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**CSIR Corporate Plan
Financial years 2007/8 to 2009/10**

Executive Summary

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The organisation's activities comprise management of the research and innovation value chain through Strategic Basic and Applied Research, Experimental Development, and Technology and Knowledge Transfer. This work is funded through a combination of baseline and directed Grants from the Department of Science and Technology, and Contract R&D income from the public, private and international sectors.

The institutional planning cycle for the CSIR continues to comprise a three year strategic plan providing the organisation's medium term objectives and priorities within the context created by both the external and internal environments. The first year is explicitly detailed as a one year operational plan for the organisation. In accordance with the CSIR planning process, these objectives will continue to be reviewed on a rolling three-year basis, in full alignment with government practices. Plans for each unit within the CSIR mirror and reflect the organisation-wide planning process.

In 2004, an organisational transformation process named "Beyond 60" was initiated to promote stronger alignment of the organisation's activities with its mandate. The renewed strategic priorities for the organisation are represented in Figure 1, and remain the key objectives for the strategic and operational plan presented in this document.

The CSIR's activities address research, development and technology transfer through Grant funding and Contract R&D.

The CSIR's future trajectory and scope of activities are planned through a rolling 3 year strategic plan and a 1 year operational plan.

A major organisational transformation was initiated in 2004 to promote stronger alignment with the CSIR's mandate and core purpose.

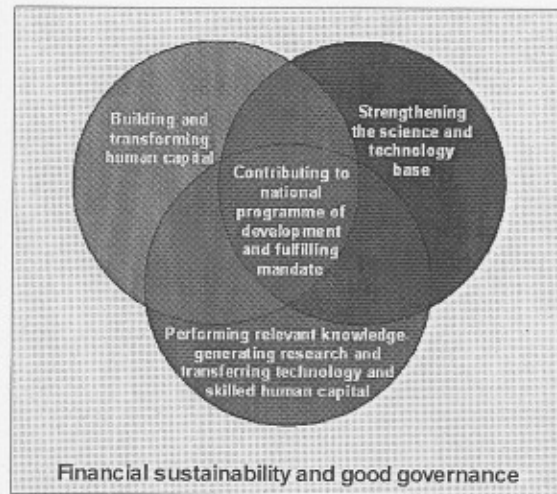


Figure 1 Organisational priorities established through Beyond 60

Figure 2 presents the course that it was envisaged the Beyond 60 organisational transformation should follow, starting from when the design intent was articulated in late 2004. While the 2006/7 year marked a transition from the transformation phase to the growth phase, growth aligned with the Beyond 60 culture and values should dominate the agenda from 2007/8 onwards.

The CSIR has established refreshed culture and values and is moving into the growth phase of organisational development.

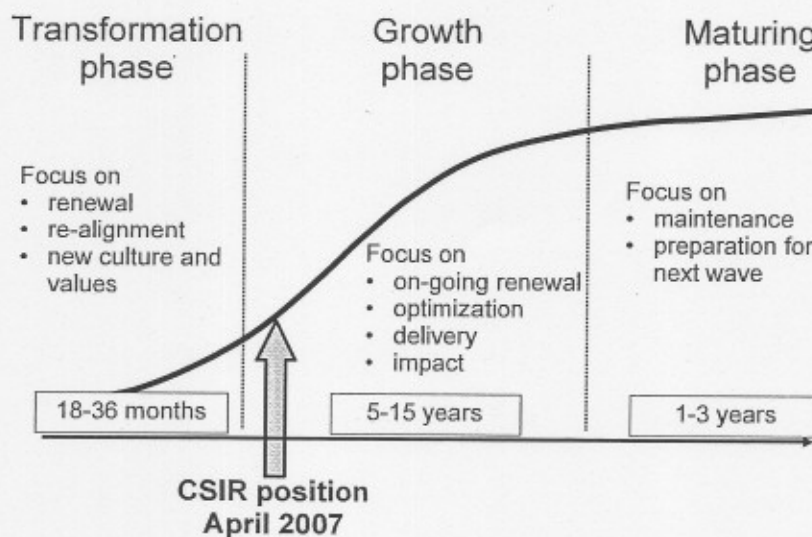


Figure 2 Phases in the cycles of organisational development

Reflecting on implementation of the Beyond 60 organisational transformation to date, substantial progress has been achieved on many fronts, as outlined in Table 1. These achievements have positioned the organisation to take on a greater external focus through establishment of strategic research programmes that address stakeholder requirements and produce a strong flow of technology with significant impact on markets and society.

