

ECONOMIC SECTORS AND EMPLOYMENT CLUSTER

2010/11 – 2012/13 Industrial Policy Action Plan

February 2010



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1. INTRODUCTION

In January 2007 Cabinet adopted the National Industrial Policy Framework (NIPF) which sets out Government's broad approach to industrialisation with the following core objectives:

- To facilitate diversification beyond our current reliance on traditional commodities and non-tradable services. This requires the promotion of increased value-addition characterised particularly by movement into non-traditional tradable goods and services that compete in export markets as well as against imports.
- The long-term intensification of South Africa's industrialisation process and movement towards a knowledge economy.
- The promotion of a more labour-absorbing industrialisation path with a particular emphasis on tradable labour-absorbing goods and services and economic linkages that catalyse employment creation.
- The promotion of a broader-based industrialisation path characterised by the increased participation of historically disadvantaged people and marginalised regions in the mainstream of the industrial economy.
- Contributing to industrial development on the African continent, with a strong emphasis on building its productive capacity.

Guided by the NIPF, the implementation of industrial policy is to be set out in an Industrial Policy Action Plan (IPAP). In August 2007 Cabinet approved the first: 2007/8 IPAP which reflected chiefly 'easy-to-do' actions. The 2007/8 IPAP has largely been implemented. Highlights include:

- Strengthening of the Competition Act to introduce stronger investigative powers and personal liability.
- Finalisation of a revised programme for the automotive sector for 2013-2020: the Automotive Production and Development Programme. This provides long-term certainty, creating conditions of meeting the target of production of 1.2 million vehicles by 2020, with substantial deepening and broadening.
- Development of a fundamentally new support programme for the Clothing and Textiles industry aimed at upgrading competitiveness in order to recapture domestic market share.
- Attraction of substantial investments in Business Process Services with concomitant job creation.
- Lowering of input costs through the removal or lowering of a range of imports tariffs, particularly on key intermediate inputs into manufacturing. Tariffs have been removed or lowered on products including primary chemicals, aluminium and certain textiles not produced in sufficient commercial quantities in South Africa.
- Strengthening of building energy-efficiency standards in response to the national electricity shortage.

However, there has been a growing recognition that industrial policy needs to be scaled up from 'easy-to-do' actions to interventions that we 'need-to-do' to generate a structurally new path of industrialisation. This mandate has been strengthened under the new administration and was formalised in the President's State of the Nation Address of 3 June 2009:

"Building on the successes of our industrial policy interventions, a scaled up Industrial Policy Action Plan will be developed."

A process of intensive consultation and analysis – led by the Minister of Trade and Industry – has culminated in a revised IPAP for the 2010/11 – 2012/13 Financial Years. It was recognised that a one-year IPAP is too short a period and that future IPAPs will be for a three-year rolling period, updated annually and with a 10-year outlook on desired economic outcomes. The 2010/11 – 2012/13 IPAP represents a significant step forward in our industrial policy efforts. As it is reviewed and updated annually, it will be continuously strengthened and up scaled.

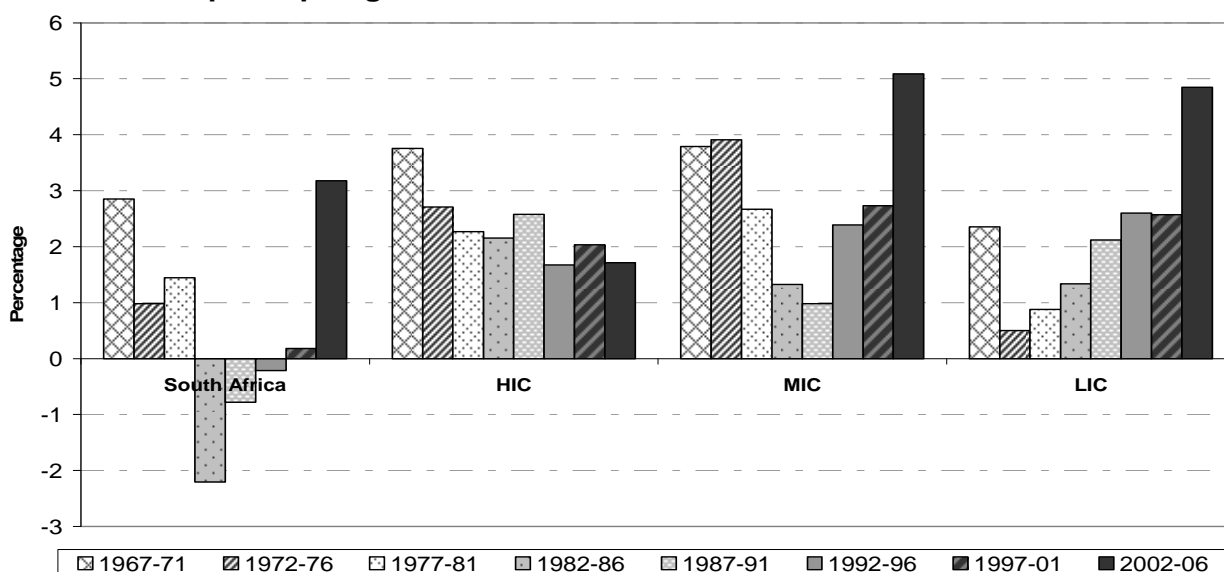
2. PROBLEM STATEMENT

Prior to the global economic crisis of 2008 and 2009, South Africa achieved relatively high growth rates, particularly over the 2005 – 2007 period. However, these growth rates mask key structural challenges in the South African economy.

2.1. Structural imbalances in South Africa’s current growth path

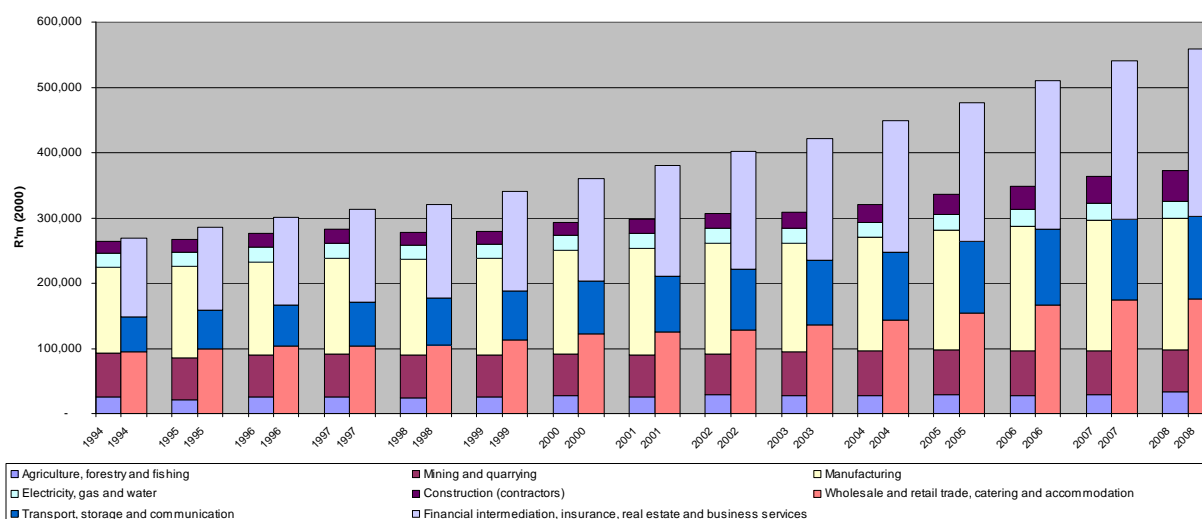
First, South Africa’s growth rates have been lower than the average growth rates of our peers across medium- and low-income countries (Graph 1). Second, growth has been driven by unsustainable increases in credit extension and consumption not sufficiently underpinned by growth of the production sectors of the economy (Graph 2). Thus consumption-driven sectors (financial intermediation, insurance and real estate, transport, storage and communication, and wholesale and retail, catering and accommodation) grew by 107% between 1994 and 2008 (7.7% annually). By contrast production sectors (agriculture, mining, manufacturing, electricity and water, and construction) grew by only 41% (2.9% annually). This has led to large and unsustainable imbalances in the economy, particularly a large current account deficit. Third, even at the peak of recent average annual growth of 5.1% between 2005 and 2007, unemployment did not fall below 22.8%.

Graph 1 – South African growth relative to peer country groups, 5-year averages of annual GDP per capita growth



Source: CSID (WDI), 2008

Graph 2 – GDP by production and consumption sectors, 1994-2008 (R'2000)

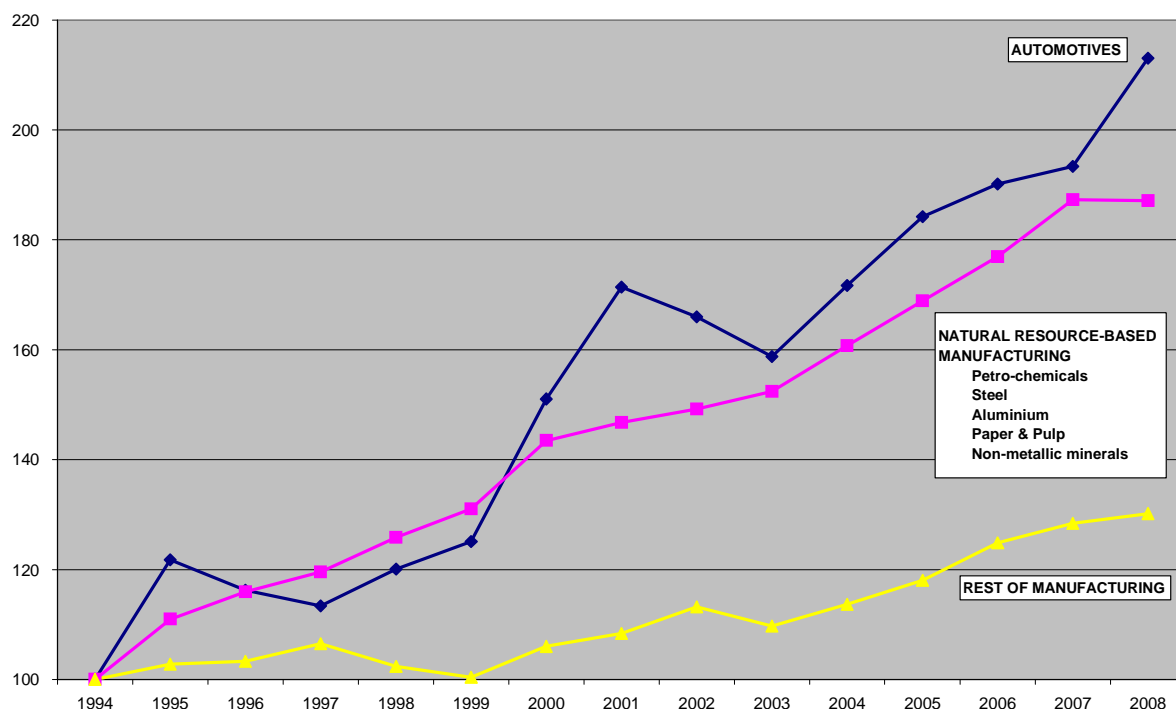


Source: SARB

2.2. Manufacturing

Manufacturing accounts for the biggest share of the production sectors of the economy: 54.3% in 2008. Within manufacturing itself, there has been a wide divergence of performance. Through the Motor Industry Development Programme, the automotive sector has more than doubled in size since 1994, with an exponential growth in exports but remaining challenges in terms of localisation and employment generation. The natural resource-based sectors have also demonstrated relatively strong growth. These are the capital- and energy-intensive sectors, most of which were established through a variety of apartheid-era industrial policies and have now become largely internationally competitive, such as petro-chemicals, steel, aluminium, paper and pulp, and cement. The rest of manufacturing has by and large stagnated, although there has been some improvement since 2003 which coincides with the growth in public capital expenditure led by improvements in sectors such as metal fabrication and capital equipment. (Graph 3).

Graph 3 – Manufacturing growth 1994-2008, indexed (1994=100)



Source: Quantec

2.3. Employment

In recent years formal employment growth has come predominantly from the services sector, particularly in the wholesale and retail and business services sectors. However, these employment gains are currently precarious. Wholesale and retail employment growth has been as a consequence of massive and unsustainable private credit extension, leading to a widening current account deficit. Business services employment growth has been driven predominantly by two factors: the outsourcing of activities such as logistics and catering; and the growth in the private security sector. The unsustainable dependence of retail and wholesale employment growth on private credit extension rather than income growth in productive sectors has been demonstrated by the large reversals of employment in this sector in the light of the collapse in credit extension as a consequence of the economic crisis. Therefore long-term increases in employment - in all sectors of the economy - needs to be underpinned by higher growth in the production sectors of the economy, led by manufacturing.

2.4. Low relative profitability of manufacturing

Several economists have observed that high unemployment was due to low growth in investment in tradable sectors outside mining and agriculture. Specifically they have concluded that a key problem is the low relative profitability of manufacturing in relation to sectors such as finance.

Low profitability has been the consequence of a number of key driving forces which include:

- An exchange rate which is volatile and generally over-valued.

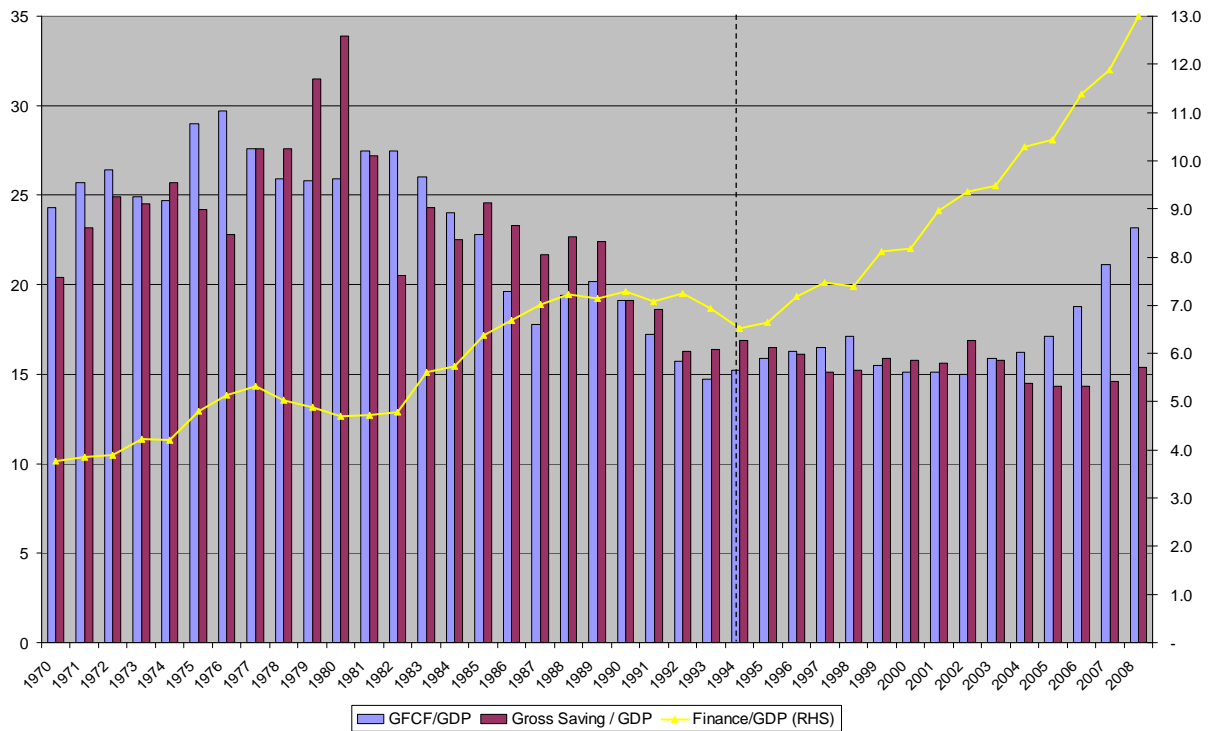
- The high cost and limited allocation of capital to productive sectors, particularly the relatively more labour-intensive and value-adding sectors of the economy.
- Failure to adequately leverage domestic supply opportunities of the public capital expenditure programme, other large public 'fleet' expenditure, as well as private procurement spend.
- The monopolistic provision and pricing of key inputs into manufacturing and other productive processes, and concentrated purchasing power of outputs of these sectors.
- A weak skills system, which does not adequately respond to the needs of productive sectors.
- An aged, unreliable and expensive rail and ports systems.
- Further, imminent electricity price increases will also introduce a negative shock to the production side of the economy.

While most of these key driving forces have been extensively analysed elsewhere, it is important to highlight two that have not: the cost and allocation of capital and the failure to adequately leverage public and private procurement.

2.5. Cost and allocation of capital

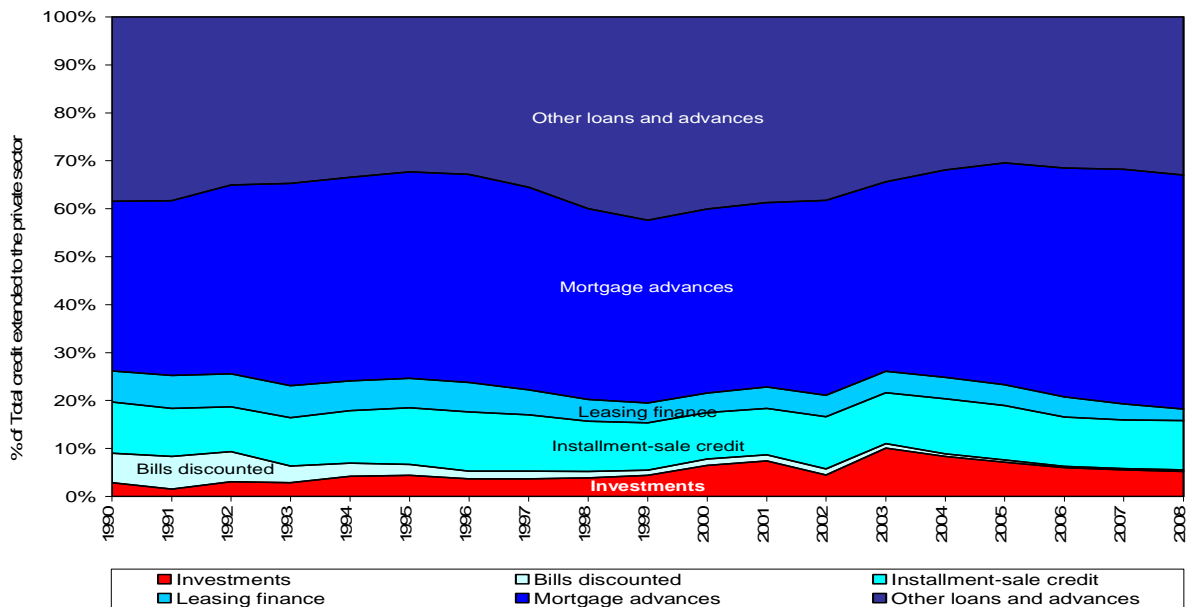
South Africa's private financial sector has experienced dramatic growth since 1994 (Graph 4), increasing its share of GDP from 6% to 13% between 2004 and 2008. This has been driven by massive growth in the extension of private credit extension (Graph 5). However, notwithstanding the doubling in the size of the financial sector since 1994, investment and savings rates have been mediocre over most of the post-apartheid period. Only a very small proportion of private credit is being extended to fixed investment: only 5.2% in 2008. Fixed investment rates have recently improved driven by rising public investment expenditure, but savings rates remain low.

Graph 4 – Gross fixed capital formation and savings to GDP versus share of the finance sector in GDP, 1970-2008 (%)



Source: SARB

Graph 5 – Private sector credit extension by all monetary institutions

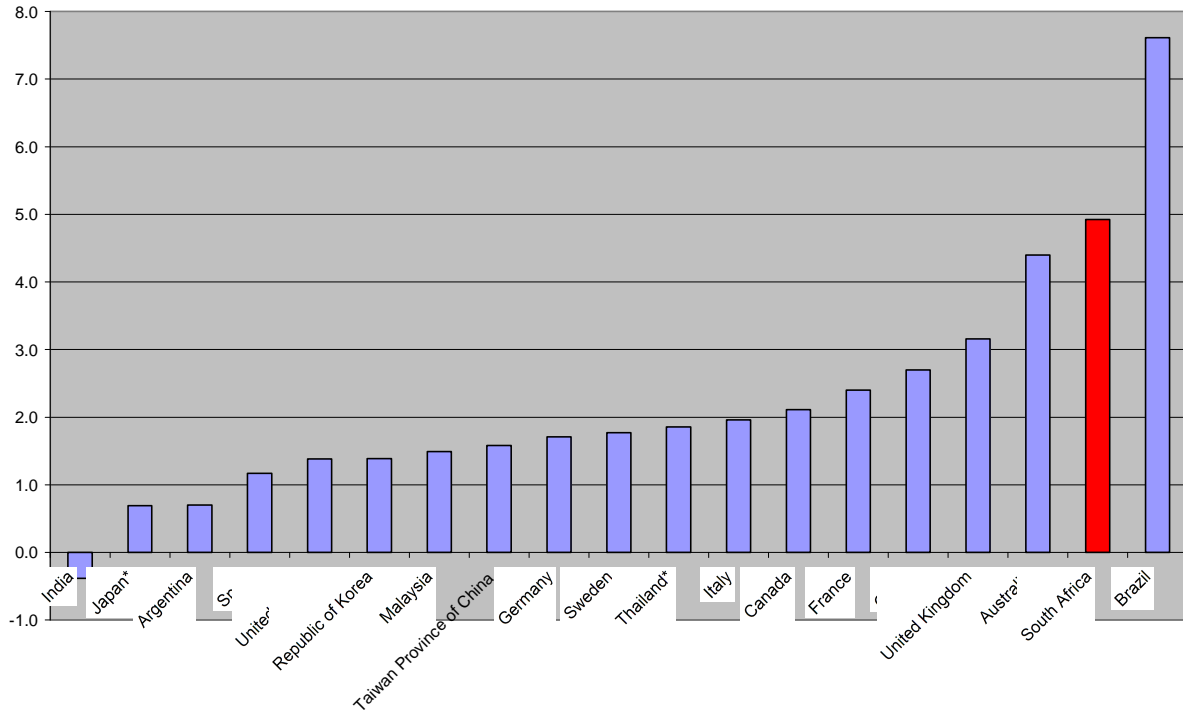


Source: CSID (SARB), 2009

Graph 6 shows that the underlying real cost of capital in South Africa is very high, relative to our main trading partners. In manufacturing, the cost of capital is even lower

in many trading partners due to subsidies and subsidised credit through development banks and export credit banks and agencies. For example, Brazil's Banco Nacional De Desenvolvimento Econômico E Social (BNDES) plays a fundamental role in extending concessional credit to productive sectors of the economy, including manufacturing, infrastructure, mining and innovative service industries.

Graph 6 – Cost of capital: pre-crisis real interest rates in South Africa and our main trading partners, 2007

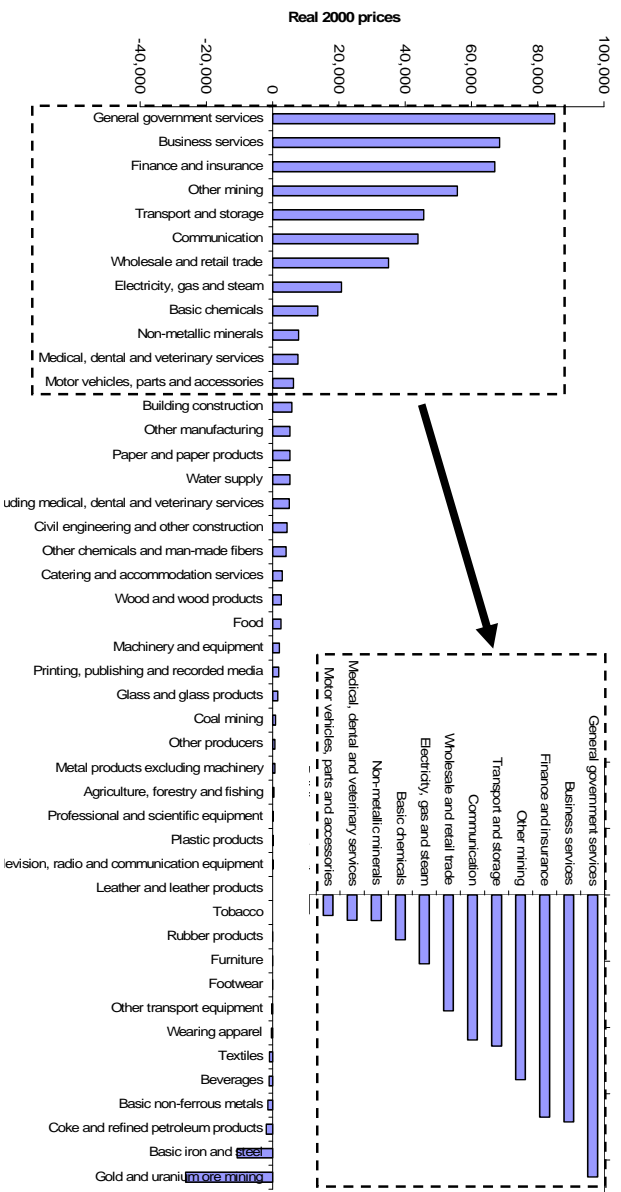


Source: Bloomberg and IMF

Note: Real interest rate calculated as bank rate less CPI

Graph 7 illustrates that despite the recent improvement between 2005 and 2008, fixed investment has been concentrated in three main areas. First, recent fixed investment has been driven primarily by public capital expenditure of the State Owned Enterprises and government. Second, private investment has been predominantly concentrated in debt-driven consumption sectors (like Finance and Wholesale and Retail). Third investments in production sectors have themselves been concentrated in capital-intensive mineral-energy sectors (like Mining, Cement and Chemicals). With the exception of the automotive industry, most relatively labour-intensive and value-adding productive sectors have experienced low – and sometimes falling – rates of investment.

