently resides largely in ministries such as agriculture and fisheries.

An important global trend is that regional organisations for standards, accreditation and metrology are increasingly being seen as providing the necessary linkages between emerging regional trade blocs and the relevant international body for a specific activity. This has a major impact on developing economies and emerging regions such as SADC. In order to specifically the issue of TBT's, SADC created an Expert Group (SQAMEG) to

specifically address Standards, Quality, Accreditation and Metrology related matters (SADCA, 2005:1). A Memorandum of Understanding (MoU) on SQAM was signed by SADC Member States in 2000 (Mutabazi, 2003:1; SADCA, 2005:1). The MoU provides for five structures to deal with the facilitation of implementation of the SADC Protocol of Trade with regard to standardisation, technical regulations and conformity assessment issues. These structures relate to the way these issues are organised at the international level. The regional activities of standards creation in Europe, CEN/CENELEC and the Asia Pacific region, PASC, have been mirrored in the SADC committee, SADCSTAN (Bentley West, 2001, 36). The individual standards body members of these organisations also form part of the membership of the International Organization for Standardization (ISO). Similar regional bodies exist for Accreditation in Europe (EA), the Asia Pacific region (APLAC/PAC) and in SADC (SADCA). Scientific and industrial metrology in Europe (Euromet) and Asia Pacific (APMP) has the counterpart of SADCMET in SADC. Legal Metrology is covered by Welmec in Europe, APLMF in the Asia Pacific region and SADCMEL in SADC. The various regional bodies are in turn related to the international bodies for accreditation, ILAC and IAF, scientific and industrial metrology, BIPM and legal metrology, OIML (Bentley West, 2001, 34; SADC SQAMEG, 2001:1). Based on experience gained since the beginning of the new millenium, there are now proposals (SADCA, 2008a:6) for two additional SQAM structures. These are a SADC Technical Regulations Liaison Committee and a SADC TBT Stakeholders Committee. The creation of the former would provide an appropriate and important focus. The latter would ensure that the views of a wider group of stakeholders are appropriately and transparently considered in future.

South Africa has strong international links with their international counterparts in all of the SQAM functional areas. As such they can provide valuable links for the rest of the region based on the confidence that has been created over a period of many years. The SQAM review (Bentley West, 2001:45) recommended that this ‘ability needs to be developed and encouraged in the most appropriate fashion’. Supported by government funding channelled

through the dti and actively encouraged by their international counterparts, South Africa is taking a leading role as far as SQAM activity in the SADC region is concerned. Owing to the availability of such funding, South African organisations manage the secretariats of all of the SADC SQAM committees previously mentioned. This has been the case since the creation of these structures more than seven years ago. Although the secretariats have a fixed tenure of three years, so far no other SADC member state has volunteered to undertake management at their own cost. The SADC SQAM organisations are now discussed in more detail.

4.3.3.1 SADCSTAN standards

The broad objectives of SADCSTAN focus on the need to harmonise relevant standards for use in trade facilitation within SADC. The activity applies to both the voluntary and regulatory domain (SADC SQAMEG, 2001:4). A further objective is to assist the various SADC member states in the development of appropriate infrastructure for standards development activity. Given its age and size the South African Bureau of Standards is considered by many in and outside SADC as the leading standards development organisation not only in SADC but also the wider region. According to a report tabled in 2006 at the SADC Standards, Quality, Accreditation and Metrology Expert Group (SADC SQAMEG, 2006a:30), six hundred and sixty–three (663) standards were published by the SABS during the preceding year. Such a number easily exceeds the combined output of the rest of the SADC membership of SADCSTAN combined.

Appropriate government funding and sustainability are continual problems for NSBs in SADC as well as the rest of Africa which necessitates a constant search for additional sources of funding. Such a stark reality probably prompted the SADC TBT report (SADC, 2003b:7) to recommend that ‘SADC Member States without a National Standards Body or one that is struggling should carefully evaluate the need for a fully–fledged National Standards Body’. One of the main questions for SADC, according to subsequent research (Kruger, 2003:251), ‘is whether all countries really need NSBs. Most

of the SADC NSBs are standards takers'. De Vries (1999:7) maintains that 'the importance of standardization is growing and, because of this, the work done by standardization organizations is increasing'. The study by De Vries (1999:7) propounds that 'there are certain problems in the functioning of these organizations' as well as the 'lack of systematic research on the functioning of standardization organizations'.

The SABS actively supports SADCSTAN and currently holds the secretariat. In an interview with the immediate past chairperson of SADCSTAN (Mutasa, 2008b), mention was made of many changes that had recently occurred in the SABS. The same source (Mutasa, 2008b) noted that the efforts of the SABS staff responsible for the SADCSTAN secretariat appeared to be clearly aligned with ensuring regional progress. Such sentiments need to be balanced with those of the regional SQAM expert based at the SADC secretariat in Gaborone. In an interview in the margin of a recent SADC, EAC and COMESA workshop, the regional SQAM expert (Chinyamakobvu, 2008) noted a level of complacency amongst the other SADC members who expected South Africa to do a lot of the SQAM related work.

A fundamental decision by the SADC member states is that regional standards will be based on international standards (Bentley West, 2001:109, Visser, 2008). The South African influence is evident in a report on the activities of SADCSTAN published by Standards South Africa, a division of the SABS, in 2007. The report (Standards South Africa, 2007:3) declares that '[s]ince the establishment of SADCSTAN, South Africa has made a considerable contribution through the identification of new projects for harmonisation'. It continues '[t]o date, about 63 projects have been harmonized, most of which were proposed by South Africa'. Self–interest is barely concealed in the same report (Standards South Africa, 2007:2) that announces that '[s]ince most of the SADC harmonized standards are based on South African National Standards (SANS) and international standards, there is no conflict between SANS and the SADC harmonized texts'.

4.3.3.2 SADCMET

The importance of metrology as a vehicle to promote confidence in trade has been understood in SADC for a very long time. Research was commissioned as far back as 1994. The SADC Industry and Trade Coordination Division (SITCD), then based in Tanzania, commissioned a local expert from the Tanzania Bureau of Standards to undertake a study on a metrology system for SADC. Interestingly, on a visit to the African Regional Organization for Standardization (ARSO) at that time (Makando, 1994:18), SADC was encouraged to 'draw substantially from ARSO experience and its documented models of regional cooperation'. The role of ARSO is covered later in the research. Recommendations flowing from the study (Makando, 1994:20) were that 'the accumulated know–how and experience in South Africa and Kenya be used to the benefit of all SADC Member States'. The research (Makando, 1994:20) also recommended that certain existing capabilities in Angola, Tanzania, Zambia, Zimbabwe and Mozambique be 'given active support in capacity building to enable them to offer such services to other states. The report (Makando, 1994:21) offered a comprehensive programme of action for the 'evolution and sustenance of a SADC Metrology System' which was offered for 'consideration for implementation'. There were no tangible or sustainable outcomes, as far as can be determined from the resultant recommendations.

A major objective of the SADC cooperation in scientific and industrial metrology (SADCMET), according to McDowell (1997:157), is to promote the equivalence of measuring standards within the region and thus remove any technical barriers associated with physical measurements. The same author (McDowell, 1997:157) notes that 'to achieve this goal will take many years as mere membership of SADCMET will not imply equivalence of standards'. The National Metrology Institute in South Africa (NMISA) is the only SADC based organisation currently the country of which has signed the metre convention. NMISA is also the only metrology laboratory in SADC and one of only two in Africa that actively participates and is recognised in terms of the global Mutual Recognition Arrangement (MRA) between the national metrology institute members of the CIPM.

NMISA is actively pursuing the establishment of mutual recognition of measurement standards within the SADC region, with an ultimate objective of obtaining international recognition for SADCMET. NMISA also has a major responsibility as 'the key reference laboratory for SADCMET in international comparisons' (Bentley West, 2001:164). As previously mentioned in paragraph 4.2.6.2, NMISA has many CMCs detailed in the Key Comparison Data Base (KCDB). These provide independent evidence of both its competence and international recognition. NMISA has also chosen the route of accreditation to support its work, a decision that has been supported by SADCMET who have agreed that would use the same methodology as the RMO for NMIs in SADC (SADCA, 2008a:10).

The challenge is that the majority of the members of SADCMET come from National Standards Bodies. De Vries (1999:49) notes that 'all standards collections include standards for units of measurement'. While historically it was acceptable for bodies to perform multiple responsibilities, sentiments have changed. The study by De Vries (1999:49) identifies that the preferred methodology is that a 'specialized institution should keep the primary (physical) measurement standards of the country'. As '[c]ontroversies may arise between standardization and metrology', the same author (De Vries, 1999:128) argues that 'in a mature economy an institutional separation is better, as it reflects the differences in character of these responsibilities'. Unfortunately, there is no explanation of the nature of such a mature economy or how one should deal with the inherent difficulties in the meanwhile.

4.3.3.3 SADCMEL

The legal metrology bodies of the members of SADC cooperate under the umbrella of the SADC Cooperation in Legal Metrology (SADCMEL). According to Bentley West (2001:221), '[t]he emphasis in the region is on legal metrology, with trade metrology being a subset'.

The broad objective of SADCMEL (SADC SQAMEG, 2001:10) 'is to harmonize the legal metrology legislation amongst member states'. The group

also aims to assist one another in developing the relevant laboratories and in training technical staff. The harmonisation of legal metrology legislation is no trivial task. Thornhill, et al. (2002:11) point out that the 'colonial powers that ruled each of the SADC countries before independence established its [sic] own political, executive and judicial institutions according to their own policies e.g. Great Britain in the case of South Africa, Botswana, Malawi, Swaziland, Zambia, Lesotho and Zimbabwe; Germany in the case of Namibia although South Africa also played a significant role for a number of years; Portugal in the case of Mozambique and Angola, and Belgium in the case of the Democratic Republic of Congo'. Carstens (2002:46) reports that '[m]ost SADC countries still have the legal metrology system originally entrenched in the colonial era with predominantly Central Government control'.

Table 4.1: Status of legal metrology in SADC member states (Carstens, 2002:46)

Status	**Countries**
Almost no legal metrology legislation or infrastructure	Angola Lesotho Mozambique
National legislation (not SADC harmonised) and regulatory control of simple/basic instruments for mass, volume, and length of goods	Botswana DRC Malawi Namibia Seychelles Swaziland Tanzania Zambia
National legislation (not SADC harmonised) and regulatory control (inspection and verification) of more sophisticated instruments for mass, volume and length of goods	Mauritius South Africa

Chapman, Gakuru, and de Klerk (2003:1526) point out that post colonial states in SADC as well as the rest of Africa 'inherited an institutional framework that was foreign not only in that it had been imported from another part of the world' that was 'foreign to their culture and needs'. An inventory of the status of the structures in each country was undertaken as a project early in the life of SADCMEL. Carstens (2002:46) notes the progress in the various member states as at 2002. The legal metrology activity per SADC member state in 2002 is reflected in Table 4.1 on the previous page. Unfortunately little has changed since then.

4.3.3.4 SADCA

The work of SADC–wide accreditation began in July 1997 with the creation of a small task group by the SADC appointed committee on accreditation, SADCA, where all member states are represented (SADCA, 2005:2). The task group led by Tanzania and consisting of senior expert members from Botswana, Namibia, South Africa and Zimbabwe held many sessions funded by the South African dti. The task group was replaced by the establishment of a Project Management Committee (PMC) at the annual meeting of SADCA in 1993 (SADCA, 2005:3). The PMC was mandated by SADCA (2005:3) to 'mobilise funds and coordinate the implementation of…projects on behalf of SADCA'. As the SADC model for accreditation evolved into a formal project plan, presentations and discussions were also held with representatives of appropriate international bodies such as ARSO, ILAC, APLAC and EA (SADCA, 2005:2). In this manner (SADC SQAMEG, 2001:8) 'the model was progressively improved so as to comply with the current requirements for Mutual Recognition of other international and regional accreditation bodies'.

The broad objectives of SADCA are to assist member states in defining a suitable national accreditation infrastructure. One of the original aims (SADC SQAMEG, 2001:8) was 'to enable them to access accreditation services from other members having well developed and internationally recognised National Accreditation Bodies'. Gilmour (2002:5) has noted that in many cases, the

enabling national legislation that created NSBs 'may lead to conflicts of interest' given the need for independent accreditation of conformity assessment activity. It is therefore important that such conflicts were addressed as part of a medium to longer term, regionally developed, strategy for accreditation.

At present, there is only one internationally recognised National Accreditation Body, SANAS in South Africa, in the SADC region. Another local body, MAURITAS based in Mauritius, is making very slow progress for various reasons in working towards such status. De Vries (1999:130) points out that '[t]he direct target group of accreditation is small, namely, testing and certification bodies and laboratories, and only a few standards are concerned'. Sharing similar insights, coupled with the regional sensitivities towards South African dominance, the SADCA committee decided that the most cost–effective solution to regional accreditation needs would be to investigate the creation of a regional model.