Over the past eighteen months since the start of Beyond 60 implementation substantial progress has been made on strengthening the quality of science and human capital.

Table 1 Overview of progress achieved through the Beyond 60 transformation process

- Production of high quality Science, Engineering and Technology (SET) outputs is starting to increase including positive trends in publication equivalents, patenting and technology development. The health of the organisation's intellectual property portfolio is strengthening, with 98 foreign patents granted.
- Investment of CSIR funds in scientific equipment in 2006/7 has shown an increase of 20% over the previous year.
- Robust processes for management of Parliamentary Grant are maturing with a strong thematic programme in place, the first Emerging Research Area in nanoscience established and a performance based process adopted for allocation of block funding to units.
- The activity of SET linkages through research alliances is increasing. At the end of December 2006, the CSIR had a total of 45 local or international research alliances each of which was conducting collaborative work with a value of at least R1 million per annum.
- The strength of human capital in the SET base has been enhanced through significant increases in the number of staff with post-graduate qualifications and implementation of career ladders with robust and benchmarked criteria. The number of staff classified as researchers at the end of December 2006 was 819, which represents a substantial growth over the 661 level reported at the end of 2005/6¹. The number of PhDs in employment has also risen by 10% in the last year after a period of three years in which only small progress was achieved.
- Organisational understanding of the research mix with respect to Frascati classifications has evolved considerably.
- The strategic shape of the Contract R&D portfolio is improving with an increasing proportion of work strategically planned and aligned with national strategies. The proportion of work that is planned and managed strategically is now over 50% of the Contract R&D conducted by the CSIR and the value of work contributing directly to national strategies is forecast to be about one third of the CSIR Contract R&D portfolio.

The overall intent of the organisation's strategy is to continue pursuing a systematic evolution that will strengthen research capacity and maximise the impact that can be generated in favour of national priorities. The operational plan, to be executed in 2007/8, will focus on

A key immediate priority is to continue enhancing the quality of science while increasing external focus to maximise impact in support of addressing national priorities.

¹ It must be noted that the latest figures are in terms of the revised classification system based on the newly implemented career ladders.

the transition into the growth phase, while maintaining a strong focus on building and transforming human capital in the SET base.

The plan revolves around key strategic objectives for the growth of the CSIR towards recognition as an institute that delivers substantively in support of South Africa's socio-economic development. The key strategic priorities for 2007/8 are summarised in Table 2.

Table 2 identifies the key priorities that will be addressed during the forthcoming planning cycle.

Table 2 CSIR strategic priorities to be addressed in 2007/8

Priority Area	Major priorities to be addressed in 2007/8
Human Capital Development (HCD)	<ul style="list-style-type: none"> • Implement a strategic and focused human capital development (HCD) programme aimed at developing the SET cadre within the CSIR over the next 5 to 10 years and contributing to the national human resource development programme.
R&D Outcomes	<ul style="list-style-type: none"> • Structure the CSIR portfolio of activities relating to technology transfer for commercial gain to realise tangible contributions to the national economy. • Achieve a portfolio of projects aimed at technology transfer for social good.
Contract R&D	<ul style="list-style-type: none"> • Maximise the opportunities in the tax incentives offered to the private sector in respect of expenditure on R&D.
Financial sustainability	<ul style="list-style-type: none"> • Renew efforts to reduce the CSIR's full cost of research.

The CSIR will continue to pay attention to issues including:

- R&D (2 new ERAs, new Centres of Competence);
- Strategic Research Alliances;
- Human Resource Management;
- Corporate Governance and Responsibility; and
- Open Source Software.

A strong focus will be maintained on operationalising key initiatives in other CSIR portfolios.