Graph 7 – Change in capital stock between 2000 and 2008 across all economic sectors



Source: CSID (Quantec), 2009

2.6. Failing to leverage procurement

Public infrastructure investment has been a key driver of recently improved investment rates. Public investment of R 404 billion has been invested over the 2006/7 to 2008/9 period rising to R 787 billion for the period 2009/10 to 2011/12 (Table 1).

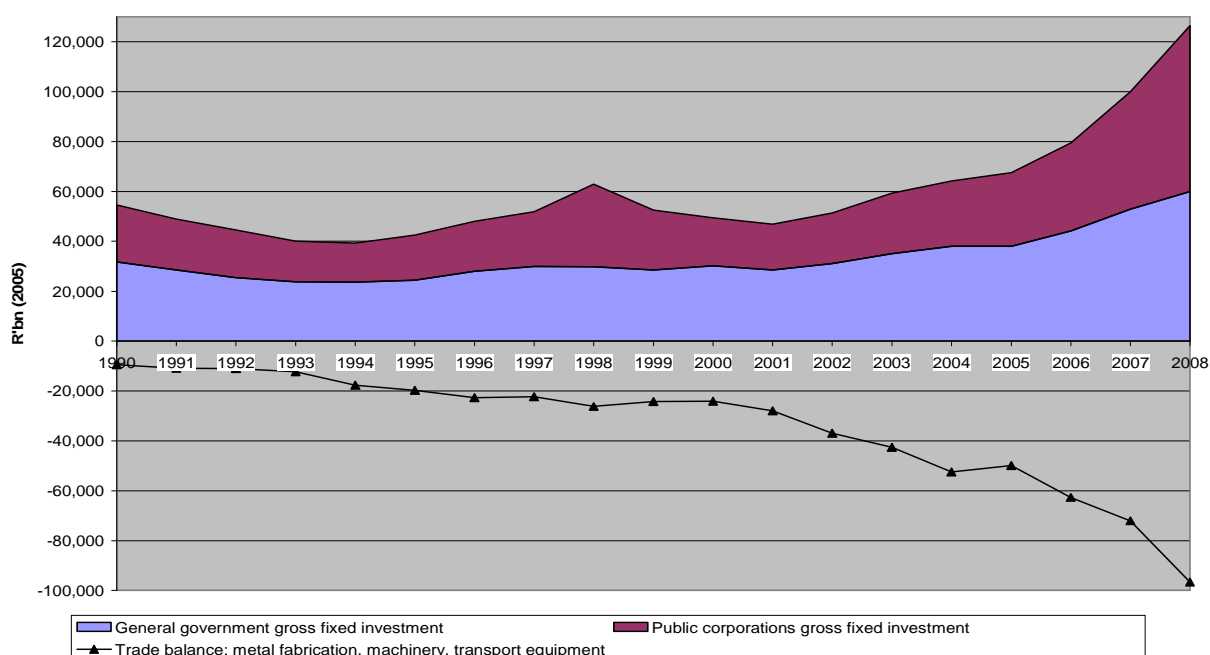
Table 1 – 2009 Revised MTEF infrastructure expenditure estimates

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
R million			Rev.est	Medium-term estimate		
National departments ^{1,2}	4 631	5 712	7 157	8 024	8 641	12 867
Provincial departments ² (All sectors)	27 112	29 395	34 664	39 899	46 517	52 439
Of which Provincial departments (Education, Health, Roads) ^{2b}	16 146	19 178	21 810	24 881	27 184	29 902
Municipalities	21 084	30 736	46 093	49 496	53 738	59 074
Of which direct & indirect grants ^{2c}	8 390	16 612	18 625	19 608	21 845	26 043
Public private partnerships ³ of which:	1 343	3 857	7 633	13 897	11 692	11 727
SANRAL ⁷	2 292	3 392	4 073	5 525	6 665	
Extra-budgetary public entities	3 699	3 726	4 895	6 971	7 509	8 112
Non-financial public enterprises of which:	25 736	56 765	90 192	119 585	131 335	145 842
Eskom ⁴		23 803	46 876	80 735	79 735	70 289
Transnet ⁵		16 935	20 531	24 301	20 071	12 570
Infraco ⁶	627	-	377	210	140	
SARCC rolling stock, signalling, Buildings, perways, public transport infrastructure and systems grant (PTIS) ⁷		4 135	5 347	6 608	7 723	
ACSA				4 983	1 174	967
Total	83 605	130 191	190 634	237 873	259 433	290 061
Percentage of GDP	4.6%	6.3%	8.3%	9.6%	9.7%	9.8%
GDP	1 810 664	2 067 884	2 304 111	2 474 214	2 686 254	2 952 989

Source: National Treasury (2008) – MTBPS, National Treasury (2009) – Budget Review

However, much of the tradable content of public infrastructure investment as well as other large components of public procurement are being imported (Graph 8). This has both micro- and macro-economic consequences. At the micro-economic level, the failure to adequately leverage public procurement represents a huge lost opportunity to resuscitate key sectors of the economy, raise their competitiveness and reposition them as exporting sectors of the future, such as the metal fabrication, capital equipment and transport equipment sectors. At the macro-economic level, high levels of imports have increased the current account deficit with the potential to lead to balance of payments problems and thus to threaten the macro-economic sustainability of the capex programme itself.

Graph 8 – Public investment and trade balance in metal products and machinery, 1990 - 2008



Source: Quantec

Public procurement – within both government and state-owned enterprises (SOEs) – currently suffers from a number of deficiencies.

First, a number of large, ongoing procurement processes are conducted more on a short-term ‘ad hoc’ basis than a long-term strategic basis. There is generally no long-term procurement plan in place which identifies, *inter alia*, the need for repeat purchases of systems or components, opportunities for standardisation, optimal procurement size and opportunities for domestic localisation and competitive supplier development. A good example is the recent purchase by the Johannesburg Metro of buses for the first stage of their Bus Rapid Transport System. The tender for buses was finalised at such a late stage that it was impossible for local manufacturers to ramp up production. All buses were imported from Brazil, backed by highly concessionary export finance provided by Brazil’s BNDES and with no domestic production whatsoever.

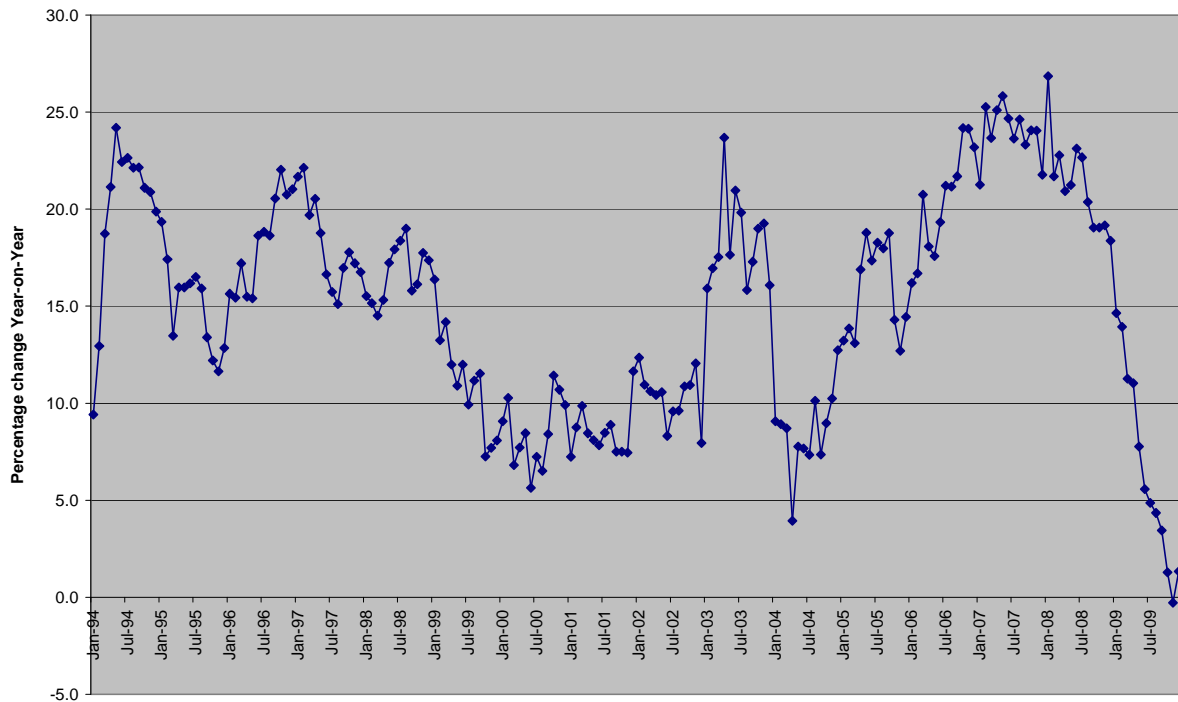
Second, the legislative procurement regime lacks focus, is outdated and fragmented. Different rules apply between and amongst the three spheres of government and SOEs. There is currently little alignment with key objectives such as industrial policy imperatives in particular and to a lesser extent broad-based black economic empowerment (B-BBEE).

Third, there is no alignment between industrial financing and public procurement. For instance, when Brazil procures a wide range of infrastructure projects and manufacturing inputs, BNDES provides concessionary project financing for components of projects or procurements that embody high levels of Brazilian local content. If the tender for buses in the example given above had been in Brazil, BNDES would provide the purchaser with very attractive finance for the purchase of Brazilian manufactured buses.

3. IMPACT OF THE ECONOMIC CRISIS

The analysis above demonstrates that even prior to the 2008/9 global economic crisis the South African economy suffered from serious structural weaknesses and imbalances. The crisis has further weakened the productive base of the economy and brought forward – albeit more rapidly than would otherwise be the case – the inevitable reversal of credit-fuelled consumption-driven growth. Graph 9 shows the high rates of private sector credit extension experienced since mid-2005 and their subsequent collapse, commencing in the third quarter of 2008.

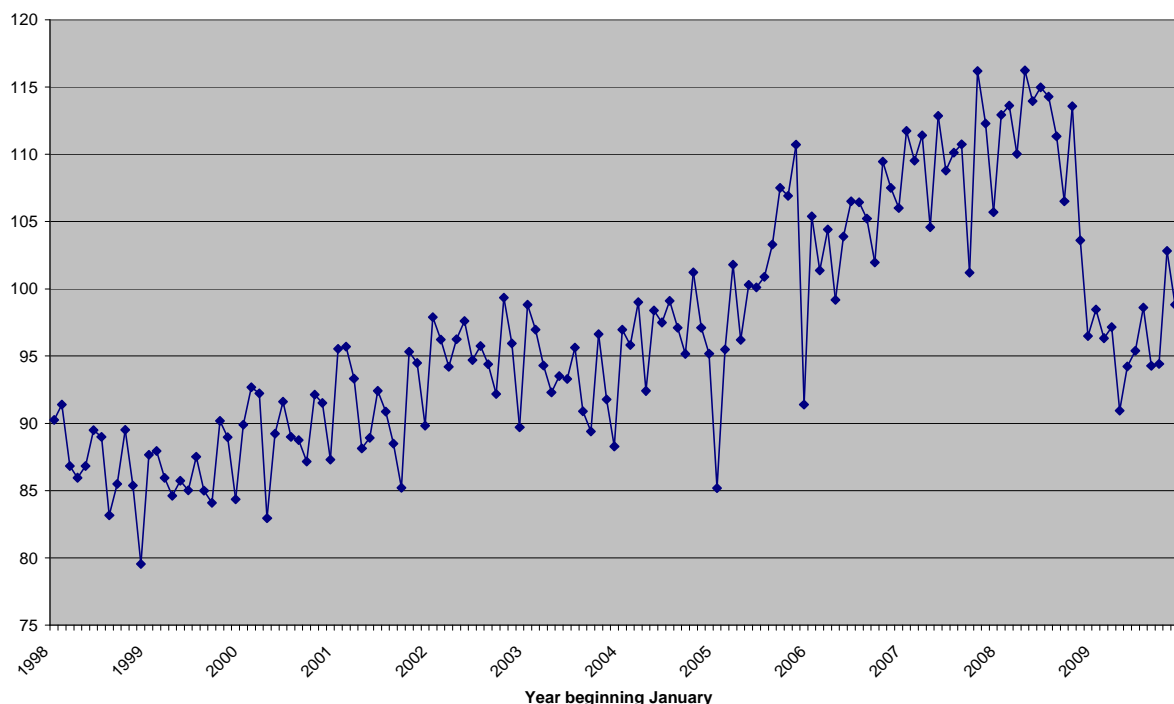
Graph 9: Private sector credit extension: monthly since Jan 1994, year-on-year % change



Source: Quantec

The impact in South Africa has been felt across all major indices with production declining accompanied by substantial job losses across the major employment sectors. Graph 10 shows that the manufacturing sector's volume of production has declined significantly as a result of the crisis and remains below its level of 2005.

Graph 10: Physical volume of manufacturing production – indexed to 2005 = 100



Source: Stats SA

Within the manufacturing sector, the largest sub-sectors have been worst affected. The vast majority of the 27 manufacturing sub-sectors experienced declining rates of production in the fourth quarter of 2009 compared to the same period in 2008. Moreover, the biggest declines were experienced by large sectors such as autos, basic chemicals and other fabricated metal products. These sectors account for almost 25% of manufacturing production. Total manufacturing production declined by 4% during that period.

The main impact of the crisis has been felt in employment. Table 2 indicates that some 870, 000 jobs have been lost in the South African economy since the fourth-quarter of 2008.

Table 2: Employment losses, year-on-year, across economy

	October-December 2008	October-December 2009	Year-on-Year change
Agriculture	764 000	615 000	-149 000
Mining	321 000	296 000	-25 000
Manufacturing	1 944 000	1 742 000	-202 000
Utilities	86 000	98 000	12 000
Construction	1 191 000	1 085 000	-106 000
Trade	3 164 000	2 873 000	-291 000
Transport	774 000	739 000	-35 000
Finance	1 636 000	1 759 000	123 000
Community and social services	2 661 000	2 628 000	-33 000
Private households	1 298 000	1 135 000	-163 000
Total	13 844 000	12 974 000	-870 000

Source: Stats SA, QLFS

The global economic crisis has brought into sharp focus a variety of underlying structural weaknesses in the South African economy. These include the consumption-driven growth path and the relatively low profitability of manufacturing industries compared to service sectors. South Africa's recovery is likely to lag the world economy and the need to create decent jobs especially in manufacturing which provides good prospects for creating sustainable jobs is strong.

4. A COMPREHENSIVE AND INTEGRATED RESPONSE TO SCALE UP INDUSTRIAL POLICY

The analysis above indicates that seven sets of policies are critical to achieve a scaled-up industrial policy and a shift towards strengthening the productive side of the economy in general.

- i. Stronger articulation between macro and micro economic policies
- ii. Industrial financing channelled to real economy sectors.
- iii. Leveraging public and private procurement to raise domestic production and employment in a range of sectors, including alignment of B-BBEE and industrial development objectives, and influence over private procurement.
- iv. Developmental trade policies which deploy trade measures in a selected and strategic manner, including tariffs, enforcement and SQAM (standards, quality assurance and metrology) measures.
- v. Competition and regulation policies that lower costs for productive investments and poor and working class households.
- vi. Skills and innovation policies that are aligned to sectoral priorities.
- vii. Deploying these policies in general and in relation to more ambitious sector strategies, building on work already done.

5. ROLE OF IPAP IN RELATION TO OTHER POLICIES

The IPAP advances the work of the Economic Sectors and Employment Cluster in a number of respects. It contributes to:

- Rural development through interventions in a range of sector such as agro-processing, bio-fuels, forestry, cultural industries, aquaculture, tourism
- Advanced technological capabilities through interventions in the nuclear, advanced materials, aerospace, and ICT industries
- A serious first step towards the systematic promotion of Green and energy-efficient goods and services.
- Downstream mineral beneficiation
- Strengthened linkages between Tourism and Cultural industries
- Stronger integration between sector strategies, skills development plans and commercialisation of publicly funded innovation.
- Macro-economic stability through:
 - Improvements in the trade balance
 - Lowering of inflationary pressures through increased supply and competition in a range of sectors
 - It has a profound positive net revenue impact
 - It contributes to medium to long-term diversification of the economy and hence risk mitigation.
- A substantial contribution to the creation of decent jobs, both directly and indirectly.

However, industrial policy and the IPAP form part of a larger set of inter-related policies and strategies with respect to generating a New Growth Path that is relatively more labour-intensive and value-adding. There is therefore a need for a process – led by the Economic Development Department (EDD) – for a stronger articulation and integration, *inter alia* of a fuller range of policies to ensure coherence across them:

- Macro-economic policy.
- Policies to raise levels of production and decent work in Agriculture, Mining and Construction.
- Policies to develop the Green Economy
- The National Industrial Policy Framework and Industrial Policy Action Plan.
- The Ten Year Innovation Plan towards a Knowledge Based Economy
- Skills
- Rural development.
- Energy.
- Infrastructure.
- Expanded Public Works Programme.

6. STRENGTHENED COHERENCE BETWEEN MACRO- AND MICRO-ECONOMIC POLICY

Numerous commentators have emphasised the need for macro-economic policies to be aligned and calibrated to micro-economic imperatives. Therefore, there is a need to work towards stronger coherence and mutual supportiveness of macro- and micro-economic policies.

The success of the IPAP depends fundamentally on macro-economic policies which are favourable – relative to our key trading partners – in the following respects:

- A competitive and stable exchange rate regime; and
- A competitive real interest rate regime.

Micro-economic policies can make a substantial contribution to the stability of macro-economic variables. This includes:

- A focus of certain micro-economic policies – particularly competition policy – on lowering inflation, particularly with respect to:
 - Inputs of critical goods and services into manufacturing and other productive activities.
 - Goods and services that are consumed by poor and working class families
- Active promotion of investment in certain sectors can also have a positive impact on inflation. For instance the promotion of small scale maize millers will contribute to increasing competition and moderating pricing in a key sub-sector which has an impact on food pricing.
- IPAP will contribute substantially towards an improvement in the trade balance, both with respect to increasing production of domestic goods and services, but also with building new areas of export competitiveness.

7. INDUSTRIAL FINANCING

Many commentators have noted the low relative profitability of sectors that have high prospects for developmental returns in the economy, particularly manufacturing. One key determinant of profitability is the availability and cost of capital.

The analysis above demonstrates that: 1) South Africa's cost of capital is high relative to our major trading partners, 2) most recent private credit extension has been in the form of debt-driven consumption and 3) where credit extension has been extended for investment, it has been highly concentrated in consumption-driven services sectors and to a lesser extent relatively capital- and energy-intensive industries.

Therefore the private financial sector in SA is not adequately aggregating savings and distributing them towards productive investment.

Hence, the public role of industrial financing is to channel capital into productive investments which directly and indirectly generate decent jobs and value-addition. It is critical to emphasise that industrial financing for selected real sector activities has a profoundly positive macro-economic impact. It lowers pressure on the monetary authorities for unduly low interest rates across the entire economy which could be channelled into unsustainable, debt-driven consumption and speculative investment activities. Increased supply in productive sectors lowers price pressures in the economy and hence moderates inflation. Increased investment that generates a mix of import replacement and exports lowers the current account deficit and reduces associated balance of payments risks. It also has a positive net revenue effect.

Both on-budget investment incentives and Development Finance Institutions (DFIs) are extremely important in allocating capital towards productive sectors. The 2008/9 recession has placed immense pressure on the budget and hence DFIs – particularly the Industrial Development Corporation (IDC) – will need to play a disproportionate role in financing private investment in real economy sectors. Development banks have played a critical role in channelling finance to productive activities in countries that have industrialised rapidly, such as the Korean Development Bank (KDB) and Brazil's BNDES.

In order to play this role, the IDC requires a source of concessional credit which it can pass on to lower the cost of capital for real sector activities. For instance, the BNDES has an ongoing flow of concessional credit from the Brazilian equivalent of SA's Workmen's Compensation Fund that is legislatively mandated. Box 1 demonstrates how this source of funding – supplemented by attractive treasury bonds – allows BNDES to provide finance for almost all of Brazil's manufacturing, infrastructure and other productive investments at interest rates equivalent to roughly half Brazil's prime lending rate. Graph 12 shows the impact of this lending – investment rates which are 2.5 times higher than Brazil's GDP growth rate implying higher sustainable future GDP growth rates. By contrast, the IDC has not received a capital injection from the state since the 1950s. It must fund all its activities off a commercially funded balance sheet and hence at costly commercial rates.

Box 1: BNDES concessional funding

Source of BNDES financing

- FAT (Worker's Assistance Fund)
- Legislatively mandated flow of large portion of FAT (+/- 40%)
BNDES only repays interest, not capital
- Treasury bonds

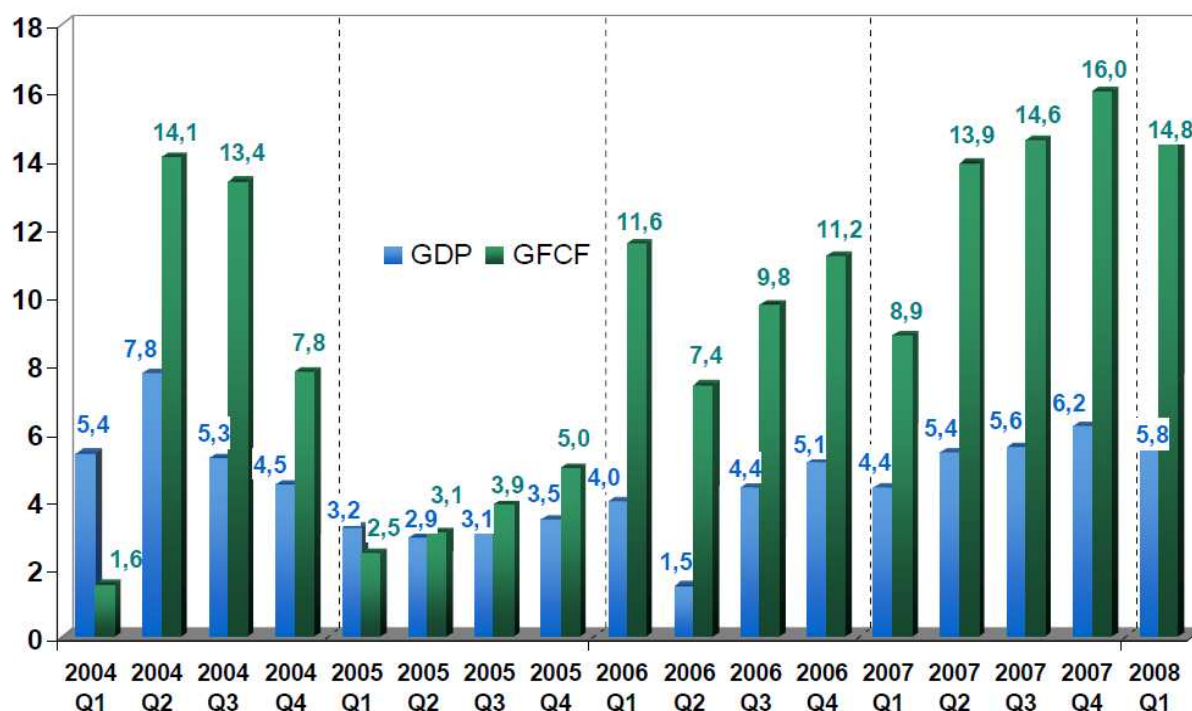
Basic structure of BNDES loan financing (2008)

TJLP = Long-term interest rate (6.25%)
 Basic spread 0% - 3% (ave approx 1.09%)
 Credit Risk Levy 0.46% - 3.57% (ave approx 1%)
 Average BNDES lending rate 8.34%
 Brazil real interest rate 8.08%
 BNDES real interest rate 0.26%

Source: BNDES

Graph 11: Brazil's investment growth: 2.5 times faster than GDP

Growth Rate GFCF (Q/Q-4)



Source: BNDES

On-budget incentives also play a critical role with respect to industrial financing. A key focus over the current IPAP will be to strengthen the conditionalities around both on- and off-budget support mechanisms to minimise the development impact. In particular, a process will be undertaken to review and strengthen conditionalities related to:

- Direct and indirect employment intensity and contribution.
- Supply chains localisation and supplier development.

- Market behaviour of dominant firms.
- Much stronger scrutiny and conditionalities for any further capital- and electricity-intensive 'mega-projects'.

7.1. Key Action Programmes (KAPs)

7.1.1. Securing ongoing sources of concessional funding for disbursement by the IDC into IPAP sectors

Key milestones

- 2010/11 Q1: Review IDC business model to identify ways to free up capital for IPAP labour-intensive and other value-adding sectors.
- 2010/11 Q2: Convene and finalise intra-governmental process to identify and create long-term ongoing source of concessional funding for IDC.

Lead department: EDD

Supporting departments / agencies: DTI, NT, IDC

7.1.2. Strengthen conditionalities with respect to on-budget incentives

Key milestones

- 2010/11 - 2012/13: Review and strengthening of conditionalities attached to core on- and off-budget forms of support.

Lead department: DTI

Supporting departments / agencies: EDD, NT / IDC

8. LEVERAGING PROCUREMENT

Strategic leveraging of public procurement will be critically important for the success of the IPAP – across a range of sectors – including:

- Metal fabrication, capital equipment and transport equipment.
- Buses and other medium and heavy commercial vehicles.
- Pharmaceuticals (appropriately sequenced so as not to disrupt roll-out of critical medicines).
- Electronics such as set-top-boxes.