It was decided from the outset (SADC SQAMEG, 2001:8) that such a model 'should be capable of meeting the short, medium and long–term accreditation needs of the individual member states and of the region'. Prevalent methodology in the European Union requires individual public funded bodies in each member state. Such a requirement has also been used as part of the pre–conditions for the accession of new member states. The United States encourages competition and therefore has multiple bodies. The same philosophy is evident in Japan. Such variation in application has already started to negatively impact on the trust that is so critical at the international level. Europe, on the other hand, does not want to rely on competitive activity to provide such an important element of assurance in technical infrastructure. The USA, on the other hand, do not want further public managed bureaucracy that, in their opinion, adds additional cost to doing business. The SADCA accreditation project is therefore groundbreaking in that no other part of the world has attempted to provide an accreditation service as a cooperative venture among nations.

One of the issues at the outset of SADCA was the fact that twelve of the fourteen member state representatives on the governance committee were from member state NSBs. Such a fact is problematic. NSBs, as a supplier of commercial certification services, are an important customer for accreditation. Given the problems of trust at the international level already mentioned, SADC could not afford to create any mechanisms that would not be seen as totally impartial. Another complication was that foreign based and European accredited, multinational, certification companies were taking market share from some SADC member state NSBs. Such a scenario created an immediate demand by SADC NSBs for accreditation of the certification related services that most of them offer. Serious doubts on the integrity of SADC accreditation would be experienced if it were to be dominated by the same NSBs. De Vries (1999:130) argues that "[a] combination of accreditation and testing/certification should always be avoided' for much the same reason. The identification of 'National Accreditation Focal Points' (NAFPs) with responsibility for accreditation in each SADC member state was identified early in the project as a key intervention (Mutabazi, 2003:5). It was also important that such a responsibility be formally recognised by the respective governments. Official conformations from all SADC governments regarding appointments of their NAFPs were received during 2004 (SADC SQAMEG, 2005:2).

A significant amount of training and skills development was directed at the NAFPs once they had been formally nominated by their governments. A five day workshop was initially held in South Africa in 2003 for NAFPs with input provided by Norwegian, Australian and South African experts (SADC SQAMEG, 2004:2). The workshop covered aspects such as world trade, conformity assessment and international accreditation requirements (SADC SQAMEG, 2004:2). The workshop was followed by donor supported, two week, attachments for individual NFPs at three internationally recognised accreditation bodies, operating in three different regions (SADC SQAMEG, 2004:2). The Norwegian Accreditation body (NA) provided insights from a European perspective. The Australian body (NATA) provided different insights from the Asia Pacific region. The South African body (SANAS) was used to

provide insights closer to home. A follow–up session after the attachments were completed allowed the NAFPs to share and build on their experience. Mother tongue training in Portuguese was also provided for the NAFPs from Angola and Mozambique at the Brazilian Accreditation body, INMETRO. Similar training in French was arranged for the NAFP from the Democratic Republic of Congo at the French Accreditation body, COFRAC.

In order to further engage senior officials from the REC, Mutabazi (2005:1) notes that several SADC member state Permanent Secretaries (PMs) of the Ministries of Trade and Industry were invited to South Africa in 2004. They met with the PMC and NAFPs in the margins of a series of international accreditation meetings being held at the same time (SADC SQAMEG, 2005:2). The PMs were informed about the accreditation project and the need to officially launch and support their respective NAFPs (Mutabazi, 2005:1). The PMs expressed their gratitude (SADC SQAMEG, 2005:2) for the information provided about the SADCA projects and 'promised to support their NAFPs'. Subsequent experience has been variable. When challenged over two years later on lack of progress, many NAFPs (SADCA, 2007:4) complained that they have other duties as well. Others (SADCA, 2007:3) had replaced the originally appointed NAFP but had not been provided with any background or training from the previous incumbent. Marobela, the SADCA Chairperson, (SADCA, 2007:11) noted that there were still NAFPs that had not been officially launched in spite of the availability of donor funding to assist in such an important marketing task. Marobela (SADCA, 2007:11) also pointed out that member states were being requested to appoint 'a second NAFP with a view to increasing the human resource base'. The finalisation and SADCA endorsement of a detailed job description provided by the PMC in 2008 (SADCA, 2008b:5) was also considered as a possible solution to ensuring that suitable NAFPs were appointed in future. An accreditation model for SADC has therefore gradually evolved (SADCA, 2005:2).

According to Article 10.2.(a) of the SADC MoU, 'SADCA is empowered to identify and implement a regional system of cooperation in the area of accreditation which complies with international practice while taking into

account the specific circumstances, opportunities and needs of the Region and of the Member States'. The project led to the creation of a model for providing accreditation regionally called SADCAS. The role of SADCA is distinctly different. SADCA remains the SADC mechanism for all accreditation bodies in the region to interact with each other. SADCA also provides a conduit for SADC representation for accreditation at the international level. The ultimate aim of SADCA is to create a SADC mutual recognition arrangement amongst the SADC based accreditation bodies that would be accepted internationally. Such a role would mirror the regional activities in Europe (EA) and in the Asia Pacific Region (APLAC).

4.3.3.5 SADCAS

The SADC Accreditation Service (SADCAS) is a SADCA project aimed at the creation and implementation of a regional accreditation body. It was conceived as a low risk cooperative mechanism to create a technically sophisticated accreditation infrastructure for SADC. The sharing of scarce resources among the different SADC member states would allow participation and knowledge sharing without each state having to bear the cost of creating their own bodies. The question arises as to whether the creation of SADCAS prevents SADC Member States from creating a national infrastructure if future needs prove that such a route is desirable (SADCAS, 2007:1). SADCAS will not compete with existing or future national accreditation structures. According to Kaakunga (2004:1), SADCAS 'must meet the relevant international standards in order to comply with Article 10.2 (a) of the SQAM MoU. The latest standard is the ISO/IEC 17011 standard [which] provides that an accreditation body shall be a registered legal entity. Thus, in order to meet the "legal entity" requirement of ISO/IEC 17011, the proposed accreditation body must be registered'. After several discussions with the SADC secretariat in Gaborone, it was decided to base SADCAS on the SADC Principle of Subsidiarity. Simultaneously, SADCAS was successfully registered in 2005 as a private, not for profit, company 'under the companies' laws of Botswana e.g. where the SADC Secretariat is based' (Kaakunga, 2004:4; SADCAS, 2008c:1).

The subsequent application for SADCAS to become a Subsidiarity organisation of SADC was approved by the SADC Council of Ministers on 7 August 2007 (Mutasa, 2008a:1; SADCAS, 2008c:1). Kaakunga (2004:3) offers a detailed report on what SADCAS now needs to do to formalise the partnership with SADC. The major steps are now explained. First will be the need to conclude a SADC/SADCAS Memorandum of Understanding (MoU) which is already in an advanced state of preparation (SADC, 2008b:1). After which it is expected that the SADC Executive Secretary will issue letters of introduction as a way of assisting in performing the work. Another step forward will be when the SADC Council of Ministers, based on a recommendation of the Integrated Committee of Ministers (ICM), determines which of the SADC meetings that SADCAS be invited to attend and the conditions of their participation in such meetings. The Executive Secretary of SADC also needs, through the ICM, to recommend to Council, the categories of SADC information which SADCAS may have access to. With the formalities out of the way, the various activities just described will take place in due course.

The NAFPs referred in the previous section are an important resource for SADCAS. The business plan of SADCAS (SADCAS, 2008b:32) proposes that the NAFPs are 'the administrative links between SADCAS and clients in the relevant Member State'. A meeting between the newly appointed CEO and the NAFPs took place in November 2008 to discuss the intended future relationship and various responsibilities (SADCAS, 2008a:7). Such progress has not only attracted attention from other parts of the world but has also unlocked significant amounts of Norwegian donor funding. The funding has allowed SADCAS to recently become operationalised; a CEO and technical manager together with administration support staff have now been appointed (SADCA, 2008:6; SADCAS, 2008a:1). The role of SADCAS in supporting Technical Regulations in the various SADC member states is considered to the next major hurdle.

4.3.3.6 SADC conformity assessment activities

Nwafor (2003:2) confirms that, post independence, most SSA countries, in line with many other African countries 'embarked on a public–sector approach to economic development'. Such a strategy led to the creation of a multitude of State Owned Enterprises (SOEs). The end result has been that 'the public sector became the vanguard of economic development whereby the state not only provides the traditional function of delivering public goods and services, but also engages in the production and distribution of private goods through SOEs' (Nwafor, 2003:2). This infrastructure also exists in SADC. Another complication (Kruger, 2003:251) is the lack of the 'complete picture of the size, number and competence of conformity assessment service providers in SADC'.

In order to meet market needs while ensuring financial sustainability, some state funded NSBs in SADC member states have, over time, created conformity assessment related capacity such as laboratories and certification services. Such technical capacity creation has, in some cases, been diametrically opposed to efforts to promote longer term technical sustainability. This is especially true regarding the promotion of an appropriate private sector involvement in conformity assessment. Such a situation is not altogether surprising. The Committee on Technical Barriers to Trade of the WTO meeting in 2003 noted that the second triennial review of the agreement on TBT (WTO TBT, 2000:6) had found 'the existence of different mechanisms to facilitate acceptance of results of conformity assessments'. The same meeting re–iterated that 'it took a long time for a country to develop a national conformity assessment system' (WTO TBT, 2000:8). Such a lengthy and expensive activity together with the increasing trend of local adoption of internationally harmonised standards does place the future role of such NSBs in question. Developing countries are normally standards takers not makers. The cost of overprinting an international standard, and then distributing such as a local agent, is relatively small compared to the typical annual budget of such a body. The counter argument is that, especially in developing countries, many of the experts involved in the

development of such standards, either locally or internationally, and their subsequent interpretation and assessment are specialist public officials, employed and trained by such bodies.

With reference to Botswana, Mothusi and Dipholo (2008:247) note that 'the Botswana Bureau of Standards (BBS) will continue to ensure that manufacturers produce goods of high quality for satisfaction and penetration of the domestic, regional and international markets'. The role of the state owned BBS as both standard setter and state funded market inspector is evident. The same authors (Mothusi & Dipholo, 2008:247) argue that 'the competitiveness of countries in the international market is greatly determined by the quality of their products as well as the level of efficiency of private firms'. The efficiency and impact on the economy of the activities of the BBS are not questioned. The conformity assessment services provided by the South African Bureau of Standards, especially certification, have not been restricted to South Africa – a fact which has not always been welcomed in other SADC states particularly those with, or trying to establish their own, bureaus of standards with similar objectives and certification offerings. Findings from De Vries (1999:49) indicate that some NSBs 'earn more than 50% of their income from activities in the area of testing and certification'. It has not difficult therefore to understand why the activities of the SABS outside of South Africa have led to a certain amount of tension within SADC especially in the past.

The other extreme is seen by Kruger (2003:251) who remarks on the use by some SADC countries, and indeed many African countries, of pre–market approval for imports. Such activity relies on conformity assessment by third party authorised bodies to establish compliance with technical regulations. Pre–shipment inspection is compulsory in at least the following SADC countries – Angola, DRC, Malawi and Mozambique. These governments use the services of specialist, foreign based, pre–shipment inspection firms. Such activity is encouraged by SADC experts (SADC, 2003b:7) who maintain that '[w]here suppliers' declaration of conformity cannot be used either due to the risk involved or a weak product liability regime, SADC Member States should

seriously consider utilizing independent third party conformity assessment service providers in all technical regulations'. There is a caveat however (SADC, 2003b:7), '[s]uch service providers should however be appropriately accredited'. Experience has shown that if such service providers are not appropriately monitored, the results can be extremely variable even though a premium is paid for the service.

There are still huge areas of SQAM–related technical infrastructure that need to be addressed. According to Davies (2006a:1), '[t]he most credible analytical work on regional integration that I am aware of, has argued that in regions of developing countries many of the major barriers to promoting intra regional trade, …arise from…under developed production structures and inadequate infrastructure'. At the SADC TBT workshop (SADC, 2003b:11), participants shared the experiences surrounding technical assistance on SQAM activities. The workshop (SADC, 2003b:11) felt that, in most cases, 'the benefits from these support interventions were limited and unsustainable. A key reason for this has been the lack of national ownership and policy commitment to influence and sustain the outcomes positively'. The same participants were encouraged to identify the essential elements for an effective programme of technical support. The key issues were identified as (SADC, 2003b:11) the creation of an appropriate regulatory and policy framework to guide subsequent technical support programmes. Encouraging local ownership and participation including maximum use of national and regional expertise as part of intra–regional programmes using one anothers' capacities was also raised. Any proposed interventions should facilitate consultation among regional stakeholders to ensure that such activities are demand driven. High level political support of technical assistance activities was also identified as a key success factor together with the need for better coordination of programmes of technical support among bilateral and multilateral donors. Interventions should be specifically targeted to deal with language barriers. Recent meetings of the four SQAM structures in SADC (SADC, 2008a:3) argue the need for more resources for translation of documents into French and Portuguese. Such translations would enable experts from all SADC countries to meaningfully participate in the regional

work. The differentiation of language groups (Portuguese, French and English) for training and related capacity building programmes was also considered to be a critical factor for future success for similar reasons (SADC, 2003b:11, SADC, 2008a:3).

