

**FOUNDATION FOR EDUCATION
SCIENCE & TECHNOLOGY**



Investigation into the Implementation of SETI Reviews Recommendations

**For the
NATIONAL ADVISORY COUNCIL
ON INNOVATION (NACI)**

May 2003

TABLE OF CONTENTS

TABLE OF CONTENTS.....	3
ABBREVIATIONS	4
EXECUTIVE SUMMARY	5
PURPOSE OF THE INVESTIGATION	8
APPROACH AND QUESTIONNAIRES	9
RESULTS	11
ON INDEPENDENCE AND ALIGNMENT, TRANSPARENCY AND ACCOUNTABILITY	11
ON FUNDING LEVELS AND MODALITIES	13
ON LEADERSHIP, STRATEGIC MANAGEMENT AND TRANSFORMATION	16
ON INTERACTION, INTEGRATION AND COOPERATION	19
INSTITUTION SPECIFIC QUESTIONS	23
NATIONAL RESEARCH FOUNDATION (NRF).....	23
AFRICA INSTITUTE OF SOUTH AFRICA (AISA)	24
HUMAN SCIENCES RESEARCH COUNCIL (HSRC)	24
AGRICULTURAL RESEARCH COUNCIL (ARC).....	25
MINTEK	25
NECSA	26
DISCUSSION AND RECOMMENDATIONS.....	27
ANNEXURE 1: QUESTIONS ON INDIVIDUAL INSTITUTIONS.....	35
CSIR.....	35
MINTEK	35
AISA.....	35
SAWB	35
SABS	35
ARC	35
NRF - RESEARCH SUPPORT AGENCY.....	36
MRC	36
NECSA	36
HSRC	36
APPENDIX 2: GENERAL QUESTIONNAIRE	37
APPENDIX 3: RESPONSES BY SETIS	39

ABBREVIATIONS

AISA	Africa Institute of South Africa
ARC	Agricultural Research Council
CEO	Chief Executive Officer
CGS	Council for Geosciences
DACST	Department of Arts, Culture, Science and Technology
DST	Department of Science and Technology
FEST	Foundation for Education, Science and Technology
HSRC	Human Sciences Research Council
KPI	Key Performance Indicator
MRC	Medical Research Council
MTEF	Medium-Term Expenditure Framework
NACI	National Advisory Council on Innovation
NECSA	Nuclear Energy Corporation for South Africa
NRF	National Research Foundation
NRF-RSA	National Research Foundation - Research Support Agency
OECD	Organisation for Economic Cooperation and Development
PFMA	Public Finance Management Act
SA	South Africa
SABS	South African Bureau of Standards
SAWB	South African Weather Bureau
SET	Science, Engineering and Technology
UK	United Kingdom

EXECUTIVE SUMMARY

The National Advisory Council on Innovation (NACI) initiated the “Investigation into the Implementation of the Science, Engineering and Technology Institutions (SETI) Reviews Recommendations”. The Review was undertaken in 1997 by the Department of Arts, Culture, Science and Technology (DACST).

The objectives of the investigation are:

- Assess the extent to which the SETIs have implemented the recommendations of the SETIs Review;
- Assess the appropriateness of the recommendations; and
- Consider the relevance of these recommendations.

A questionnaire approach was chosen as the appropriate methodological vehicle as the level of analysis did not require extensive discussions at this point. A letter was sent by the Chairperson of NACI to the CEOs/Presidents of the SETIs informing them of the effort. Only then the questionnaire followed.

Eleven SETIs were approached with questionnaires addressing specific issues of generic character as well as particular questions specific to individual SETIs, as appearing in the *System-Wide Review* of 1997.

The responses to the questionnaire were digitised and analysed. Additional information and clarifications were requested from SETIs as necessary.

The overall picture shows that SETIs, in principle, followed the guidelines of the *System-Wide Review* that are still relevant. Notable exception is the South African Weather Bureau (SAWB) that did not respond to our questions on time, even though they repeatedly mentioned that they would respond and participate in this effort. An additional issue emanating from the findings is that SETIs cannot be transformed on their own. Their transformation is dependent on other socio-economic factors, e.g. output of universities, and these should be taken into consideration.

The cross-cutting recommendations and findings of this investigation can be summarised as follows:

- The responses of the SETIs indicate that there is no expansion and refinement of the classification of the modalities that are appropriate for funding by the government, as it is recommended by the *Review*. Moreover, no SETI offered adequate justification for activities and programmes. Number of SETIs responded that their mandate, as stated in their Acts, is adequate justification for whatever they do. As the Acts are enabling however, the SETI system runs the danger that not only it does not perform the tasks that it is supposed to be performing, but it also interferes with the market mechanism.
- NACI should develop detailed guidelines of activities qualifying for government support and request the SETIs to identify those activities that do not fall within these guidelines. Furthermore, the SETIs should provide suggestions on how they will commercialise/privatise those activities that do not fall within the government responsibilities.
- The majority of SETIs do not have any Corporate Governance Documents. A few institutions mentioned that they attempt to follow or take cognizance of the *King II Report on Corporate Governance*.
- NACI should undertake the development of a Corporate Governance Document to be applied to all SETIs.
- The development of a Corporate Governance Document to be applied to all SETIs will undoubtedly prevent and resolve a number of issues that may become problematic in the future, and improve transparency and accountability in the relationship between Executives and Boards in the SETI sector. Similarly, the document will identify the responsibility of the Boards/Councils to initiate regular reviews of the own SETI, according to the *System-Wide Review*.
- The *System-Wide Review* has emphasised the importance of performance indicators. The *Review* suggested that, "the agreed set of indicators should contain a sufficiently wide variety of data in order to cover the spectrum of expected output, outcomes and impacts". This investigation identifies that all SETIs comply with indicators developed by the DST.