Currently public procurement is conducted on an ‘ad hoc’ rather than a strategic basis and does not deliver adequately on either value-for-money or key industrial policy objectives. Some fundamental changes are required with respect to procurement legislation, regulations and practice. These changes must be sequenced to avoid disruptive transitions.

Preferential procurement regulations and legislation will be overhauled through a two-stage process. First, the current process of amending regulations to the Preferential Procurement Policy Framework Act (PPPFA) must be fast-tracked to give effect to the Nedlac Crisis Response Framework¹. Second, a broader review and amendment of the procurement legislation itself is required. Core requirements of both stages are:

- To ensure a mechanism to “designate” large, strategic and repeat “fleet” procurements. Procuring entities of designated “fleets” will be required to develop a long-term strategic plan in conjunction with DTI which sets out a detailed specification of the tender setting out explicitly sequentially increasing local procurement and supplier development requirements.
- To align discretionary points with B-BBEE Codes and local procurement so that only suppliers providing domestically produced goods and services will be considered for preference points. They will earn these points according to their B-BBEE status. This helps to eliminate the practice of “import fronting” where small BEE operations act as conduits for large importers.
- To allow for “point matching” by domestic producers so that where an importing company scores the highest points in a tender, the next highest scoring domestic supplier in the tender must be allowed an option to lower its price to the point that it would have scored sufficient points to win the tender.
- Explicit inclusion of the National Industrial Participation Programme (NIPP).

Over the IPAP period the intention is to identify eight to ten large and strategic procurement “fleets”. The following “fleets” have indicatively been identified thus far:

- Locomotives, wagons and coaches for freight and commuter rail procured by Transnet and the Passenger Rail Agency of South Africa (PRASA).

¹ The Framework Agreement – which was confirmed as government policy in the President’s State of the Nation Address of 3 June 2009 – identifies procurement of domestically produced goods and services as central to the crisis response:

“ All the social partners, including parastatals, will encourage local procurement of supplies, services and other requirements wherever possible in order to maintain and increase local output and employment levels. This applies particularly to the large procurement programmes attached to major public and private investment projects where cooperation amongst social partners can be employed to promote local suppliers. This will also include procurement of pharmaceuticals and medical supplies, clothing and textile products, food and perishables, stationary, computers, office equipment and consumables, automobiles and transport services, consulting services and printing. The review of preferential procurement legislation should be undertaken with urgency.”

- Key elements of the coal-fired electricity build programme procured by Eskom.
- Key elements of the nuclear electricity build programme procured by Eskom.
- Buses procured by various Metros.
- Appropriate sequencing for inclusion of key pharmaceuticals procured by the Department of Health, particularly anti-retrovirals (ARVs) and production, including strategic active pharmaceutical ingredients (APIs).

The NIPP aims to leverage investment, exports and technology in the context of large public procurements which embody more than US\$ 10 million of imported content. To date it has generated substantial value-added, investment and employment. However, it can be leveraged in a more strategic manner to address certain weaknesses. NIPP is currently a post-tender process which weakens government's bargaining power, as offset requirements are negotiated after a tender has been awarded. Therefore the NIPP will be strengthened, in particular to make it a pre-tender process in relation to strategic tenders, with domestic production and supplier development requirements built up-front into strategic tenders.

Further, there needs to be greater articulation between the NIPP and the Department of Public Enterprises' (DPE's) Competitive Supplier Development Programme (CSDP). The CSDP allows for SOEs to commit to develop and implement competitive supplier development plans as an alternative to the NIPP. To date, Eskom and Transnet have elected to adopt the CSDP process. To provide greater policy certainty the NIPP and CSDP will be amalgamated into a single programme. The DST funded Technology Localisation Programme is already operating in collaboration with DPE on the CSDP activities with Eskom and Transnet. This work on technology assistance to qualifying manufacturing companies will also support the NIPP and CSDP.

In addition to public procurement, government also has instruments with significant potential influence over private procurement.

The B-BBEE Policy is a lever that relies on influencing public procurement by the private sector to promote inclusion in the economy in various forms. However, the linkages between B-BBEE and industrial policy have not been adequately articulated. This requires a process of review and adjustment.

DFIs such as the IDC and the Development Bank of Southern Africa (DBSA) are important lenders in the South African economy for industrial and infrastructural investments. They often invest in large projects in South Africa and more broadly on the African continent. DFIs – particularly IDC and DBSA – must ensure that they build local and regional localisation into their funding conditionalities, particularly for large projects. While there must be a strong focus on crowding in South African manufacturers of machinery and other inputs, there must also be a conscious effort to crowd in and develop suppliers in African countries in which regional projects are financed.

Proudly South African (PSA) is an institution which can potentially strongly influence procurement in favour of domestic production. In order to achieve this, stronger management and a resuscitation of the profile of PSA is required. Moreover, PSA should strengthen the value of its label by accrediting companies with high levels of local content. The South African National Accreditation System (SANAS) will play a role in assisting PSA to do so.

8.1. Key Action Programmes (KAPs)

8.1.1. Overhaul of Preferential Procurement Policy Framework Act (PPPFA)

Key milestones

- 2010/11 Q1: Short-term changes to PPPFA regulations, embodying the following elements:
 - Mechanism to “designate” large, strategic and repeat “fleet” procurements for development of long-term strategic plans that identify, *inter alia*, detailed specification of the tender identifying sequentially increasing local procurement and supplier development requirements.
 - Inclusion of SOEs in the preferential procurement regime in relation to designated “fleet” procurements.
 - Explicit cross-referencing of the NIPP.
 - Align discretionary points with B-BBEE Codes and local procurement, *inter alia* to eliminate the practice of “import fronting”.
 - Allow for “point matching” by domestic producers with an option for the next highest scoring domestic supplier to lower its price to the point that it would have scored sufficient points to win a tender, where the highest point scorer is a foreign tenderer.
- 2010/11 Q4: Medium-term changes to PPPFA legislation, to cement the elements above and:
 - Ensure full coherence and alignment across legislation such as the PFMA and PPPFA.
 - Explicit inclusion of NIPP.

Lead departments: NT/EDD

Supporting departments / agencies: DTI, DPE and DST

8.1.2. Identification of strategic procurement “fleets” and development of long-term procurement and local content plans

Key milestones

- 2010/11 Q2-Q4: Designation through Cab memo and where relevant in terms of the PPPFA of the following “fleets”:
 - Locomotives, wagons and coaches for freight and commuter rail procured by Transnet and PRASA
 - Buses procured by various Metros
 - Set-top-boxes for DoC digital migration process.
 - Components and materials for aircraft procured by South African Airways and the Defence sector
- 2010/11 Q3-Q4: Finalise agreements with relevant procuring entities around the scope and timing of designation of the following “fleets”:
 - Key elements of the coal-fired electricity build programme procured by Eskom.
 - Key elements of the nuclear electricity build programme procured by Eskom.

- Key pharmaceuticals procured by the Department of Health, particularly ARVs, and production, including strategic APIs.
- Key elements in aerospace industry
- Work with procuring entities to identify local procurement plus supplier development requirements in tenders.

Lead department: DTI

Supporting departments / agencies: EDD, DoT, DOC, DPE, DOH, DST / Transnet, PRASA, Metros and Eskom

8.1.3. Strengthen National Industrial Participation Programme

Key milestones

- 2010/11 Q3: Amend NIPP – through Cabinet Memorandum – to make it a more strategic and higher impact instrument:
 - Convert NIPP to a pre-tender process in relation to strategic procurements applying to public procurements over a particular threshold and in relation to strategic sectors with the following elements.
 - Strategic procurements require a pre-tender process which embodies:
 - A detailed breakdown of demand, identifying, *inter alia*, areas of repeat procurement and opportunities for standardisation.
 - A detailed supply analysis which identifies existing domestic supply capacity.
 - A gap analysis which identifies areas for domestic procurement based on both existing capacity and capacity that can be built through active supplier development.
 - Inclusion up-front in the tender of these domestic procurement requirements.

Lead departments: DTI, DPE and EDD

8.1.4. Strengthen impact of CSDP and alignment with NIPP

Key milestones

- 2010/11 Q1: DPE to strengthen shareholder compacts with Eskom and Transnet, including the explicit introduction of local value added as a Key Performance Indicator.
- 2010/11 Q2: Strengthen CSDP policy:
 - Exemption from NIPP in relation to a specific procurement only occurs when there is both a CSDP plan in place related to that procurement and this plan is being implemented.
 - That capex and opex not covered by an operational CSDP plan remain subject to NIPP.
- 2010/11 Q3: Amalgamation of NIPP and CSDP.

Lead department: DPE

Supporting departments / agencies: DTI, DST and EDD

8.1.5. Alignment between B-BBEE and industrial policy

Key milestones

- 2010/11 Q3: Review selected aspects of the B-BBEE Codes and propose amendments to align the Codes with industrial policy considerations.

Lead department: DTI

Supporting departments / agencies: EDD / B-BBEE Advisory Council

8.1.6. Strengthening the role of DFIs in locking in domestic and regional procurement

Key milestones

- 2010/11 Q2: Development and communication of guidelines to DFIs in relation to promotion of local and regional content in relation to their financing, particularly for large projects in South Africa and Southern Africa.

Lead department: EDD

Supporting departments / agencies: DTI and NT

8.1.7. Revamp Proudly South African

Key milestones

- 2010/11 Q1: Strengthen management and oversight of Proudly South African.
- 2010/11 Q3: Put in place a system with the assistance of SANAS for the accreditation of companies with high levels of local content.

Lead department: DTI

Supporting departments / agencies: SANAS

9. DEVELOPMENTAL TRADE POLICIES

The NIPF identifies tariffs as instruments of industrial policy which have implications for employment, investment, technology and productivity growth and that tariff policy should be decided primarily on a sector-by-sector basis dictated by the imperatives of sector strategies.

The Nedlac Crisis Response Process has re-emphasised the need to positively consider lowering tariffs on intermediate inputs into manufacturing and other productive sectors. It has also identified scope for the selective use of tariffs under the following circumstances:

- Potential for significant creation and/or retention of decent jobs.
- Potential for significant import replacement.
- “Water” between bound and applied rates.
- Formalising and strengthening conditionalities related to tariff increases.

Various forms of customs fraud and illegal imports are undermining productive capacity and employment across a range of sectors, including smuggling and under-invoicing. Therefore, South Africa will need to enforce its trade laws more effectively. Measures to deal with this include:

- As part of the South African Revenue Service’s (SARS’) Customs Modernisation Project, SARS will extract indicative prices which will be used to alert Customs officials to under-invoicing and other types of customs fraud.
- Dedicated capacity will be set up to deal with fraudulent and illegal imports in sensitive sectors, commencing with clothing and textiles.
- Disposal of seized goods will be done in a manner which does not disrupt the domestic market.
- Dedicated ports of entry for certain high-risk products will be introduced.
- Criminal prosecutions instead of fines will be pursued in sensitive sectors and above certain thresholds.
- Loopholes will be identified and closed. For instance, to avoid neighbouring countries being used as conduits for illegal / fraudulent imports as well as the misuse of “trade fairs” to avoid payment of customs duty.

Matters related to Standards, Quality Assurance and Metrology (SQAM) – otherwise known as Technical Infrastructure – are set to play an increasing role in global trade. Industrialised countries and advanced developing countries’ application of Technical Barriers to Trade (TBTs) and Non-Tariff Barriers (NTBs) make it difficult to access their markets. These countries have put in place increasingly demanding standards, generally related to safety and health. A specific emerging threat is the rise of “eco-protectionism” under the guise of addressing climate change concerns, particularly from advanced countries. For instance, some countries are considering the imposition of “border adjustment taxes” on imports produced with greater carbon emissions than like products produced domestically and subject to carbon emission limits.

Our Technical Infrastructure policies and institutions need to re-orient themselves to play a strategic industrial policy role. The key institutions involved are:

- South African National Accreditation System (SANAS).
- National Regulator for Compulsory Specifications (NRCS).
- South African Bureau of Standards (SABS).

- National Metrology Institute of South Africa (NMISA).

This re-orientation will have two broad strategic thrusts:

- “Locking-out” unsafe and poor quality imports.
- “Locking-in” access to increasingly demanding export markets.

Technical Infrastructure systems will be strengthened to address weaknesses that have been identified in the system of institutions. For instance, a number of electrical and plumbing inputs into buildings do not comply with mandatory standards. However, enforcement lies with municipalities who – due to multiple service delivery demands – are not actively enforcing these standards. Thus a shift to pre-border enforcement of certain mandatory standards is necessary. There may also be a need to introduce additional mandatory standards. Work to strengthen our technical infrastructure will be undertaken in a manner consistent with our international treaty obligations.

Therefore, our Technical Infrastructure institutions will also re-prioritise their activities to support the development, accreditation and enforcement of standards which can create, scale up and resuscitate certain industries while simultaneously contributing to broader social benefits. These industries can either serve domestic or export markets. For instance, strengthening standards in relation to energy and water efficiency can contribute fundamentally to the growth of domestic industries in areas such as production and installation of solar water heating, energy-efficient industrial motors and domestic rain-water tanks. These institutions will also have to more actively support export market access through assisting exporting firms to meet increasingly demanding standards of advanced developed and developing countries.

Technical infrastructure will also need to play an increasing role in addressing energy and water efficiency imperatives, at the household and industry level.

Multi-lateral, regional and bi-lateral trade agreements are all creating long-term downward pressure on tariffs as an instrument of strategic trade policy. The role of technical barriers to trade and non-tariff-barriers is increasing the relative importance of technical infrastructure policies and institutions. Developed countries and advanced developing countries are increasingly using TBTs and NTBs to protect their markets.

In order for South Africa to deepen its manufacturing capabilities and move into knowledge intensive value chains, a tremendous amount of industry upgrading will be necessary.

A sound technical infrastructure plays a significant role in the economy in two ways: firstly, it assists firms to adopt and meet the quality standards necessary to compete in the global markets and secondly, it assists in ensuring that low quality imports do not undercut the productive base of our manufacturing sector. The ability to manufacture to specific requirements is critical in many advanced sectors. It is these measurement based capabilities that are key criteria for potential players to become members of global supply chains. Government’s aim is to deepen the integration of prioritised sectors into these important value chains.

Technical regulations, standards, environmental compliance and attendant administrative requirements can create technical barriers to trade that can impede government’s efforts to diversify the economy as well as grow the South African export basket. The technical infrastructure, by allowing our economy to develop and set

standards, test against these standards and accredit various suppliers as being competent to perform technical measurements, is an effective mechanism for the TBT regime.

Key opportunities

The key opportunities which technical infrastructure policies and institutions will exploit over the next three years include:

- Stronger enforcement of existing mandatory standards, with a possible shift to enforcement at the border and the establishment of a South African import alert programme.
- The introduction of additional mandatory standards.
- The identification of industries which could be created / resuscitated through a strengthening of standards which also have positive social benefits.
- The identification of key export markets and products which require stronger SQAM support to unlock significant growth opportunities.
- The strengthening of the capacity of technical infrastructure institutions and conformity assessment services to be able to respond better to the needs of the industry.

Constraints

Current measures to exclude non-compliant products from the market are not effective. Medium and small enterprises have difficulty meeting increasingly higher demands for compliance with standards and technical regulations of sophisticated markets. The technical infrastructure institutions also need to be strengthened to enable them to respond timeously to industry needs.

9.1 Key Action Programmes (KAPs)

9.1.1 Ongoing developmental tariff reform

Key milestones

- 2010/11-2012/13: Ongoing – scope for industries to apply to the International Trade Administration Commission (ITAC) for selective tariff increases on products with scope for significant potential creation / retention of decent jobs and import replacement and "water" between bound and applied rates.
- 2010/11-2012/13: Ongoing – scope for further selected decreases in tariffs on intermediate inputs into manufacturing and other productive sectors.

Lead department / Agency: DTI / ITAC

Supporting department / agencies: EDD

9.1.2 Clampdown on customs fraud

Key milestones

- 2010/11-2012/13: Ongoing – application of an indicative reference price system to alert Customs officials to possible under-invoicing and other types of customs fraud.
- 2010/11-2012/13: Ongoing – dedicated investigations and prosecutions of fraudulent and illegal imports in the clothing and textiles sector.

- 2010/11 Q2: Identification of further sectors for the establishment of dedicated capacity to address fraudulent and illegal imports.
- 2010/11-2012/13: Ongoing – disposal of seized goods will be done in a manner which does not disrupt the domestic market.
- 2010/11 Q1: Formal request from DG of Trade and Industry to SARS to establish dedicated ports of entry for specified sensitive products.
- 2010/11 Q4: SARS to establish dedicated ports of entry for certain sensitive products, in consultation with DTI.
- 2010/11-2012/13: Ongoing – criminal prosecutions instead of fines to be pursued by SARS and the National Prosecuting Authority (NPA) in sensitive sectors and above certain thresholds.
- 2010/11-2012/13: Ongoing – stronger enforcement by SARS of Rules of Origin on imports of sensitive products from neighbouring countries.
- 2010/11: Closure of loopholes by ITAC, such as the misuse of “trade fairs” for the sale of imports.

Lead department / Agency: NT / SARS

Supporting departments / agencies: EDD, DTI and DOJ / ITAC and NPA,

9.1.3 Review trade valuation methodology to bring South Africa more in line with major trading partners

Key milestones

- 2010/11 Q4: ITED and SARS to review South Africa’s trade valuation methodology towards aligning it with major trading partners.

Lead department: DTI (ITED)

Supporting departments / agencies: DTI, EDD, DAFF, NT and DMR / SARS and ITAC

9.1.4 Strengthen market standards

Key milestones

- 2011/12: by Q2 – NRCS to identify specific products for pre-border enforcement and work with SARS to prevent entry of non-compliant products.
- 2011/12: by Q4 – SABS to develop South African National Standards (SANS) and NRCS to introduce additional mandatory standards in the following key areas: energy and water buildings; energy efficient electrical appliances; plumbing components; solar water heaters; electrical products in fixed installations; agro-processing products (processed meat and live aquaculture) and electric vehicles.
- 2011/12: by Q4 – SABS to introduce additional SANS and testing capacity to support the creation / scaling up of industries such as: wind energy turbines; automotive diesel fuel; alternative fuel vehicles; solar water heaters; electrical products and certain chemicals
- 2011/12: SABS, SANAS and the NMISA to support energy efficient saving in industry through a reliable and internationally recognised measurement, reporting and verification system.

- 2011/12: by Q4 – NMISA and the SABS to provide technical support for exports by upgrading the national power, energy, biofuel and biological measurement standards; dimension measurement for automotives; capacity to do testing for agricultural and fish exports; as well as SADC standards for automotives and chemicals.
- 2011/12 by Q4 – DTI, SANAS, SABS, NRCS and the NMISA to develop and roll out a technical skills plan for metrology, accreditors, standards writers, laboratory personnel and compulsory specifications practitioners.

Lead department: DTI

Supporting departments / agencies: EDD / NRCS, SARS, SABS, SANAS and NMISA

9.1.5 Strengthening enforcement of existing and new mandatory standards of IPAP sectors

Key milestones

- 2010/11 Q1: NRCS and SARS to formalise their relationship in the form of a Memorandum of Understanding (MoU).
- 2010/11 Q4: NRCS will introduce a system to link up with SARS to enable its officials to access the NRCS Letter of Authority system for the release of regulated commodities.
- 2010/11 – 2010/13: DTI to work closely with SARS to prevent entry of non-compliant products. Where necessary, the NRCS may shift to enforcement at the border.
- 2010/11 – 2012/13: DTI, NRCS, SABS and industry to introduce additional mandatory national standards in the following sectors:
 - Energy and water efficient building regulations.
 - Water efficient requirements for plumbing components.
 - Safety and environmental requirements for electrical products in fixed installations (more than 20 potential compulsory specifications).
 - Compulsory requirements for processed meat.
 - Compulsory requirements for rock lobster.
 - Compulsory requirements for live aquaculture abalone.
 - Safety and environmental requirements for electric vehicles.

Lead department: DTI

Supporting departments / agencies: NRCS, SARS and SABS

9.1.6 Developing and strengthening South African National Standards to support the creation / resuscitation of specific industries

Key milestones

- 2010/11 – 2012/13: SABS to develop SANS for:
 - Solar water heaters.
 - Wind energy turbines.
 - Energy efficient electric appliances
 - Automotive diesel fuel and bio-diesel metal free unleaded petrol.

- Alternative fuel vehicles
 - Co-generation
 - Transport of dangerous goods and globally harmonised system for classification of chemicals
 - Measurement and verification of energy efficiency
- 2010/11 Establish and roll out an accreditation system for relevant measurement and verification agencies for energy efficiency by SANAS
 - 2010/11 to 2011/12: Upgrade of the power and energy measurement standards by NMISA

Lead department: DTI

Supporting departments / agencies: SABS

9.1.7 Technical infrastructure support for exports

Key milestones:

- 2010/11 – 2012/13: Establish a system that can track, acquire, review and disseminate information through an early warning approach on technical regulations that are relevant to the sectors. DTI and the SABS and other relevant government departments.
- 2010/11 – 2012/13: Develop common standards and regulations for the motor vehicle industry in SADC to support South African exports – DTI, SABS and NRCS.
- 2010/11 – 2012/13: Develop common standards and regulations for the chemicals industry in SADC to support South African exports – DTI, SABS and NRCS.
- 2010/11: Support cosmetic exporters through the recognition of local toxicology as a profession by Department of Science and Technology (DST) to enable local testing – DTI and DST

Lead department: DTI

Supporting departments / agencies: EDD / SANAS, SABS, NMISA and NRCS

9.1.8 Strengthening the South African technical infrastructure to support industrial development

Key milestones

- 2010/11 – 2012/13: Rightsizing of SANAS in order for it to continue to provide the accreditation services required by industry.
- 2010/11 – 2012/13: Develop and roll out a technical skills plan that targets the following competencies: metrologists, accreditors, standards writers and compulsory specification practitioners.
- 2010/11 – 2012/13: Develop plans to establish new NMISA laboratories on new sites.
- 2010/11 – 2012/13: Expand the capacity of the NRCS to respond to the need for stronger enforcement of compulsory specifications and building regulations, and update the enabling legislation for legal metrology to strengthen enforcement of legal metrology regulations.

- 2010/11 2010/11 – 2012/13: Expand the capacity of the SABS to respond to the needs of IPAP sectors.

Lead department: DTI

Supporting departments / agencies: EDD / SANAS, SABS, NMISA and NRCS

10. COMPETITION POLICY

The South African economy continues to experience ongoing challenges with respect to low levels of effective competition. This means firms can exert market power, whether unilaterally or jointly through collusive conduct and there are significant barriers to the entry and growth of new firms.

In general, low levels of competitive rivalry imply an undynamic economy where activity is controlled by a few entrenched firms. Returns are derived not by effort and innovation but from the historical position bequeathed to such firms. More specifically, where the anti-competitive conduct concerns important inputs to downstream, labour-absorbing activities, it directly impacts on employment. Where the products are consumer goods - relied on by low income households - it harms the poor.

In the case of the monopolistic provision of strategic goods and services that are publicly provided, there is generally regulation by a legislatively established sector regulator. This is also the case in areas of telecommunications where the fixed line incumbent used to be state-owned and controlled. While there is a clear need to strengthen regulation of public entities, the focus in the IPAP is on role of the competition authorities, working alongside regulatory bodies, particularly in relation to private sector behaviour.

It is also recognised that competitive outcomes require more than enforcement by the competition authorities. Interventions across institutions must be geared to monitoring the conduct of dominant firms and ensuring that such firms' strategies, especially where they receive state support, are based on dynamic long-term investments in building capabilities and not the short-term exploitation of market power. This must be complemented by support for the entry and growth of new firms, where practical.

Three areas of activity remain problematic:

- The concentrated supply of certain strategic inputs into manufacturing and other productive processes, such as carbon and stainless steel, chemical polymers and fertilisers, and aluminium. In addition to concentrated supply of inputs there is also frequently concentrated purchasing of inputs. Thus value-added and labour-absorbing manufacturers often face both (upward) cost and (downward) price pressures.
- Wage goods and other products purchased largely by poor and working class households, particularly food.
- Cost-effectiveness of the public infrastructure programme.

The focal point of the Competition Commission's activities over the IPAP period will be on exercising both existing and recently establish legislative powers with a core focus on the three areas identified above. This will mean working for increased impact in priority areas. The Commission will also be increasing its engagement with government and public institutions to play a more active role in following up on the findings of anti-competitive conduct and making policy recommendations to government.

10.1 Key Action Programmes (KAPs)

10.1.1 Strengthening implementation of competition policy

Key milestones

- 2010/11 – 2012/13: Continued active focus of competition authorities on investigation, prosecution and policy advocacy with respect to:
 - Intermediate industrial and energy intensive products, such as steel, chemicals, coal, fuel and cement
 - Food and agro-processing
 - Banking
 - Infrastructure and construction
- 2010/11 – 2012/13: Annual reporting on impact of competition enforcement in these sectors, and identification of appropriate complementary measures to be taken by government and public institutions to improve competitive outcomes.
- 2010/11 – 2012/13: Small number (at least one per year) of strategically identified market enquiries initiated by Competition Commission in priority areas identified in consultation with government.

Lead department: EDD

Supporting departments / agencies: DTI / **Competition Commission**

10.1.2 Ensuring competitive outcomes

Key milestones

- 2010/11 – 2012/13: Stronger conditionalities to be established on state support for large firms, including development finance, linked to competitive conduct.
- 2010/11 – 2012/13: Monitoring of compliance with conditions, in consultation with Competition Commission.
- 2010/11 – 2012/13: Evaluation of trade policy measures for sectors in light of the conduct of firms, to ensure that dynamic comparative advantages are developed, in consultation with Competition Commission.
- 2010/11 – 2012/13: Wider actions to be identified, including possible regulatory measures, against dominant firms engaging in anti-competitive conduct, especially in key inputs to labour-absorbing sectors and the pricing of wage goods.
- 2010/11 – 2012/13: Increased support for entrants and smaller rivals to entrenched dominant firms.