Given the perceived need for training that is continually raised in SADC technical workshops and meetings, De Vries (1999:173) points out that this is how '[t]ens of thousands of consultants all over the world earn their living'. This gives rise to potential problems, according to De Vries (1999:244), that '[c]onsultancy firms often have a stake in making standards difficult'. A further difficulty with the use of donor provided consultants, in the SADC context, is highlighted by Chapman et. al. (2003:1542), who report that 'international consultants do not stay long enough to implement their recommendations'. A further governance–related problem is that such consultancies are normally 'not accountable to the local citizens and do not have to deal with the consequences of the policies they introduce' (Chapman, et. al., 2003:1542).

Most of the experts involved in technical projects in SADC come from sub regional NSBs. De Vries (1999) surmises why this is so. De Vries's (1999:129) proposition is that officers involved in NSB testing and certification activities also 'experience the applicability of the standards concerned and can use this experience when revising the standards or preparing related ones'. De Vries (1999:129) also however sounds a note of caution regarding the work of such NSB staff by adding: 'much more than in the case of metrology, there is a danger of conflicting interests.' Given the very direct and personal impact on these individuals, it is understandable why the appropriate transformation from a majority of public to an appropriate mix of public/private sector conformity service provision is taking so long. One suggestion (SADC, 2007:4) for making progress is to create a fifth SQAM structure that would concentrate on conformity assessment issues such as calibration, testing, certification and inspection. It has been agreed (SADC, 2007:4) that an analysis be carried out on the need for such a structure. To date there has been no output in this regard owing to the fact that the person tasked with the work has other major responsibilities. The expectation that such a major

investigation could be done in spare time with no funding support is unrealistic. Careful consideration of the potential impact of a public–to–mixed–service provision transformation strategy will also need to address the concerns of and impact on the individuals from NSBs that would be directly involved.

4.3.4 SADC SQAM governance and coordination

Opening national markets is a strategic imperative. There are important roles for national government and the public sector. Increasingly there is also a need to include a wider group of stakeholders. Sørensen (2006:195) points out that 'regulation and control is no longer a sole preserve of states'. Although remarkable progress has already been made, there is still a general lack of awareness of international trade issues and the related use of standards, metrology, conformity assessment and accreditation remedies within the SADC region. SADC has therefore created an Expert Group to deal with the issues of Standards, Quality assurance, Accreditation, Metrology (SQAMEG) and related technical matters. The creation of such a committee recognises the continual need to build confidence among SADC member states in the competence of bodies dealing with the entire subject of conformity assessment (i.e. testing and calibration laboratories, certification and inspection bodies). Internationally, this confidence is increasingly being achieved through accreditation of such bodies against internationally recognised guides, standards and specialised technical interpretative documentation. Regionally, there is still a tendency in some instances to legislate competence by specifying the organisation where tests are to be carried out, normally the domestic NSB.

Historically, much effort at the SQAMEG meeting has been focused on training for such NSB staff themselves. The appointment of a full–time regional SQAM expert based in Gaborone occurred in 2007. A significant increase in cooperation between the regional SQAM structures was evident almost immediately. There is still however a major lack of an integrated SQAM strategy for SADC. Such a strategy would not only list the various

tasks and projects in a prioritised manner but also suggest possible sequencing of projects across the various SQAM structures. Such a project would also allow SADC to identify gaps in the identified activities that currently need equitable attention. Without such a plan, there is a real danger that the focus of SADC technical projects would be driven by the existing SADC SQAM committees based on their perhaps limited understanding of the holistic needs. Such a role should be managed through the SADC secretariat, tasked (SADC, 2004a:88) to 'play the role of advisor and facilitator in ensuring that appropriate interventions are implemented, and supplementary programmes are developed to ensure that set targets are met or that changing scenarios are being addressed'.

The addition of a donor funded SQAM expert on a full time basis to the staff in Gaborone should definitely assist in providing such support to SADC SQAM. The lack of understanding at the relevant political levels within SADC is underlined by a remark made by the SADC secretariat at the SADC TBT workshop. The workshop (SADC, 2003b:9) was reminded of the 'need for the SQAM institutions to demonstrate their linkages to economic and trade policy, sustainable development and poverty alleviation and issues of market access and competitiveness'. Such an approach encourages technical experts to promote and deliver on narrow interests rather than being required to act together in achieving more strategic goals. The SADC SQAM expert (Chinyamakobvu, 2008) has also pointed out that, in general, SADC members are reluctant to assert themselves internationally, and that without South Africa's involvement the SADC SQAM environment 'would be a struggle'.

Another important aspect that has so far been neglected is a SADC view on appropriate issues at the WTO Committee on Technical Barriers to Trade. The SADC TBT workshop (SADC, 2003b:11) concluded that 'SADC Member States should find a better way to coordinate their engagement' with the WTO TBT Committee. The same meeting (SADC, 2003b:11) did however note that such coordination 'should be supported by better coordination at national levels'.

4.3.5 REC SQAM cooperation

According to a SADC Trade Facilitation report (SADC, 2004c:55), the member states have to 'increase the pace of regional harmonisation and trade facilitation'. One way to make significant short–term progress within Africa towards achieving such an aim would be to work with like–minded RECs. There have been some recent and encouraging developments as far as closer sub regional (REC) cooperation in SQAM within Africa is concerned. A tripartite summit of heads of state and government of the members of COMESA, EAC and SADC, held in Uganda in 2008, resolved (2008:3) that 'the three RECs should immediately start working towards a merger'. The objective of such a merger (COMESA–EAC–SADC, 2008a:3) is 'fast tracking the attainment of the African Economic Community'. The consequences for African SQAM were rapid. A technical workshop, focused on closer cooperation in SQAM among the three RECs, was held in Kenya only five days later. According to the Aide Memoir used to appeal for the meeting (COMESA–EAC–SADC, 2008b:1), the workshop built on the desire of the senior officials of all three RECs to harmonise programmes while avoiding duplication and rationalising the use of resources. A task force meeting of SQAM experts from the three RECs was held in June 2008 in Mozambique and chaired by SADC. The task force noted (COMESA–EAC–SADC, 2008c:3) the adoption of a trilateral MoU (COMESA–EAC–SADC, 2008d) in SQAM by both COMESA and SADC and that the EAC 'had still to confirm acceptance of the draft' (COMESA–EAC–SADC, 2008c:3). The record of the task force (COMESA–EAC–SADC, 2008c:2) highlights the emphasis by COMESA and EAC on harmonisation of standards while it is clearly evident that substantial technical capacitation focused also on metrology and accreditation has been already achieved in SADC. Both COMESA and SADC experts to the task force (COMESA–EAC–SADC, 2008c:2) reported on the problems for SQAM–related work regarding multiple official languages within their RECs. The final communiqué of the tripartite summit of heads of state (COMESA–EAC–SADC, 2008a:6) issues in Uganda specifies that the record is in English, French and Portuguese– 'all texts being equally authentic'.

Given the potential for such an emotive issue as language to create obstacles in future, it is curious that the draft SQAM MoU (COMESA–EAC–SADC, 2008d) is written in English. While specifying SQAM–related aspects of cooperation, it completely ignores the language issue. Discussions with two SQAM experts within SADC revealed some interesting perspectives on language. In his involvement with standards–related work at both the international and African level, Visser (2008:3) has noted Anglo–and Francophone colonial alignments due to 'historical governance models'. Visser (2008:3) discounts such alignment as a current driving force and ascribes such tendencies to 'comfort in a particular mother tongue, rather than sinister forces at work'. In the work related to SQAM issues at the SADC secretariat, Chinyamakobvu (2008:2) has encountered 'no problem at the technical level' but adds that 'different traditions do cause much frustration at the Political level'.

Another interesting point regarding the recent COMESA–EAC–SADC initiative is that it appears to be driven by the efforts of the three RECs themselves. The four documents that were obtained (COMESA–EAC–SADC, 2008a, 2008b, 2008c & 2008d) all refer to the three parties involved as RECs. Although there is a passing reference to the African Union in the communiqué of the summit (COMESA–EAC–SADC, 2008a), there is none whatsoever of NEPAD, or its present or intended role, in any of the referenced documentation .

PART III

4.4 NEW PARTNERSHIP FOR AFRICA'S DEVELOPMENT (NEPAD)

Of the various developing regions in the world, Chapman, Gakuru, and de Klerk, (2003:1544) note that 'sub–Saharan Africa seems the one hardest hit by a range of social and economic problems. An interesting insight in this regard is provided by Kuye (2006:6) who comments that 'capitalism came to these societies from outside rather than resulting from their internal dynamics'. Whatever the original underlying causes might be to the problem,

Mills (2002:48) argues that 'African states cannot afford to disengage from the forces (and benefits) of globalisation'. Massamba, Kariuki and Ndegwa (2004:33) agree but contend that part of the solution will require 'a leadership embodying an understanding of national interest embedded in the logic of the global economy and intent on making globalization a strengthening process for Africa'. Although theoretically sound, attempts at implementation would need to be tempered by the knowledge that 'there have been 18 African developmental initiatives over the past 20 years' (Mills, 2002:49).

The resultant outcome of the myriad previous interventions has seen Africa make little positive progress. In highlighting the challenges of Africa in international trade, the South African Department of Trade and Industry (the dti) (South Africa, 2001:1) points out that '[t]he African continent continues to be by–passed by the massive growth of world trade over the last half century'. The same source (South Africa, 2001:1) notes that ,'[d]uring 1948 to 1998, the share of Africa in world merchandise exports fell consistently from 7.4 percent to around 2 percent'. The document entitled 'Millennium Partnership for the African Recovery Programme (MAP)' (s.n.:7) argues that Africa's integration into the world economy was 'as a supplier of cheap labour and raw materials'. The same document (MAP, s.n.:10) points out that Africa, in the main, contributes 'passively' to globalisation due to its 'environmental and resource endowments'.

With reference to development aid programmes to African countries, Kuye (2006:4) posits that '[o]ften there is no consideration for country–specific issues'. The dti (South Africa, 2001:2) report that 'past trade liberalisation efforts in Africa have been characterized by frequent policy reversals, not least because these programmes were externally imposed and lacked national ownership'. Evidence of the unintended and major negative consequences of structural adjustment programmes administered by the IMF and the World Bank in Africa is provided by Draper and Khumalo (2005:5) who comment that such programmes often 'result in a situation in which preference dependent commodity exports often do little more than service external debt repayments'. Gaining an accurate picture as far as African

technical development and its appropriateness is a far from trivial task. Ojienda (2005:40) points out that 'it is difficult to find updated or any sources (primary or secondary) on the topic'.

Lack of careful consideration of the potential impacts of interventions within Africa is discussed by Nwafor (2003). In discussing the impact of structural adjustment policies in SSA, Nwafor (2003:1) notes previous experiments by 'many SSA countries and their donor partners' at 'revitalization of institutions by reducing the size of the public sector (retrenchment, closure and privatization or contracting out), as well as promoting private sector activities (removing government impediments to enterprise, including state monopolies)' (Nwafor, 2003:8). He (Nwafor, 2003:1) declares that 'so far, the results were mixed'. That this was definitely not the expected outcome is underlined by Altenburg and von Drachenfels (2006). These authors (Altenburg & von Drachenfels, 2006:396) state that 'exponents of the Washington Consensus have always claimed that deregulation and a business–friendly investment climate are good for public welfare'.

Research by Tchané (2006:6) states that many African development initiatives are premised on the assumption that the 'private sector must be the engine of sustained higher growth'. The same author (Tchané, 2006:6) alludes to the inherent difficulties by mentioning that 'World Bank studies show 16 of the 20 countries with the most difficult business climates are in sub–Saharan Africa'. Botswana can provide valuable insights with regard to public–sector–driven private sector development according to a study by Mothusi and Dipholo (2008). Mothusi and Dipholo (2008:248) argue the need for a focus on improved 'efficiency and effectiveness in the delivery of services rather than curtailing the powers of the state or substituting it with the private sector as it has been the case in some of the developing countries'.

Advice and assistance from the IMF and World Bank should be avoided, according to Ginsberg (1998). Ginsberg (1998:162) argues that such projects are 'textbook–oriented' and have not resolved 'many other African countries' problems'. Chapman, Gakuru, and de Klerk (2003:1546) comment on the

need for efficient policies in recipient countries if desired reforms are to be achieved. Mills (2002:225) asserts that there should also be an acceptance of 'the need to encourage a variable regional geometry by which some states integrate faster than others'. Developing countries are, according to Otsuki, Wilson and Sewadeh (2001:10), 'vulnerable to regulatory changes in developed countries'. Such vulnerability in developing countries is in part 'due to a relative scarcity of public resources to finance compliance with new and more restrictive sanitary and phytosanitary standards (Otsuki, et. al., 2001:10). The same authors (Otsuki, et. al., 2001:18) note that '[o]ur results suggest several areas for consideration in a public policy context'. Such issues are addressed later in this study.