Key national strategies where the CSIR is already active or will seek to provide a significant technological contribution in support of the National R&D Strategy and the Accelerated and Shared Growth Initiative for South Africa (ASGI-SA) objectives include those identified in Table 3.

Continuing to strengthen the CSIR's contribution to national strategies through R&D is a high priority.

Table 3 CSIR support to national strategies and programmes

Category	Strategy
General	<ul style="list-style-type: none"> • National R&D Strategy • National Key Research and Technology Infrastructure and Equipment Strategy
Biosciences	<ul style="list-style-type: none"> • National Biotechnology Strategy • National Biodiversity Strategy
Environment	<ul style="list-style-type: none"> • National Water Resources Strategy • National Climate Change Response Strategy for South Africa • National Strategy for the Rehabilitation of Derelict and Ownerless Mines • Hydrogen economy and energy R&D strategy
Infrastructure	<ul style="list-style-type: none"> • Expanded Public Works Programme • National Spatial Development Perspective • Comprehensive Housing Plan • National Transport Master Plan • National Construction Charter • National Freight Logistics Strategy
Industry	<ul style="list-style-type: none"> • Advanced Manufacturing Technology Strategy • National Industrial Development Framework • Nanotechnology science and technology frontier programme
ICT	<ul style="list-style-type: none"> • National Space Strategy • National ICT R&D Strategy • South African National Research Network

The 2007/8 distribution of baseline Parliamentary Grant funding to research is presented in Figure 3.

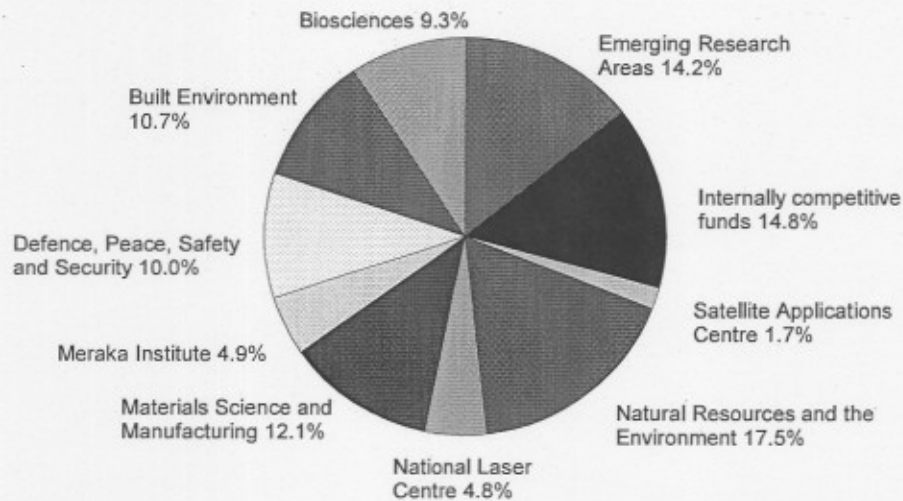


Figure 3 Deployment of baseline Parliamentary Grant funding by units and centres

Deployment to research projects will take into account the inputs provided by each unit's Research Advisory Panel that has internal and external membership. Of the block allocations, 15.4% will be devoted to human capital development, and units are encouraged to invest increasingly in projects where the primary objective is technology transfer.

The enhanced processes for managing baseline Parliamentary Grant will be maintained to ensure effective deployment into priority research areas.

The suite of interventions that will be adopted to lend impetus to CSIR's approach to accelerating the strengthening of the SET base in the CSIR are illustrated in Figure 4.

An enhanced structured approach to Human Capital Development will be introduced in 2007/8.