Lead department: EDD

Supporting departments / agencies: DTI / **Competition Commission, IDC, ITAC, SEDA**

11. SECTORS

The key sectors which the 2010/11 – 2012/13 IPAP will focus on are clustered into three groups:

- **Cluster 1 – Qualitatively new areas of focus**
 - Realising the potential of the metal fabrication, capital and transport equipment sectors, particularly arising from large public investments
 - 'Green' and energy-saving industries
 - Agro-processing, linked to food security and food pricing imperatives
- **Cluster 2 – Scale up and broaden interventions in existing IPAP sectors**
 - Automotives, components, medium and heavy commercial vehicles
 - Plastics, pharmaceuticals and chemicals
 - Clothing, textiles, footwear and leather
 - Biofuels
 - Forestry, paper, pulp and furniture
 - Strengthening linkages between cultural industries and tourism
 - Business process servicing'
- **Cluster 3 – Sectors with potential for long-term advanced capabilities**
 - Nuclear
 - Advanced materials
 - Aerospace

CLUSTER 1 – QUALITATIVELY NEW AREAS OF FOCUS

12.1 Metal fabrication, capital equipment and transport equipment

Sector profile

The Metal fabrication, capital and transport equipment cluster of sectors include:

- Basic iron and steel and basic non-ferrous metals. (These two sub-sectors are not part of the metal fabrication, capital equipment and transport equipment sector but they underpin supply with associated challenges, particularly around pricing).
- Metal products excluding machinery.
- Machinery and equipment.
- Other transport equipment.
- Electrical machinery and apparatus.

These industries are at the centre of economic development as they produce products, applications and services used across the entire economy such as infrastructure programmes, construction, general engineering, mining, automotives and packaging. Therefore, metal fabrication, capital and transport equipment, as a cluster of industries, form an important component of any industrialisation path and are also a key driver of the manufacturing sector's competitiveness.

These industries have different characteristics, for example, well-developed niche capabilities in areas such as mining equipment and structural steel, which can effectively compete in global markets, while others are in decline or stagnant, such as the castings and tooling industries.

Variable	Contribution in 2008
Manufacturing value-added	R50.2 bn (4.3%)
Manufacturing employment	312, 235 (24%)
Trade balance:	
<ul style="list-style-type: none"> • Metal fabrication, capital equipment and transport equipment • Iron, steel and non-ferrous metals 	-R86 bn
	R200 bn

Key opportunities

Key areas of opportunity for growing the sector / achieving higher impact include:

- Leveraging the public infrastructure programme presents the single largest opportunity to stimulate the industry through reducing import leakage of the capital and operational expenditure programmes of State Owned Enterprises (SOE) and all spheres of government.
- Export opportunities in relation to infrastructure and mining turnkey projects, especially in the rest of Africa and South America.
- Lack of maturity in South African beneficiation chains present opportunities to extend value chains through further downstream manufacturing.
- The new Automotive Production and Development Programme offers additional opportunities for metals component manufacturing.

Constraints

Current procurement practices by SOEs and government departments in relation to large contracts are sub-optimal:

- Lumpy, ad hoc procurement and unrealistically short delivery times often demanded by SOEs and government departments undermine local manufacturing and associated investments. This in turn is a symptom of a lack of long-term procurement planning
- Lack of competitive financing impedes the ability of South Africa companies – particularly lower tier suppliers – to compete on an equal footing with foreign companies. Foreign companies receive highly concessional export financing from their home country's export banks/agencies

Inadequate capital investment due to three decades of low demand has led to the neglect of continuous upgrading and replacement of plants, machinery and equipment. Import parity pricing of major material inputs, such as steel and aluminium remain an impediment to the further development of these sectors.

Variable and often out-of-date production and technological capabilities have resulted in the industry losing ground in maintaining local content and being able to maximally capture new opportunities offered by both private and public capex programmes.

In addition, there are intense and increasing global cost-competitive pressures, particularly from low-cost imports. This is exacerbated by downward tariff pressures on a number of value-added products. It is therefore imperative to enhance the manufacturing competitiveness of South African suppliers to increase local content and exports. Increased R&D levels are key requirements for competitiveness and the development of competencies.

Key action programmes (KAPs)

12.1.1 Identification of fleet programmes/products to make investments in associated supply chains viable and thereby promote local manufacturing

Nature of the intervention: Identification and designation of strategic fleets in terms via Cabinet Memoranda and in terms of the PPPFA where relevant. This incorporates a strategic assessment of the current and future government capital and operational expenditure programmes which will facilitate the standardisation and designation of fleets within the programmes. Fleet refers to any ongoing and repetitive procurement requiring fabricated products or equipment of a similar function that is essential to build or maintain an operation or service. Two areas already identified:

- Locomotives, coaches and carriages related to Transnet and PRASA rolling stock programmes
- Key inputs related to Eskom's coal-fired electricity build programme

The analysis to be undertaken will have to demonstrate adequate demand from capex requirements and/or long-term opex opportunities to justify an investment by a supplier in a relevant industrial capability and therefore the prioritisation of the fleet.

Economic rationale: Lumpy procurement, often with short delivery times, creates uncertainty in supplier industries as suppliers are not able to adequately plan and phase-in investments to be able to meet the requirements of these contracts. This KAP aims to facilitate smoother and more predictable demand in relation to strategic fleets.

Outcomes: The KAP is expected to reduce import leakage, increase investments in key manufacturing processes and activities to supply into the domestic market and capture after-market opportunities, the revival of lost manufacturing capacity and increased employment and exports.

Key milestones

- 2010/11 Q1 – Q3: DPE and DTI to develop medium to long-term plans for prioritised fleets with standardisation strategies.
- 2010/11 Q3: Agreement between Government, procuring entities, NT and DTI on identified fleets and optimal financing arrangements.
- 2010/11 – 2012/13: DTI, DST and DPE to develop the industry structure for relevant supply chains within the agreed fleets and leverage associated industrial investments.
- 2010/11 – 2012/13 and beyond: procuring entities to commence with sequentially higher impact long-term fleet procurement.

Lead department: DPE

Supporting departments/agencies: DTI, EDD, NT, DST / SOEs, and IDC

12.1.2 Competitive Financing Programme for suppliers into public capex programmes

Nature of the intervention: A financing programme to assist South African suppliers to acquire project financing at competitive rates in order to compete with foreign suppliers when bidding to supply into large capex projects in South Africa.

Economic rationale: Industrial financing is required to match concessional financing packages offered to foreign suppliers by their export financing institutions for bids in South Africa. A competitive financing package which improves the ability of South African suppliers to bid for projects within the public capex programmes on a more equal competitive footing in relation to foreign suppliers.

Outcomes: Help to reduce import leakage of the capex programme, increase investments in key manufacturing processes and activities to supply into the demanding home market and capture after-market opportunities, and increase employment and exports.

Key milestones

- 2010/11 Q1: DTI to review the current finance packages available to suppliers and identify support gaps, and finalise programme.
- 2011/12 Q2 - 2014/15 Q4: DTI to roll out the programme to industry and undertake monitoring and evaluation of the programme.

Lead department: DTI

Supporting departments/agencies: IDC, NT, DPE, DoT, EDD, DST, Procuring entities (Transnet, Eskom, PRASA and others)

12.1.3 Benchmarking and matchmaking programme

Nature of the intervention: Collaboration with UNIDO to implement a benchmarking programme of South African 2nd and 3rd tier suppliers as well as facilitate the matchmaking process between the suppliers and OEMs in specific value chains.

Economic rationale: This KAP aims to close the information gap between SOE demand and supply capabilities.

Outcomes: Reduce import leakage, increase investments in key manufacturing processes and activities to supply into the demanding home market and capture the after-market opportunities, and increase employment and exports.

Key milestones

- 2010/11 Q1: Sourcing of co-funding by DTI, DPE and DST to support the UNIDO process.
- 2010/11 Q2 – Q4: Increase number of SPX centres and thereby increase number of suppliers profiled and benchmarked.
- 2010/11 Q1 – Q4: DTI, DPE and DST to participate in the hubs and task teams in order to influence maximisation of local content.
- 2011/12 to 2013/14: Roll-out of the programme.

Lead department: DPE

Supporting departments/agencies: DTI, UNIDO, DST, IDC and industry associations

12.1.4 National Tooling Initiative

Nature of the intervention: The National Tooling Initiative (NTI) is a national, multi-stakeholder initiative, structured as a Public-Private Partnership (PPP). The initiative comprises programmes aimed at rehabilitating the South African Tool, Die and Mould Making industry. The NTI aims to increase and strengthen the human capacity and competitiveness of the tooling industry in South Africa in order to improve the competitiveness of the overall manufacturing sector. Interventions already in place with the DST-funded Advanced Institutes for Tooling will be strengthened to develop high-end design capabilities in tooling.

Economic rationale: The erosion of the tooling industry over the past 20 years has led to underperformance of the manufacturing sector and contributed significantly to the trade deficit as South Africa is a net importer of tools.

Outcomes: The KAP will reduce reliance on imported tooling especially in the more advanced tooling segments, capture after-market opportunities, increase investments in tooling manufacturing, increase local content, enhance capacity in South Africa's tooling industry skills upgrading, and increase employment and exports plus increase manufacturing competitiveness.

Key milestones

- 2010/11 Q1 – Q4: NTI to profile and benchmark suppliers as part of the UNIDO SPX programme as well as participate in the UNIDO and other CSDP programmes.
- 2010/11 Q1 – Q4: NTI to roll out the Mobilisation, Alignment, Capacity Building and Cooperation (MACC) programme support in 6 provinces, which will promote and strengthen the administrative structures of the programme.
- 2010/11 Q1 – Q4: NTI to develop a support instrument template and provide funding transaction support to assist members to access funding from EIP, NEF, KHULA, SEDA, IDC and commercial banks.
- 2010/11 Q1 – Q4: NTI to roll out the Competitiveness Improvement and Export Development Programme which will provide technical support to the tooling industry to upgrade technology and enhance productivity.

- 2010/11 Q3: 150 pre-apprenticeship students complete studies and prepare for enrolment into pilot apprenticeship programme.
- 2010/11 Q4 – 2013/14 Q3: NTI to recruit trainees and roll out pilot apprenticeship training.
- 2010/11 Q4: NTI to establish 7 pilot sites with students and staff in the 6 selected provinces (Gauteng, Mpumalanga, KZN, Limpopo, Eastern Cape and Western Cape), which will be the activity centres for the programme.
- 2010/11 Q4: NTI to submit training curriculum for final approval and adaptation.
- 2013/14 Q3 – Q4: DTI with the assistance of NTI to carry out evaluation of the NTI programme and submit recommendations for programme improvement.

Lead department: DTI

Supporting departments/agencies: NT, DST, DOH and E / NTI

12.1.5 National Foundry Technology Network

Nature of the intervention: National Foundry Technology Network (NFTN) is a foundry industry support initiative with the key objective of facilitating the development of a South African foundry industry through appropriate skills training, technology transfer, and diffusion of state-of-the-art technologies. The erosion of the foundry industry negatively impacts the competitiveness of manufacturing generally.

Economic rationale: A significant decline of the foundry industry over the past two decades as well as the important linkages that this industry has with the entire manufacturing sector has led to the development of the National Foundry Technology Network initiative.

Outcomes: Reduced import leakage, increased investments in key manufacturing processes and activities, and employment.

Key milestones

- 2010/11 Q1 – Q4: NTFN to roll out the practical training programme in order to increase the competency of the foundry personnel.
- 2010/11 Q1 – Q4: NTFN to provide continuous technical support to foundries to reduce scrap rates and enhance productivity.
- 2010/11 Q1 – Q4: NTFN to implement an on-going benchmarking programme for continuous improvements as well as profile and benchmark suppliers as part of the UNIDO SPX programme.
- 2010/11 Q1: DST to roll out Technology Assistance Packages to manufacturing companies successfully benchmarked in the foundry industry for participation in CSDP contracts
- 2010/11 Q3 – Q4: NTFN, CSIR and Mintek to facilitate relevant R&D to enhance technology, innovation and transfer.
- 2010/11 Q3-4: DST-Advanced Institutes for Tooling to be aligned to national programme.
- 2011/12 to 2013/14: Roll-out of the programmes.

Lead department: DTI

Supporting departments/agencies: NT, DST, DOH and E / NFTN

12.14.16. Facilitate the upgrading of the White Goods industry to increase production and grow exports

Nature of the intervention: The programme will aim to encourage capital investment into the industry to meet the technological requirements to increase productivity, volumes and efficiencies. In addition, interventions will be explored to reduce input costs and protect the domestic industry from imports.

Economic rationale: As electrification and incomes rise in South Africa and the sub-region the demand for white goods will increase giving rise to an opportunity to resuscitate this sector.

Outcomes: Increase domestic and export competitiveness of the industry

Key milestones

2010/11 Q2: Establish an industry forum to draw in stakeholder participation and form implementation oriented partnerships

2010/11 Q2-3: Develop or leverage support instruments including DTI and IDC financing instruments

2010/11 Q4: Rollout support instruments

Lead department: DTI

Supporting departments / agencies: NT / Electrotechnical Export Council, SABS, IDC, Industry Forum, Customs and Excise (SARS), NRCS

12.2 “Green” and energy-saving industries

Increasing concerns in relation to carbon emissions and climate change will have a profound impact on our economic landscape, introducing both threats and opportunities. There is a growing threat of increasing ‘eco-protectionism’ from advanced industrial countries in the form of tariff and non-tariff measures such as carbon taxes and restrictive standards. Increasing energy costs pose a major threat to manufacturing and render our historical capital and energy-intensive resource processing based industrial path unviable in the future. However, there are significant opportunities to develop new ‘green’ and energy efficient industries and related services. In 2007/2008, the global market value of the ‘Low Carbon Green Sector’ was estimated at £3,046 billion (or \$5 trillion) and is expected to rise significantly in the light of climate change imperatives.

Due to our high solar intensity, solar power has significant potential in Southern Africa. Recent electricity tariff increases and electricity supply challenges have made South Africans more receptive to the concept of alternative technologies to conventional electricity, such as solar water heating in particular.

To support the Renewable Energy White Paper goal of 10,000 GWh, the Minister of Energy has made a commitment to install one million solar water heaters (SWHs) by 2014. It is anticipated that this goal will be increased to 5.6 million SWHs by 2020. This initial commitment will be funded through a mechanism that is currently being developed by the Department of Energy (DoE).

Solar Water Heating

The current size of the South African Solar Water Heater (SWH) market is approximately 35,000 units per annum or 100,000 m² of solar collectors. The market is dominated by flat plane technology (90%), while evacuated tube technology makes up 10% of the market.

Imports of SWHs are growing rapidly and it is estimated that importers captured 40% of the market in 2009. None of the local manufacturers reported significant exports.

There are 11 million houses in South Africa, indicating a large potential market for SWHs. Industrial application of SWHs will also increase demand significantly.

The total sales in the industry are approximately R220 million per year. Indications are that most companies are currently quite risk averse due to uncertainty regarding demand and market growth resulting in the industry being characterised by small-scale manufacture and imports. Approximately 700 people are currently employed in the sector, with 200 on manufacturing and 400 as installers and the rest in administration.

This excludes a large number of independent installers including plumbers that do not focus on SWH installation as a primary activity. SWH is a relatively labour-intensive form of energy generation. The entire supply chain creates employment, from manufacturing to maintenance. More than 50% of total employment is involved in the installation stage. Hence a co-coordinated effort is required to scale up manufacturing and installation of SWHs. An important contribution to establishing this market in South Africa will be the phasing-in of mandatory requirements to install SWH's.

Key opportunities

- **Improved economic efficiency.** Most SWHs have a positive net present value, in that the discounted future electricity savings and maintenance costs are higher than the capital outlay of installing a SWH. However, these savings currently accrue over a period which is not short enough to sufficiently induce households to install SWHs, hence the funding model being developed by DoE.
- **Increased domestic investment.** The prospect of sustainable demand will induce entrepreneurs to invest in supply capacity domestically.
- **Long-run export earnings.** As shown by countries like Australia and Israel, successful domestic SWH promotion programmes can lead to the establishment of an internationally competitive SWH manufacturing industry which can become a global supplier. The international (particularly African) market should therefore be seen as a source of long-run demand that will outlast any short-term mass roll-out strategy.

Constraints

- The high initial cost of SWH dampens sales, requiring the funding model being developed by DoE.
- There are insufficient installers to ramp up to DoE's targets, although installers can be trained over approximately a six month period implying the ability to create installation jobs fairly rapidly.
- Poor quality products run the risk of giving the industry a bad name, hence the requirement for clear standards for the industry. SABS testing bottlenecks also need to be unblocked.

Concentrated Solar Thermal

Concentrated solar power (CST) is the most promising renewable energy generation option in SA and therefore should receive priority support even though wind and biomass should also be explored and developed.

The IDC is currently investing in a CST demonstration plant which aims to leverage the NERSA Renewable Energy Feed in Tariff (Refit). This requires inter alia that Eskom should expedite its Power Purchase Agreement (PPA). The successful demonstration of the viability of the pilot plant will contribute to a broader rollout of this technology and associated manufacturing opportunities.

Industrial Energy Efficiency

Rising electricity prices and increasing commitments in relation to carbon emission reductions will increase the need for the manufacturing sector to become increasingly more energy efficient. It also introduces the opportunity to establish an industry in relation to machinery and services which improve energy efficiency in the industrial sector. One particular area that has been highlighted with potential for significant increases in energy efficiency is the adjustment or replacement of industrial motors. Therefore an industrial energy efficiency programme will be developed, including consideration of more attractive financing models and the scaling up of the National Cleaner Production Centre (NCPC).

Water efficiency

Although energy efficiency (or the lack thereof) has received the bulk of attention, South Africa is also a water-scarce country. This will receive increasing attention in the IPAP including the strengthening of standards related to water efficiency in building and industrial applications. It could also lead to industrial and service opportunities, such as the manufacturing and installation of rain-water collection tanks.

Wind, biomass and waste management

Further work will be undertaken in order to unpack the potential of sectors such as wind, biomass and waste management as part of the IPAP.

Energy efficient vehicles

The automotive sector will be profoundly affected by the long-term shift from the internal combustion engine to cleaner technologies, such as electric vehicles. Initiatives to commercialise a domestically developed electric car are set out in the Automotives section below: 12.4.7. This project will have broader spill over effects not least of which will be the creation of a legislative and regulatory environment to allow the operation of electric vehicles, relevant testing infrastructure for electric vehicles, local manufacturing for domestic and global markets, initiation of charging infrastructure and educational campaigns on electric vehicles.

Key Action Programmes (KAPs)

12.2.1 Rollout of national solar water heating programme and manufacturing and installation capacity

Nature of the intervention: Developing a phased approach to SWH production to increase local market size and allow sufficient lead times for manufacturers to upscale.

Economic rationale: Increased local manufacture, skills development and employment will result from a phased approach to SWHs. In addition this approach mitigates production bottlenecks and the resultant potential for a surge in imports. Ultimately, a phased approach will create a credible and stable market with reduced risk in order to promote investment.

Outcomes: Increase installations from 35,000 units per annum to 250,000 units per annum over the next three years. Increase manufacturing from 20,000 units per annum to 200,000 units per annum.

Key milestones

- 2010/11 Q2: The DoE to introduce a subsidy programme covering one million units by 2014.
- 2010/11 Q3: DTI and the NRCS to publish amended National Building Regulations to make it compulsory for new buildings and upgrades to homes to install SWHs and other energy efficient building requirements, as from March 2011
- 2010/11 Q2: DTI to ensure that legislation is enacted to make it compulsory to install SWH when existing geysers are replaced.
- 2010/11-2012/13 Leverage DTI incentives and IDC industrial financing to support investment and increasing manufacturing and installation capacity in the SWH value chain.

Lead departments: DTI and EDD

Supporting departments and agencies: SABS, DoE, Municipalities and Provincial Governments, Eskom

12.2.2 Demonstrate viability of Concentrated Solar Thermal as a major renewable energy generation source

Nature of the intervention: To co-ordinate the establishment of a concentrated solar thermal demonstration plant

Economic rationale. CST is a new technology in South Africa which requires demonstration of commercial viability and broader economic linkages.

Outcomes: Demonstration of the economic viability of a CST plant and unpacking of rollout and manufacturing opportunities.

Key milestones:

- 2010/11: IDC-led establishment of a CST demonstration plant in South Africa.

Lead departments: DTI and EDD / IDC

Supporting departments / agencies: DOE, DWEA, DST / NERSA

12.2.3 Development of an industrial energy efficiency programme

Nature of the intervention: Develop an industrial energy efficiency programme to counteract higher energy prices, lower emissions and create new goods and services.

Economic rationale. Higher electricity prices and carbon emission commitments will raise the need for the manufacturing sector to become increasingly more energy efficient.

Outcomes: More attractive financing options for introduction of industrial energy efficiency improvements.

Key milestones:

- 2010/11 Q2-Q4: Design and launch of an Industrial Energy Efficiency Programme, including energy efficient motors and scaling up of the National Cleaner Production Centre (NCPC).

Lead departments: DTI

Supporting departments / agencies: NCPC, DOE, DWEA, EDD/IDC

12.2.4 Strengthen water efficiency standards

Nature of the intervention: Strengthen building and commercial water-efficiency standards.

Economic rationale. South Africa is a water-scarce country which requires more efficient water usage

Outcomes: Improved building and commercial water efficiency which can also lead to economic opportunities.

Key milestones:

- 2010/11 Q4: SABS to review and strengthen building and commercial water-efficiency standards
- 2010/11 Q4: DTI to scope and identify economic opportunities associated with improved water efficiency.

Lead agency: DTI and SABS

Supporting departments / agencies: DTI, DWEA, DoE, EDD

12.2.5 Develop sector strategies for other green industries

Further work is required to develop strategies for other green industries and activities. These include:

- Wind energy generation
- Biomass energy generation
- Recycling

Key milestones:

- 2010/11 Q4: Development of wind energy generation strategy and action plan
- 2010/11 Q4: Development of biomass energy generation strategy and action plan
- 2010/11 Q4: Development of recycling strategy and action plan

Lead departments: DTI and EDD

Supporting departments / agencies: DWEA, DoE, Provincial Governments, Municipalities

12.3 Agro-processing

Sector profile

The agro-processing sector comprises a highly diverse group of sub-sectors and industries. The major sub-sectors include:

- Food processing
- Beverages
- Aquaculture
- Horticulture
- Medicinal, aromatics and flavourants

The agro-processing sector has particularly strong linkages both up- and down-stream. Up-stream, the sector links to agriculture across a wide variety of farming models and products. Down-stream, the sector's products are marketed across both wholesale and retail chains, as well as through a diverse array of restaurants, pubs, shebeens and fast-food franchises.

Moreover, the food processing sector is now the largest manufacturing sector in employment terms with some 160,000 employees, this increases to more than a million jobs once the upstream (primary agriculture) is included. For the purposes of data continuity, the agro-processing sector is defined in statistical terms by the food processing and beverage manufacturing sub-sectors only. This narrowly defined agro-processing sector's contribution to the economy is summarised in the table below.

Variable	Contribution in 2008
Manufacturing value-added	R27 bn (2.3%)
Manufacturing employment	204 527 (15.7)%
Trade balance	-R6.7 billion

Key opportunities

Agro-processing is strongly linked to consumer preferences and changes in the level of consumer demand which in turn is linked to South and Southern Africa's economic growth rate. The forecast for both South Africa and the region is that growth is likely to rebound relatively strongly in 2010, partly cushioned by the expected 2010 World Cup Soccer effect and Government's public infrastructure spend. The domestic market therefore represents an attractive prospect for the agro-processing sector in general. On the non-food side there are opportunities that are being exploited for high-value products for the medicinal, aromatics and flavourants markets.

Moreover, South Africa possesses competitive advantage in a number of fruit and beverage sub-sectors which – if fully exploited – would place South Africa amongst the top 10 export producers in high-value agricultural products. Sub-sectors such as high quality wines, indigenous Rooibos and Honeybush tea, and certain fruits are highly sought after in export markets.

The global market has also seen substantial growth in trade of 'farmed' fish and related products. As natural fish resources continue to decline and demand grows, the viability of farming a range of fish species has risen. Although relatively capital intensive, South Africa has the potential to create significant numbers of jobs in meeting local demand for fish, for example trout, as well as international demand for inter alia abalone and mussels.

Parts of South Africa's agro-processing sector have an unfortunate history of engaging in anti-competitive conduct thereby contributing to the high prices of basic food products. The Competition authorities have been aggressively pursuing a number of cases in the agro-processing sector and it is expected that firms will become increasingly wary of engaging in such conduct. This is likely to lead to potentially profound changes in a number of key sub-sectors. In particular, the creation of a small-scale milling sector would appear to be viable with moderate assistance from Government. Such an initiative may not create vast numbers of jobs but could play an important role in reducing the cost of basic food products thereby alleviating poverty, reducing hunger and contributing to a competitively-priced milling and baking sub-sector.

Constraints

The agro-processing sector can be categorised into 3 broad product groups:

- A. High quality, high value, competitive sub-sectors e.g. fresh fruit, wine and fish products.
- B. Moderately competitive and uncompetitive, mature sub-sectors which are 'stuck' in low value streams e.g. tea, canning, food processing and cotton.
- C. 'New' sub-sectors with niche market potential but small-scale production e.g. ostrich meat, indigenous flowers, biofuels, essential and olive oils and medicinal extracts.