However, the indicators do not emphasise outputs, outcomes, and impacts, they are not always quantitative and they do not have benchmarks.

- NACI and DST reassess the set of indicators emphasising output, outcomes and impact are requested by the ***System-Wide Review***.
- The ***System-Wide Review*** has built its recommendations, related to SETIs, based on a system of high operational independence from the government. The system, however, has changed substantially since then with the Employment Equity Act, the Public Finance Management Act, the Labour Relations Act, and other legislation, presenting restrictions and costs interfering with the effectiveness and efficiency of the SETIs.
- NACI to review existing legislation/regulations and to identify their impact on the operations of the SETIs with the ultimate objective of improving regulatory coordination and assist the SETIs to achieve their objects.

A number of other recommendations, relevant to particular SETIs, are provided within this report. These are:

- NRF to increase its policy relevant intelligence and information related to its programmes
- MRC and NRF to find ways to improve the scale of their collaboration with each other
- AISA should elaborate as to why it did not follow the advice of the ***Review*** to fall under another institution
- HSRC to increase its productivity as measured by refereed articles per researcher to reach international standards.
- ARC to increase substantially the resources allocated for capital equipment
- MINTEK to improve patent output
- All SETIs to report their expenditure according to the Frascati Manual definitions

PURPOSE OF THE INVESTIGATION

The National Advisory Council on Innovation (NACI) initiated the “Investigation into the Implementation of the Science, Engineering and Technology Institutions (SETI) Reviews Recommendations”. The **Review** was undertaken in 1997 by the Department of Arts, Culture, Science and Technology (DACST).

The objectives of the investigation are:

- Assess the extent to which the SETIs have implemented the recommendations of the SETIs Review;
- Assess the appropriateness of the recommendations; and
- Consider the relevance of these recommendations.

The Investigation dealt with the overarching recommendations and its findings will inform NACI’s mandate of monitoring the National System of Innovation (NSI). The project was entrusted to the Foundation for Education, Science and Technology (FEST) to undertake the Investigation. A report will be presented to and reviewed by a NACI Internal Reference Group before it is presented to its Board.

APPROACH AND QUESTIONNAIRES

The approach followed in order to obtain the necessary information is outlined herewith.

A letter by the Chairperson of NACI was sent to the CEOs/Presidents of the SETIs. The letter contained the rationale behind this exercise and the introduction of its management team. It also outlined briefly the methodology that would be followed.

Firstly a questionnaire was designed by the project management team in consultation with the NACI Secretariat. The questionnaire was constructed in two sections. The first section contained overarching questions applying to all SETIs, whilst the second section included SETI specific ones.

The questionnaire was distributed to the Chief Executive Officers of the following SETIs who were asked to contribute to it.

- Africa Institute of South Africa (AISA)
- Agricultural Research Council (ARC)
- Council for Geosciences (CGS)
- CSIR
- Human Sciences Research Council (HSRC)
- Medical Research Council (MRC)
- MINTEK
- National Research Foundation (NRF)
- Nuclear Energy Corporation of South Africa (NECSA)
- South African Bureau of Standards (SABS)
- South African Weather Bureau (SAWB)

The questionnaire with the overarching questions appears in Appendix 1. The questionnaire with the specific questions for each of the SETIs appears in Appendix 2.

The responses to the questionnaires were digitised and analysed. Additional information and clarification were requested from SETIs as necessary. All SETIs, with the exception of the SAWB, responded to the questionnaire.

RESULTS

A number of questions was identified and grouped in five issues identified in the SETIs mentioned in the “*System-Wide Review*”. These groups are:

- *On independence and alignment, transparency and accountability*
- *On funding levels and modalities*
- *On leadership, strategic management and transformation*
- *On interaction, integration and cooperation*
- *On commercialisation that deals with other sectors*

Additionally, a number of individual questions were addressed to each of the SETIs. We analysed the answers received in each group for all the SETIs below.

All the responses received by the SETIs appear in Appendix 3.

On Independence and Alignment, Transparency and Accountability

The purpose of this block of questions is to identify the extent to which the SETIs are aligned with national priorities and are transparent and accountable in their operations.

The *System-Wide Review* suggested that the public sector SETIs should base their operations on the following four principles.

- An overall government strategy should be developed that is fully aligned with medium and long-term national priorities, and for which appropriate levels of funding and regulatory support are provided by the state;
- Provision should be made for a system-wide independent oversight, evaluation and strategic advice to government;
- Each institution should be permitted to operate with freedom from administrative constraints which hinder activities of research or development, or demonstration activities within the boundaries of a clearly-defined mandate;

- Each SETI should have appropriate governance and advisory structures in place to provide an effective framework of oversight and advice for management.

In the current investigation the questions posed were concerned with the relationship of the organisation with its respective government department, the relationship between Council/Board and the organisation's Executive and with issues of Key Performance Indicators (KPIs) and reporting.

The questions posed are as follows:

- *How often did you meet formally with your line department and/or DACST during the last financial year?*
- *Do you have a Corporate Governance Document approved by your Council/Board? Please attach document.*
- *To what extent do Board members provide sectoral expertise and improve linkages between your organisation, and their respective sectors? Please provide examples.*
- *Do you use advisory panels? If yes, do you have specific documents for their terms of reference? Please attach documents.*
- *Do you have Key Performance Indicators (KPIs)? (Please attach documents). Please outline all quantitative indicators of your targets.*
- *For your research related activities, do you measure your effort according to the Frascati Manual (OECD)? If yes, do you publish your figures in your Annual Report or any other publication? Please specify and enclose relevant information for the last three years.*

The responses received can be summarised as follows:

- The interaction of the CEOs and Councils/Boards with the Director Generals and Ministers varies from once or twice a year to regular meetings once or twice a month.
- The majority of SETIs do not have any Corporate Governance Documents. A few institutions mentioned that they attempt to

follow or take cognizance of the *King II Report on Corporate Governance*.