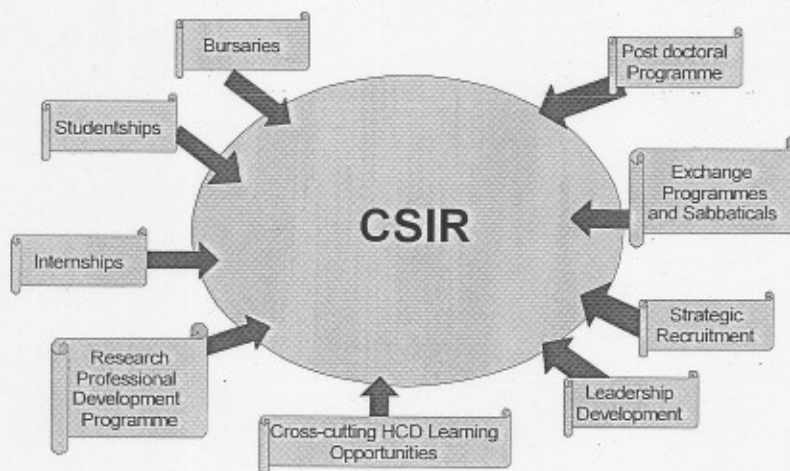


Figure 4 Modalities for development of human capital in the CSIR's SET base

The projected strengthening and evolving demographic composition of the SET base by 2010 is provided in Table 4.

Specific plans are set for overall strengthening of the SET base, evolution of its profile and promoting demographic transformation.

Table 4 Strategic objectives for transformation of the CSIR human capital

Staff category	2006/7	2007/8	2008/9	2009/10	Increase over 3 years
SET base	1466	1553	1610	1686	15.0%
Non-SET base	741	750	755	758	2.3%
Total staff	2207	2303	2365	2444	10.7%
% of staff in SET base	66.4%	67.4%	68.1%	69.0%	3.9%
% of blacks in SET base	44.6%	48.3%	50.5%	53.1%	19.1%
% of females in SET base	31.4%	34.4%	36.1%	38.6%	22.7%

There will be significant changes to the CSIR funding streams as explained in section 3.5 of the main document. CSIR will remain financially sustainable and Table 5 contains an overview of the CSIR budget for 2007/8.

The organisation's financial plan will ensure continuing financial sustainability.

Table 5 Summary CSIR income statement – 2007/8

	2007/8 budget (R million)
Total income (excluding interest)	1 290.0
R&D Contract Income	667.0
Parliamentary Grant	614.5
Royalties	8.5
Total expenditure	1 276.6
Net margin before Value Based Performance bonuses	34.7

The comparative growth with 2006/7 for income and expenditure is about 11% and the net margin will improve by 10.5%. The CSIR is responding to the increase in Parliamentary Grant funding by growing capacity in the SET base as illustrated in Table 4.

Financial growth of 11% is planned from the 2006/7 forecast to the 2007/8 budget.

The operational plan for 2007/8 through which progress towards these objectives will be achieved is presented in the main body of this document. The suite of Key

A suite of KPIs aligned with CSIR strategy will be used to monitor progress and performance.

Performance Indicators (KPIs) presented in Table 6 provides the means of measuring the progress being made in terms of these strategic priorities.

The risks to successful execution of the plan presented in this document are mostly related to the availability of human capital and stakeholder willingness to commit to long term strategic research.

Due to the likelihood that an independent National Metrology Institute of South Africa (NMISA) will be established to commence operations by 1 April 2007, this plan does not provide for the continuation of National Metrology Laboratory activities within the CSIR. (However, should there be a delay in establishing NMISA, the CSIR will continue to take operational management responsibility)

A structured process has been designed for managing the execution of the plan. This includes the establishment of quarterly targets for each KPI against which the performance of all units will be evaluated. This will enable consolidation of CSIR performance against the expectations of the plan for review by the CSIR Board.

Execution of the plan as presented will advance the Beyond 60 organisational transformation well into the growth phase. The CSIR will fulfil an increasingly important role in support of sustainable socio-economic development in South Africa in satisfaction of its mandate by making science and technology of the highest quality available to markets and society. The CSIR remains committed to fulfilment of its brand promise, "***Our future through science***".

Key risks to satisfying expectations of the plan include national availability of human capital and securement of long term funding.

The plan does not include activities of the National Metrology Laboratory in 2007/8 due to the likelihood of NMISA being established as an independent entity.

A structured process for quarterly review of progress against plan objectives will continue to be used.

Execution of the plan as proposed will lead to the CSIR growing its contribution towards national priorities through science.