Producers in **Group A** typically face constraints that are related to developed country trade policy including subsidies, tariffs and sanitary and phyto-sanitary standards (SPS). Moreover, as developed countries have tended to grow more slowly than developing countries, the potential to grow exports and employment without penetrating new export markets is relatively low. South Africa will continue to pursue better trade policy outcomes through multilateral and bilateral trade fora. However, there is a clear need to support South African exporters to position their products better in fast-growing, developing country destinations. This may require focused export intelligence and marketing support as well as inter-Government assistance to ensure that South African products are not unfairly subject to non-tariff barriers.

Producers in **Group B** currently face significant constraints in both the export and domestic market. In the export market, trade policies hamper South African products from trading competitively as a result of the EU and US' use of agricultural subsidies in particular. In addition, in the case of both the black and indigenous tea sectors, market arrangements by multinational corporations (MNCs) prohibit South African producers from moving up the value chain. Currently, South Africa produces relatively high quality tea which is exported in bulk, blended and marketed through MNC brands. These branded products represent the high value, high-margin market. There is little incentive for these MNCs to change the current market configuration and a movement of South African products into these branded categories will require a significant and extended period of brand development and marketing support to allow these sectors to break into these lucrative markets. There would appear to be a prima facie case for Government to assist these sectors to position their products as having intangible brand attributes. Countries which have been successful at this include Egypt (cotton), Sri Lanka (tea) and Ethiopia (coffee). In these cases, the branding of the country's product positions it as a high-quality, high-value good even if the quality of the product varies widely across producers within the country and is largely intangible.

Producers in **Group B** would also benefit from an enhanced focus on productivity and competitiveness enhancement as some of these sub-sectors have underinvested in new plant and machinery. This group remains important for South Africa as it comprises the largest group and is likely to remain the mainstay of the sector in production terms.

Producers in **Group C** face significant regulatory barriers as South Africa's approach to the regulation of 'new' sectors is based on a 'positive' list. This approach essentially 'lists' approved sectors whilst all others are assumed to be undesirable. The implication is that any 'new' sector faces considerably higher regulatory barriers than is either – on average – necessary and the barriers are inevitably harder to meet as there is often a knowledge gap between private sector investors with specific technical knowledge and Government regulators who need to be convinced of the merits of a 'new' sectoral activity.

Key Action Programmes (KAPs)

12.3.1 Establishment of a National Food Control Agency

Nature of the intervention: The National Food Control Agency will address the fragmentation and duplication of work in the current food safety regulatory environment. The intervention will lead to the consolidation of fragmented legislation into a single Food Safety Act and the establishment of a single agency mandated to safeguard South Africa's food safety needs.

Economic rationale: Efficient and effective food safety is in the national interest. Furthermore, food safety is increasingly a core requirement for exporting to both developed and developing countries. Without a strong regulatory environment South Africa's food and related product exports may be at risk.

Outcomes: Establishment of a Food Safety Agency (FSA)

Key milestones:

- 2010/11 Q2: DAFF, DOH and DTI to approve the core elements of the FSA
- 2011/12 Q4: DAFF to finalise FSA legislation
- 2012/13 Q1: Establishment of the FSA by DAFF

Lead department: DAFF

Supporting departments / agencies: EDD, DOH and DTI

12.3.2 Development of the aquaculture sector to supplement dwindling wild fish stocks

Nature of the intervention: Finalise a national strategy and implementation plan for the development of the aquaculture sector.

Economic rationale: The global outlook for aquaculture is highly positive as a result of declining wild catch fisheries. South African aquaculture production has the potential to grow substantially to create an estimated 20,000 jobs over a ten year period, particularly in economically depressed, rural areas. Certain aquaculture species are in high demand in global markets thus fetching high prices and boosting export revenues.

Outcomes: Establishment of a viable industry which will contribute towards sustainable job creation and increased investment

Key milestones:

- 2010/11 Q2: DAFF and DTI to finalise the National Strategy for the Development of the Aquaculture Sector
- 2010/11 Q3: DAFF to approve and launch the National Strategy Implementation Plan
- 2010/11 Q4: DTI to approve and launch industrial support incentives
- 2010/11 Q4: DST to expand abalone hatchery infrastructure and marine fin fish

Lead department: DAFF

Supporting departments / agencies: EDD, DWEA, DST and DTI

12.3.3 Development of Marine Aquaculture Zones

Nature of the intervention: The global aquaculture sector has grown at 9% p.a. since 1973 while South Africa's sector has grown at only 3%. One reason for this is the lack of sites suitable for aquaculture development due to competition with other potential users and the difficulty associated with obtaining the necessary approvals for use of the sea for marine aquaculture. The proposed aquaculture development zones (land and sea based) concept entails designating areas which will be exclusively utilised for aquaculture.

Economic rationale: The current cost and time required for investors to obtain the necessary approvals for aquaculture development is prohibitive and is holding back development of the sector. Obtaining blanket approval for a zone is both more cost-effective and time-efficient. In addition, bulk infrastructure and the specialised services required by aquaculture investors can be more cost-effectively provided in concentrated geographic spaces.

Outcomes: The intervention is expected to lead to substantially increased investment in the aquaculture sector thereby leading to increased production, job creation and diversification of the sector.

Key milestones:

- 2010/11 Q4: DAFF to conclude Environmental Impact Assessments of potential zones
- 2010/11 Q2: DST to provide technical reports from pilot in Port Elizabeth
- 2010/11 Q4: DAFF to declare the first Marine Aquaculture Zone
- 2011/12 Q3: DAFF to declare the second Marine Aquaculture Zone
- 2012/13 Q4: DAFF to establish infrastructure for two marine aquaculture zones
- 2012/13 Q3: DAFF to establish support services (such as advisors, extension and veterinary services)
- 2011/12 Q1: DTI and IDC to develop and launch appropriate industrial support mechanisms

Lead department: DAFF

Supporting departments / agencies: EDD, DTI, DWEA, Provincial Departments and local authorities

12.3.4 Establish aquaculture hatcheries

Nature of the intervention: The aquaculture sector is dependent on the reliable supply of juvenile aquatic animals for further grow-out by aqua-farmers. This intervention entails the establishment of two hatcheries to provide a reliable and continuous supply of high quality juveniles to the aquaculture sector. DST is establishing two abalone hatcheries as the extension of the pilot Hondeklip Bay intervention.

Economic rationale: All aquaculture is totally dependent on reliable supply of 'seed' otherwise known as fry, fingerlings or spat for further grow-out by aqua-farmers. Currently in South Africa only a few big companies have in-house hatcheries and some of the seed is imported. Most small scale farmers are compelled to buy seed that is costly and availability depends on the demand by competing aqua-farmers both in South Africa and the region.

The participation of communities and SMME's in the sector therefore could be inhibited by a lack of resources to establish hatcheries or to source spat from elsewhere. In most developing countries which have successful aquaculture sectors, the establishment of hatcheries was undertaken by government as the lack of seed is potentially a binding constraint on development of the sector.

Outcomes: The intervention is expected to facilitate the development of the aquaculture sector by ensuring a reliable supply of high-quality seed to aqua-farmers.

Key milestones:

- 2010/11 Q3: DAFF to scope and secure site for hatcheries
- 2010/11 Q4: DAFF to issue call for tenders to develop hatcheries
- 2011/12 Q4: DAFF establishes first hatchery
- 2012/13 Q2: DAFF establishes second hatchery
- 2010/11 Q2: DST to commence work on two abalone hatcheries

Lead department: DAFF

Supporting departments / agencies: DWEA and DST

12.3.5 Development of the organic food sector

Nature of the intervention: Implementation of the organic produce strategy.

Economic rationale: The organic food sector represents a high-value niche sub-sector with the potential to create 20,000 jobs over five years in both the primary agriculture and agro-processing stage of the value chain. Moreover, South Africa currently imports a significant proportion of the organic food demanded by consumers and there are thus both import replacement and export possibilities for the sub-sector.

Outcomes: A competitive organic sub-sector producing high-quality food products for both the local and export market.

Key milestones

- 2010/11 Q1: DTI to finalise the organic produce policy for comment by industry players
- 2010/11 Q2: DAFF and DTI to finalise and approve Organic Standards
- 2010/11 Q2: DAFF to 'notify' the WTO of the South African Organic Products Standards
- 2010/11 Q4: DTI to establish SAOSO and its registration with CIPRO
- 2010/11 Q4: DTI to develop and launch a retailer – small farmer / processor programme

Lead departments: EDD and DAFF

Supporting departments / agencies: DTI, CIPRO

12.3.6 Development of high-value agriculture niche markets – organic cotton

Nature of the intervention: The intervention consists of a marketing plan and technical assistance to South Africa's cotton sector to assist farmers to make the transition to large-scale organic cotton production.

Economic rationale: South Africa's cotton sector is in long-term decline. This is partly because the sector faces fierce international competition in what is essentially a commodity market where developed country subsidies are common. Producing organic cotton raises the competitiveness of the sector as the final good enjoys a 20-50% price premium, is insulated from fertiliser cost-inflation as no chemicals may be used in the farming process, and is substantially more labour intensive than conventional cotton. Moreover, South African cotton is of a high quality but this characteristic does not currently allow the sector to benefit from a premium on the international price of cotton. Positioning the sector in the organic cotton market will lead to employment creation in rural areas, import replacement, and farming expansion on land which is currently not suitable for other crops.

Outcomes: The primary outcome is the development of a commercially viable organic cotton farming sector. Secondary outcomes include the branding of South African cotton as high-quality by international standards.

Key milestones:

- 2010/11 Q2: DTI and DAFF to develop a technical assistance programme to support commercial and small-scale farmers wishing to farm organic cotton
- 2010/11 Q3: DTI to sign an MOA with Cotton South Africa to implement the South African Organic Cotton Programme
- 2010/11 Q4: DTI to develop an South African Organic Cotton Marketing Plan
- 2011 – 2012: DTI to scale-up the South African Organic Cotton Programme, thereby doubling organic cotton production levels

Lead department: DTI

Supporting departments / agencies: EDD and DAFF

12.3.7 Development of a small-scale milling industry

Nature of the intervention: The intervention will facilitate the entry of small-scale maize millers into the South African market. They are expected to be particularly competitive in

rural areas where high transport and logistics costs raise the cost of basic food products. The intervention consists of standardised maize-mill machinery package embedded in a franchising business model. This will allow local milling at competitive prices and to the quality standard demanded by consumers.

Economic rationale: The maize milling sector is highly concentrated and domestic prices appear to be subject to anti-competitive practices. There is significant potential for the development of a class of small-scale millers which could sustainably reduce the current high cost of basic food products. This would contribute to poverty reduction and would alleviate pressure on real wages as lower income workers spend a substantial proportion of their income on basic food products.

Outcomes: Small-scale maize milling enterprises producing for local markets at competitive prices thereby creating jobs, contributing to poverty alleviation and enterprise development.

Key milestones:

- 2010/11 Q3: DTI and IDC will standardised maize-mill machinery programme embedded in a franchising business model
- 2010/11 Q4: DTI and DAFF will appoint a franchisor to roll out the small-scale maize mill franchise programme

Lead department: DTI

Supporting departments / agencies: EDD and DAFF

12.3.8 Competitiveness enhancement in the fruit and vegetable canning industry

Nature of the intervention: Implementation of the Public Private Partnership (PPP) fruit canning initiative designed to raise competitiveness for long term sustainability of the fruit canning industry

Economic rationale: The fruit canning industry employs 11,000 factory workers, over 500 administrative and approximately 17,000 farm workers on 1,200 farm units which supply the fruit to factories. These are situated in an economically depressed area with very limited employment opportunities, making the fruit canning industry a major source of employment in the area.

Outcomes: To create a sustainable platform for the long-term growth and competitiveness of the industry.

Key milestones:

- 2010/11 Q1: DTI Executive Board to approve the application for the extension of the PPP Fruit Canning Initiative and signing of MOU/MOA between DTI and SAFVCA
- 2011/12 Q4: DTI to assist industry to penetrate the China market (no exports currently) and achieve sales to the value of R 2 million
- 2013/14 Q3: SAFVCA to double exports to China.

Lead department: DTI

Supporting departments / agencies: EDD and South African Fruit and Vegetable Canning Association (SAFVCA)

12.3.9 Promote exports of beneficiated Rooibos and Honeybush products

Nature of the intervention: Development of the Rooibos and Honeybush domestic packaging capacity.

Economic rationale: To fully leverage export and job creation opportunities in the Rooibos and Honeybush tea industries. Rooibos and Honeybush grow exclusively in South Africa and are mainly exported in bulk. Estimates suggest that the percentage of retail-packed tea in total exports is less than 5% for Rooibos and less than 10% for Honeybush.

Outcomes: Increase of finished products by 50% of Rooibos and honey bush over five years. Beyond five years it is expected that not less than 95% of finished and packed Rooibos and honey bush tea will be exported. Retain 5,000 jobs in the Rooibos and Honeybush sub-sector.

Key milestones:

- 2010/11 Q4: DTI to develop an export market development programme
- 2012/13 Q4: The industry to increase exports of packaged tea products by 50%.

Lead department: DTI

Supporting departments / agencies: DAFF, EDD and the National Agricultural Marketing Council (NAMC), Western Cape and Northern Cape Provincial Departments of Agriculture.

These interventions in the agro-processing sector are estimated to retain 216,000 jobs and create an additional 66,180 jobs over the next ten years.

CLUSTER 2 – SCALE UP AND BROADEN INTERVENTIONS IN EXISTING IPAP SECTORS

12.4 Automotives, components and medium and heavy commercial vehicles

Sector profile

The automotive sector is critical segment of the economy in any country as it links several industries and services. The production of a vehicle incorporates a wide range of industrial activities. It is South Africa's leading manufacturing sector contributing approximately 4.9% to GDP in 2007 whilst also attracting about R27.1 billion in investments between 2000 and 2008 (Naamsa). The industry employs at least 131,000 people in the manufacturing of accessories, components and vehicles, translating to about 5.9% of total manufacturing employment whilst the retail segment employs about 200,000 people. The South African automotive sector has been able to achieve significant production growth from a volume of 388,442 units in 1995 to 587,719 units in 2006, with a levelling off to 534,490 units in 2007 and 562,965 units in 2008. In 2008 exports from the automotive sector amounted to R 65.5 billion whilst imports amounted to R95.3 billion leading to R29.7 billion trade deficit. In the absence of local production and exports this trade deficit would be an order of magnitude higher.

Variable	Contribution in 2008
Manufacturing value-added	R18 bn (1.6%)
Manufacturing employment	131, 036 (10%)
Trade balance	-R29.7 billion

Key opportunities

There are major opportunities to leverage the Automotive Production and Development Programme (APDP) to strengthen, broaden and deepen the automotive, components and medium and heavy commercial vehicles sector. In automotives the twin objectives are to raise volumes to 1.2 million vehicles per annum by 2020 and substantially diversify and deepen the components supply chain. This will require ongoing increases in minimum plant volume thresholds and working with the vehicle assemblers or original equipment manufacturers (OEMs) to identify areas where greater economies of scale in component sourcing are possible, particularly componentry which is potentially common across OEMs.

The medium and heavy commercial vehicle (MHVC) sector has not received adequate policy attention. There are opportunities to resuscitate bus production in South Africa as well other MHCVs, leveraging opportunities such as the rollout of Bus Rapid Transport Systems in Metro's and the growing demand for other MHCVs in relation to areas such as infrastructure, construction, mining and possibly agricultural demand. This includes a stronger focus on so called 'yellow metals' manufacturers of products such as articulated dump trucks.

The automotive industry is being impacted by the imperatives of climate change and increasing demand for lower emission vehicles. A strong focus will be on ensuring that these technological developments are embodied in South African production and includes support for the commercialisation of our own electric car.

Constraints

Notwithstanding the successes achieved since 1995, the industry faces a number of challenges. Economies of scale in assembly and the depth of domestic component manufacturing are not yet internationally optimal. A relatively small number of automotive components dominate the export basket and local content has stagnated. Several studies indicate gaps in the manufacturing competitiveness levels of automotive component suppliers. Some progress has been made through the three-year Supplier Development Programme implemented by the Automotive Industry Development Centre (AIDC). Although good results have been achieved a more consolidated focus on broadening and deepening the component base and its competitiveness is required. The rapid liberalisation of the medium and heavy commercial vehicle sector, as well as the apparent disconnect between the various government arms and agencies, have diminished the ability to leverage state procurement of buses or bus services in order to grow the sector. The procurement processes at the various agencies have also been marred by delays leading to minimal local build of the buses as timelines become too compressed.

Key Action Programmes (KAPs)

12.4.1 Automotive Production and Development Programme (APDP)

Nature of the intervention: Regulatory Amendments and implementation of the tariff regime, Production Incentive and Volume Assembly Allowance elements of the APDP.

Economic rationale: The automotive industry works with long forward timelines and therefore a stable and transparent policy environment is required to enable investment decision making.

Outcomes: Policy certainty through publication of clear implementation guidelines, procedures and associated administrative framework, including a stronger monitoring and evaluation framework with strengthened conditionalities.

Key milestones

- 2010/11 Q1: Stakeholder consensus and Minister's approval to be followed by implementation guidelines.
- 2010/11 Q2: Submission of approved amendments to National Treasury for Gazetting and implementation of the guidelines and launch of the APDP.
- 2010/11 Q3 – Q4: Publishing of APDP implementation guidelines and finalisation of monitoring and evaluation framework.

Lead department: DTI

Supporting departments / agencies: NT / ITAC and SARS

12.4.2 Identification of opportunities to broaden and deepen automotive component manufacturing

Nature of the intervention: An OEM-led strategy for further localisation of technologically advanced suppliers of identified products in five key sub-sectors such as electronics, body parts, interiors, exteriors, and chassis and drive-train.

Economic rationale of the intervention: Identification of opportunities of joint sourcing opportunities across OEMs to broaden, deepen and raise economies of scale.

Outcomes: Identification of specific components for local acquisition by OEMs, including identification of global and local suppliers leading to increased capacity at component level and increased competitiveness at OEM level.

Key milestones:

- 2010/11 Q1 Investigate business cases (focus area and potential suppliers)
- 2010/11 Q1 Evaluate business case
- 2010/11 Q2 Provide final business model
- 2010/11 Q3 Plant and machinery acquisition, installation and testing
- 2011/12 Q4 Placement of orders and commencement of production

Lead department: DTI in conjunction with automotive OEMs

Supporting departments / agencies: Provincial and Local Government

12.4.3 Competitiveness Improvement of Automotive Component Manufacturers (CIACM)

Nature of the intervention: Firm level manufacturing competitiveness improvement through benchmarking, gap identification and assistance to close competitiveness gaps by engineers/advisors and post intervention assessment.

Economic rationale: Improving firm level manufacturing competitiveness will enable local component manufactures to better compete with their counterparts based in areas such as India and China leading to increased local content of locally assembled vehicles. This situation will lead to sustainability of the local industry and employment.

Outcomes: Improved automotive component manufacturing global competitiveness.

Key milestones

- 2010/11 Q2: Completion of benchmarking and intervention for six firms.
- 2010/11 Q3: Evaluation of efficacy and competitiveness in six firms due to the intervention.
- 2010/11 Q4: Completion of the intervention for an additional ten firms to be followed by the identification of thirty additional firms for support.

Lead department: DTI

Supporting departments / agencies: Automotive Industry Development Council

12.4.4 Enterprise Reference Architecture (ERA) portal for SME suppliers

Nature of the intervention: Portal to help firms optimize existing technology investments through best practices.

Economic rationale: A complementary tool for the other competitiveness improvement initiatives focussed on technology utilisation improvement of 3rd and 4th tier manufacturers.

Outcomes: Improved automotive component manufacturing competitiveness.

Key milestones

- 2010/11 Q1-Q3: Project scoped and set-up by DTI, with pilot project and ERA designed and configured by DTI.

- 2010/11 Q4 – 2011/12 Q4: Case studies launched by DTI.
- 2011/12 Q3 – 2012/13 Q2: Case studies implemented by industry.
- 2012/13 Q1: Portal and ERA available for industry.

Lead department: DTI

Supporting departments / agencies: Provincial Government, AIDC and the University of Stellenbosch

12.4.5 Mentorship of SME component manufacturers

Nature of the intervention: This project will involve the facilitation of learning for component manufacturers, especially 3rd and 4th tier suppliers through the provision of mentors over a specified, short period of time according to pre-determined guidelines.

Economic rationale: Small manufactures with advanced capabilities often fail because they are led by technicians/engineers with limited business skills/experience.

Outcomes: Lower failure rate of small automotive component manufacturers:

Key milestones

- 2010/11 Q1 Development of selection criteria for mentors and companies in distress/need.
- 2010/11 Q1 Development of a process and criteria for matching companies and mentors.
- 2010/11 Q1 Development of a standardised mentoring methodology.
- 2010/11 Q1 Development of a performance measurement system for the mentorship programme.
- 2010/11 Q2 Launch of the mentorship programme.

Lead department: DTI

Supporting departments / agencies: DOHE&T AIDC and educational institutions.

12.4.6 Medium and Heavy Commercial Vehicle (MHCV) Development Action Plan

Nature of the intervention: Completion of a study to identify opportunities and interventions to resuscitate the MHCV sector.

Economic rationale: The MHCV segment is a labour intensive in assembly and offers further opportunities to broaden and deepen component manufacturing. This includes a focus on the bus industry, “yellow metals” and MHCVs required for infrastructure, construction, mining and agricultural applications.

Outcomes: Identification of opportunities and interventions to resuscitate and grow the MHCV sector.

Key milestones

- 2010/11 Q2: Global and domestic industry outlook with value matrix, followed by SWOT analysis and preliminary recommendations.
- 2010/11 Q3: Full study report, draft MHCV Development Strategy and draft MHVC Action Plan.
- 2010/11 Q4: Approved MHCV Action Plan and business plan.

Lead department: DTI

Supporting departments / agencies: DoT and National Treasury

12.4.7 Commercialise South Africa's electric car

Nature of the intervention: Provision of appropriate support to encourage local manufacture of EVs and related components, installation of infrastructure for such EVs, creation of testing facilities, provision of demand stimulation mechanisms and public education on the use and benefits of alternative energy source vehicles.

Economic rationale: Direct and positive spillover effects of developing a local electric vehicle coupled with the creation of the broader regulatory environment for such vehicles.

Outcomes: Creation of a legislative and regulatory environment to allow the operation of electric vehicles, relevant testing infrastructure for electric vehicles, local manufacturing for domestic and global markets, initiation of charging infrastructure and educational campaigns on electric vehicles.

Key milestones

- 2010/11 Q3 Approval of investment support measure for the manufacture of the electric vehicle and components.
- 2010/11 Q3 Development of a Government position on the purchasing, demand stimulation, infrastructure for charging, testing facilities and public education regarding EVs
- 2011/12 Q1 Roll-out of public education on EVs
- 2011/12 Q2 Commissioning of the plant
- 2011/12 Q3 Development of testing facilities for EVs
- 2011/12 Q4 Commencement of plant construction
- 2013/14 Q4 Start of production

Lead department: DTI

Supporting departments / agencies: DoT, DST, Provincial Governments and targeted Metros

Economic impact:

An estimated 160,000 direct jobs will be created in the industry in the next ten years. Investment levels exceeding R20 billion are expected to take place in the next four years with an expected further annual R3 billion for the following six years. Greater localisation of componentry will lead to an improvement in the trade balance.

12.5 Downstream minerals beneficiation

Sector profile

The South African economy has been built upon the back of mining and electricity-intensive resource-processing activities. Mining and semi-processed raw materials continue to make up a large part of SA's export basket. Less than 10% or R40 billion of gross revenue for sales of all minerals in South Africa, amounting to R225 billion, is generated from processing of base metals, precious metals and minerals. However, this economic structure is not sustainable. Minerals are a non-renewable 'wasting asset' which need to be leveraged during their lifespan to build a more diversified, labour-intensive and value-adding economy.

Key opportunities

Significant opportunities already exist or are being operationalised including the use of PGM metals in emissions control (catalytic converters) in the auto industry. Others will be finalised and prioritised through the value chain studies and strategic action plan of the DMR, especially the Level 4 beneficiation opportunities.

Constraints

- Monopolistic pricing of certain minerals and most semi-processed raw materials, such as steel and chemicals in the form of import parity pricing.
- Many producers are 'locked in' to long-term supply targets of basic commodities.
- Security and cost of energy supply.
- Limited research and development and requisite skills.
- Existing trade barriers in some prospective target markets for beneficiated products limit potential access to these markets
- The spatial location of mining operations relative to established manufacturing centres and the lack of infrastructure linking the two.

Key Action Programmes (KAPs)

12.5.1 Setting minimum beneficiation levels for key commodity chains

Nature of the intervention: The Department of Mineral Resources (DMR) to establish and define minimum levels of beneficiation for each of the 10 selected commodities. This will lay the foundation to create specific value chains, including in 5 instances up to the fourth level of minerals value addition.

Economic rationale: This will lay the foundation to create specific value chains, including in 5 instances up to the fourth level of minerals value addition.

Key milestones:

- 2010/11 Q1 – Q4. DMR to convene commodity workshops and finalise minimum levels of beneficiation for ten commodity chains.
- 2011/12 Q4. Identify downstream beneficiation 'offset opportunities' arising from Mining Charter

Lead department: DMR

Supporting departments/agencies: DTI, EDD, DST

12.5.2 Gold loan scheme to promote jewellery production

Nature of the intervention: A financing mechanism to enable jewellers to acquire gold from the lending institution(s) at a competitive interest rate and stable prices.

Economic rationale of the intervention: The cost of holding costly precious metals / minerals such as gold is a major deterrent to development of the jewellery sector.

Outcomes: Increased investments in gold manufacturing activities, increased number of SMEs, increased foreign exchange through increased exports and increased employment.

Key milestones

- 2010/11 Q2: Finalisation of the architecture of the financing mechanism.

- 2010/11 Q3 – Q4: DTI with assistance from IDC to finalise the administrative functions with the refineries and appoint the main administrator.
- 2011/12 to 2013/14: DTI together with the financier (IDC and refineries) will roll out the programme to industry.