- The Board/Council members appear to play a limited role in providing sectoral linkages with their respective sectors.
- A number of SETIs use advisory panels or sub-committees of their Boards. The CSIR, however, has brought up the issue of conflict of interest.
- All SETIs answered that they comply with the Departmental Key Performance Indicators (KPIs), as suggested by DST, although each institution presents them in a different way.
- No SETI is measuring and reporting their research activities according to the Frascati Manual.

It becomes apparent that SETIs are transparent and accountable, and report on the issues as obliged by legislation or regulations. The situation, however, is probably best described by the answer of one SETI which on a related question answered that "DACST does not require us to report on the issue". The responsibility lies with the Department of Science and Technology (DST) and NACI, to identify and define the information that should become public knowledge, the way in which it has to be disseminated and request the SETIs to make it so. The development of a Corporate Governance Document to be applied to all SETIs will undoubtedly prevent and resolve a number of issues that may become problematic in the future, and improve transparency and accountability in the relationship between Executives and Boards in the SETI sector. Similarly, the publication of expenditure on research and development, according to the *Frascati Manual* of the OECD, will improve transparency in the operations of the SETIs.

On Funding Levels and Modalities

The second block of questions is related to the funding levels and modalities of SETIs.

The *System- Wide Review* recommendations were as follows:

- All parliamentary core and competitive grant funding for the SETIs should be delivered via the Science Vote.

DST, with the support of NACI, should:

- Expand and refine the classification of funding modalities used by government; specify which modalities are appropriate for funding; and specify the differing institutional functions performed by SETIs as a basis for resource allocation by the State among the SETIs.
- Adjust relative funding levels between the SETIs from year to year (within the Medium Term Expenditure Framework) (MTEF) according to mutually-agreed criteria. These criteria should be related to an assessment of the relative mix of core public-purpose functions or activities (such as public interest research, technology development and diffusion, human resource development and core research infrastructure) versus the limits of, or potential for, private funding from the sale of contract research, services and products (including intellectual property).
- Seek agreement from the Inter-Ministerial Committee on SET on the selected criteria, publish the criteria and then operationalise those through transparent and consistent application.
- Develop an appropriate funding mechanism for declared National Facilities which strikes a viable balance between providing secure infrastructural support for the operations of the facility on the one hand, and funding/empowering users (including the staff of the National Facility) to gain access to the facility on the basis of merit and relevance, on the other.
- SETIs with potentially close links with key economic sectors (such as CSIR, MINTEK and ARC) should be required to generate higher proportions of their income from external contracts and from sales of intellectual property than those, such as the SAWB, in which much of the activities are orientated towards the production of public goods. Such external contracts would include any contracts funded by the Innovation Fund.

The questions that were posed to the SETIs are:

- *Please briefly outline and describe the programmes you fund with the parliamentary grant and their respective amounts for the last three years.*

- *Please justify why any of the above is government responsibility and whether it could be undertaken by the private sector.*
- *Please give us the percentage of your funding for the last three years that it is emanating from business activities.*

The responses of the SETIs indicate that there is no expansion and refinement of the classification of the modalities that are appropriate for funding by the government, as it is recommended by the *Review*. Moreover, no SETI offered adequate justification for activities and programmes.

A number of SETIs responded that their mandate, as stated in their Acts, is adequate justification for whatever they do. As the Acts are enabling however, the SETI system runs the danger that not only it does not perform the tasks that it is supposed to be performing, but it also interferes with the market mechanism.

The second issue of concern in the *System-Wide Review* was related to the split between own income and state grants. The following table shows the SETIs' own income for the financial year 1996-1997 (as used by *System-Wide Review*) and of 2001-2002.

Table 1: Own income of the SETIs for the period 1996-1997 and 2000-2002 in R million

	1996-1997	2001-2002
ARC	17.2	37.3
CGS	16.7	32.6
CSIR	52.0	65.0
HSRC	18.0	44.0
MINTeK	22.7	46.0
MRC	23.9	38.2
SABS	77.7	73.0

Source: *System-Wide Review* and submission by SETIs

It becomes obvious that the SETIs have moved into the direction recommended by the *System-Wide Review*.

The question that still remains is whether the increased share of own income is from activities that are legitimate preoccupation of government support organisations.

At the same time the parliamentary grants have been as follows:

Table 2: Parliamentary Grants to SETIs

SETI	1999/00	2000/01	2001/02
	R mil	R mil	R mil
AISA	5.32	8.35	8.18
ARC	282.37	276.28	267.68
CGS	63.79	60.86	65.95
CSIR	317.33	296.33	296.88
HSRC	64.42	61.45	60.49
MINTEK		78.01	76.87
MRC		161.88	213.87
NECSA	275.90	205.45	1,068.00
NRF	210.18	252.35	288.21
SABS			

On Leadership, Strategic Management and Transformation

This group of questions is related to the state of leadership, strategic management and transformation in the SETIs. The *System-Wide Review* has been critical on the following issues:

- "Most SETIs have not undergone fundamental changes to respond to either the market requirements or new government requirements. Their marketing skills appear limited, yet they do not appear to recognise the urgency to alleviate the situation despite potential to increase their external and contract income."
- "SETIs have to ensure maintenance of employees' momentum, morale and motivation as a strategic tool and should constantly stimulate both individual resourcefulness and the showing of knowledge and information to promote a culture of innovation."