The need to share appropriate information within the continent is foundational to any activity that seeks to address the many SQAM–related technical issues. Some of the benefits of such a pooling of information are identified by Ojienda (2005:22) who maintains that such activity could lead to 'increased adoption of best practices and standards and also accelerating the integration of the economies of participating countries'. Higher levels of trust, a potential and positive side effect of such information sharing would, according to Ojienda, 2005:22), 'also increase opportunities for intra–country trade and investment, physical infrastructure, production systems and structures as well as fostering common African positions for negotiating with other regions'. Although logical, such collaborative activity is not automatic. Kuye (2006:16) observes disappointedly 'that several African states have in one form or the other forgotten the implications of collaboration with the aims of continental development'. Kuye (2004:463) had earlier identified the need for versatility in the apportioning of NEPAD projects by 'avoiding a strict regional quota system'. An important decision criterion for NEPAD projects, according to Kuye (2004:463), is to ensure that initiatives are 'demand driven'. Another critical prerequisite 'for transitioning from survival to development, developing modern regional infrastructure and integrating with the community of developed states', according to later work by the same author (Kuye, 2006:11), is the 'efficient use of resources'.

Previous interventions in Africa have unfortunately not consistently produced the desired results. One reason could be the lack of appropriate regulatory integration between African states. Prosser (2006:375) argues that 'the current processes do not see regulation as an organic process that requires a balancing of competing values…but rather as a set of individual interventions that impose technical limitations on the functioning of markets'. De Bruijn and Dicke (2006:723) remind us that the 'rules, drawn up by the government, have to be interpreted in thousands of individual decisions taken each day as part of "everyday" operational management. In all those decisions, a balance has to be struck between conflicting values...'.

Looking at the problems in Africa, Kennedy and Hobohm (1999:13) state that '[p]ublic institutions are needed to support the private sector, but in a new role as promoters and regulators, not usually in providing direct services'. These authors continue: 'as this role is new for institutions in many African countries, they often need to be upgraded and to redefine their functions in light of the changed role of the state and the effects of globalization.' Regional integration, according to Kotze and Steyn (2003:82), is urgently needed to foster an environment for the 'socio–economic upliftment of Africa' by means of sustainable development. Herbert (2004:10) points out that activities need to take place at the 'continental, regional and national levels'. These activities are joint negotiations/pressure on the world, re–organising continental institutions, driving regional projects, learning how to solve African problems and managing delivery (Herbert, 2004:10). The challenge for Africa and Europe, opines Vickers (2007:18), is 'to transcend their traditional donor–recipient relationship and forge a meaningful partnership in support of the continent's development'. The same author (Vickers, 2007:18) argues 'that China sees Africa as an opportunity, whereas for Europe it is a problem to be managed'.

The NEPAD programme, according to Ngoatje (2006:189), outlines 'a comprehensive and integrated development approach'. Several authors (Nabudere, 2002:5; Gottschalk & Schmidt, 2004:148; Ojienda, 2005:3; Nwonwu, 2006:2) note that NEPAD is the brainchild of a few but powerful

African leaders. These are Thabo Mbeki (past President of South Africa), Olusegun Obasanjo (past President of Nigeria), Abdelaziz Bouteflika (President of Algeria), Hosni Mubarak (President of Egypt) and President Wade of Senegal. These leaders, according to Ojienda (2005:5), share a common conviction that their nations urgently need to participate actively in the global economy as part of a strategy to achieving sustainable growth and development. Nwonwu (2006:2) points out that NEPAD is marketed as a regional 'organic political product' the aim of which is to move Africa out of its 'past developmental limbo'. According to several authors (Kotze & Steyn, 2003:113; Gottschalk & Schmidt, 2004:149; Brown, s.a.:1; Mukamunana & Kuye, 2005:591; Makgalancheche, 2006:81; Ngoatje, 2006:21; and Nwonwu, 2006:2), NEPAD's uniqueness stems from the fact that Africans now lay claim to ownership, accept responsibility and are willing to be accountable for a development agenda in a new partnership with the more developed world. A major success of NEPAD, according to Gottschalk and Schmidt (2004:154), has been 'to keep Africa on the international agenda and even attract additional funds'.

So what exactly is NEPAD? Brown (s.a.:1), Kotze and Steyn (2003:82) and Efretuei (2005:298) concur that it is a policy framework for the AU providing a strategic framework whose aim is to both develop and integrate the region into the global economy. Nabudere (2002:4) argues that NEPAD 'is part of a process of setting in motion the new institutionalisation' that aims to place 'Africa squarely in the globalisation process'. The NEPAD framework, according to Ijeoma (2008:142), 'is based on the need to address the deep dissatisfaction emanating from many decades of policy reforms that have done little to resolve the socioeconomic stagnation of many African economies'. As a concept NEPAD, according to Mills (2002:47), 'has been founded on two principles, the first being that Africa's chronic underdevelopment demands radical action involving resource transfers from the North to the South'. Massamba, et al. (2004:39) point out that '[t]he conceptual effort of the NEPAD breaks new ground by first stressing the difficult conditions of millions of Africans and the failure of past development programs caused by lack of committed leadership'. NEPAD is, according to

Ojienda (2005:3), 'a mandated initiative of the AU approved at the highest level'. Whatever the difficulties in conceptualisation, in reality NEPAD appears to have created renewed interest within Africa to revisit and address SQAM technical infrastructure issues in a more cooperative way. The responsibility for implementation under NEPAD is shared with sub regional structures. NEPAD has designated RECs 'as implementing agencies for its programme' (SADC, 2003a:2). Ijeoma (2008:143) points out that 'the NEPAD initiative emphasises strengthening the five sub regional groupings on the continent'. These are the Southern African Development Community (SADC), the Mahreb Arab Union (MAU), the Economic Community of West African States (ECOWAS), the Central African Development Community (CENSAD) and the East African Economic Community (ECC) (Ijeoma, (2008:143). Ojienda (2005:11) notes that the RECs 'are regarded as key agents for achieving programme implementation and integration in Africa'.

The translation of NEPAD 'programmatic frameworks' into unambiguous activities is problematic for Efretuei (2005). Efretuei (2005:250) points out that the concept causes problems owing to its metamorphosis within 'initiative, programme, idea and project'. Lack of a 'protocol of engagement', Efretuei (2005:260) also asserts, means that 'the operation and implementation' of NEPAD is 'haphazard and disarticulated'. Perhaps as Makgalancheche (2006:150) suggests, more African leadership is required both in ensuring a sustainable future for NEPAD itself as well as directing the implementation of its various programmes. NEPAD should, according to Ngoatje (2006:198), 'continue to accord priority to the capacity building necessary for Africa's development'.

While South Africa for one is doing just that, Melber (2004:7) is concerned that NEPAD is often 'considered a lubricant for South African expansion into other parts of the continent'. This is not a problem for Ngcukana (2006: 86) who informs us that 'South Africa is the number one investor on the African continent. It even outstrips the United Kingdom and the United States combined'. Such a fact can easily fuel suspicions of South Africa's motives for offering the type of assistance required to create the sophisticated technical

infrastructure that is outlined in the present NEPAD document. Such reality prompts Draper and Khumalo (2005:27) to suggest that 'the South African government should monitor and regulate this expansion to minimise the sensitivities it generates'. Another strategy is posited by Hausmann (2008:[15]), who encourages South Africa to 'take the lead in encouraging African economic integration' with the caveat that this should be focused on 'physical and institutional integration needs'.

With regard to the role of standardisation in broader economic development, Verman (1973) highlights perhaps the one major difficulty 'in making any quantitative assessment of standardization effort' in support of such broader goals. According to Verman (1973:332), an accurate assessment is required of the 'economic situation before the introduction of any standards'. Such an assessment then provides a datum for evaluating 'the new situation in terms of the same variables after the introduction of these standards' (Verman (1973:332). Verman (1973:332) suggests that the two sets of information could then be used to 'determine the economic gains achieved'. Such a theoretically pure approach, although logical, is far from easy to achieve in practice. Standardisation practices, the same author (Verman, 1973:332) argues, 'are oftentimes subjected to influences extraneous to the effects of which are most difficult to eliminate. But such elimination is necessary to enable the effects of standardization alone to be taken into account for the economic assessment'. Whatever the difficulties, Tchané (2006:6) argues that 'it is vital African policy makers and the international community continue to build on the spirit of the NEPAD to turn commitments into sustained development'. The role of technical infrastructure capacity building cannot be an afterthought that is left to piecemeal reactive strategies, which is often the case. Verman (1973:315) argues strongly that 'standardization should proceed in parallel with planned development in all sectors'. It would be even better, according to the same author (Verman, 1973:315), 'if standardization could remain somewhat ahead of developments'. In development work, the need for funding is a major constraint. One potential source of funding for development, Khumalo (2007:14) points out, should come from 'rich countries that pledged "aid for trade" funding' in such fora as the WTO.

The most tangible and important output to date from NEPAD, according to Brown (s.a.:1) and Gottschalk and Schmidt (2004:149), has been the African Peer Review Mechanism (APRM). Gottschalk and Schmidt (2004:149) also note that a 'major achievement' of the NEPAD document has been the identification of 'essential preconditions for development'. These elements, 'together with economic good governance' will, according to Gottschalk and Schmidt (2004:149), be assessed by the ARPM. Such a major contribution to the African situation is highlighted by Herbert (2004:2) who notes the new opportunity 'for discussions about many governance questions that were never debated openly before'. As part of such future debate, Mukamunana and Kuye (2005:601) identify both 'trade policies and regional integration management' amongst the 'critical issues of economic and corporate governance'. Hinting at wider problems, Nabudere (2002:24) opines that governance issues within Africa rather need to be 'addressed within the same process of establishing global corporate "good governance" in institutions such as the WTO, the IMF and the World Bank. Such a process has not yet begun. It is also unlikely in the short term without the type of pressure that a unified African voice could bring to bear at these same institutions.

The APRM is a tool created by NEPAD based on a commitment made at the first meeting in 2001 of the NEPAD Heads of State Implementation Committee (HSIC). According to Cilliers (2002:2), the meeting 'agreed that African leaders should set up parameters for Good Governance to guide their activities at both the political and economic levels'. The APRM was adopted at the next meeting of the HSIC in March 2002. According to Mathoho (2003:11), 'the APRM broadly echoes the OECD peer review mechanism'. Importantly, the same author (Mathoho, 2003:11) notes that 'peer review in the OECD is not bound to any conditions from any other continent'. Given the strong linkage between the two peer review mechanisms, Cilliers (2002:1) notes that 'the experience within the OECD is that of a non–adversarial and collegial process, relying on mutual trust and understanding between countries being reviewed'. A major difference between the two processes is mentioned by Juma (2004:180), who states that 'the African approach to peer review is a multi–objective process, defined by multiple criteria and standards,

covering multiple countries, involving multiple stakeholders and reporting to multiple principles'. Such an apparent lack of focus could become problematic if one considers the findings from Barber (2005:1090), who points out that 'few African states showed enthusiasm for the peer group review process' and also that 'increasingly African leaders have limited the scope of the review and stress that participation is voluntary'. The second statement could be more indicative of a process to encourage other leaders to participate.

A major problem with peer pressure is identified by Mathoho (2003). Mathoho (2003:7) contends that 'peer pressure does not take the form of legally binding acts backed up by sanctions or other punitive measures; it also lacks enforcement mechanisms'. In reply to this apparent criticism, Kanbur (2004:161) and Hope Sr. (2005:290) remind us that 'the ultimate goal is to assist the reviewed state to improve its policy–making; adopt best practices; and comply with established standards, principles, codes, and other agreed commitments'. Mathoho (2003:1) does however concede that 'a positive aspect of the APRM is that it recognises that governance problems have been key determinants of Africa's development challenges'. Cilliers (2002:1) claims that the APRM 'represents an ambitious attempt by key African countries' in 'taking responsibility for the maintenance of appropriate standards of conduct'. Hope Sr. (2005:306) shares these sentiments and declares that 'through the APRM, African leaders…have indeed become the architects of their own destiny offering African solutions, which are universally embraced, to African problems'. A similar view is evident from Ilorah (2004:245), who argues that 'in the final analysis, Africa alone should be in a position to determine whether or not a NEPAD member country practises good governance'. All of these opinions are noteworthy if one considers that, according to Herbert (2004:2), 'Africa has been unimaginative about development and far too passive in accepting formulas from the outside without truly digesting how and why things succeed or fail'. The pressure on African leaders to ensure that the APRM delivers on its promises is apparent. As stated by Juma (2004:179), 'if it works, peer review will give African reformers the credibility they desperately need at a time of growing donor

fatigue and deep cynicism abroad'. Given such pressure, the APRM cannot afford to fail.

4.4.1 The NEPAD problematic: trade within NEPAD

In October 2001, NEPAD published a document entitled 'New Partnership for Africa's Development'. Ojienda (2005:1) asserts that an aim of NEPAD was to present 'a new set of objectives, goals and expectations for international trade'. The document 'New Partnership for Africa's Development' (NEPAD, 2001:26) identifies the need '[t]o enhance regional cooperation and trade through expanded cross–border development of infrastructure'. Africa has, according to a report in 2002 issued by the Committee of Trade and Development of the WTO (2002a:16), 'pressing needs for institutional trade policy and capacity building'. The same report (WTO, 2002a:16) noted that although the WTO had no formal relationship with NEPAD at that stage, it was 'exploring ways of cooperating with NEPAD in future'. The aim of such a dialogue (WTO, 2002a:16) would 'focus on the contributions that trade and the multilateral trading system can make to support the NEPAD, and to Africa's trade development'.