Lead department: DTI

Supporting departments/agencies: NT, IDC and DMR

12.6 Plastics, pharmaceuticals and chemicals

Plastics sector profile

Value added in the plastics sector was R6.3 billion in 2008 and employs a substantial number of people: 36,919 in 2008. The export value of plastic products in 2008 was R2.7 billion compared to import value of R 7.1 billion leading to a trade deficit of R4.4 billion. Plastics manufacturing contributes approximately 0, 6% to South Africa's GDP, and 3.2% to the manufacturing sector. The sector is largely composed of small firms due to the ease of entry. Plastics is a sector with high complementarity between investment and employment. That is: growth and investment in the sector creates new jobs.

Variable	Contribution in 2008
Manufacturing value-added	R0.6 bn (0.6%)
Manufacturing employment	36 181 (2.8%)
Trade balance	-R 4.4 billion

Key opportunities

Key areas of opportunity for growing the sector include:

- Automotive (interiors – products such as carpets and dashboards, and exteriors – products such as bumpers and mirror casings).
- Packaging.
- Medical (drips and syringes).
- Building (pipes, flooring, building sheet, sanitation, woven/netted PP bags).
- Electrical and electronics (cabling, appliances and casing components).

Some important scoping work has been done in the sector to identify further industry development opportunities. The recent lowering of import tariffs on polymers and other inputs will contribute towards more competitive input prices.

Constraints

Plastics converter plants are generally small to medium-sized, with an average size of 130 employees. Many plants have less than 50 employees and those with 400 employees are generally considered to be large. Constraints faced by the plastics sector include import parity pricing of polymers and other key inputs.

- Pricing of raw materials
- Small local and regional market
- Lack of advanced manufacturing practices
- Lack of downstream focus on R&D effort, and
- South Africa's geographic position and resultant logistics costs.

Pharmaceuticals sector profile

Manufacturing employment in the pharmaceutical sector was 9,500 in 2007 (down from 16,000 in 1999). It is the fifth largest contributor to South Africa's trade deficit: R14.8 bn in 2008.

While the South African pharmaceutical market is only 0.35% of the global market, it is also the world's largest market for anti-retrovirals. Currently, there are 900,000 AIDS patients receiving anti-retroviral treatment (ART) in South Africa, of which 800,000 are in the public sector and 100,000 in the private sector. The cost of ARV procurement by Government in 2009 is estimated at R2.8 billion, escalating to R7 billion in 2011. Apart from the economic burden, this poses risks to the security of supply of ARVs.

Imports in 2008 were R16 billion while exports were R1.2 billion. The export market has been under significant pressure due to the crisis in Zimbabwe – this market accounted for 50% of South Africa's pharmaceutical exports until 2001 – and competition from exports from India.

Variable	Contribution in 2008
Manufacturing employment	9 500 (0.7%)
Trade balance	-R 14.8 billion

Key opportunities

- Domestic production of active pharmaceutical ingredients for key ARVs.
- Local production of reagents for AIDS / HIV diagnostics, under licence.
- Domestic production of vaccines under licence.
- Domestic production of biological medicines such as erythropoietin, monoclonal antibodies and vaccines
- Removing regulatory barriers and constraints to clinical research in South Africa (current market R2 billion per year). Potential market size is R4 billion to R5 billion per year.

Constraints

- Small size of the South African market (0.35% of global) – the only segment that attracts the attention of foreign investors is the South African ARV market.
- Downward pressure on prices, reducing attractiveness of South Africa to existing and potential investors.
- Lack of key skills in new drug design, pharmaceutical formulation and pharmaceutical biotech. Excessive supply of graduates with conventional skills and knowledge (more suitable for pharmaceutical marketing and sales).

Chemicals sector profile

Products of the primary chemical sector are the basis for almost every manufacturing activity in South Africa. Hence the pricing practices in the sector significant impact on broader manufacturing competitiveness. The primary chemical industry accounted for 3.2% of South Africa's GDP (excluding plastics and rubber) in 2008. It employed around 90,060 (excluding plastic and rubber products) in 2008. On aggregate the sector, however, imports more than it exports with a negative balance of around R 43 billion. However, in specific areas – such as polypropylene– the sector runs a trade surplus.

Variable	Contribution in 2008
Manufacturing value-added	R37 bn (3.2%)
Manufacturing employment	90,060 (6.9%)
Trade balance	-R43 billion

Key opportunities

South Africa has the second largest fluorspar reserve in the world and is the third largest producer of fluorspar. However, more than 95% of fluorspar production in South Africa is exported and less than 5% beneficiated to crude and pure hydrogen fluoride (HF), fluorine (F₂) and fluorochemical products.

Constraints

- Land availability for new heavy, high-impact investments.
- Time delays in Environmental Impact Assessment (EIA) approvals.
- Lengthy time to resolve land claims.

Key Action Programmes (KAPs)

12.6.1 Polypropylene beneficiation

Nature of the intervention: A FRIDGE study into potential downstream polypropylene products was commissioned and was thus used as a base for the development of Polypropylene business case which has been used during investment campaigns in targeted countries. The case outlines benefits for investing in South Africa coupled with technical assistance given by local feedstock suppliers. The intervention relates to the roll-out of the programme which started during the 2007/08 IPAP.

Economic rationale:

Outcomes: Increased export, investment and employment opportunities.

Key milestones

- 2011/12 Q3 – Q4: DTI will facilitate industry's access to capital for technology upgrading.
- 2011/12 Q3 – Q4: DTI to facilitate investment by polypropylene converters.

Lead department: DTI

Supporting departments/agencies: DST and DOE / CSIR and IDC

Economic impact

By full implementation, the polypropylene conversion project will result in around 40,000 tonnes per annum (TPA) of new plastic products being fabricated, made from polypropylene feedstock that is currently exported. The project will add around R600 million in revenue per annum, replacing existing imports as well as adding new exports of around R300 million. Capital expenditure of around R1 billion is expected by full implementation, and up to 22,754 new manufacturing jobs will be created through the utilisation of technologies like blow and injection moulding as they require low Capex and have high employment potential.

12.6.2 Domestic production of ARV APIs

Nature of the intervention: Appropriate sequencing in consultation with DoH the production of selected ARV APIs domestically

Economic rationale: The intervention will reduce the current trade deficit and reliance on imports. In addition, the structural gap in API production capacity will be addressed by injecting advanced technology into the local industry.

Outcomes: Agree with DoH on appropriate sequencing of domestic production of ARVs

Key milestones

- 2010/11 Q1: Joint technical report and Cabinet Memo by DTI/DoH

Lead department: DTI

Supporting departments / agencies: DoH, NT, DST

12.6.3 Domestic production of vaccines

Nature of the intervention: To restart production of vaccines to supply the domestic market estimated at R1.2 billion.

Economic rationale: To achieve security of supply and upgrading of technology. There is both a high return of investment and foreign currency savings.

Outcomes: To achieve local production of at least half of total domestic demand under licence.

Key milestones:

- 2010/11 Q4: Sterile filling of vaccines
- 2012/13 Q4: Production of antigens

Lead department: DST

Supporting departments / agencies: DTI, DoH and NT

12.6.4 Domestic production of biological medicines

Nature of the intervention: To achieve a technology upgrade for improved production of mode of delivery for vaccine.

Economic rationale: A bridging of the technology production gap in the sector and to achieve forex savings by increasing production for domestic demand.

Outcomes: To achieve compliance with global standards through a technology upgrade and to increase production to R100 million per annum.

Economic impact: Saving of foreign exchange earnings

Key milestones:

- 2010/11 Q2: Joint DST/DTI and DoH Cabinet memorandum

Lead department: DST

Supporting departments / agencies: DTI and DoH

12.6.5 Investigate opportunities for downstream beneficiation of fluorspar

Nature of the intervention: The establishment of the Hydrofluoric acid (HF) /Aluminium Trifluoride (ATF) plant is the first step in developing a world class fluorochemical industry in South Africa.

Economic rationale: Opportunities for beneficiation of HF ATF

Outcomes: Establishment of an HF / ATF plant – now at EIA stage and identification of downstream opportunities with strong conditionalities attached to the upstream plant that ensures availability of raw material to downstream applications on attractive terms.

Key milestones

- 2010/11 Q1: Fluorochemical Industry analysis completed
- 2010/11 Q2: Fluorocarbons pre-feasibility studies completed
- 2010/11 Q3: Commence investment

Lead department: DTI

Supporting departments / agencies: DST

12.6.6 Investigate costs / benefits of proposed new liquid fuels projects

Nature of the intervention: Project Mthombo is 400,000 barrels a day crude oil refinery planned for the Coega IDZ. It is designed to supply naphtha to a third- party operator to produce the benzene, toluene and xylene (BTX) aromatics and butadiene. Project Mafutha is a 80,000 barrels per day coal-to-liquid plant with no downstream opportunities envisaged.

Economic rationale: Assess economic cost/benefits of proposed new liquid fuels projects, including considerations of trade balance, employment, investment, carbon emissions and opportunity costs.

Outcomes: Assessment of economic cost/benefits of proposed new liquid fuels projects. Improve trade balance, employment, investment and carbon emissions.

Key milestones

2010/11 Q3: Cabinet memorandum making cost/benefit proposals on these two projects

Lead department: DTI

Supporting departments / agencies: DoE / IDC

12.7 Clothing, textiles, footwear and leather

Sector profile

The clothing, textiles, footwear and leather industries have been in distress for some time. This is due to a range of factors including: Rand strength and volatility; under-invoicing and illegal imports; Competitiveness challenges; skills deficits and limited economies of scale in parts of textiles. These industries are labour intensive and are often used by developing countries as a platform for sustained economic growth and job creation. In SA the employment trend has been downward across the sector. The trade balance increased negatively from 2000 to 2008 in all the industries across the sector, with the clothing industry being the worst affected.

Variable	Contribution in 2008
Manufacturing value-added	R8.2 bn (0.8%)
Manufacturing employment	126 245 (9.7%)
Trade balance	-R18 billion

Key opportunities

The key opportunity is to recapture domestic market share through improving competitiveness through a range of interventions including a focus on product, process and delivery efficiencies and harnessing proximity to local retailers. Ongoing clampdowns on under-invoicing and other illegal activity will help to level the playing field. The industry needs to seize the opportunity of a coherent and comprehensive set of support instruments in order to fundamentally transform its competitiveness. Going forward, the commercialisation of new technologies should give the textile pipeline an added advantage in the global arena. This will include the beneficiation of new fibres now being grown in South Africa. Traditionally only cotton and wool were grown for export in semi-processed form.

Constraints

The constraints facing the industry are well-documented with the set of support measures aiming to tackle most key constraints. These include:

- Currency strength and volatility.
- The ongoing surge of global imports which has been underway since the expiry of the Multi-fibre Agreement.
- Illegal imports and fraudulent under-invoicing.
- Inadequate policing of 'country of origin' labelling legislation.
- Lack of skilled personnel to take over from ageing industrial executives and senior management, who generally did not have succession plans.
- A historical failure to develop and implement skills development plans, particularly for critical areas of operations and in production,
- Outdated capital equipment and technology resulting from inadequate capital investment and technology upgrading.
- An historical deficit with respect to innovation, research and development.

Key Action Programmes (KAPs)

12.7.1 Clothing and Textiles Production Incentive (PI) and Competitiveness Programme (CTCP)

Nature of the intervention: The programme will enable the sector to compete sustainably and effectively against international competitors in both the domestic and the export markets and the company level competitiveness will be improved substantially.

Economic rationale: The sector lags behind their international competitors in terms of conversion efficiencies and other key indicators of world class manufacturing principles of which quality, cost and delivery are the main drivers.

Outcomes: Stability and competitiveness of the sector. The CTCP will be extended to the leather and leather goods and footwear industries. The Production Incentive will be finalised and implemented.

Key milestones

- 2010/11 Q1 onwards: Rollout of PI and CTCP will be rolled out by IDC.
- 2011/12 Q2: The Leather and Footwear programme will be rolled out by IDC.

Lead agency: IDC

Supporting department/agencies: DTI

12.7.2 Illegal import programme

Nature of the intervention: The programme is designed to clampdown on illegal imports which are flooding the country. The illegal imports are either brought in using documents which under-invoice the consignments or using wrong tariffs. The programme will also scale up the policing of country of origin labelling.

Economic rationale: The cheap imports landing in the country are the main cause of the closure of most of the clothing and textiles companies in the country. The elimination of illegal imports will help level the field of play for the local manufacturers.

Outcomes: Reduction and the elimination of illegal imports over the next three years.

Key milestones

- 2010/11 – 2012/13 Q2: Ongoing and targeted campaigns against under-invoicing and other illegal activities in the sector.

Lead department/agency: NT/SARS

Supporting departments/agencies: DTI and EDD / ITAC

12.7.3 Skills development

Nature of the intervention: The programme is involved with upgrading of skills in the sector. The programme will facilitate the finalisation of the funding arrangements with the National Skills Fund. The skills strategy will be rolled out through the Textiles and Clothing Centre of Excellence established at the CSIR in Port Elizabeth. This will speed up the implementation of programmes instead of establishing another implementing organisation.

Economic rationale: A lack of succession plans in the sector has resulted in very few young graduates joining the industry. Most of the captains of the industry are beyond retirement age but there are no skilled personnel to take over. Most of the training which has taken place in the sector has been at the operator level.

Outcomes: The programme outcomes will include the graduation of technicians, technologists, engineers, managers and scientists for the textiles, clothing, leather and footwear industries.

Key milestones

- 2010/11 Q1 onwards: Rollout of skills development programme by NSF and Clothing, Textiles, Leather and Footwear (CTFL) SETA
- 2010/11 Q2: Inputs into annual skills plan by DTI.
- 2010/11 Q2: A revised curriculum for the garment manufacturing industry will be developed in collaboration with the DHE&T.

Lead department: NSF, CTFL SETA

Supporting departments / agencies: DOHE&T DST and / Clothing, Textiles, Leather and Footwear SETA.

12.7.4 Audit of textiles capabilities

Nature of the intervention: The programme will cover the audit of the capacity and the technology currently in the textile industry. Through the intelligence gathered the programme will then explore the possibility of consolidating the textile industry where

companies will focus in different products thereby assisting them into the mindset which looks at specialisation instead of the shot-gun approach current being followed by some companies.

Economic rationale: The textiles industry will build a culture of specialisation which will develop them into experts in their fields. This will make them more sustainable and they will diversify into products which the garment manufacturers and retailers are in need of and are currently being imported.

Outcomes: The industry will be transformed into a 21st century textile industry and become a global trend setter instead of being a follower as it is at present.

Key milestones

- 2010/11 Q1: Commission textiles capacity audit in conjunction with industry stakeholders
- 2010/11 Q2: Review findings and make recommendations on industry consolidation
- 2010/11 Q3: ITAC to initiative review of textile tariff structure in the light of these findings

Lead department/agency: DTI / IDC

Supporting departments / agencies: Competition Commission

12.7.5 Innovation and technology

Nature of the intervention: Distinct technologies will be identified and where commercialisation is possible this will be undertaken with relevant partners. The technologies to be pursued will include the establishment of the South African garment sizing data base utilising 3-D body scanner technology, computer-aided design using 3-D scanner data, processing of new natural fibres like flax, wild silk, cashmere, and Kenaf. New technologies like nonwoven products and fibre reinforced composites will be commercialised in South Africa. Technologies in garment designing and servicing the fashion industries will be pursued as well.

Economic rationale: South Africa cannot compete globally in commodity textiles with countries like Bangladesh, India and China and has to focus on niche markets and those sectors of the textile pipeline which developing economies are better positioned to compete due to cheap labour and cheap raw materials.

Outcomes: The main outcome of the programme will be a transformed textiles pipeline industry which will be in a position to compete globally with home-grown garment technologies.

Key milestones

- 2010/11: DTI to establish the South African sizing database.
- 2010/11 – 2013/14: DTI to oversee the commercialisation of the fibres like flax, hemp, wild silk and cashmere.
- 2010/11 – 2013/14: DTI to oversee the migration of part of the industry to technical and smart textiles.

Lead department: DTI

Supporting departments / agencies: DST / CSIR and IDC.

12.7.6 B-BBEE

Nature of the intervention: Explore leveraging B-BBEE obligations at retail level to promote domestic manufacturing and sustainable black ownership. The promotion of succession plans which favour the promotion of black management will also be encouraged.

Economic rationale: The programme will go a long way to transforming the informal sector into a formal sector, rendering the employment statistics more robust. The sector has not transformed 15 years into the new dispensation.

Outcomes: More local production on the retailers' shelves and more people of colour in management positions in the sector.

Key milestones

- 2010/11: DTI to secure buy-in from industry.

Lead department: DTI

Supporting departments / agencies: EDD / IDC and Industry Associations.

Economic impact

It is anticipated that the tide of closure of companies and job losses will be stemmed, as the industry will be transformed and become sustainable. New sustainable creation of decent jobs at the rate of 2,000 per annum from 2010 will become possible. These jobs will initially come from the formalisation of the informal sector and the enterprises becoming Bargaining Council compliant. As the sector becomes more competitive, companies will be able to satisfy local retailers' needs more adequately, who in turn will reduce imports, improving the trade balance and contributing positively to GDP.

12.8 Biofuels

Sector profile

The biofuel sector has grown rapidly internationally. However, up to now, South Africa has remained only a peripheral participant in the sector's growth. There are a number of reasons for this. First, as a relatively new sector there are a variety of complex regulatory barriers which need to be finalised. Second, the global economic crisis and the resultant reduction in oil prices have reduced the commercial viability of some investments and, more generally has negatively affected investor sentiment. Third, national debates have tended to focus on the food versus fuel arguments while taking relatively little cognisance of the dynamic nature of agriculture, and the potential to create biofuels using current crop surpluses.

Nonetheless, the (then) Department of Minerals and Energy's National Biofuels Study (2006) found that South Africa has significant potential to develop a commercially viable biofuels sector notwithstanding South Africa's water-poor status. At present the IDC and Central Energy Fund (CEF) are the main investors in the sector in South Africa. The IDC in particular is involved in all four of South Africa's current biofuel projects.

The biofuels sector has strong linkages to agriculture, manufacturing and distribution and has the potential to create substantial numbers of labour-intensive jobs in the agriculture sector in particular. In addition, second generation biofuel technology will also contribute to South Africa meeting its renewable energy targets in a sustainable manner.

Key opportunities

Government has already committed to a 2% blend target for biofuels inclusion into the national fuel supply. However, the details of the regulatory processes have not yet been finalised. In addition, a number of other developing countries have set blending targets of 10% for biofuels without any need for significant engine adjustment. Were South Africa to increase its blending target to 10%, some 125,000 direct jobs could be created, many of which would be based in rural areas, where the deepest pockets of poverty occur.

Key Action Programmes (KAPs)

12.8.1 Production of biodiesel

Nature of the intervention: Providing finance (offset grant of €2 million in 2009) to complete key studies to bring a 400,000 tons of biodiesel refinery project to a bankable business plan status. The feasibility study has been completed.

Economic rationale: Creating regulatory environment and investment support of the new industry

Outcomes: Development of a R4 billion investment in a biodiesel refinery, exports of biodiesel, replacement of imports of animal feed-grade protein concentrates. Creating 25,000 jobs in agriculture in Eastern Cape, exports of biodiesel to the EU (€ 350 million / year), linked to that, production of food and feed crops, protein concentrate and chemicals of total value up to R5 billion per year.

Key milestones

- 2010/11 Q1: Finalise negotiations with South African shareholders (the NEF and the Land Bank).
- 2010/11 Q1: Finalise the EIA and basic engineering.
- 2010/11 Q2: Full financial closure of the 1st phase (200,000 ton biodiesel refinery).
- 2010/11 Q3: 1st commercial-size production of canola on 5,000 ha in the former homelands of Transkei and Ciskei.
- 2010/11 – 2013/14: Construction of the 400,000 tons biodiesel refinery:

Lead department: DTI

Supporting departments / agencies: EDD and DOE / NEF and IDC

12.8.2 Accelerated development in the biofuels sector

Nature of the intervention: Developments in the biofuels sector have been slow. This intervention is designed to accelerate development in the biofuels supply side at farm-level as well as at manufacturing level. To do so requires an improved regulatory environment and greater certainty around demand for biofuels. The intervention entails high-level co-ordination with relevant government departments, investors and development finance institutions to ensure a coherent and co-ordinated approach to the development of the sector is followed.

Economic rationale: The regulatory environment for the sector is still in the process of being developed and it will be essential to ensure that this is supportive of accelerated production of biofuel crops. The best available data suggests that a successful biofuels sector requires mandatory blending to provide investors with demand certainty in the

medium-term. South Africa has the potential to create significant numbers of jobs through the development of a large-scale biofuels sector. This will have additional benefits in terms of import replacement, improved security of fuel supply and expansion of the farming sector.

Outcomes: Accelerated development of an up- and down-stream biofuels sector operating in a supportive regulatory environment.

Key milestones

- 2010/11 Q3: DOE to publish Biofuels Regulations which provide investor certainty through a supportive regulatory environment and mandatory blending.
- 2010/11 Q3: DOE to publish Biofuels Regulations which provide an initial mandatory blending target of 2% scaling up to 10%.
- 2011/12 Q1: The IDC to provide industrial financing options to investors thereby leading to commissioning of biofuels processing facilities.

Lead department: DOE

Supporting departments / agencies: DTI, EDD and DAFF / IDC.

Economic impact

The KAPs highlighted above are expected to lead to the creation of between 100,000 and 150,000 direct jobs over the next decade. In addition, investment of approximately R5 billion can be expected over the decade.

12.9 Forestry, timber, paper & pulp and furniture

Sector profile

The forestry, pulp and paper (FTP) and furniture sector have the potential to contribute greatly to rural and economic development by contributing to GDP and creating job opportunities and income in poor rural communities.

The FTP industries accounted for 170,000 in 2008. Forestry's contribution to GDP has been fluctuating over the years, decreasing from 6.3% in 1980 to 6.0% in 2008. Forest products exports in 2008 came to R 14.8 billion (a 120% increase), while imports totalled R11.3 billion (a 176% increase).

The vertically-integrated nature of the FTP industry makes it difficult for small players to participate. Also, high levels of capital requirements present a significant barrier to entry.

The furniture sector employed 46,000 people in 2007. From 2006, South Africa has experienced negative growth, moving from being a net exporter to a net importer. In 2007, the sector contributed 1.6% to manufacturing GDP and 0.3% to the economy as a whole.

Variable	Contribution in 2008
Manufacturing value-added	R19.6 bn (1.7%)
Manufacturing employment	134 367 (10.3%)
Trade balance	R3.5 billion

Key opportunities

In a joint DTI/industry study completed in 2005, the KwaZulu-Natal and the Eastern Cape provinces were identified as offering the best potential for new forestry. Conservative estimates identified 100,000 hectares in the Eastern Cape, 6,000 ha in Limpopo, 10,000 ha in Mpumalanga and 39,000 ha in KwaZulu-Natal. New afforestation has the potential to create 15,600 jobs country-wide. There is also potential to improve yields of the existing plantations and also potential to convert existing wattle jungle into commercial plantations.

Most of the forests exist on communal land where a number of value-added opportunities can be explored for small growers who are currently supplying their timber to big companies for pulp and paper mills. Opportunities exist to expand the small scale saw milling industry since most of the saw millers are located close to forests in rural areas. Consequently, this is an important sector from the perspective of rural development. Opportunities also exist to use jungle wattle which could otherwise go to waste for charcoal production. The recycling of wood waste is another sector that can be explored to create much need employment in the rural areas.

Constraints

Key economic constraints which are holding back development in the forestry sector are as follows:

- **Water licences:** Issuing of water licences has become a serious obstacle for forestry development. Communities can sometimes not afford the required environmental impact assessment. Furthermore, there is also a delay from the regulatory government departments. Lack of personnel capacity in regional office, and sometimes incomplete application forms also add to the delay.
- **Skills development and technology transfer:** The new forest growers and beneficiaries of land reform do not necessarily have the skills and relevant technology to grow the trees optimally. The communities also require business skills to manage their operations effectively.
- **Investment finance:** Tree planting cannot take place without securing investment finance. Long rotations in forestry require long term capital for establishment, maintenance and harvesting operations and consequently, delayed return on investment. As a result there is some level of reluctance to invest in forestry business.
- **Land tenure:** Most of the land that has been identified as suitable for new afforestation is tribal or land belonging to communities where land claims settlement issues still need to be resolved before tree planting can take place. Also, there is lack of proper consultation and mobilisation with communities in line with forestry development protocols.
- **Demand of raw material exceeds supply:** The demand of raw material far exceeds supply and this has resulted in the closure of most downstream processing industries especially in furniture and small-scale saw milling industry. More jobs will still be lost if the demand/supply equation is not addressed amicably. The small players in the industry are mostly affected by this due to the vertical integrated nature of the industry where big companies own plantations and small businesses rely on supply from DAFF plantations.

Key economic constraints which are holding back development in the furniture sector are as follows:

- Raw material supply especially for small enterprises
- Influx of cheap imports and the challenge of getting retailers to buy locally produced products
- Competitiveness issues such as high level skills required to move towards high-end segment with focus on superior design coupled with niche products and niche markets.
- Quality and standards to differentiate from cheap low quality imports.

Key Action Programmes (KAPs)

12.9.1 Integrated approach to fast-tracking issuing of water licences

Nature of the intervention: Supporting rural communities owning land with potential for forestry development and where communities are also showing interest in new afforestation. Support will be in the form of appointing a facilitator to mobilise communities to discuss operating structures with them, provide capacity to put together an application for water use licence, funding the environmental impact assessment, assisting in crafting business plans to apply for investment capital and providing skills and technology for forest development and business management. This approach will be targeted to specific catchments in both the EC and KZN.