The questions asked were related to the make up of the SETIs workforce, staff training expenditures and benchmarking. The questions:

- *Please provide us with the number of researchers/professionals, administrators and other employees for the last three years. (Please split data per type of employee, race, gender and year).*
- *What percentage of your personnel budget do you spend for training of your staff? (Please provide figures for the last three years).*
- *Do you benchmark your institution with any other institutions, locally or abroad? If yes, with which institutions and what are the benchmarks?*

Analysis of the staff profiles of the SETIs indicates that they are moving into the desirable direction, i.e. increasing diversity in their staff component.

Transformation, as it was expected, is much faster among the total staff than in the management level. Similarly, SETIs that employ social science and humanities professionals find it much easier to find appropriate staff and they transform much faster than their counterparts in science and engineering.

It is doubtful that SETIs will be able to improve their staff transformation for as long as the higher education output does not show a substantial increase in the number of graduating scientists and engineers.

Table 3: Staff statistics for SETIs according to staff levels - 2002

Legislators, Senior Officials, Managers and Professionals

	Percentage of staff according to ethnic group				Female staff (%)
	% White	% Black	% Indian	% Coloured	
AISA	20%	51%	5%	0%	22%
ARC	47%	42%	0%	11%	37%
CGS	63%	32%	2%	4%	37%
CSIR	61%	29%	5%	5%	38%
HSRC	50%	39%	5%	6%	59%
MINTEK	42%	47%	8%	3%	26%
MRC	33%	33%	10%	24%	64%
NECSA	65%	31%	1%	4%	22%
NRF	44%	23%	3%	30%	42%
SABS	59%	37%	3%	1%	38%
SAWB	N/R	N/R	N/R	N/R	N/R

	Percentage of staff at management level according to ethnic group				Female staff at management level (%)
	% White	% Black	% Indian	% Coloured	
AISA	20%	32%	8%	0%	28%
ARC	85%	11%	1%	3%	41%
CGS	84%	12%	2%	2%	24%
CSIR	75%	15%	7%	3%	36%
HSRC	63%	23%	9%	6%	43%
MINTEK	68%	16%	14%	1%	22%
MRC	63%	13%	12%	12%	50%
NECSA	79%	13%	3%	4%	16%
NRF	53%	21%	5%	21%	31%
SABS	79%	19%	0%	2%	15%
SAWB	N/R	N/R	N/R	N/R	N/R

NIR - No response

Expenditure on staff training is on average on an increasing path. During 2001-2002 the SETIs spent on average 3.7% of their salary budgets on formal and informal training. However, it should be noted that different approaches are used by the various SETIs in order to estimate their educational expenses and hence the figures vary widely. An example is provided by the HSRC that covers comprehensively all educational costs, including study leave, examination leave, time associated with preparing for and attending workshops and academic writing; and hence the educational cost is reaching the range of 8% of their total personnel budget. It is difficult, however, to separate and/or allocate costs to a number of different corporate responsibilities such as marketing, public relations, research and training.

As far as benchmarking is concerned, there are SETIs that undertake comprehensive benchmarking activities e.g. the CSIR; SETIs that use benchmarking occasionally e.g. the ARC; and SETIs that do not use benchmarking at all e.g. the NRF, MINTEK and the HSRC. **We recommend that HACI should consider providing guidelines related to areas of benchmarking that the SETIs should apply, and request periodic submission of the benchmarks (e.g. every two years).**

On Interaction. Integration and Cooperation

The issue of interaction, integration and cooperation has attracted particular attention in the *System-Wide Review*. The relevant recommendations were based on the premise that "An effective National System of Innovation implies improved interaction, integration and cooperation between and among disciplines, institutions and sectors".

The relevant questions in this area are related to interactive links with other institutions and understanding of the importance of organisational culture.

The questions that were asked to SETIs are as follows:

- ***Do you attempt to create interactive links with other institutions? Please provide lists of these efforts and institutions (local ft foreign) for the last three years.***

- ***Do you undertake any studies of your organisational culture? Please give specific examples.***

All institutions provided a substantial number of links with other institutions and with the exception of MINTEK all declared that they undertake monitoring exercises of their culture.

On Commercialisation that Deals with other Sectors

The ***System-Wide Review*** recommendations are as follows:

- As governments and funding agencies throughout the world are experimenting with a wide variety of different approaches to commercialisation as well as privatisation, government should explore the validity and appropriateness of innovative schemes successfully implemented elsewhere, and adapt them according to the needs of South Africa.
- Public SETIs should develop a Code of Conduct which deals with their relationship with the private sector. This should be developed in cooperation with the private sector and include:
 - Commercialisation policy
 - Intellectual property rights
 - Conditions of service provision
 - Service pricing policy
- A detailed examination of the activities of the SETIs should be undertaken in order to identify routine activities that could be transferred to the private sector.
- Government should undertake a review of the factors that currently impede the transfer of S&T outputs to smaller and poorly-resourced consumers, over a wide field but more particularly in the productive sectors of industry agriculture and mining. Once these impediments have been identified, Government should design incentives for SETIs to develop policies to ensure a far more equitable flow of S& T outputs.
- SETIs aligned to the productive sectors of the economy should develop an incentive framework to encourage employees to engage their technical knowledge in the formation of new businesses.

- ***Do you undertake any studies of your organisational culture? Please give specific examples.***

All institutions provided a substantial number of links with other institutions and with the exception of MINTEK all declared that they undertake monitoring exercises of their culture.