Table 6 CSIR key performance indicators

Priority Area		KPIs	Budget 2006/7	Forecast 2006/7	Target 2007/8	Target 2008/9	Target 2009/10	"Benchmark" performance level
R&D	S&T Resource Allocation	Review of deployment of Parliamentary Grant		RAPs active in all units conducting ex-ante and ex-post project level evaluations; performance based allocation of core Grant to units implemented	RAPs completed portfolio review of investment in all units	Parliamentary Grant Funding deployment conforming fully to objectives of CSIR S&T Strategy	Requirement for further improvement of approach for deployment of Parliamentary Grant assessed and new strategy developed if required	All research projects subject to both ex-ante and ex-post evaluation through peer review (such as RAP)
	S&T Outputs	Publication Equivalents	230	180	259	307	365	0.6/researcher/year
		New invention disclosures			15	27	34	44
Strategic Research Alliances	Activity of research relationships	Number of collaborative research activities with a value exceeding R1 million	27	45	55	60	65	

Priority Area		KPIs	Budget 2006/7	Forecast 2006/7	Target 2007/8	Target 2008/9	Target 2009/10	"Benchmark" performance level
Human Capital Development	Quantity: number of full time students supported financially	Number of full time post graduate students supported by the CSIR	57	60	93	110	129	
		Number of post doc's awarded		19	26	36	49	
	Quality: profile of our researchers.	Number of staff in SET base with PhD level qualifications	198	213	242	264	288	
		Proportion of SET base who are black		46.4%	49.0%	52.0%	56.0%	
		Proportion of SET base who are female		32.7%	35.0%	38.0%	41.0%	
	Total monetary value of HCD investment	% PG into HCD	13.0%	16.2%	15.4%	14.6%	13.9%	12.0%
Contract R&D	Value of Contract R&D	Growth in Contract R&D secured	R699.9 million	R663.3 million	R667.0 million	R717.0 million	R770.8 million	
	Quality of contract R&D	Value of R&D formally recognised as supporting national strategies	R138.2 million	R207.5 million	R273.5 million	R310.9 million	R353.4 million	

Priority Area		KPIs	Budget 2006/7	Forecast 2006/7	Target 2007/8	Target 2008/9	Target 2009/10	"Benchmark" performance level
R&D Outcomes	A robust and attractive portfolio of IP and technologies	Number of new technology packages available for transfer		21	23	28	35	
	An increased rate of technology transfer for both commercial gain and social impact.	Royalty and licence revenue	R6.2 million	R5.5 million	R8.4 million	R12.1 million	R17.5 million	
Financial sustainability	Operational sustainability	Margin from operating activities before non-operating income (ie. before interest) (R millions)	R14.9 million	R11.2 million	R15.6 million	R23.0 million	R19.4 million	6% of Contract R&D revenue
Corporate governance and responsibility	Corporate governance	Number of significant findings on external audit report	0	0	0	0	0	None

Priority Area		KPIs	Budget 2006/7	Forecast 2006/7	Target 2007/8	Target 2008/9	Target 2009/10	"Benchmark" performance level
Corporate governance and responsibility (cont.)	Corporate citizenship	BBBEE rating	CSIR BBBEE charter developed and formally accepted	CSIR BBBEE policy approved conforming to dti codes of good practice	CSIR BBBEE rating of level 4 validated by accreditation agency and systems in place for monitoring BBBEE performance	Implementation programme defined and progress towards level 3 contributor in 2009/10 being achieved	CSIR rated as a level 3 contributor by accreditation agency	Level 2 contributor
		Energy consumption	Achieve 1.2% reduction in energy consumption on baseline	Achieve 1.2% reduction in energy consumption on baseline	Achieve 1.2% reduction in energy consumption on previous year	Achieve 1.2% reduction in energy consumption on previous year	Achieve 1.2% reduction in energy consumption on previous year	Reduction of 1.2% per annum
Special projects	Information Technology platform	Implementation of Open Source software as the basis of CSIR computing		Open Document Format used for all new CSIR documents	OSS used for all office applications; 75% of CSIR desktops migrated to Linux	All CSIR desktops migrated subject to mandated exceptions; business systems migrated to OSS where possible	Publicise CSIR as a national OSS demonstration site	CSIR recognised as a national reference site for OSS implementation