An associated action at the international level, according to the NEPAD document (2001:49), is the promotion of 'access to international markets by improving the quality of African produce and agricultural products, particularly processed products, to meet the standards required by those markets'. As mentioned elsewhere in this study, product quality needs to be proved against specified requirements in order to trade. As already stated, acceptable conformity assessment services are a major issue in this context. The same applies under the objective (NEPAD, 2001:51) of 'increased production and improved competitiveness…with potential for exports and employment creation'. With the focus on building greater industrial capacity in Africa, Thoburn (2000:3) argues that 'further processing of agricultural products can also make an important contribution to the efficient replacement of imports'. The latter choice is obviously dependent on having the appropriate domestic technical support infrastructure in place and

appropriately maintained. Such an important issue is predicated by the need for suitable government policy or perhaps more correctly, suitable aligned and mutually supportive policies. The policies of industrial development and environmental protection for instance need close alignment in order to encourage and strengthen sustainable development initiatives.

The most basic level of policy integration for sustainable development, according to Luken and Hesp (2006:3), is the need for 'coordination between different policy domains' such as those within and amongst NEPAD REC members. The same authors (Luken & Hesp, 2006:3) provide two examples of such coordination. The first example (Luken & Hesp, 2006:3) asserts that industrial development policy should be coordinated with environmental policy to 'minimize or prevent the impact of industrial activity on environmentally sensitive geographic locations' while simultaneously accelerating 'the adoption of environmentally sound technology'. A second example from the same source (Luken & Hesp, 2006:3) but from the other direction, encourages the coordination of environmental policy with industrial development policy. Such coordination (Luken & Hesp, 2006:3) is required to 'minimize the economic impact of regulatory requirements on industrial competitiveness' while encouraging proactive compliance with environmental regulations through 'the utilization of advanced process technologies rather than pollution control equipment'. The need to listen to such advice is encouraged by Kuye (2006:11), who notes the need for NEPAD to create 'favourable conditions for the penetration of advanced technologies to facilitate efficient use of the local natural resources'. Considering implementation issues, Khumalo (2005:169) contends that 'NEPAD and the African Union can play an important role in coordinating and monitoring the trade facilitation initiatives of different regional economic communities in Africa as a whole'.

NEPAD (2001:57) recognises a need at the African level for '[t]echnical assistance and support to enhance the institutional capacity of African states to use the WTO and to engage in multilateral trade negotiations'. An important part of the work required in building trade negotiating capacity, according to

Abbot et al. (1999:2), should be directed to developing a 'a clearer demonstration of the links between trade, environment and development'. This is required initially, according to Abbot et al. (1999:2), owing to a 'fundamental lack of trust in the intentions that lie behind the trade and environment strategies of the industrialised world'. This suspicion is probably well founded if the study by Finger and Schuler (2000) is correct. With reference to 'the advanced countries', Finger and Schuler (2000:524) note that 'development ministries are junior partners in making trade policy'. The problem is compounded, according to the same authors (Finger & Schuler, 2000:524), by the fact that 'at the WTO, the least developed countries have little capacity to organise and to advance their own interests'. Private, economically guided action in the economy is another factor that needs to be considered, according to Luke (2005). Luke (2005:236) acknowledges that many actors are involved, all of whom are 'pursuing their own national, corporate and personal monetary interests in reproducing this unsustainably non–developmental material culture'. One can be sure that such interests from developed countries will have a well funded and coherent strategy to further these aims at every opportunity. That a suitable, well coordinated strategy is required by African developing countries for immediate benefit and also for future generations is amplified by Tisdell (2001). Findings from Tisdell (2001:206) indicate that 'most goods are not priced to reflect full costs due to such factors as unpaid environmental costs and price–distorting trade barriers'. This is obviously not sustainable and needs correction through appropriate, sustained and coordinated international interventions.

Such findings highlight the immediate need for pre–meeting preparation and consultation by NEPAD REC members prior to WTO meetings. Funding is not such an issue here but obviously there is a need for better coordination by NEPAD. Such activities need to occur both within the country by suitable trained public officials, and through networking with their African peers in search of common NEPAD objectives. A harmonised NEPAD strategy and voice would greatly assist once delegations meet in Geneva at the WTO. The fact that the WTO operates by consensus makes such a modus operandi even more critical if progress is to be made on issues that are important to

both NEPAD and Africa as a whole. With reference to the requirement for the provision of technical assistance by members of the WTO, UNIDO (2002:2) point out that that Article 12.7 of the TBT agreement specifically mentions such so that 'the preparation and application of technical regulations, standards and conformity assessment procedures do not create unnecessary obstacles to the expansion and diversification of exports from developing country Members'. As previously mentioned, there have been no requests for such support which would also appear to confirm the presence of a climate of suspicion that was alluded to earlier.

The NEPAD document (2001:26) promotes 'expanded cross–border development of infrastructure' as one overarching objective. If African goods are to be exported in any significant way beyond the region, it is important to note that developed nations expect proven compliance of imported agricultural products and manufactured goods, against increasingly sophisticated technical requirements, before allowing access to their markets. These are normally contained in technical regulations intended to protect the health and safety of their citizens. NEPAD (2001:49) highlights the need to 'meet the standards required by those [international] markets'. This need must be balanced with the multiplicity of demands and remedies involved in addressing appropriate market liberalisation in Africa. Africa, Tchané, (2006:6) points out, 'is home to 30 regional trade agreements. Each country on average belongs to four'. Such a complex problem requires careful thought, intelligent policy creation and coordination, appropriate governance together with focused, properly coordinated implementation activities.

The NEPAD framework, Ijeoma (2008:142) notes, 'recognises the need for African countries to pool their resources in order to enhance regional development and economic integration'. As can be expected, the NEPAD document (2001:25) identifies many trade and trade facilitation related activities. These include the need for '[i]mproved infrastructure, including the cost and reliability of services'. Such interventions are vital, according to Draper and Khumalo (2005:3), who argue that on their own 'few African governments are in a position to build efficient state–run institutions to support

their development'. Given that, according to Low (2007:5), '[m]ost of the SADC countries have significant export interests in the EU', coupled with their ability to satisfy multiple objectives in the NEPAD document, provision and strengthening of conformity assessment services should be amongst the major priorities in this category. Such activity should be linked to the 'targeted capacity–building' identified as a high priority by Tawfik (2005:9). In a similar vein, Maur (2008:34) stresses the, 'crucial role played by institutions governing regional trade liberalization efforts'. Kuye (2004:463, 2006:9) stresses the need for NEPAD, 'as a project of the African Union', to ensure that projects are distributed according to 'demand driven initiatives'. Ojienda (2005:22) propounds some high priority areas as 'diversification of production and exports, increased trade and investment among the participating countries, increased cooperation in mobilizing and attracting both domestic and foreign investment'. A vital underlying component, according to Carstens (2002:51), is that '[t]echnical regulations need to be in place to ensure that commodities are correctly filled and that measurements are accurate and traceable to National Standards'. This leads to the topic of developing appropriate technical infrastructure within an African context which is covered next.

4.4.2 NEPAD technical infrastructure coordination and implementation issues

Implementing global agreements, Mbekeani (2005:47) argues, is '[a]n important issue for African countries'. A related issue from the same source (Mbekeani, 2005:49), concerns both the need for appropriate knowledge and subsequent articulation by African countries of their own trade interests. Such insights and capability are vital if African countries are to be seen as reliable partners in global trade negotiations such as those conducted under the auspices of the WTO. In addressing the need for, and the role of, domestic regulations, African countries must carefully balance protecting their citizens versus opening their markets to allow others to trade with them. It is a delicate issue owing to the political consequences of such a technical problem. This is especially true when technical requirements are being formulated and

implemented. Independent assessment of competence provides a transparent and cost effective way to address such current or future needs. Proper engagement and ongoing communication with all effected parties should be continually encouraged as part of ongoing trade negotiation and post negotiation activities.

A set of commonly agreed rules is a reoccurring theme even when addressing very specific international activity such as creation of international standards. With reference to the achievement of trade facilitating objectives of the TBT Agreement, the WTO (2000:4) agrees that on the importance of members participation 'in the elaboration and adoption of international standards'. In order to be acceptable, technical procedures, the WTO (2000:4) has also agreed, should be based, whenever possible, on relevant guides or recommendations issued by international standardising bodies. Research by UNIDO (2004:4) has shown that any lack of international coordination and mutual recognition of technical infrastructure together with non–uniform technical regulations create Technical Barriers to Trade which are recognised as potential impediments for both developed and developing countries in accessing global markets. Developed countries are actively addressing these issues and, as a result, there is an increasing awareness of the need to improve the institutional infrastructure and capacity of developing countries. Metrology, documentary standards and conformity assessment are essential elements of any technical infrastructure created to underpin the global trading system. They also assist in creating and maintaining the foundations for sustainable economic growth and integration of developing countries into the world economy. Members of the WTO are encouraged to accept the conformity assessment procedures of the other members, even when these differ from their own. The proviso is that they should be satisfied that such other procedures offer an assurance of conformity with applicable technical regulations or standards equivalent to their own. This is great in theory but rarely easy in practice as many businesses have found to their cost.

One of many technically sophisticated issues that surface during the drafting and subsequent implementation of international agreements is highlighted by

Lothe (2001). With specific reference to the environment, Lothe (2001:198) points out that 'environmental legislation influences the competitiveness of industries'. It is the opinion of the author (Lothe, 2001:198) that 'lenient environmental policies could therefore be interpreted as "hidden" or "implicit" subsidies to producers, making a country's industry more competitive because the producers are able to sell their products at the world markets at prices that may not reflect the true costs of production'. There is a compelling logic to the argument but it produces even more questions, such as who, and on what basis, determines such true costs and how would the errant producers or legislators be identified and then brought to account?

A second issue is highlighted by research undertaken by Otsuki, et. al. (2001:1). The study highlights the impact of an aflatoxin standard in the EU that is more stringent than the relevant international standard. The authors (Otsuki, et. al., 2001:1) note the 'negative impact on African exports of cereals, dried fruits and nuts to Europe'. The report notes that the more stringent requirements contained within the EU standard would potentially 'reduce health risk by approximately 1.4 deaths per billion a year'. The impact on African exports however would be a decrease 'by 64 percent or US$ 670 million in contrast to regulation set at an international standard' (Otsuki, et. al., 2001:1).

With reference to the subsequent implementation of WTO rules, Mbekeani (2005:47) comments that 'implementing them in most African countries requires substantial investment to strengthen domestic institutions'. The future role of the WTO system itself is also under question in some quarters given the stop, start nature of the latest series of negotiations. Khumalo (2007:14) asserts that 'the overarching framework it [the WTO] provides remains indispensable'. For this reason, Khumalo (2007:14) posits that 'no country believes disengaging from the WTO is a viable option'. All member countries 'which prefer multilateral solutions' should, according to the same author (Khumalo, 2007:14), 'put their weight behind positive reforms in the WTO'. The reality of global consensus building in international organisations, such as the WTO, is captured by Micklethwait and

Wooldridge (2000:169) who argue that 'everybody believes in the WTO when it is prying open foreign markets but not when it is prying open domestic ones'. This hints at the protracted processes involved in building international consensus, especially in the area of opening local markets to outside competition. In spite of such inherent difficulty, there has been a measure of progress in the area of trade liberalisation and the associated aspect of technical regulation and standards.

The availability of a commonly agreed technical standard is a valuable tool in trade facilitation but assumes that a sophisticated technical support infrastructure is readily accessible for African industry to use to demonstrate compliance to such a standard. The availability of a commonly agreed and internationally harmonised technical standard is thus a valuable first step and tool in trade facilitation. Appropriate technical support infrastructure also includes access to measurement traceability through the international system of measurement (S.I.) units. This is achieved through a national measurement institution. The third part of the technical infrastructure is a mechanism to allow local public and private conformity assessment bodies to independently demonstrate their competence to perform certain specific tasks. This is normally achieved through an internationally recognised accreditation body.

The unintended consequences of not having access to such infrastructure has been highlighted by Wilson and Otsuki (2004:2), whose research has found that 'technical requirements however can also constitute barriers to trade by imposing unnecessary costly and time consuming tests or by laying out various requirements in different markets'. This reality is also appreciated by NEPAD (2001:51), which notes the need to 'establish national measurement institutions' and 'ensure that testing laboratories and certification organisations are set up'. The former institutions are normally public funded bodies, nominally in some cases, whilst in most cases in the developed world; the latter activities are largely now left to the private sector. The document is silent however on how the need, as identified by NEPAD, could be translated into reality. This is not altogether unexpected given the

complexities already evident in establishing such infrastructure in a sustainable manner in developing countries generally.

The NEPAD document identifies many issues that are relevant to the provision of standards, metrology, accreditation and conformity assessment services. The European Union has also recently revisited SQAM–related legislation and the associated mechanisms. A new European regulation and underpinning strategy aims to address several problems that have surfaced after nearly fifty years of concentrated technical activity in Europe to promote freer passage of goods between member states. The European Parliament (EU, 2008b:1) notes that in order to ensure that products that are allowed free movement within the Community also meet agreed public protection requirements, an overall framework of rules and principles are needed 'in relation to accreditation and market surveillance'. Such a statement is interesting as it now elevates accreditation above several other remedies allowed under the so–called 'New Approach' to proving conformity to European directives. There are important prerequisites attached to obtaining such an enhanced status. These are highlighted later.