On Commercialisation that Deals with other Sectors

The ***System-Wide Review*** recommendations are as follows:

- As governments and funding agencies throughout the world are experimenting with a wide variety of different approaches to commercialisation as well as privatisation, government should explore the validity and appropriateness of innovative schemes successfully implemented elsewhere, and adapt them according to the needs of South Africa.
- Public SETIs should develop a Code of Conduct which deals with their relationship with the private sector. This should be developed in cooperation with the private sector and include:
 - Commercialisation policy
 - Intellectual property rights
 - Conditions of service provision
 - Service pricing policy
- A detailed examination of the activities of the SETIs should be undertaken in order to identify routine activities that could be transferred to the private sector.
- Government should undertake a review of the factors that currently impede the transfer of S&T outputs to smaller and poorly-resourced consumers, over a wide field but more particularly in the productive sectors of industry agriculture and mining. Once these impediments have been identified, Government should design incentives for SETIs to develop policies to ensure a far more equitable flow of S& T outputs.
- SETIs aligned to the productive sectors of the economy should develop an incentive framework to encourage employees to engage their technical knowledge in the formation of new businesses.

These SETIs, in collaboration with other organisations, should organise the requisite training and facilitate contact between the employee and venture capital organisation.

The final set of questions is related to commercialisation that deals with other sectors.

The questions that were asked are:

- *Do you have a Code of Conduct that deals specifically with other sectors? Please attach.*
- *Are there any activities that you think should be transferred to the private sector? If yes, state details.*
- *What do you think is a reasonable level of government funding in order to fulfill your objectives? Please justify.*
- *Is there any regulation or legislation which impacts adversely on your success? Which one(s) and how?*
- *Are there areas in which you compete with the private sector?*

Please list.

The majority of the SETIs responded that they do not have a written Code of Conduct that deals specifically with other sectors. Similarly, they suggested that they do not think that they have any activities that should be transferred to the private sector. Both issues have repercussions for the image and relations of the SETIs with the market place, on the one hand, and for the functioning of the market on the other. Government interference in the market place without "justification" creates unwanted misallocation of resources. Possible competition of the SETIs with businesses may increase the financial resources of SETIs to the detriment of their long term mission and the survival of the businesses competing with them. It is recommended that NACI takes appropriate action for the development of a uniform Code of Conduct that will include, among others, the boundaries of activities that SETIs are allowed to undertake.

On the question, "*What do you think is a reasonable level of government funding in order to fulfil your objective?*" all SETIs commended on the

insufficiency of resources allocated to them. The average request was for a 100% increase in their allocation. The median request was for 50%.

It should be emphasised that the NRF and the ARC are outliers within the group with requests of 300% increase over their current levels of funding. The majority of SETIs use historical statistics for justification or platitudes (e.g. national needs and the good of the country).

As far as legislation and legislative regulation that impacts adversely on their activities, SETIs identified either their own Acts, or the PFMA, as having adverse impacts. After further inquiries it has been identified that aspects of the Acts restrict the commercial relations of the SETIs (e.g. intellectual property rights). It is debatable though whether SETIs have a global view as well as the ability to recognise indirect effects on their business. For example, immigration/emigration laws have undoubtedly a big effect on the research capacity of the country and a strong effect on the ability of the SETIs to restructure their organisations.

On the question related to competition with the private sector, SETIs have been defensive arguing that they do not compete with the private sector or that when they undertake such activities it is because the private sector is not capable of doing so. As we have argued earlier it is debatable that all activities undertaken by SETIs' are theoretically legitimate. Only the MRC has declared a number of areas in which it competes with the private sector.

INSTITUTION SPECIFIC QUESTIONS

National Research Foundation (NRF)

A number of questions have also been posed concerning particular activities of SETIs identified as needing care by the *System-Wide Review*. The questions posed to the NRF are as follows:

- *Please give documentary evidence, per year, for the last three years, of the budget split across divisions supporting vital research in each of the areas of natural science, social science and the humanities and basic and fundamental research.*
- *Outline the strategies that were implemented in the last three years to assure the development of human resource capacity through bursaries and scholarships and provide documentary proof of their impact.*
- *How do your bursary programmes differ from others? (e.g. from the private sector) and what percentage of the bursary market do they cover? Please provide information for the last three years.*
- *Give specific information on bursaries for postgraduate studies for the last three years, per year, at individual National Facilities. (e.g. number of bursaries, level of bursaries, success rates, etc).*
- *Give specific information on the periodic reviews of the National Facilities and provide the latest recommendations for each one.*
- *Are you working closely with the Medical Research Council (MRC)? Please provide information in changes in collaboration in the last three years.*

The NRF declared that they operate in an "integrated fashion" and cannot identify amounts spent for social sciences and humanities *vis-à-vis* science and engineering. Neither can they identify the percentage of funds allocated to basic or fundamental research. As far as strategy is concerned, NRF argued that the merger of CSD and FRD led to a decline in the number of bursaries and scholarships, which had an adverse effect on their strategy to increase the number of research students. The organisation was not able to answer the question *"How do your bursary programmes differ from others (e.g. from*

the private sector) and what percentage of the bursary market do they cover?"

Periodic reviews are undertaken in the National Facilities but the NRF was not able to enhance its relationship with the Medical Research Council (MRC).

Africa Institute of South Africa (AISA)

The questions posed to AISA are as follows:

- *Have any interventions been undertaken in order for AISA to come under an academic umbrella body? If yes, please provide relevant documentation. If not, explain why not.*
- *Was the research and postgraduate training capacity increased in any way in the last three years, and if so, how? Please provide proof of the results.*
- *Is there a marketing strategy and if so, how was it implemented? - Please provide appropriate documentation.*

AISA argued that it has its own Act and does not need to come under a shadow umbrella body as it was recommended in the **System-Wide Review**. AISA was not able to develop and implement a marketing plan. Their answer on research and postgraduate training capacity did not compare their performance over time.

Human Sciences Research Council (HSRC)

The **System-Wide Review** recommended that HSRC improves their research output and their representativity.