Economic rationale: To increase the supply of the raw material this will stimulate downstream processing activities. This has the potential to create a total of 15,600 jobs at both plantation and value adding levels.

Outcomes: Accelerated forestry development and well maintained plantations

Key milestones

- 2010/11 Q1: DTI to establish a national Task Team to oversee the afforestation process.
- 2010/11 Q1: DWEA to conduct reserve determination and hydrological surveys for targeted catchments in the EC and KZN provinces.
- 2010/11 Q2: DTI to appoint facilitators to mobilise communities and provide capacity for them to apply for water use licences, issued by DWEA, and access capital.
- 2010/11 Q2: ASGISA-EC and DTI to provide funding for EIAs.
- 2010/11 Q3: FIETA, DTI and DAFF to develop a skills and technology transfer programme for new growers and land reform beneficiaries.
- 2012/13 Q4: IDC and Land Bank to fund afforestation in EC and KZN.

Lead department: DWEA

Supporting departments / agencies: DTI, DAFF and EDD / Forestry South Africa (FSA), ASGISA-EC, IDC, the Forest Industries Education and Training Authority (FIETA) and Land Bank

12.9.2 Skills transfer and technology upgrading programme for small-scale saw millers

Nature of the intervention: This program is intended to upscale the current skills transfer and technology upgrading program that is currently piloted in the EC with 60

participants. It will be implemented in Limpopo, Mpumalanga and KwaZulu-Natal provinces.

Economic rationale: Small operators lack production efficiency skills as a result there is a lot of waste that result from the operations.

Outcomes: Reduced wood waste and improved productivity

Key milestones

- 2010/11 Q3: FIETA to implement a skills programme focusing on business management and productive improvement in KZN, Mpumalanga and Limpopo provinces.
- 2010/11 Q2: Seda to develop business plans for individual entrepreneurs and cooperatives so as to assist them in applying for dti technology upgrade incentives.
- 2010/11 – 2013/14: Seda to provide ongoing mentorship to cooperatives in the sector.

Lead department: DOHE&T

Supporting departments / agencies: DTI, DAFF / Seda, FIETA

12.9.3 Furniture clusters

Nature of the intervention: Establishment of clusters for small furniture manufacturers (SMME) in KZN, WC and Gauteng. A cluster refers to enterprises concentrated in limited geographic area and manufacturing same or complementing products and where firms purposively work together to upgrade and develop their capabilities. Benefits for clustering include:

Economic rationale: The main obstacle that the SMMEs are facing is their size. Because they are so small, they struggle to meet the required quantities and quality for retailers. As a result they fail to secure sustainable contracts. The development of clusters will first help them to jointly secure such deals. They will benefit from economies of scales, shared infrastructure, shared transport costs, sharing of information, and reduce their input costs. This will result in efficiently operating business with improved competitiveness.

Outcomes: Improved competitiveness of the industry, and better skilled and resourced manufacturers.

Key milestones

- 2010/11 Q1: DTI to develop a cluster management structure with clear roles and responsibilities for members.
- 2010/11 Q2: DTI to appoint a facilitator to establish clusters.
- 2010/11 Q3: DTI to develop a profile of small furniture manufacturers.
- 2010/11 Q4: DTI to develop a business plan and marketing strategy for the sector.
- 2011/12 – 2013/14: DTI to develop and implement a skills and technology transfer programme.

Lead department: DTI

Supporting departments / agencies: Provincial government departments.

12.9.4 Furniture Centre of Competence

Nature of the intervention: To establish a centre of competence for the furniture industry which is a set of activities focussed on addressing specific high-level skills and high-technology areas.

Economic rationale: The centre of excellence seeks to support the creation of an enabling environment for the production of high value niche products based on quality and differentiated design. The centre will also address issue pertaining to the availability of highly skilled furniture designers and manufacturers. The centre will also focus on increased research and new product development in the industry, and facilitate the sharing of global industry trends and best practices information. This will help to arrest the current decline in competitiveness and maintain existing jobs, and create an enabling and conducive environment that will allow for the long-term growth of the industry.

Outcomes: Improved competitiveness of the industry especially SMMEs, new and differentiated products.

Key milestones

- 2010/11 Q1: DTI to approve the business plan for the Furniture Centre of Competence.
- 2010/11 Q2: DTI to identify and appoint a facilitator for the CoC.
- 2010/11 Q2 – 2012 Q4: DTI to oversee implementation of the business plan.

Lead department: DTI

Supporting departments / agencies: Provincial Government departments, research and academic institutions

12.9.5 Charcoal manufacturing enterprises

Nature of the intervention: Supporting the establishment of charcoal plants in Eastern Cape (EC) and KwaZulu-Natal (KZN) using mainly jungle wattle as an input which is an alien species which could have otherwise gone to waste.

Economic rationale: The objective of establishing charcoal plants in EC and KZN is another intervention for further processing of timber and to attract investment in areas closer to plantations. The market requires low levels of capital inputs, limited technical knowledge uses unskilled labour and yet labour intensive. The project has a potential of increased participation in the rural areas, employment creation and skill transfer in participating communities.

Outcomes: This initiative will also promote further beneficiation of raw material (timber) and the use of other waste products like jungle wattle. Communities will be trained, and there will be an improved production capacity of the charcoal industry. Charcoal production has a potential to contribute to the energy crisis facing the country as more companies may opt to use charcoal to substitute electricity use.

Key milestones

- 2010/11 Q1: ASGISA-EC to undertake EIAs in the identified areas.
- 2010/11 Q1: Seda to train and register 12 co-operatives in communities showing an interest in charcoal production.
- 2010/11 Q2: Seda to develop and establish a business management structure and provide training to cooperatives.
- 2010/11 Q2: NEF and IDC to provide funding for business plan implementation.
- 2010/11 Q3 – 2012 Q4: Seda to implement business plan and co-operative monitoring programme.

Lead department: DTI

Supporting departments / agencies: DAFF / Provincial government departments, ASGISA-EC, Seda, NEF, IDC and District and Local municipalities.

12.9.6 Biomass sub-sector development for SMMEs

Nature of the intervention: This entails the economic use of saw dust from saw-mill operations and off-cuts and sanding dust from shavings in the furniture manufacturing industries which pose health hazard to surrounding communities. A study on the small-scale industry, commissioned by the unit in 2008, confirmed that there is no wood waste management strategy in place given the low recovery rate for small saw-millers.

Economic rationale: Besides environmental benefits of wood waste there are also economic benefits, such as stabilising existing wood industries and promoting job stability and job creation through cost reduction, especially for SMMEs, generating new jobs and new economic inputs through recycling and contributing to the sustainable use of natural resource.

Outcomes: Improved waste management (dust) from the saw milling and furniture industries.

Key milestones

- 2010/11 Q3: DTI to undertake a feasibility study.
- 2010/11 Q4: DTI to develop a business plan for the sub-sector.
- 2011/12 Q1 – 2012 Q4: DTI to drive implementation of the business plan.

Lead department: DTI

Supporting departments / agencies: DAFF / Provincial government departments.

Economic impact

The best estimate of the collective impact of all the KAPs listed above if fully implemented and rolled forward over the next 10 years, in terms of:

- **Employment:** The forestry sector has identified large tracts of land in EC, KZN, Mpumalanga, and Limpopo, to be suitable for new afforestation.
- **Improvement in trade balance:** The forest products industry ranks amongst the top exporting industries in the country. The sector's exports in 2008 equalled R14.8 billion, which, after deducting forest product of R11.3 billion gave a net foreign exchange earning of R3.5 billion. This is a contribution of about 15% to the country's trade balance.

12.10 Cultural industries: Crafts, Film and Music

Crafts sector profile

The craft sector is a strategic sector because it has the ability to contribute to economic growth. In addition the sector will also impact on local, particularly rural economies, human resource development, provide a bridge between informal and formal employment, add to the development of small businesses particularly the formalisation of businesses in the 'second economy', provide innovation and design skills for other sectors such as clothing and textiles, furniture and jewellery, and contribute to nation building and moral regeneration through the expression of creativity and exploration of culture and heritage.

The sector also supports other national government priorities such as broad-based black economic empowerment (B-BBEE), the empowerment of women, rural and urban development, small business development, export promotion and local beneficiation of products.

Statistics in the cultural industries are very difficult to obtain. This is not just a South African phenomenon but a worldwide problem and the reasons are varied. The Customised Sector Programme (CSP) process has however assisted with the development of the following initial baseline indicators: the South African Craft Sector contributes approximately R2 billion to GDP (0.14%) and it provides income and employment to approximately 38,062 people through the economic activity of about 7,028 micro and small enterprises operating across the value chain. South Africa contributes just less than 1% of the global trade in craft said to be US\$35 billion. Over the last 5 years the sector has shown an average growth of 8%, which is attributed to growth in tourism and the impact of interventions in the sector.

Variable	Contribution in 2008
Manufacturing value-added	R1.1 bn (0.01%)
Manufacturing employment	38,062 (2.9%)

Key opportunities

The global market for craft is significant, with data pointing to a global turnover of more than US\$35 billion. South African products are highly valued in the global market as a result of the unique South African design signature. The markets for South African craft include the European Union (EU), the USA, Canada and Australasia. Other markets with potential are Japan, the Far East and the rising elite in China and India also present a niche market opportunity for high end craft-art pieces.

Internal domestic markets for craft are a significant source of income for producers in both developing and developed countries alike and contribute significantly to domestic cultural and tourism industries.

The local market for South African products is showing strong growth. This is driven both by the good growth in tourism and by local consumption. The rise in local interest in South African craft is fuelled by a general trend towards ethnic, rustic, earthy African styles and increasing levels of national pride. With a burgeoning black middle class, with disposable income and for whom cultural craft and cultural fashion is emotionally driven the local market is set to expand.

Constraints

The production of craft in South Africa is compounded by a number of factors, including:

- Lack of co-ordination, information dissemination and a common vision.
- Lack of reliable national sector profile data and up-to-date market intelligence.
- Weak skills base on the manufacturing enterprise side.
- High and uncompetitive product prices.
- Poor ability to capitalise on market opportunity.
- Lack of common marketing strategy.
- Lack of research and development.

Film and TV sector profile

The film and TV industry is a strategic sector not only because it has the potential to contribute directly to economic development in terms of employment, investment and export, but also it has a range of significant spill-over potential. For instance, successful films can reach a massive international audience in key tourism markets far more effectively than dedicated advertising campaigns. This makes the content generation and export activities of the film and TV sector critical for unlocking the potential of the South African tourism industry. A successful film and TV sector has a huge potential to improve the nation's balance of trade and can encourage foreign investment in many other industries through its ambassadorial merits. Finally, film and TV play significant educational and social functions as well as the preservation of cultural heritage.

The content industry worldwide is a key growth area in the world economy and was valued at US\$ 1.2 trillion worldwide in 2003. In 2003, global filmed entertainment was growing at a rate of 9.4% and television at the rate of 6.3%, both in excess of the global entertainment industry, which grew at the average rate of 4.2%. Yet South Africa's participation in this global growth is minimal and estimates are that the country's share is only a fraction of one percent (less than 0.5%).

There are 170 production companies listed in the 2004/5 Screen Africa directory with around 2,000 employees or working directors, there are twelve crewing agents with around 5,000 crew on their books and there are 100 equipment, post production and service companies that exclusively service the film and TV industry employing another 1,000 people. With the broadcasters and other industry related companies considered, the sector currently employs around 15,000 people directly and creates many more jobs indirectly.

Key opportunities

In South Africa, the film and TV industry has largely relied on servicing foreign content, making the competitiveness of the sector hugely dependent upon cost advantages tied to interest and exchange rates. The service industry should continue to be developed as an export activity with significant multiplier effects currently calculated at 2.5 times. Services provided in South Africa bring foreign currency to the country providing jobs and corporate income, which increases taxes.

Yet there is a need to shift the sector towards a more sustainable competitive footing and one better able to realise the full potential of the spill-over effect of the industry on the rest of the South African economy. In this regard it is important to support the development of content both for local and external consumption.

As previously indicated South Africa's participation in global growth is minimal and estimates are that the country's share is only a fraction of one percent (less than 0.5%). This is because the industry has not geared itself up to produce and export content. For instance, when looking at the country's export performance of filmed content to the European market, countries from Africa and the Middle East have taken roughly 2.4% of the European cinema going audience in recent years. But of this regional market share, South Africa's stake is only 3.4%, far less than a range of other countries in the region.

Constraints

Skills development: Capabilities on the business and entrepreneurial side, as well as on the scriptwriting side, are key gaps, which require as much attention as technical skills and are arguably more important in driving the development of the film and TV industry.

Scriptwriting in indigenous languages is also of concern as there are very few skilled writers in indigenous languages. The monitoring of skill gaps is done relatively poorly if at all and the educational institutions are not necessarily training to the gaps. Skills transfer from international production and co production is not being co-ordinated, promoted or monitored.

Audience development: The size of the domestic market is a major factor affecting the growth of the film and television industry. The fixed costs of production cannot be achieved in the current domestic market. Consequently, “audience development” concerns represent another central theme to be addressed. The social, spatial and economic inequalities mean that the overwhelming majority of the population are located in townships where there are no or rudimentary exhibition outlets. Problematic aspects of public infrastructure in South Africa have only further reinforced this exclusion as transportation costs largely preclude access to cinemas in urban centres.

Financing: If markets are to be developed and an increase in demand to be realised there must be a clear strategy on how an increasing number of quality productions will be financed through development, production and marketing/distribution. Currently the key funders are public entities such as the National Film and Video Foundation (NFVF), their funding is mainly directed towards development costs. Their average investment into the production costs of a film is around 12% - 15%. The IDC has not invested significantly in many local productions. Their focus has been on international production or co-production. They are reviewing this position and are developing a financing model for local content, which is largely dependent on public entities and includes a DTI rebate. Their model is also dependent on the SABC’s involvement, which creates challenges in light of the broadcaster’s financial crisis.

In developing a model that will see more South African films financed it is important to pay some attention to the private investors and how they may be attracted to the table. This then directs attention to 24f of the Income Tax Act 58 of 1962 and whether it is effective. There is currently very little private finance at the table. It is important that local production should not be solely dependant on public funding and that the risk is shared with the private sector. The 24f section of the tax act is designed to attract private investors to film giving them a tax deduction as a film owner for their investment in production expenses. 24f has a history that leaves investors nervous and SARS suspicious and is therefore not facilitating private investment.

Key Action Programmes (KAPs)

12.10.1 Craft hubs

Nature of the intervention: The establishment of craft hubs with rural satellites in priority provinces. Intervention is needed to strengthen the entire value chain and the following areas have been identified as critical success factors for the economic development of a sustainable craft sector and its transformation from a supply-driven focus into a demand-led sector

Economic rationale: The hubs will ensure a multi-dimensional enabling environment through which regional economic activity can be supported to access local, national and international markets with the ultimate aim of building the commercial sustainability of the sector.

The hub will include both physical space/s and networked relationships. At least one physical space is required to house central activities of co-ordination and service provision – to form a nucleus – but the full range of services and programmes can be outsourced, preferably through service level agreements, to other “service providers”.

Outcomes: Efficiently functioning craft hubs, which facilitate access to local and global markets, improve the competitiveness of companies and contribute to advancing sustainable job growth.

Key milestones:

- 2010/11 Q1 DTI and IDC to finalise Memoranda of Agreements with the provincial implementing agencies
- 2010/11 Q2 DTI to finalise a Memorandum of Co-operation with SEDA in relation to the Craft Hubs
- 2010/11 Q3 DTI to formalise a Craft Hub Advisory Committee to ensure alignment with the Craft Hub Blueprint. Clear delivery targets are to be set by this structure.
- 2010/11 Q4 DTI in partnership with the North West Department of Sport Arts and Culture to launch the North West Hub
- 2011/12 Q2 DTI in partnership with the KZN Department of Economic Development to launch the KZN Hub.
- 2011/12 Q4 The IDC to establish a R10 million fund in support of the enterprises being developed by the hubs

Lead department: DTI

Supporting departments / agencies: DAC and DoT / Provincial departments

12.10.2 The Mzansi Collection Concept Store

Nature of the intervention: The Mzansi Collection Concept Store is a market access programme targeting rural and peri-urban enterprises supported by established industry. It represents a South African Lifestyle concept and is aimed at sourcing products that are proudly South African.

Economic rationale: To create a successful and sustainable retail platform for South African products, thereby assisting the development of both rural and urban producers. In addition, to create a retail experience that will position the Mzansi Collection as the premiere South African high-end niche brand and to support a ‘market pull’ for enterprises being supported by the craft hubs.

Outcomes: The establishment of a pilot store representing South African Lifestyle products in a high end niche market and the development of the concept into a franchising model which will allow for investment into the sector.

Key milestones

- 2010/11 Q1-Q3: DTI, DAC, Pilot store to be launched.
- 2010/11 Q3-Q4: DTI to launch the South Africa Handmade Collection showroom at the Craft and Design Centre in Gauteng.
- 2011/12 Q1: DTI to assess the impact of the launch of the pilot store.
- 2011/12 Q2: DTI and IDC to develop the franchising model for the Mzansi Collection stores.
- 2011/12 Q2: DTI to oversee the installation of the South Africa Handmade showroom into craft hubs.

- 2012/13 Q1: DTI, IDC and private sector to roll out the Mzansi Collection stores in targeted provinces.
- 2012/13 Q2: DTI to oversee installation of the Mzansi Collection in selected international retail stores.

Lead department: DTI

Supporting departments / agencies: DAC / Provinces and Metro Councils.

12.10.3 Develop a music industry strategy

Nature of the intervention: Development of a strategy for the music industry

Economic rationale: Music is an important cultural heritage which has untapped potential for economic development both in its own right, but also in terms of strengthening economic activity in other sectors such as Tourism.

Outcomes: A Music Sector Strategy

Key milestones:

- 2010/11 Q1: DTI and DAC convene industry stakeholders.
- 2010/11 Q2: Inception of strategy development process
- 2010/11 Q4: Finalisation of strategy

Lead department: DTI

Supporting departments / agencies: DAC

12.11 Tourism

Sector profile

Over the past two decades, tourism has emerged as a fast growing and valuable non-traditional, tradable services sector. Tourism is an important driver of both domestic consumer spending and foreign exchange earnings, underpinned by a sustainable resource base, labour intensive activities and relatively low barriers to entry for entrepreneurs. The accelerated development of the tourism sector will assist in diversifying South Africa's economy and contribute towards achieving the overall objectives of the National Industrial Policy Framework.

Tourism is further a demand-driven sector where the nature, volume and value of demand inform investment in tourism plant (supply) and job creation. From a supply perspective tourism is a complex sector made up of a number of industries that together provide the inclusive experience 'consumed' by tourists. These industries can be grouped into:

- **Transport and tours** (airlines, car rental, transfer services, travel agents and tour operators).
- **Hospitality** (accommodation, food and beverage, meetings and events).
- **Attractions and activities** (game reserves, scenery, outdoor adventure, museums and entertainment).

Given that tourism is a consumption-based concept, it is not classified as an economic sector in the National System of Accounts of any country and as a result, it is difficult to express tourism's economic contribution in standard economic indicators. Tourism growth is however measured in terms of **volume** (i.e. number of foreign arrivals and

number of domestic trips undertaken) and **value** (i.e. foreign direct spending and domestic direct spending).

In this regard the latest available data show that in 2008, South Africa attracted 9.6 million foreign arrivals generating R 74.2 billion in foreign exchange earnings (i.e. Total Foreign Direct Spend excluding capital expenditure)². In the same year, South Africans undertook 32.9 million domestic tourism trips (approximately 13.9 million people taking on average 2.4 trips) which yielded R25.8 billion in domestic consumer spending (i.e. Total Domestic Direct Spend)³. The total contribution (both direct and indirect) of the tourism sector to South Africa's GDP in 2008 is estimated to be R 194.5 billion⁴.

Due to the nature of tourism activity and the requirement for personal services, tourism is a highly labour intensive sector. Employment growth is dependent on a number of factors including volume and value of demand, utilisation/ occupancy rates, standard/quality of facilities and services, and seasonal demand patterns.

SA Tourism estimates that in 2008, 438 509 people were directly employed in the tourism sector. The sector's dependence on a wide range of supporting industries (e.g. financial services, construction, cleaning, security, laundry, arts and crafts) further implies a high employment multiplier. With an estimated additional 603 201 indirect jobs, total tourism employment in 2008 represents more than one million jobs.

While capital investment in the sector is not officially measured, a consistent increase has been observed over recent years in the number of multinational accommodation brands that established operations in South Africa. This is further supported by an aggressive expansion drive by local accommodation operators.

Unfortunately the volume and value of outbound tourism (South Africans travelling abroad) is also not measured by SA Tourism. However, indicative information on the trade balance in the tourism sector can be derived from South African Reserve Bank data on foreign exchange flows by travellers. This data indicated consistent surpluses over the last six years, with a trade surplus of R 27.8 billion in 2008.

Key opportunities

Tourism is a demand-driven sector where the volume, value and nature of demand informs supply-side growth in terms of new investment in products and job creation. In order to increase economic activity in the sector, it is therefore critical that demand is grown.

Tourism demand can be grown through scaling up destination marketing efforts and creating new markets. While increased destination marketing will require a greater allocation of marketing resources to SA Tourism, opportunity exist to diversify the local tourism economy and create new markets by focussing on high growth and high yield niche markets. Attracting such niche markets will inform investment in new tourism product and stimulate the creation of skilled employment.

Furthermore, tourism is a sector dominated by small and micro businesses across a range of sub-sectors. As a result the industry is highly fragmented with poor co-ordination between private sector and government. Some improvement has been achieved through the creation of industry associations within the sector in recent years.

² South African Tourism, 2009, 2008 Annual Tourism Report

³ South African Tourism, 2009, 2008 Annual Tourism Report

⁴ South African Tourism, 2009, 2008 Annual Tourism Report

However opportunity exists to strengthen these industry associations and align their focus with that of Government.

Building on the existing and strong tourism resource base of the country, development of niche tourism opportunities and strengthening industry associations will allow South Africa to grow market share and improve destination competitiveness.

Constraints

Given the importance of growing tourism demand to inform industry development, a major constraint is the difficulty experienced by individual tourism enterprises to access markets, especially lucrative foreign markets. A number of factors including physical distance from primary markets, cost of international marketing, and large operators dominating the distribution channel make it difficult for individual tourism enterprises to compete with their counterparts in comparable destinations.

Another constraint is the high cost of air travel to South Africa. The distance between South Africa and its main foreign tourism source markets makes long haul air transport expensive. The cost of air transport from regional markets is also high due to limited competition on intra-African routes. The price of an airline ticket to South Africa therefore makes up a significant portion of a potential tourist's overall travel budget and may negatively impact on the tourist's decision to travel to South Africa.

While input costs and market forces should dictate ticket prices, the way in which air ticket prices are structured is complex, unclear and confusing to tourists. Tight margins in the airline industry combined with the complexity of cost structures may tempt airlines to manipulate prices and engage in unfair practices to the detriment of the consumer and growth of the destination.

Key Action Programmes (KAPs)

12.11.1 Niche tourism development

Nature of the intervention: The intervention involves the formulation of a Niche Tourism Development Framework, market research projects and strengthening of niche market industry associations.

The Niche Tourism Development Framework will guide niche tourism development in South Africa and identify high growth and high yield niches to be developed. To determine the market size, value, growth potential and economic impact, identified niche sectors will be researched. Research findings and development opportunities will then be packaged and communicated to industry stakeholders. To strengthen relevant niche sectors, industry associations will be registered with DTI under the Sector Specific Assistance Scheme (SSAS) in order for them to access funding for industry development projects.

Economic rationale: Niche tourism offers the opportunity to diversify the tourism economy through creating new markets and increasing South Africa's competitiveness as a tourism destination. Niche markets may be smaller in size than mainstream tourism markets, but generally offer higher yields in terms of foreign exchange earnings and consumer spending. In addition, niche tourism markets generally have greater growth potential than mainstream tourism.

The developmental impact of niche tourism is often significant in that it stimulates creation of quality jobs that require specialised skills as opposed to the low or semi-

skilled jobs generally created in mainstream tourism. In addition, niche tourism activities are often community based and located outside of traditional tourist areas, which encourage geographic distribution of tourism benefits. More local spending takes place as niche tourism offerings attract independent travellers as opposed to pre-paid package tourists.

Outcomes

The key outcomes of the KAP will be three-fold:

- A framework to guide the development of niche tourism in South Africa.
- Market information through two research reports per annum to provide a market analysis, identify supply gaps and highlight development opportunities, and to propose recommended government interventions.
- Support for industry development through SSAS funding for industry associations.

Key milestones

- 2010/11 Q1: DTI to compile a Niche Tourism Development Framework.
- 2010/11 Q4: The market research projects in niche markets 1 and 2 are completed and accepted by DTI, SA Tourism and NDT.
- 2011/12 Q3: The market research projects in niche markets 3 and 4 are completed and accepted by DTI, SA Tourism and NDT.
- 2012/13 Q3: The market research projects in niche markets 5 and 6 are completed and accepted by DTI, SA Tourism and NDT.

Lead department: DTI

Supporting departments / agencies: EDD and DOT / SA Tourism and Industry

12.11.2 Tourism export development and promotion

Nature of the intervention: The intervention involves the establishment of a private-sector-driven Tourism Export Council and the development of guidelines for tourism enterprises to access Individual Exhibitor Assistance under the Sector Specific Assistance Scheme.

The establishment of a Tourism Export Council is a lengthy process that will require obtaining approval from TISA/EMIA to register such an export council, discussion with relevant industry stakeholders to obtain buy-in, establishment of the council and development of a tourism export development plan.

Facilitating access to individual exhibitor assistance for tourism enterprises will require the submission of proposed guidelines to TEO/EMIA, and then supporting tourism enterprises to gain improved market access through relevant trade events.