Given the importance of the European market to African exporters, there are several lessons that can also perhaps be learned with reference to the creation and maintenance of appropriate SQAM infrastructure in Africa. The individual SQAM components of technical regulations, standards, metrology, accreditation and conformity assessment are now addressed individually. Issues relevant to NEPAD and important parallels from the recent developments in Europe will be highlighted.

4.4.2.1 NEPAD activity re: technical regulations and standards

The lack of suitable and appropriate regulatory integration between the various African states continues to create major challenges for the export or import of goods even within Africa. Research by Nicolaidis and Egan (2001:454) has found 'many of these regulatory barriers reflect legitimate differences between countries in terms of taste, market and administrative

culture, risk assessment, and patterns of state–society relations'. That this is the case is also the reason why there are 'difficulties in eliminating their trade impact while maintaining legitimate regulatory objectives' (Nicolaidis & Egan, 2001:454). An apparent global escalation in technical requirements is supported by research by Wilson & Otsuki (2004:2), which found that 'the use of standards and technical regulations as instruments of commercial policy in unilateral, regional, and global trade contexts has increased as tariff and quota barriers continue to decline'. Technical regulations, as noted much earlier, are principally used to mitigate against food, animal and plant safety risks. Another reason for the high number of new technically focused regulations internationally is the growing problems with water, air and soil pollution. These technical requirements can however also constitute barriers to trade by imposing unnecessary costly and time consuming tests or by laying out various requirements in different markets. These technical requirements are of particular concern to developing countries, such as those in Africa, that are seeking to penetrate industrialised country markets.

In Europe, concern with the amount of, and technical variation contained within, technical regulations culminated in a 'New Approach' (Commission of the European Communities, 2007b:8) to legislation in May 1985. The 'New Approach' limited legislation 'to cover only essential health and safety requirements of products'. The adoption of the methodology 'allowed all the technical elements for product specification to be covered in harmonised European standards, not the legislation itself' (Commission of the European Communities, 2007b:8). In parallel to the legislative programme, the Community (Commission of the European Communities, 2007b:8) 'also developed a policy to reinforce European standardisation, such that voluntary harmonised European standards could be developed, the conformity to which gives presumption of conformity to legislation'. The directives (Commission of the European Communities, 2007b:10) also set out requirements for conformity assessment in the form of modules identified in a specific decision, 'Decision 93/465/EEC' of the European Parliament. Certain conformity assessment modules require the use of a third party conformity assessment body known in Europe as 'notified bodies' (Commission of the European Communities, 2007b:10). The use of a notified body

was an important step before the item was allowed to be placed on the market. Notified bodies, according to the Commission (Commission of the European Communities, 2007b:12), 'play an important role within the New Approach system to guarantee the safety of products on the market'. The process used to notify such bodies was, until recently, left to the discretion of the various European member states. Experience has now shown that such discretion has eventually created unacceptable variation and lack of trust in conformity assessment outcomes from the various nationally notified bodies. The resolution of the problem, an enhanced use of accreditation, is the subject of a recent decision by the European Parliament and is covered in the relevant section later in the text.

A special report by the *Economist* (2004a:13) notes that in several African countries, regulations are proving to be hydra–headed. The more onerous they are, the more likely businesses are to offer bribes to get around them; therefore, law makers have a perverse incentive to keep inventing new ones, even as the old ones are removed. The same publication (2004b:77) furthers the point, arguing that needless regulations foster graft. A note of caution is also evident in the findings of Kennedy and Hobohm (1999:6), who point out that '[r]egulation of the private sector is necessary to ensure competition and fair trade, but unnecessary regulation burdens the private sector and leads to fewer and less efficient enterprises, and reduced competition'.

The NEPAD document (NEPAD, 2001:52) notes the need to 'develop and accept a best–practice framework for technical regulations that meet both the requirements of the WTO Agreement on Technical Barriers to Trade (TBT) and the needs of Africa'. The document (NEPAD, 2001:51) also identifies the already noted need 'to harmonise the technical regulatory frameworks of African countries'. Presumably the activities are sequential because given the differing legal systems involved in Africa one can hardly imagine the system of any one country becoming the norm for universal adoption. In fact the document (NEPAD, 2001:52) cautions that the 'technical regulation frameworks of the developed countries may be too complex for many African countries'. Such a statement amplifies the need for suitable African public officials to be tasked to address such a need. Although not an expensive

exercise, the benefits would be enormous and could to a large extent be funded from within the continent. South Africa has just promulgated such a framework which could act as a catalyst for further work in a cost effective manner. The role of the framework within South Africa was fully discussed earlier in the chapter.

Given the major influence of developed countries in the international standardising process, Cosbey (2004:13) refers to the fact that 'environmental standards set in developed countries are of keen interest to developing country policymakers and exporters, being hard to know, hard to meet, sometimes unreasonable, but for the most part, imperative to export success'. The same author (Cosbey, 2004:13) also notes that if such standards are 'made and implemented without regard to their wider effects on exporters, and with a sole focus on their environmental objectives, they will often frustrate sustainable development in developing countries'. Rather than reject such international standards, the author suggests a better way would be 'renewed efforts by exporter governments as well as standard–setters to help make trade–related environmental standards an opportunity for environmentally–friendly export success' (Cosbey, 2004:13). A similar approach is advocated by Vermeulen and Ras (2006:246), who argue that 'the critical issue is to find production procedures to meet the consumption demand of products in this growing global market, while promoting positive ecological and social impacts throughout the value chain'.

The explosive growth in global trade and the increasing need to adhere to a set of uniform/common rules of trade places enormous pressures on governments, especially those in Africa. As parties to international conventions and treaties, they need to be able to intelligently participate in standards creation and then prove effective implementation of such agreed standards. The realisation of the Single Market in Europe (Commission of the European Communities, 2007b:7) 'is a major driver for competitiveness and economic growth'. The harmonisation of technical requirements (Commission of the European Communities, 2007b:7) has been a priority for the European Commission 'since the end of the 1960s'. A concerted effort from then 'has led to

the adoption of some 600 legislative texts for harmonisation covering industrial products' (Commission of the European Communities, 2007b:7). Several standards–related needs are identified by NEPAD. The NEPAD document (NEPAD, 2001:52) promotes the establishment of standards bureaus. These are required for the provision of 'the necessary information on international, regional and national standards' to both industry and government with the objective of facilitating market access. In addition (NEPAD, 2001:51), such bodies are encouraged to '[a]cquire membership of the relevant international standards organisations'. Such membership is promoted in order to give Africa a stronger voice so as to 'enable African industry to participate meaningfully in the development of international standards' (NEPAD, 2001:51).

Much effort and donor funding, encouraged by the WTO, is today focused on creating sustainable technical infrastructure, particularly in Africa. As Rotherham (2003:4) reports, '[a]lthough they may also happen to facilitate trade, many other standards and technical regulations are primarily intended to achieve a broader public policy objective, such as environmental protection or safeguarding human health and safety'. Conformity assessment capacity therefore needs to determine whether the ultimate objective is the protection of health and safety normally addressed by mandatory compliance with technical regulations or environmental concerns and/or trade–related issues that are usually addressed in voluntary standards. A further problem is that much of the donor funded activity in this arena in Africa at the present time is aimed at creating or expanding public infrastructure, often in a non sustainable way.

The African Regional Organisation for Standardisation (ARSO) is an African intergovernmental body established in 1977 (Foss, 2003:11) and mandated to promote standardisation activities in Africa. The role and functions of ARSO are detailed in the 'OAU Lagos Plan of Action 1980– 2000 for the Economic Development of Africa, which specifically mentions ARSO' (Foss, 2003:10). The member states of ARSO in 2003 were the following: Burkina Faso, Kenya, Sierra Leone, Cameroon, Liberia, Sudan, Cote d'Ivoire, Libyan Arab

Jamahiriya, Tanzania, Democratic Republic of Congo (DRC), Malawi, Togo, Egypt, Ethiopia, Ghana, Guinea, Guinea Bissau, Mauritius, Niger, Nigeria, Rwanda, Senegal, Tunisia, Uganda and Zambia (Foss, 2003:12). The number of African Regional Standards available from ARSO for sale/distribution has been constant at 363 since 1992 (Foss, 2003:13).

One of the largest and most influential Standards Bodies in Africa, the South African Bureau of Standards, was reluctant to join ARSO for many years. In an interview with the head of the standards division (Visser, 2008) pointed out that ARSO was trying to become operationally involved in certification, accreditation and metrology. The SABS felt that this was unacceptable as it added another layer in the already difficult process of getting products registered in Africa. The SABS (Visser, 2008) felt that ARSO lacked a clear purpose. In April 2003, the Swedish International Development Co–operation Agency (SIDA) approached ARSO, with an offer to cooperate which was accepted by ARSO. In terms of the SIDA–ARSO relationship, a project aimed at establishing the value of ARSO was undertaken from July to December in 2003 by a Swedish based private management consultant (Foss, 2003:6). The research process included the circulation of a questionnaire. The apathetic response was perhaps indicative of the total lack of trust in ARSO's ability to perform its mandate. Of a membership of 25 countries, only four national standardisation bodies responded. In addition, two regional organisations responded. These were COMESA and, perhaps not surprisingly, ARSO.

Interestingly, no response was obtained from either the AU or NEPAD. A further disappointment was that no government ministry responded. The report also noted that the only increase in membership to ARSO since 1998 has been Rwanda. (Foss, 2003:19). An interesting comparison in the same study is that African membership of the ISO in 2003 was fourteen full members and 16 corresponding members in Africa, five more than in ARSO. The strongest ownership in ARSO, according to the study (Foss, 2003:20), 'is by the national standardisation bodies'. The study however notes that

amongst this group 'willingness to pay agreed membership fees is low' (Foss, 2003:20).

A subsequent ARSO (2004:1) report of the SIDA funded study concluded that 'change was required in order to realise the potential value of ARSO'. During the ARSO General Assembly in Addis Ababa in February of 2004, the need for change was acknowledged and accepted by the members. The need for an ARSO Strategy Plan Workshop was also endorsed by the General Assembly. The Strategy Workshop was held as scheduled and according to ARSO (ARSO, 2004:1), 'was very successful and resulted in the development process of the re–engineering of ARSO'. The workshop generated a mission for ARSO. The agreed mission was '[t]o facilitate intra–African and global trade by promoting quality through coordination and harmonization of standards and conformity assessment in Africa' (ARSO, 2004:3). The vision of ARSO was also created and agreed '[t]o be a representative and credible focal point for Standardisation, Conformity Assessment and Quality Promotion in Africa to support the sustainable development of the continent. The Organisation is an Advocate of its members' common views in international fora and delivers a valuable set of support services to National Standards Bodies and other stakeholders' (ARSO, 2004:3).

The same workshop agreed that recognition of ARSO as a specialised agency of the AU should be pursued. The need to enhance the relevance of ARSO's services to the African market as part of gaining further support for ARSO in regional organisations such as COMESA, SADC, ECOW AS and UEMOA was also identified (ARSO, 2004:12). The Secretary General of ARSO (Agbanelo, 2006:1) notes that the Commission of the AU 'hopes to improve market access and facilitate poverty alleviation' through the principles of shared responsibilities, mutual recognition and effective coordination. The same source (Agbanelo, 2006:2) noted at a SADC SQAMEG meeting in Windhoek in 2006 that the re–engineering of ARSO had been completed in 2005 and endorsed at a meeting of the 13th General Assembly during the same year. The approval of the ARSO Strategy by the General Assembly (Agbanelo, 2006:4) had given 'a new impetus to impact on the socio–

economic well being of our dear continent'. The impact to date of the donor funded, foreign private sector management consultancy, to positively affect efforts on the efficacy and acceptance of ARSO is still undetermined.

According to at least one source (Visser, 2008), ISO chose ARSO as its continental representative body and is unhappy that they did so. The SADC SQAM expert (Chinyamakobvu, 2008) opines that ARSO should recognise the current SQAM work in the NEPAD RECs and define a new relationship with them. There has, as yet, been no action and no delivery, according to the South African representative at ARSO (Visser, 2008). The past Chairperson of SADCSTAN (Mutasa, 2008b) notes the tendency by ARSO to form committees to do work instead of appropriate work and leadership by the full time staff. The same source (Mutasa, 2008b) alludes to governance problems within ARSO and argues that although ARSO is recognised by the AU there are major problems operationally.

4.4.2.2 NEPAD activity re: metrology

Weights and measures in Africa, Mosima (2002:59) asserts, 'are ranked among the necessities of life'. There is an increasing realisation that the measurement system in Africa at present does not fulfil international requirements. Mosima (2002:61) points out 'that that metrology related technical barriers to trade' must be actively and urgently addressed in the African context. A recent workshop (AFRIMETS, 2008a:1) has concluded that many African countries 'still lack basic metrology infrastructure to support scientific and industrial metrology'. Carstens (2002:50) notes that '[t]here are many areas within the NEPAD action plan in which legal metrology will have to play a vital role'. A possible impediment in the pursuit of cost effective solutions is reported by Birch (2003). Despite the challenges to developing countries to enhance, modernise and globalise their metrology systems, there is, according to Birch (2003:41), 'little literature on the economics of metrology in developing countries'.