The questions posed to the HSRC are as follows:

- *Has the number and quality of scientific publications improved during the past three years? Please provide statistical evidence.*
- *To what extent your representativity in staff has changed during the past three years? Please provide with the number of black researchers on full time employ and the number of new posts filled during the period.*

The research output of the HSRC has improved when counted as units per researcher, but the total research output (refereed journals) has been reduced from 28 articles in 1999/2000 to 20 in 2001/2002. They argued that the reduction in the number of their staff is responsible for the decline. However, their performance of refereed articles per researcher (international acceptable unit) of 0.25 is considerably lower than international standards. Over the period, HSRC has been successful in increasing its representativity across the total scale of the organisation.

Agricultural Research Council (ARC)

The ARC has been asked to provide information related to their organisation on capital equipment and on their relations with the Provincial Governments.

The questions posed to ARC are as follows:

- *What percentage of your budget is allocated for capital equipment and how does this compare with similar organisations abroad? Please provide information for the last three years.*
- *Explain, by giving examples, your role in technology transfer management in the last three years in collaboration with provincial governments and other relevant role players.*

The capital equipment budget of the ARC has remained constant during the past three years at 3.4%. This is a substantially smaller figure than those experienced in other countries that reach the level of 14%. In the field of Provincial relations, the ARC has institutionalised its relations with the Provinces through the establishment of the Division on Institutional Rural Livelihoods.

MINTEK

MINTEK has been asked to provide regional output statistics for the last three years and to outline its expansion in the sub-region over the same period.

The questions posed to MINTEK are as follows:

- *Please give detailed statistics on patents, inventions and technical reports and scientific publications emanating from staff for the last three years.*
- *How have the organisation's activities expanded in the sub-region in the last three years? Please outline their impact.*

The number of technical memoranda, staff papers and published reports has declined with confidential communication having shown considerable increase. Patented technology has remained constant over the last three years. As far as activities in the sub-region are concerned MINTEK mentioned that it is currently involved in two regional activities, the Gariep SDI and the area covered by the Zambezi River basin and the Beira Development Corridor.

NECSA

The question, *"To what extent have you increased your joint ventures and partnership during the last three years? Please specify"*, NECSA mentioned that the formation of joint ventures "has at times been hampered as a result of limited commercial autonomy and bureaucracy".

Finally both the NRF and the MRC declared that their collaboration has remained static during the last three years.

DISCUSSION AND RECOMMENDATIONS

The effort of this investigation is to assess the extent to which science councils have implemented the recommendations of the SETI Reviews and the associated reasons of no compliance, if any. Furthermore the terms of reference required the assessment of the appropriateness and relevance of the recommendations.

The *System-Wide Review* stems from the *White Paper on Science and Technology: Preparing for the 21st Century*, which proposed that the Ministers' Committee for Science and Technology put in motion a fundamental investigation into the governance and management structures of government funded science and technology performing institutions in order to establish how these institutions could be restructured or reconfigured to meet broad material goals.

The outcome of the *System-Wide Review* has been a set of individual reports of each of the SETIs and a report on the generic issues concerning all SETIs.

The *Review* made it clear that it did not extend to detailed coverage of SET activities in the private sector, in Higher Education or in Defence.

The *System-Wide Review* provided recommendations to be implemented by the SETIs and the Department of Arts Culture, Science and Technology. The current effort is focusing mainly on the generic recommendations related to the SETIs and only to a limited extent related to recommendations of activities to be undertaken by DST.

The issues identified for analysis by the *System-Wide Review* were:

- Independence and alignment, transparency and accountability
- Planning, monitoring and evaluation
- Funding
- Leadership and Strategic management
- Transformation and Human Resources

- Interaction, Integration and Cooperation
- Commercialisation
- Internationalisation and Strategic Alliances

The detailed responses of the SETIs have already been discussed and certain recommendations have been made. In this section we elaborate on certain critical findings:

- i) Probably the most important recommendation of the ***System-Wide Review*** is related to the "principal SETI functions/activities that the State might fund and the corresponding modalities of funding".

The ***System-Wide Review*** suggested that the principal SETI functions/activities to be funded by the state are:

- Public interest knowledge and information dissemination activities which should be funded via the parliamentary grant.
- Necessary core research infrastructure in SETIs which cannot be funded through external contract or service income should be funded via the parliamentary grant.
- Human resource development: Research capacity in HEIs should be funded via parliamentary grants, usually via the agency function, and sometimes via SETIs where they have additional human capacity requirements. The parliamentary might also support in-house human resource development programmes.
- Pre-competitive research, which might be undertaken within the SETI or might be contracted out, may be funded via core parliamentary grants or via competitive mechanisms such as the Innovation Fund. In all cases, some contribution from interested economic actors should be sought.
- Public purpose technology development and diffusion in strategically defined/prioritised areas where because of market failure or other reasons it is not undertaken privately should be funded via parliamentary grants, or more often those competitive mechanisms such as the Innovation Fund.

- Research, consultancy, services or products in order to meet well-defined, short-term objectives of individual government departments should be funded via contracts financed through individual government departmental budgets.

In essence, government will support activities that are considered to be services which the State has a duty to provide, programmes in areas of public good, programmes addressing areas where entry barriers related to equipment and human resources are high and pre-competitive research.

The combination of funding modalities that will provide financing to individual SETIs will differ among different categories of SETIs. HEIs, Agency functions and National Facilities will obtain a higher proportion of core grants than statutory SETIs who will be required to seek increased contract and external income.

These principles were further supported by the following recommendations:

- All parliamentary core and competitive grant funding for the SETIs should be delivered via the Science Vote. DACST, with the support of NACI, should:
 - Expand and refine the classification of funding modalities used by government and should specify which modalities are appropriate for funding the differing institutional functions performed by SETIs as a basis for resource allocation among the SETIs by the State.
 - Adjust relative funding levels between the SETIs from year to year (within the medium term expenditure framework) according to mutually-agreed criteria. These criteria should be related to an assessment of the relative mix of core public purpose functions or activities (such as public interest research, technology development and diffusion, human resource development and core research infrastructure) versus the limits of, or potential for, private funding from the sale of contract research, services, and products (including Intellectual property).