Economic rationale: International inbound tourism is an important earner of foreign exchange earnings, and since the 9.6 million international arrivals to South Africa represents approximately one per cent of total international arrivals globally, there is significant scope to increase market share.

SA Tourism, a statutory body under the Department of Tourism, is the official destination marketing organisation of South Africa. It is mandated to conduct generic market research and market the country as tourism destination. SAT does not work with individual product owners or promote specific industry sub-groups or product types. There is thus a need for a private-sector driven approach to tourism export development

and promotion in order to compliment the generic destination marketing work of SA Tourism.

In addition to the above, tourism growth and development is constrained by the difficulties experienced by tourism enterprises to access key markets. In the tourism value chain, tourism product components (i.e. offered by individual tourism enterprises) are sold through intermediaries or directly to consumers (i.e. independent travellers).

Sales to intermediaries (e.g. inbound/outbound tour operators, travel agents, etc.) are largely concluded at international tourism trade events or through dedicated outward selling missions. Sales directly to consumers are concluded at dedicated tourism consumer shows or online through enterprise websites or travel portals.

Currently Individual Exhibitor Assistance under the Sector Specific Assistance Scheme (SSAS) is available to all sectors except tourism. To improve market access for tourism enterprises, there is a need to develop clear guidelines with relevant conditions attached, to accommodate the tourism sector under the Individual Exhibitor Assistance programme.

Overall, the establishment of a dedicated tourism export council combined with improved market access of tourism enterprises will boost South Africa's tourism exports. The project will assist in developing the export capability of the tourism sector; ensure better co-ordination in the approach to tourism export marketing, improved market access and competitiveness of tourism enterprises. Increased tourism exports will in turn inform greater export earnings, investment and job creation in the sector.

Outcomes

- The establishment of a Tourism Export Council to inform improved export capability and a co-ordinated tourism marketing approach.
- Guidelines for tourism enterprises to participate in the Individual Exhibitor Assistance programme.
- Increased tourism arrivals and foreign exchange earnings through improved market access for tourism enterprises.

Key milestones

- 2010/11 Q1: DTI to develop guidelines to allow Individual Exhibitor Assistance for tourism enterprises submitted to TEO/EMIA.
- 2010/11 Q2: Proposal submitted to TISA/EMIA for approval to establish the Tourism Export Council.
- 2010/11 Q3: TISA/EMIA approval granted to establish Tourism Export Council.
- 2010/11 Q4: DTI to develop a Discussion Document to obtain buy-in from SA Tourism and industry on the formation of a private-sector driven Tourism Export Council.
- 2011/12 Q1: DTI consultation with industry on the establishment of a Tourism Export Council completed and buy-in obtained.
- 2011/12 Q2: Industry to take the lead in establishing Tourism Export Council.
- 2011/12 Q3: DTI to assist industry to submit Applications for Individual Exhibitor Assistance.
- 2011/12 Q4: Tourism Export Council established by industry.
- 2011/12 Q4: At least 50 tourism enterprises supported through Individual Exhibitor Assistance programme.

- 2012/13 Q2: Tourism Export Council to develop a Tourism Export Development Plan.
- 2012/13 Q4: At least 100 tourism enterprises supported through Individual Exhibitor Assistance programme.

Lead department: DTI

Supporting departments / agencies: EDD, DOT / Tourism industry and Tourism Enterprise Partnership

12.11.3 Airline pricing structure investigation

Nature of the intervention: The intervention involves researching airline pricing structures, developing a position paper and engaging stakeholders to inform drafting of regulations for the Consumer Protection Act and possibly referring cases for further investigation to the relevant authorities.

The research will involve an investigation of airline pricing structures and the range of surcharges levied to establish the transparency with which ticket prices are quoted and to determine if any unfair pricing practices are taking place. Research findings will form the basis of a position paper and recommendations to inform the drafting of regulations for the Consumer Protection Act. The project will also engage relevant industry stakeholders to facilitate input to the drafting of regulations. Should any suspicion of unfair pricing practices arise during the investigation, cases will be referred to relevant authorities.

Economic rationale: The cost of air transport has a direct bearing on the decision to travel to a destination. The high cost of long-haul ticket prices for international air travel to South Africa means that airfares make up a significant portion of a foreign visitor's trip spend.

Poor transparency in the advertisement and quoting of airfares combined with inconsistent cancellation policies (as applicable to refunding cancelled tickets) confuse consumers (potential tourists) and makes price comparison very difficult. Current airline pricing practices and cancellation policies may be in breach of the Consumer Protection Act. This has a direct and negative impact on South Africa's competitiveness as a tourism destination and inhibits growth of tourism demand, which in turn inhibits foreign exchange earnings potential and overall growth of the tourism sector.

Outcomes: While this is a short-term project, the key outcome of the KAP will be effective regulations in the Consumer Protection Act to address unfair pricing practices and greater transparency in quoted airfares.

Key milestones

- 2010/11 Q2: DTI to compile a position paper on airline pricing structures and submit to Consumer Protection Chief Directorate.
- 2010/11 Q2: Consumer Protection Act regulations drafted.

Lead department: DTI

Supporting departments / agencies: Relevant industry associations such as the Association of South African Travel Agents and the Southern African Tourism Services Association

12.12 Business Process Services (also known as Business Process Outsourcing)

Sector profile

In 2002 DTI commissioned a study to form the basis for a customised sector programme for BPS. At about the same time the private sector participated in a research programme on the potential of the BPS sector. Both studies showed rapid world-wide growth in this sector and pointed to its potential for a positive impact on developing countries.

In 2004 the global BPS industry was forecast to grow at 50% per annum over five years (resulting in growth of between \$50 billion and \$60 billion) and a window of opportunity was identified for South Africa to realise significant value by developing this sector of the economy. It was predicted that the sector had the potential to create 100,000 new jobs in South Africa (25,000 direct and 75,000 indirect)⁵ and contribute up to R1 billion in GDP to the economy.

Key opportunities

There is an opportunity for Government to grow the sector and attract more investment by investing in infrastructure that will be readily available for the BPS investors to locate in South Africa with ease. Such an initiative would have the benefit of reducing the cost of doing business and ensure that jobs are created at a faster rate than would be the case without any intervention.

Constraints

- **Telecommunications:** The cost of telecommunication remains an inhibitor to rapid growth in this sector.
- **Availability of skills:** A systematic stream of work-ready entrants is required as an increasing number of global investors view South Africa as an attractive destination. It is important that there is a constant supply that is readily available for investors to tap into. Although we have managed to train 1 307 work-ready entrants, the figure is not sufficient to cater for the demand of the industry. Ongoing skills and development support from government is necessary. This year, we were supposed to roll out Phase 2 of the Monyetla 1 pilot project targeted at training 6,000 more learners/ work-ready entrants to the sector. The proposal was submitted to the Department of Labour, as the key providers of funding for this initiative. However, DTI is still awaiting the necessary funding to be able to proceed to the next phase of the Monyetla Work Readiness project.

Key Action Programmes (KAPs)

12.12.1 Rollout of BPS incentive Programme

Nature of the intervention: Ongoing rollout of the BPS incentive programme.

⁵ Using an indirect job multiplier of 3, comparative multipliers are: financial services – 2.3, gambling – 3.1, trade, catering and accommodation – 4.9 and motor vehicle 1.3. This is calculated on the basis of economic models for determining the GDP multiplier.

Economic rationale: Overcome high costs of telecommunications and help in creation of a 'demonstration effect' of South Africa as an attractive BPS destination competitive with offerings of key competitor countries.

Outcomes: Drive a competitive investment environment relative to key competitor countries to scale up South Africa as a BPS destination with concomitant employment creation.

Key milestones

- 2010/11—2012/13: Ongoing rollout of BPS incentive programme.

Lead department: DTI

Supporting departments / agencies: NT, DoHE&T

12.12. 2 Skills Development and Training for the BPS Sector

Nature of the intervention: Develop talent development initiatives that will cover training needs across the training continuum from entry level to supervisory level.

Economic rationale: Labour is a key necessity in the running of BPS Operations. A major determinant for an investor wishing to start a BPS operation is the availability of Labour in the key location. In addition, having a readily available pool of labour would ensure that young people in South Africa are trained and absorbed into the economy and foreign direct investment is injected into the economy thereby increasing GDP growth.

Outcomes: A readily available pool of labour for investors to draw from, which includes European language skills, provides career pathing across the industry and provides scope for increasing the proportion of local senior managers.

Key milestones

- 2010/11 Q4: DTI and DOHE&T to roll out Monyetla 2.
- 2011/12 Q1: Training of 5,000 learners takes place.
- 2011/12 Q2: DTI and DOHE&T to submit funding proposal to Services SETA.
- 2011/12 Q3: The Services SETA to identify trainers.
- 2011/12 Q4: The Services SETA to contract trainers.
- 2012/13 Q1: Dutch language training takes place.
- 2012/13 Q2: DTI to submit funding proposal to DOHE&T
- 2012/13 Q4: DTI and DOHE&T to rollout middle-management training.
- 2013/14 Q1: Training of 1,000 supervisors takes place.

Lead department: DOHE&T

Supporting departments / agencies: DTI / Training Institutions.

Economic impact: There is the potential to create 56,000 direct decent jobs over ten years in BPS with an increase in foreign earnings from the 'exportable' services sector.

CLUSTER 3: SECTORS WITH POTENTIAL FOR DEVELOPMENT OF LONG-TERM ADVANCED CAPABILITIES

12.14 Advanced manufacturing

Nuclear sector profile

Currently South-Africa has two pressurised water reactors, operated by state utility Eskom to provide about 6% of electricity. It also has world-class nuclear engineering capacity within the PBMR (Pty) Ltd. and the Nuclear Energy Corporation (NECSA), which conducts nuclear research and development, and is the third-largest exporter of medical isotopes in the world. NECSA is also active in food irradiation. South Africa also has advanced nuclear testing facilities, extensive Uranium resources and has previous experience in uranium enrichment, nuclear fuel fabrication and a nuclear weapons programme.

Nuclear component and equipment manufacturing

Nuclear component and equipment manufacturing is highly limited at present due to the lack of local and global demand over the last two decades. A future nuclear programme will cost in excess of R1 trillion. This will place enormous strain on the balance of payment and without an effective localisation programme will have severe consequences for the South African economy.

Regulatory environment

Regulation and certification for components and equipment in the nuclear industry requires extremely high quality and standards. The industry has intermediate barriers to entry but due to South Africa's established regulatory system and previous experience, South Africa is well positioned to enter this lucrative high value added industry. This provides opportunities for the establishment of local component and equipment suppliers to also supply advanced equipment to other industries e.g. the petrochemicals industry.

Key opportunities

The DoE indicated that based on the Integrated Resource Plan (IRP) for energy in South Africa the following assumptions can be made:

- A fleet approach will be adopted for the purchasing of nuclear plants.
- The first unit will be in commercial operation in 2019. The target is 10,500 MW of installed nuclear capacity by 2028 and 21,000 MW of installed nuclear capacity by 2035.
- The Nuclear Build programme indicates huge scope of opportunities for new investment (I) and joint ventures (JVs) to supply both a local and global markets.

Constraints

- Successful localisation will require a fleet approach to ensure economies of scale and commencement of construction of one new reactor every 18 months to 24 months to ensure viable business opportunities.

- Meeting nuclear quality accreditation and regulatory standards, technology and skills transfer from one of the main nuclear vendors and the many global component suppliers.
- An appropriate combination of global partnerships and access to global supply chains, funding and skills development.
- A careful phasing in of the various investments will be required for the program and appropriate government led programmes to ensure leveraging of procurement to enforce localisation.

Advanced materials sector profile

Advanced materials are those that outperform the conventional materials with superior properties such as toughness, hardness, light weightiness, durability and elasticity. They can have novel properties including the ability to memorize shape or sense changes in the environment and respond appropriately. The development of advanced materials can even lead to the design of completely new products, including medical implants and computers. The three major growth areas in the South African Advanced Manufacturing industry include Titanium, Nanotechnology, Advanced Composites and Bio-ceramic applications

Advanced materials contribute to emerging economies and global competitiveness and innovative productivity, which is driving industry growth in developed economies. This global competition has led to increased innovation and the use of technologies to produce higher quality goods and services at lower prices. The ability of companies to remain competitive in this changing global environment requires the integration of new technologies as well as the ability to rapidly respond to economic, social and environmental changes. Hence the development and applications of advanced materials have become critical in South-Africa as well to bring in much needed technological and economic advantages.

Opportunities

South Africa's advanced materials industry has pockets of excellence in research, situated in universities and science centres. Moreover, there are a few established manufacturing industry clusters that are internationally competitive. Commercialization of Advanced Materials is crucial to transform scientific discovery into societal benefits to realize private sector commercialization and opening opportunities for SA industry in the following areas:

- Nano-materials
- High performance materials based on natural resources (Advanced Bio-composites)
- Composites (intelligent textiles used in medical, building and construction industries)
- Continuous Fibre Reinforced Thermoform Composites

Constraints

- The country lacks innovative engineers but has a small amount of working engineers that are working on already developed technologies.
- Inadequate commercialization drive between the R&D and commercialization phase of advanced manufacturing value-chains, whereby some completed R& D work does not move to next critical phase of producing tangible products.

- This is partly a result of lack of investment in appropriate machinery to prototype, test and accredit the work for commercial applications.

Aerospace and Defence sector profile

The sector is a critical and pervasive generator of new technologies and is key to future innovation in South Africa. It also enhances Government engagement across substantial parts of manufacturing, services and primary sectors of the economy to achieve long – term intensification of the country’s industrialisation processes and movement towards a knowledge economy. Significant progress has been achieved in developing recognition and confidence from global original equipment manufacturers (OEMs) in aerospace that South Africa has capabilities to extend components and parts manufacturing as well to enter the high-value global supply chains on advanced materials such as titanium, avionics and electronics.

Key Opportunities

Key areas of opportunity for growing the sector / achieving higher impact

- Government procurement, including SAA , direct offsets, CSDP` s
- Airports development and upgrading activities including services

Constraints

- Loss of critical skills
- Rapid technology changes
- Development of a sustainable supplier base
- Lack of infrastructure funding
- Lack of financial assistance or incentives regarding non – recurring costs in aviation manufacturing
- Lack of investment in airport capacity resulting in reduced baseline level of passengers

Digital TV and STB Sector profile

The World is migrating to the digital terrestrial television, and South Africa is not an exception. This move is expected to significantly boost the digital terrestrial television (DTT) Set Top Box (STB) market world-wide. The South African government took a decision to switch-on digital signals and switch off analogue signals on 01 November 2008 and 01 November 2011 respectively.

The South African electronics manufacturing sector is characterized by large, middle-sized and small manufacturers with primary focus on the assembling and manufacturing of electronics consumer products such as TVs, telecommunications equipment, and STBs for the pay television market. Most of these companies have been built within South Africa and they exhibit varying degrees of expertise. These manufacturers have strong engineering design capabilities particularly in software and systems development which is a critical element in the manufacturing of STBs. Some of the manufacturers already have established relationships with the retail market and have distribution networks, with easy access to outlets in the cities and towns throughout the country.

The manufacturing of STBs largely consists of assembling electronics components in accordance with the engineering designs. Thus maximizing the value in the manufacturing process ensures that many local manufacturers participate in the full

manufacturing value chain. This will result in the improvement of capabilities for the manufacturing of specific electronic components.

The South African free-to-air DTT STB market is estimated to be 8 million in total. However the growth of this sector is closely correlated to the TV industry. The table below provides a snapshot of indicators for the Television, Radio and Communications Industry. South Africa is a net importer in this sector and continues to record a large trade deficit. Between 2000 and 2008, both the value of imports and exports has doubled. Employment in this sector has halved since 2000 and could probably be attributed to Manufacturers shifting away from CKD operations to SKD operations that require less manual labour. This in turn is reflected in the declining contributions to GDP.

Key Opportunities

The programme will aim to strengthen the STB strategy to achieve the objectives outlined in the STB mandate as gazetted. The programme will also leverage the procurement of the STB from outside through the NIPP whilst encouraging an increase in local investments into the industry to meet the technological requirements to produce STB's, protect local industry and ensure efficient distribution and after sales service of STB's. The development of a world class electronics manufacturing industry in South-Africa will help contribute to the revitalization of the electronics industry.

In order to meet the expected domestic demand for STBs, significant volumes of these consumer products will be required. Thus the local industry must gear itself to satisfy this demand through increasing investments in production capacities. Local manufacturing of STBs also presents opportunities for growth in other supporting industries such as plastics, packaging, metals, and manuals.

There are at least six existing STB/TV manufacturers in the country with three of these having engineering design capabilities. The existing manufacturers are of varying sizes and capabilities. It is also expected that new manufacturers will enter this market. This presents an opportunity for the growth and transformation of the industry through increasing participation by historically disadvantaged persons.

Constraints

- The deadline to the digital migration is coming closer and the lack of sufficient time for industries to prepare for the roll out poses a risk.
- Delays could also result in the manufacturing opportunity not filtering down to a broader spectrum of domestic manufacturers.
- There is a lack of capacity in the industry for the small scale firms as they do not have Intellectual Property, capital, the technology or the capability to manufacture STBs
- The opportunity of driving B-BBEE and transformation in the Electronics industry may be overlooked due to time constraints and higher priority afforded to other components of the project.

12.14.1 Nuclear build

Nature of the intervention: Leveraging Procurement for the Nuclear Build Programme to ensure localisation and participation in global nuclear value chains.

Economic rationale: Due to the high cost of the programme, localisation is essential to protect the trade balance. The following benefits are expected:

- Promotion of technology and skills transfer from main nuclear vendors and suppliers of nuclear grade components to the South African industry.
- Promotion of joint ventures, consortiums and the establishment of new companies to grow South Africa's nuclear manufacturing capability and nuclear supply industry to supply into the nuclear build programme.
- Enhancement of exports into global nuclear supply chain.
- Creation of high level direct jobs and make a significant contribution to the manufacturing sector value add and GDP growth.

Outcomes

- A long-term procurement plan with detailed up-front specification, mechanisms and regulations to ensure implementation of the stated objectives.
- Identification of sequentially increasing domestic manufacturing opportunities.
- Optimal funding mechanism for localisation and export opportunities. Strengthened procurement to deliver greater cost-effectiveness *and* industrial development.

Key milestones

- 2010/11 – 2011/12: DTI, DOE, DPE, Eskom and Niasa to revise and improve CSDP and/or other localisation programmes, develop Treasury regulations with specific requirements and guidelines to support localisation by Eskom and/or other SOEs.
- 2010/11 – 2011/12: DTI and DoE to identify components for localisation and export, as well as requirements to establish local production.
- 2010/11 – 2011/12: DTI to develop streamlined incentives to support the nuclear industry, including Necsa, and to qualify as a recipient in terms of CSDP.

Lead department: DTI

Supporting departments / agencies: EDD, DoE, DPE, DST, NT / Eskom

12.14.2 Conformity assessment framework for the South African nuclear industry

Nature of the intervention: Nuclear manufacturers have to comply with ASME III or similar safety rules and administrative procedures. Once companies comply they however have a competitive advantage against non-compliers, allowing entry into a lucrative high value add sector. These rules and procedures are complex to implement within manufacturing entities and also require that the appropriate legal framework exists from government side.

Economic rationale: Compulsory health and safety requirements are necessary barriers to entry for manufacturers in the nuclear industry.

Outcomes: The development of appropriate skills in terms of inspectors and nuclear supervisors to serve the manufacturers, certification bodies and inspection bodies.

The localisation of nuclear certification, inspection and skills development services in South Africa, underpinned by accreditation, should open the door to the local nuclear industry to secure conformity assessment services that are affordable (i.e. up to 40% less expensive) and that does not discriminate against them in favour of overseas manufacturers who have access to these services in their own countries.

Key milestones

- 2010/11: DTI and SANAS to streamline, test and refine accreditation system for nuclear sector.
- 2010/11: DTI and SANAS to establish a specialist technical committee.
- 2010/11: DTI and SANAS to conduct workshops on the requirements for accreditation.
- 2010/11: DTI and SANAS to undertake assessor training.

Lead department: DTI

Supporting departments / agencies: DOHE&T and DST / National Nuclear Regulator and SANAS

12.14.3 Skills development support

Nature of the intervention: Revive and upgrade training centres at SOE's and reduce bottlenecks at artisan testing facilities.

Economic rationale: South Africa's supply of scarce skills over the next five years (20,000 scientists and engineers, and 25,000 artisans) does not meet its five-year demand (31 500 scientists and engineers, and 54,000 artisans).

This leads to a five-year gap of 11,500 scientists and engineers as well as 29,000 artisans. The power cluster's capital expansion, design and manufacturing programmes additionally require 3,000 scientists and engineers as well as 24,000 artisans over the next 5 years which will create more pressure on skills demand.

The total gap comprises 14,500 scientists and engineers as well as 40,000 artisans. In addition, a range of specialised skills are needed for technology transfer over the next 15 years. Artisan testing facilities face bottlenecks of up to 18 months, resulting in delays to introduce skilled artisans into the labour market.

Outcomes: Increase number of skilled artisan entering the labour market.

Key milestones

- 2010/11 Q1: DTI to obtain approval of the funding application made through the Employment Creation Fund to upgrade Necsa training facility. This will build on the earlier DST R30 Million investment in a NECSA-Pelindaba Nuclear Manufacturing Centre to ensure local companies participating in the nuclear build have training access for ASME 111 accreditation.
- 2010/11 Q2: DTI to co-ordinate the launch of the upgrading process with Eskom and NECSA.
- 2010/11 Q4: Completion of the development of two training centres.

Lead department: DOH & E

Supporting departments / agencies: DTI, DST and DPE / Eskom and NECSA

Economic impact

Highly skilled jobs: It is estimated that in excess of 75,000 direct jobs in the nuclear manufacturing industry will be created under this scenario with approximately 150,000 jobs related to the nuclear industry.

12.14.4 Centurion Aerospace Village

Nature of the intervention: Development a sustainable supplier base

Economic rationale: Creation of high tech industry clusters through the selection of higher levels of sub-tier supply on the basis of established core competence, and established supply to the higher tier suppliers, with subsequent phases increasingly offering opportunities for new SMME entrants in the aviation sector.

Supporting sustainability of lower level SMME suppliers through:

- Resource sharing
- Mentoring of lower tiers of supply by higher tiers
- Directing of commercial base load to common sub-tier suppliers
- Direct assistance of emerging lower tier SMME suppliers
- Selective support re redeemable supplier financing for SMME`s

Outcomes: A strong and sustainable local supplier base and creation of new companies and SMME`s

Key milestones:

- 2010/11 Q4: First three SMME tenants to occupy buildings

Lead agency: CAV

Supporting departments / agencies: DTI, DST, DOD, DPE, NT and DPW

12.14.5 Materials for the aerospace industry

Nature of the intervention: Advanced Materials for the aerospace industry. Building on the DST-led engagement with Airbus and Boeing for supply of aerospace grade titanium; aerospace components and materials and systems engineering (aeronautics).

Economic rationale: Building a new and competitive titanium industry and a natural-fibre composites materials industry. This will take advantage of increasing global demands for green, light and strong materials.

Outcomes: South African Advanced Materials Intellectual Property

- Manufacturing contracts for a new industry base in titanium for South African companies with global aerospace aircraft manufacturers
- An extension of titanium manufacturing into industrial applications in large, piped infrastructure (oil rigs)
- Manufacturing contracts for a new industry base in natural fibre composite materials to be used in interior parts and components (secondary structures) for aircraft manufacturers.

Key milestones:

2010/11Q4: Finalisation of the first prototype of the natural fibre project for Airbus application as funded by DST

2010/11Q3: Leverage patents under development to secure interest in supply contracts for titanium production and development of the titanium beneficiation for Aerospace application.

Economic Impact:

- Employment: Titanium production with a twenty thousand ton plant in 2018 will generate 700 to 1000 jobs and higher projections if the titanium applications are extended to industrial applications. The job creation potential for the Natfibio DST

intervention on natural fibre composites in partnership with Airbus will extend beyond manufacturing to the agricultural sector as the fibre is extracted from plant material.

- Investment: Investment in the 500 ton plant for 2013 is projected at R750 million and the commercial scale 20,000 ton plant is R4 billion. A critical mass of engineering capabilities is being established through the DST funded Titanium Centre of Competence. Investments are also at the R&D stage with technical performance blueprints provided by Airbus to the DST funded Natfibio Centre of Competence.

Lead department: DST

Supporting departments / agencies: DTI, DPE, DOD and DoT

12.14.7. Manufacturing of STB's and Digital TVs

Nature of the intervention: There will be a need to form a consortium of local emerging manufacturers. The consortium will be involved in working together with the established manufacturers as well as DTI to come up with a detailed strategy. This strategy will emanate from the high level manufacturing strategy that DOC has drafted. This entails the development of the local design capabilities of the STB engineering, architecture, and its related applications. Also, local manufacturers will be required to **make significant investments in order to increase production capacities to meet demand.**

Economic rationale:

- To increase South Africa's excellence in software engineering, STB manufacturing, technical skills by building a world class STB industry.
- To stay cost-competitive, the domestic STB manufacturers must have capital-intensive production lines installed to mount and place chips using surface mount technology which requires substantial capital investments to increase production capacities to meet the demand for STBs, thus capital investment will increase.
- To remain competitive in the electronic contract manufacturing requires large volumes which in turn lead to creation of employment or at least maintenance of employment. (This will also ensure that South Africa takes advantage of the growing global consumer market)

Outcomes:

- Incentives and schemes targeted to Lower Tier companies which will enable them to complement with Higher Tier companies.
- A growing electronics industry.

Key milestones:

2010Q1: DTI and IDC to identify Third Tier companies by February 2010 and identify their respective constraints and corresponding interventions.

Lead department: DoC

Supporting departments / agencies: DTI, IDC, and DST