More than ten years ago, ARSO proposed to create a regional programme on metrology for Africa. Such a scheme would have addressed activities such as assessment and accreditation of testing laboratories, sharing of metrology and testing facilities and inter–comparison of laboratory measurements among member states. There was a donor funded inter–comparison of mass standards during 1998–99 (Foss, 2003:14). Unfortunately, no further activity took place under this programme.

The NEPAD (2001) document notes the need to harmonise African measurement 'with the international metrology system' (NEPAD, 2001:51). The document proposes that such a need be addressed by creating national measurement institutions. The document (NEPAD, 2001:51) also points out that '[s]uch activities will always remain the responsibility of government' recognising that the public sector has a key role in creating both initial and ongoing technical capability and capacity such as a national metrology institute. Thoburn (2000:8) argues that '[p]ublic expenditure programmes should be designed with a view to enhancing the technological and human resource capabilities of the economy that will enable it to compete'. Fox and Maas (1997:3) also emphasise the need for a clearly defined goal for any such state originated activity. A national metrology institute is an expensive but essential component of trade facilitation. Such a resource needs to receive appropriate public funding to prevent it from having to compete with those facilities it should be supporting. Given that in Africa these organisations are few and far between, there is a need for regional recognition of their role and appropriate use of their resources in the various RECs used as building blocks for regional integration under NEPAD.

In response to both the stark reality and lack of apparent progress, representatives of the various NEPAD RECs as well as individual African states were invited together with regional representatives outside of Africa, to attend a meeting in March 2006 at the NEPAD secretariat to discuss the metrology needs in Africa. The workshop held in March 2006 was attended by delegates from more than 25 African countries (CSIR NML, 2007:4). Representatives from other regional metrology cooperations from the Asia

Pacific region (APMP), the America's (SIM), and Europe (EUROMET) also attended together with the head of the international treaty organisation for scientific and industrial metrology (BIPM). Other interested parties that attended included ECOWAS, COMESA and the African Committee of Metrology (CAFMET). The meeting delegates agreed on the need to establish an intra–Africa Metrology System (AFRIMETS) as a regional umbrella organisation for both scientific/industrial and legal metrology. AFRIMETS is based on the Regional Metrology Organisation (RMO) of the Americas, the *Sistema Interamericano de Metrologia* (SIM). The meeting (AFRIMETS, 2008a:2) was supported by NEPAD, the *Physikalish Technische Bundesanstalt* (PTB), the National Metrology Institute of South Africa (NMISA) and legal metrology at the South African Bureau of Standards (SABS). The meeting agreed that the main goal of AFRIMETS (AFRIMETS, 2008a:1) is to harmonise accurate measurement in Africa, establish new measurement facilities and gain international acceptance for all measurements critical to export, environmental monitoring and sanitary and phyto–sanitary issues. Carstens (2002:51) also highlights the need to create and maintain 'a Technical Regulation framework which meets international best practice'. Carstens (2002:51) points out that the availability and uniform implementation of such a supportive framework would 'ensure an effective trade measurement system'.

A draft MoU was subsequently prepared as a result of the initial workshop. A second AFRIMETS workshop was held in September 2006. The first General Assembly meeting was then held in July 2007 at the premises of the NEPAD. The occasion of the General Assembly was significant in that an MoU was finalised and signed by five African Sub Regional Metrology Organisations (SRMOs), who were SADCMET, EAMET, CEMACMET, SOAMET and MAGMET. These regional organisations represent a total of 37 countries in Southern, Eastern, Central, Western and North Western Africa (AFRIMETS, 2008b:4). In addition to the sub regional bodies, Nigeria and Côte d'Ivoire have also signed as individual (Ordinary) members. It is expected that Egypt and Ethiopia will sign in due course (AFRIMETS, 2008a:2). The ultimate aim

would be for AFRIMETS to assume the mantle of the RMO of the CIPM, a role currently performed by SADCMET.

4.4.2.3 NEPAD activity re: accreditation

The report of the management consultancy of the role of ARSO also reviewed the ARSO accreditation scheme that was launched in 1995. The report (Foss, 2003:14) noted that ARSO had expressed strong hopes that the accreditation scheme would be fully operational in the course of 2003. Such a hope was perhaps unrealistic given that the scheme had not been active since its creation. ARSO did note that any progress would depend on funding by donor organisations. Since the publishing of the report, there has been no further activity.

The NEPAD document (NEPAD, 2001:52) notes the need to '[e]stablish an accreditation infrastructure, such as the…ISO system, which is acceptable internationally'. Such an infrastructure, according to the same document (NEPAD, 2001:52) 'can be nationally based where the industry is strong enough to maintain it, otherwise regional structures should be contemplated'. An important appeal is made for the provision of funding specifically to allow 'membership of international structures such as the International Accreditation Forum (IAF) and the International Electrotechnical Commission (IEC)' (NEPAD, 2001:52). Interestingly, and perhaps inadvertently betraying the bias of the expert used in the formulation of the text, both of the selected organisations have a strong interest for National Standards Bodies. The IAF addresses the international recognition of the certification activity offered by the majority of NSBs in Africa. The IEC operates an industry driven recognition scheme for the specialised electrical testing activities offered by the SABS in particular.

The historical development of the coordination of accreditation within Europe gives some valuable insights for NEPAD–related work in the same area. According to a note from the European Commission (Commission of the European Communities, 2007:6) to the Senior Officials Group on

Standardisation and Conformity Assessment Policy (SOGS), the use of accreditation by national authorities in Europe began in the 1970s. Almost immediately, different approaches and systems developed creating a European and international need for closer alignment (Commission of the European Communities, 2007:6). The creation of the European body, the Western European Calibration Cooperation (WECC) in 1976 was followed at the international level by the creation of the International Laboratory Accreditation Cooperation (ILAC) in 1977. The Western European Laboratory Accreditation Cooperation (WELAC) was established in 1987 to address the issues in Europe regarding the accreditation of testing laboratories. Another organisation focusing on the accreditation of certification bodies in Europe, the European Accreditation of Certification (EAC) was formed in 1991. The same year, 1991, saw the creation of an international body, the International Accreditation Forum, covering the activities of certification at the global level. The two (calibration and testing) laboratory focused bodies in Europe, WECC and WELAC, merged in 1994 to form the European cooperation for the Accreditation of Laboratories (EAL). Three years later, in 1997, EAL and EAC merged to form European Accreditation (EA). In 2000, (Commission of the European Communities, 2007:6), EA was registered as an independent legal entity 'under Dutch law as a not–for–profit association'. As can be seen the journey of merger of the various cooperation components with Europe has been a long and relatively recent phenomenon. In all of that time the only Community wide recognition of accreditation (Commission of the European Communities, 2007b:19) was a Memorandum of Understanding between the Commission and EA. The Commission noted (Commission of the European Communities, 2007b:19) that the 'implementation of certain rules or decisions taken within EA can be supported by national laws and regulations in some Member States, whilst in others this is not the case and problems may be experienced'. The use of an MoU alone was finally recognised in 2007 by the Commission (Commission of the European Communities, 2007b:19) as 'not sufficient to overcome the current difficulties' if accreditation was to be appropriately utilised in the support of notification in terms of the directives. Similar experience in the regulatory area in South Africa was a driving force behind the creation and promulgation of an act of parliament for accreditation

of conformity assessment. While the recent creation of SADCAS in support of voluntary accreditation for SADC is excellent progress, its use in support of national technical legislation within the individual SADC member states has yet to be determined.

The technical focus of the laboratory community versus the compliance to standards methodology adopted by the certification community has led to many arguments about the advantages of merging the two areas of accreditation. The debate on merger between ILAC and IAF still continues at the international level in spite of concentrated attempts by some to advance the issue. A complicating factor is the model from Europe (Commission of the European Communities, 2007:10) that promotes both the public authority nature of accreditation, and the concept that 'accreditation is carried out free from commercial motivation and in avoidance of competition'.

In order to be credible, and properly serve its intended purpose, it is imperative that national or regional accreditation be internationally recognised. Maur (2008:30) asserts that accreditation 'needs to be guaranteed internationally by one of two global organizations: the International Accreditation Forum and the International Laboratory Accreditation Organization'. Although these organisations are in no position to guarantee, they do nevertheless play an important role. Membership of the mutual recognition arrangements operated by these two bodies does confer important and independent recognition. Two such internationally recognised accreditation bodies currently exist in Africa. The largest in terms of both customers and scope of activity is in South Africa. The other is in Egypt. There are fledgling activities in other African states as well as a recent regional body, one of the first in the world, in SADC. If African based accreditation services are not used, the only other readily accessible source of accreditation for conformity assessment is from Europe. A related issue, raised by Goonatilake and Kaeser (2006:7), is 'how to measure the impact or the cost and benefits of local, internationally recognized compliance infrastructure and services compared to the outsourcing of such services to foreign providers'.

The ARSO has realised that sub regional projects for accreditation are underway in the various RECs, including SADC. According to Foss (2003:45), ARSO also acknowledges that such REC driven projects 'appear to have succeeded in obtaining more active and wider national stakeholder involvement than the ARSO strategy'. Van Rooyen and Peet (2007:15) suggest that 'Africa through NEPAD should use and build onto the RECs such as the SADC'. In a similar vein, the same authors (van Rooyen and Peet, 2007:15) encourage the RECs in NEPAD to actively share the experiences gained through 'operationalising the various technical capacity building project components'. A meeting of the various African member states involved in accreditation with such an aim has been mooted on several occasions and donor funding was sourced for such an activity. Unfortunately, a lack of capacity at the NEPAD secretariat has so far frustrated further efforts in this regard.

According to a guide published in Europe in 2000 (Commission of the European Communities, 2000:3), '[t]he European Union has developed original and innovative instruments to free circulation of goods'. The same document (Commission of the European Communities, 2000:3) asserts that 'the New Approach to product regulation and the Global Approach to conformity assessment take pride of place'. At that time, accreditation (Commission of the European Communities, 2000:36) was not a requirement for important technical compliance related activities such as notification in terms of the New Approach directives. Accreditation should be considered by national notifying authorities (Commission of the European Communities, 2000:36) 'as the most favoured technical basis' in order to 'reduce differences in the criteria applied for notification'. In spite of such encouragement, the fact that many alternatives to proving conformity to European directives were equally promoted, led to an inevitable variation in approach by the member states. A Commission staff working paper (Commission of the European Communities, 2002:5) published in 2002 'assessing the advancement of the EU and its Member States relative to securing a better environment for enterprises' provides interesting insights. The report (Commission of the European Communities, 2002:89) uses the terms "certification" and

"accreditation" interchangeably. If such confusion was apparent at the Commission level, then it is not difficult to forecast the result at member state level. Further evidence of subsequent problems is highlighted in a proposal from the Commission (Commission of the European Communities, 2007a:2) for strengthening accreditation and market surveillance. Community technical legislation, according to the proposal (Commission of the European Communities, 2007a:2), 'has contributed considerably to the completion and operation of the Single Market'. The same proposal (Commission of the European Communities, 2007a:2) points out that experience, gained through implementation over seven or more years of the various pieces of technical legislation, has identified certain problems. Experience has shown (Commission of the European Communities, 2007a:2) that 'differing practices in the designation of conformity assessment bodies by national authorities' has introduced a risk of distortion to competition within the community. The same variation in practice (Commission of the European Communities, 2007a:2) has created 'lack of trust in conformity marking' and 'a certain lack of coherence' in the 'implementation and enforcement' of technical legislation. In order to address these and other shortcomings, the objective of the proposal (Commission of the European Communities, 2007a:2) is 'to provide a common framework for the existing infrastructures for accreditation for the control of conformity assessment bodies, and market surveillance for the control of products and economic operators'. Interestingly, the proposal (Commission of the European Communities, 2007a:5) 'insists on the public authority nature of accreditation'. An important supporting objective (Commission of the European Communities, 2007a:5) is the 'recognition of existing organisation European co–operation for Accreditation (EA) so as to ensure the proper functioning of a rigorous peer evaluation'. A presentation by the Directorate General for Enterprise and Industry of the European Commission (McMillan, 2008:4) to the last joint General Assembly of ILAC and IAF stressed that 'national authorities of EU member states may refuse attestations of conformity under accreditation by non European Abs not complying with the new European requirements but signatories to the IAF and ILAC MLA/MRA'. The only exception, according to the same source (McMillan, 2008:4), is where an MRA is in place between Europe and a third

country. It was reported (McMillan, 2008:5) that only six such MRAs are currently operational, and none with any African state. No definite answer was obtained in response to a question regarding the full compliance to all requirements by South Africa but with no MRA in place. It was subsequently confirmed in discussion with the South African dti, that the negotiation of such MRAs is a low priority for Europe.