- Seek agreement from the inter-ministerial committee on SET on the selected criteria, publish the criteria and then operationalise them through transparent and consistent application.
 - Develop an appropriate funding mechanism for declared National Facilities which strikes a viable balance between providing secure infrastructural support for the operators of the facility and funding/empowering users (including the staff of the National Facility) to gain access to the facility on the basis of merit and relevance.
- SETIs with potentially close links with key economic sectors (such as CSIR, MINTEK and ARC) should be required to generate higher proportions of their income from external contracts and from sales of intellectual property than those such as the SAWB in which much of the activity is oriented towards the production of public goods. Such external contracts could also include any contracts funded by the Innovation Fund.
- At present government co-ordinates the allocation of SET expenditure only within the Science Vote which does not include some significant SET activities of government. It would be more coherent and rational to co-ordinate major government expenditure on SET and integrate, at least, the research component of the government grant to HEIs into a regular reporting system.
- DST should work towards presenting an enlarged view of expenditure on SET, and innovation within the NSI, and should start developing integrated and coherent criteria and mechanisms for guiding allocations among the different components of the SET system. In particular, a review of the SET research component of funding for the higher education sector should be undertaken to optimise application of funds earmarked by the Department of Education for this purpose.

The importance of the above principles and recommendations is that they set the *raison d'être* of SETIs and they constitute the cornerstone of all regulatory reforms internationally.

The New Age Public Management, aiming to systematically make high quality regulations by systemising the policy process, starts by asking: "***Is this a government responsibility? Why government should fund this activity/function?***"

Non-compliance with the above-mentioned principles leads not only to waste of public funds but to undesirable interference with the market place and hence to diminishing entrepreneurship and innovation. Furthermore, related expenditure may be considered as "fruitless and wasteful expenditure" according to the PFMA.

The present investigation makes profound that the SETIs are not sure of the "legality" of their activities or they use the enabling character of their Acts as a justification. In the same context, the lack of reporting according to present principles (e.g. according to the Frascati Manual definitions) creates uneasiness in issues of transparency and accountability. It is easy to predict that SETIs, if forced to measure their success in terms of the amount of money they are able to raise on contract, will move to the areas of demand independently of whether the area is the responsibility of government or not. Project management, technical testing, research in competition with the higher education sector and private consultancy are some of the activities that feature prominently in the responses of the SETIs.

We recommend that NACI should develop detailed guidelines in activities qualifying for government support and request the SETIs to identify those activities that do not fall within these guidelines. Furthermore, the SETIs should provide suggestions on how this will commercialise/privatise those activities which do not fall within the government responsibilities.

- ii) The ***System-Wide Review*** has elaborated extensively on the importance of transparency and accountability and has recommended that the primary responsibilities of the overall directional operations of each SETI should be vested in its Board. More specifically it recommended that:

- Government should improve the efficiency and effectiveness of its in-house SET activities by organising them within legal structures that permit flexibility of operation while safeguarding the use of public resources and providing for necessary measures of performance. Such conditions are usually best provided for by undertaking those activities within a statutory body with suitably designed objectives and responsibilities, or within a Section 21 Company operating under the Companies Act.
- The Boards of the SETIs covered in this review should:
 - Take all steps necessary to make public the decisions that they take in response to the recommendations contained in this report and in the supporting Panel Reports.
 - Play a key role in defining strategic directions for the institution in their charge and should make those directions public;
 - Direct the CEO of the SETI within the broad strategic direction given by government. To facilitate this, there should be regular and structured exchanges between Boards and line ministries to enable clear expression of State Priorities
- SETI Board members, whilst appointed as individuals, are expected to provide sectoral expertise to Board deliberations and should also take responsibility to improve linkages between SETIs and their respective sectors.
- In order to ensure accountability and good practice, the King Commission's recommendations on *Good Corporate Governance* should be adopted by all public SETIs.
- In order to have transparency in their activities, the SETIs should publish, and invite comment on, the terms of reference that they intend to use as a framework for the operation of their advisory bodies, by the larger SET community in SA.
- All SETIs should adopt a system of key performance indicators, discussed later in this report, in order to facilitate accountability.
- DST should initiate discussions with Stats SA, and with other interested parties, in order to address the problems of availability of data, including SET activities within government. An internationally-accepted basis for such work

exists in the Frascati and Oslo Manuals which have been developed and published by the OECD.

The results of our investigation indicate that the role of the Boards/Councils is relatively limited even though the members have become personally liable by the PFMA. Lack of Corporate Governance Documents, limited role in the provision of linkages by the members of the Boards and conflict of interest characterise the scene. In addition the satisfaction of the executives of the SETIs, together with their Boards, creates relative suspicion. While in the SETIs the governance problems have been maintained to a minimum, in other sectors (e.g. museums) the problems have reached the press.

We recommend that NACI and DST develop a common, for all SETIs, Corporate Governance Document detailing the roles, responsibilities, behavioural resources, and so on, of Board members *vis-à-vis* the Executive and the organisation.

- iii) The ***System-Wide Review*** has emphasised the importance of performance indicators. The ***Review*** suggested that, "the agreed set of indicators should contain a sufficiently wide variety of data in order to cover the spectrum of expected outputs, outcomes and impacts".

This investigation identifies that all SETIs comply with indicators developed by the DST. However, the indicators do not emphasise outputs, outcomes and impacts, they are not always quantitative and they do not have benchmarks.