An important development regarding the increased use of accreditation and associated market surveillance in the European Union and the European Free Trade Area (EFTA) has recently been announced by the Commission Vice–President responsible for Enterprise and Industry (Commission of the European Communities, 2008:1). An earlier note from the European Commission (Commission of the European Communities, 2007:5) to the Senior Officials Group on Standardisation and Conformity Assessment Policy (SOGS) points out that 'accreditation has an effect on a number of areas of public concern, such as health and safety, the environment [and] the competitiveness of industry'. The same note (Commission of the European Communities, 2007:5) creates some important additional requirements for the acceptance of accreditation of conformity assessment in Europe. According to the note (Commission of the European Communities, 2007:5), the member states of the European Union have acknowledged 'that in order for accreditation to have added value as an authoritative level of control, it needs to be performed as a public authority activity'. Further conditions (Commission of the European Communities, 2007:5) are identified as full compliance to 'evolving technical requirements', independence from and accountability to 'all interested parties' with 'no single interest predominating'. The final requirements for accreditation bodies, as previously mentioned (Commission of the European Communities, 2007:5), pertain to ensuring (1) freedom from commercial pressure, (2) no competition between them and (3) no competition between the services the provide and those of the CABs they accredit. The note (Commission of the European Communities, 2007:5) stresses that such conditions apply in 'both the regulated and non regulated (market driven) areas for conformity assessment. The no competition rule

among accreditation bodies is totally opposite to current practice in the United States, and their reaction is still awaited at the international level.

After an approach to both the European Council and Parliament in 2003 by the Commission, the Parliament has now decided (European Union, 2008c:1) on ‘a common framework for marketing of products’. Such a step (European Union, 2008c:1) recognises ‘the need for a clearer framework for conformity assessment, accreditation and market surveillance’. The principles outlined in the note from the Commission to the SOGS have now been codified in a piece of specific legislation on accreditation by the European Parliament (European Union, 2008b). The need for regulating accreditation at the European level, after many years without such intervention, is fully articulated in the new regulation for accreditation that applies to all European member states as from January 2010 (European Union, 2008b:45). The previous lack of common rules for accreditation at the European level (European Union, 2008b:31) has caused unwanted variation among the member states in that the ‘degree of rigour applied in the performance of accreditation has varied’. An important requirement of the new regulation (European Union, 2008b:32) is the necessity for national accreditation bodies to ‘operate a rigorous and transparent peer evaluation system and regularly undergo such evaluation’. Competition between accreditation bodies, according to the regulation (European Union, 2008b:31), is ‘incompatible with their role as the last level of control in the conformity assessment chain’. The same document (European Union, 2008b:31) notes that a ‘system of accreditation which functions by reference to binding rules helps to strengthen mutual confidence between Member States as regards the competence of conformity assessment bodies’.

4.4.2.4 NEPAD activity re: conformity assessment activities

The NEPAD document (NEPAD, 2001:52) records the need to ‘[p]ursue mutual recognition of test and certification results with Africa's major trading partners’, suggesting the need first for considerable foundational work with regard to technical infrastructure. It notes (NEPAD, 2001:52) that such recognition is predicated on the availability of a ‘framework for standards,

technical regulations, measurement, tractability and accreditation' that 'can be shown to meet international requirements'. In a similar vein, the NEPAD document (NEPAD, 2001:52) signals the need to '[e]nsure that testing laboratories and certification organisations are set up to support the relevant national technical regulations'. An important corollary is that '[w]here they do not exist, such organisations should be established as soon as possible' (NEPAD, 2001:51).

NEPAD recognises that Africa still lacks sufficient availability of conformity assessment services both in technical scope and geographic spread. There are major, often unintended impacts, surrounding the local provision or, more importantly, non provision of conformity assessment services for African countries. UNIDO (2002:2) stresses the need for adequate physical and institutional infrastructure as well as appropriate scientific and technological skills and capabilities. A significant contribution to trade facilitations between EU and SADC countries, according to Hoffman and Elago (2007:16), would be the 'creation of regional institutions and laboratories in Africa that could be involved in SPS–related research and control'. The continued lack of such capacity and capability will significantly impede their successful integration into the wider, brutally competitive global economy. In facing this challenge, there are several issues. A number of approaches to the provision of conformity assessment are mooted by such influential bodies as the World Bank, the OECD and the EU. These proposed remedies fall, simplistically, into two categories. The United States promote a private sector led approach using 'market forces' to ensure that competitive solutions are provided. The second is the 'New Approach' of the European Union which relies on a mixture of sophisticated regulation and public funded conformity assessment activity. The EU prefers their approach due to the inherent risk from cheap but incorrect test results created by an overzealous reaction to competition. A second factor within Europe, is a legislative need for public institutions to take appropriate responsibility for protecting the welfare of their citizens. Stone's (2004:571) assertion that '[t]wo contradictory interpretations cannot both be true…and political life is full of them' sums up the situation precisely. African industry needs to export to both of these important markets complete with

their 'contradictory interpretations' (Stone, 2004:571). There is an urgent need therefore to determine if there is a cost–effective way, as an African exporter, to satisfy these apparently conflicting but entrenched export market philosophies.

Another complication, the role of the private versus public sector, has been identified by authors such as Fox and Maas (1997) and Allison (2004). These authors stress the difference in approach between the private sector, which addresses the needs of a self–selected group of specific customers, and the public sector, which must look after the various needs of a group of citizens. Applying these approaches to conformity assessment could create a scenario where only those services that could realise a profit would potentially be efficiently serviced by the private sector. Conformity assessment services identified as part of strategic national, REC or NEPAD imperatives, but not seen as ultimately profitable, could be placed in jeopardy unless public funded organisations, and appropriate ongoing funding, are made available to cater for them. Another important issue is that any practice adopted by NEPAD REC members that gives no external confidence in the continuous competence of standards and conformity assessment facilities to accurately report on the results of inspections and tests, could easily jeopardise more than their own national reputation. Stiglitz and Charlton (2005:209) caution that '[w]hile public sector capacity–building is an important objective' it should not detract from developing private sector capacity. These include laboratories and inspection activities.

Two of the prerequisites for effective regional integration, according to Hinkle, Hoppe and Newfarmer (2002:265), is first reaching agreement on product standards and then the related activity of 'mechanisms to ensure compliance'. As already mentioned, the vast majority of African countries have created public funded capacity to fulfil both functions. Their influence is seen even in the NEPAD document and what has been emphasised therein. It is interesting for instance that the need for establishing 'organisations on national standards' and 'standards bureaux', exactly the same activity, is given a double reference. Although the functions highlighted are important, the future

provision by a single public funded entity is increasingly being called into question, except in Africa. Such a development in the rest of the world could be that the technical infrastructure is, as Jreisat (2002:121) points out, 'evolving into a higher mode of differentiation'. Such a scenario is characterised by Jreisat (2002:121) as a change to a situation where specific functions are assigned to specific structures. In South Africa, technical infrastructure related responsibilities are assigned to three different public funded institutions as is the norm in most developed countries. Noting the decisive role of the state in any development process, Tawfik (2005:5) emphasises 'the availability of effective institutions' as equally important. As previously stated, such organisational differentiation is not the norm in the rest of Africa. One problem with such concentration of responsibilities in a single institution is the need to balance the views of the expert staff of such a public organisation in regional and international discussions on the technical issues surrounding trade facilitation with those of other stakeholders.

NEPAD has documented some of the underlying issues at a broad philosophical level. There is however no commonly agreed direction regarding public administration responsibility for the provision or sharing of conformity assessment and related technical infrastructure. There is an urgent need for such direction from NEPAD in order to address the pressing issue of proving conformity to international standards. The role and type of monitoring processes required within Africa to ensure effective and sustainable implementation have also not been addressed in any significant way. In facing this challenge, there are several issues. One is how should a country migrate from donor or government driven creation of public service capacity and delivery to encouraging an appropriate mix of public/private institutional capacity? A related issue is how to address sustainable private sector conformity assessment service provision, especially (SMMEs), in such a highly technical field.

Given the enormity of building a sustainable technical infrastructure that would address the needs of the NEPAD region, the use of the existing RECs, according to Van Rooyen and Peet (2007:51), is more sensible. This would

allow a network to be created that could then be integrated at the regional level. A better use, in this area of activity, for the structures of NEPAD, initially at least, is the formulation of regional views on technical issues. They could also be used to coordinate activities among the various RECs in technical infrastructure capacity building to ensure maximum use is made of the knowledge obtained.

4.5 CHAPTER SUMMARY

Using the key issues identified in the literature review, three case studies based on national (South Africa), sub–regional (SADC) and regional (NEPAD) public administration activities in the area of research were used in order to identify both successes that could be replicated and current areas for improvement.

The first case study describes relevant activity in South Africa in order to identify national issues. South Africa is specifically chosen for the lessons that can be learnt from the many years of experience within the technical institutions there and very recent developments from government strategy in the area under study. A private sector South African management consultancy firm was commissioned by the dti to manage a review of the local technical support infrastructure and issued their report in 2001. The complete overhaul of the various acts of the domestic technical infrastructure was completed late in 2008. The review is sound as far as specific technical issues are concerned but fails to address the deeper public administration aspects such as holistic policies, planning and subsequent collaborative governance required for sustainability in any significant detail. The need for a collective and harmonised responsibility for ensuring synergistic implementation and maintenance in achieving larger government objectives has still not been understood. Another important output that has been largely missed concerns linkages between SQAM issues identified during trade negotiations and obtaining proactive input from the various SQAM institutions. Such important activity tends to be reactive at the moment and the interactions remain largely tenuous. Although certain officials within dti are

aware of the role and functions of SQAM there is no regular interaction between the relevant parties on SQAM trade negotiation issues and larger strategic objectives. The confrontational nature of trade negotiations is also problematic especially if one is seeking regional solutions for technical capacity strengthening as part of implementing such regional and international trade agreements.

The next case study uses insights from the SADC Regional Economic Community in order to identify NEPAD REC issues. An important global trend is that regional organisations for Standards, Accreditation and Metrology are increasingly being seen as providing the necessary links between emerging regional trade blocs and the relevant international body for a specific activity. This has a major impact on developing economies and emerging regions such as SADC. The Memorandum of Understanding on SQAM acknowledges five independent technical structures to deal with the facilitation of implementation of the SADC Protocol on Trade with regard to standardisation, technical regulations and conformity assessment issues. These structures relate to the way these issues are organised at the international level. The regional activities of standards creation in Europe, CEN/CENELEC and the Asia Pacific region, PASC, have been mirrored in the SADC committee, SADCSTAN. The individual standards body members of these organisations also form part of the membership of the International Organization for Standardization (ISO). Similar regional bodies exist for Accreditation in Europe (EA), the Asia Pacific region (APLAC/PAC) and in SADC (SADCA). Scientific and industrial metrology in Europe (Euromet) and Asia Pacific (APMP) has the counterpart of SADCMET in SADC. Legal Metrology is covered by Welmec in Europe, APLMF in the Asia Pacific region and SADCMEL in SADC. The various regional bodies are in turn related to the international bodies for accreditation, ILAC and IAF, scientific and industrial metrology, BIPM and legal metrology, OIML. Supported by government funding channelled through the dti and actively encouraged by their international counterparts, South Africa is taking a leading role as far as SQAM activity in the SADC region is concerned. Owing to the availability of such funding, South African organisations manage the secretariats of all of

the SADC SQAM committees previously mentioned. This has been the case since the creation of these structures more than seven years ago. Although the secretariats have a fixed tenure of three years, so far no other SADC member state has volunteered to undertake the task at their own cost.

The creation of an appropriate regulatory and policy framework to guide subsequent technical support programmes is noted by SADC. Encouraging local ownership and participation including maximum use of national and regional expertise as part of intra–regional programmes using one another's capacities was also raised. Any proposed interventions should facilitate consultation among regional stakeholders to ensure that such activities were demand driven. High level political support of technical assistance activities was also identified as a key success factor together with the need for better coordination of programmes of technical support among bilateral and multilateral donors. Interventions should also be targeted to deal with language barriers. Recent meetings of the four SQAM structures in SADC argue the need for additional resources for the translation of documents into French and Portuguese. Such translations would enable experts from all of the SADC countries to meaningfully participate in the regional work. The differentiation of language groups for training and related capacity building programmes was also considered to be a critical factor for future success for similar reasons.

The final case study investigates the existing activity at the NEPAD level in order to identify African continental issues. More African leadership is required in ensuring a sustainable future for NEPAD itself as well as directing the implementation of its various programmes. An important issue for African countries is the implementation of global agreements. A related issue concerns the need for appropriate knowledge and subsequent articulation by African countries of their own trade interests. Such insights and capability are vital if African countries are to be seen as reliable partners in global trade negotiations such as those conducted under the auspices of the WTO. It is recognised that Africa does not, as yet, have a sufficient availability of conformity assessment services both in technical scope and geographic

spread. NEPAD has documented some of the underlying issues at a broad philosophical level. There is however no commonly agreed upon direction regarding public administration responsibility for the provision or sharing of conformity assessment and related technical infrastructure. There is an urgent need for direction from NEPAD in order to address the pressing issue of proving conformity to international standards. The role and type of monitoring processes required to ensure effective and sustainable implementation also needs to be addressed.