For example, no SETI is measuring its efforts according to the Frascati Manual definitions and the NRF is providing bursaries without information on the relative size of the bursary market or the related needs of the market.

A comparison between the SETIs indicators and those set by the UK government in the Next STEP Agencies makes the point. For example, the Central Science Laboratory's indicator-targets are:

- 100% recovery of full costs
- An overall efficiency gain 2%
- A reduction of 2% in real terms of representative unit cost for services
- At least 200/0 of work completed within time and budget
- At least 95% of contracts delivered to customers' satisfaction
- Continuing independent assessment of the quality of the scientific work and publication

The above targets are well defined, quantitative, and unique in the sense that they are not more or less restrictive than other regulations.

We recommend that NACI and DST reassess the set of indicators emphasising output, outcomes and impact as requested by the *System-Wide Review*.

- iv) The *System-Wide Review* has built its recommendations related to SETIs based on a system of high operational independence from the government. The system, however, has changed substantially since then with the Employment Equity Act, the Public Finance Management Act, the Labour Relations Act, and other legislation, presenting restrictions and costs interfering with the effectiveness and efficiency of the SETIs.

Following international best practice, we recommend the review of existing Legislation/regulation and the identification of their impact on the operations of the SETIs with the ultimate objective of improving regulatory coordination and assist the SETIs to achieve their objectives.

- v) Despite the recommendations of the *System-Wide Review* on the structural re-arrangement of the system (i.e. SAWB, AISA, etc), the recommended institutions have followed their own trajectories.

ANNEXURE 1: QUESTIONS ON INDIVIDUAL INSTITUTIONS

CSIR

1. Outline the links with higher education institutions and their impact in mobilizing South African technological talent. Please give specific examples.
2. Has the organisation reprioritised its activities in the last three years? How were DACST and other governmental bodies supportive towards the new strategy? Please give specific examples and provide documentary proof.

MINTEK

1. Please give detailed statistics on patents, inventions and technical reports and scientific publications emanating from staff for the last three years.
2. How have the organisation's activities expanded in the sub-region in the last three years? Please outline their impact.

AISA

1. Have any interventions been undertaken in order for AISA to come under an academic umbrella body? If yes, please provide relevant documentation. If not, explain why not.
2. Was the research and postgraduate training capacity increased in any way in the last three years, and if so, how? Please provide proof of the results.
3. Is there a marketing strategy and if so, how was it implemented? Please provide appropriate documentation.

SAWB

1. Have any interventions taken place to have appropriate legislation for the Bureau's induction into the science council system in South Africa? Please outline.
2. Has any appropriate strategy document been developed to establish public service activities that fall within the core activities of the organisation?
3. Have any actions been taken to improve the storm warning system for any parts of the country? Please provide appropriate documentation.
4. Has the Bureau adopted a strategy to incorporate national database in order to become the custodian of all climatological data in the country? Please provide appropriate information.

SABS

Nothing.

ARC

1. What percentage of your budget is allocated for capital equipment and how does this compare with similar organisations abroad? Please provide information for the last three years.

2. Explain, by giving examples, your role in technology transfer management in the last three years in collaboration with provincial governments and other relevant role players.

NRF - Research Support Agency

1. Please give documentary evidence, per year, for the last three years, of the budget split across divisions supporting vital research in each of the areas of natural science, social science and the humanities and basic and fundamental research.
2. Outline the strategies that were implemented in the last three years to assure the development of human resource capacity through bursaries and scholarships and provide documentary proof of their impact.
3. How do your bursary programmes differ from others? (e.g. from the private sector) and what percentage of the bursary market does it cover? Please provide information for the last three years.
4. Give specific information on bursaries for postgraduate studies for the last three years, per year, at individual National Facilities. (e.g. number of bursaries, level of bursaries, success rates, etc.).
5. Give specific information on the periodic reviews of the national facilities and provide the latest recommendations for each one.
6. Are you working closely with the Medical Research Council (MRC)? Please provide information in changes in collaboration in the last three years.

MRC

1. Have you developed a monitoring system of health indicators in the country? If yes, please attach relevant documentation.
2. Do you undertake a national health policy for the country? If yes, please attach relevant documentation.
3. Are you working closely with the National Research Foundation (NRF)? Please provide information in changes in collaboration in the last three years.

NECSA

1. To what extent have you increased your joint ventures and partnership during the last three years? Please specify.

HSRC

1. Has the number and quality of scientific publications improved during the past three years? Please provide statistical evidence.
2. To what extent your representativity in staff has changed during the past three years? Please provide with the number of black researchers on full time employ and the number of new posts filled during the period.

APPENDIX 2: GENERAL QUESTIONNAIRE

...on Independence and Alignment, Transparency and Accountability (page v)

1. How often did you meet formally with your line department and/or DACST during the last financial year?
 2. Do you have a Corporate Governance document approved by your Council? Please attach document.
 3. To what extent do Board members provide sectoral expertise and improve linkages between your organisation, and their respective sectors. Please provide examples.
 4. Do you use advisory panels? If yes, do you have specific documents for their terms of reference? Please attach documents.
 5. Do you have Key Performance Indicators KPI's? (Please attach documents). Please outline all quantitative indicators of your targets.
 6. For your research related activities, do you measure your effort according to the Frascati Manual (OECD)? If yes, do you publish your figures in your Annual Report or any other publications? Please specify and enclose relevant information for the last three years.
-

...on Funding Levels and Modalities (page vi)

7. Please briefly outline and describe the programmes you fund with the parliamentary grant and their respective amounts for the last three years.
 8. Please justify why any of the above is government responsibility and whether it could be undertaken by the private sector.
 9. Please give us the percentage of your funding for the last three years, that it is emanating from business activities.
-

...on Leadership, Strategic Management & Transformation (page vii)

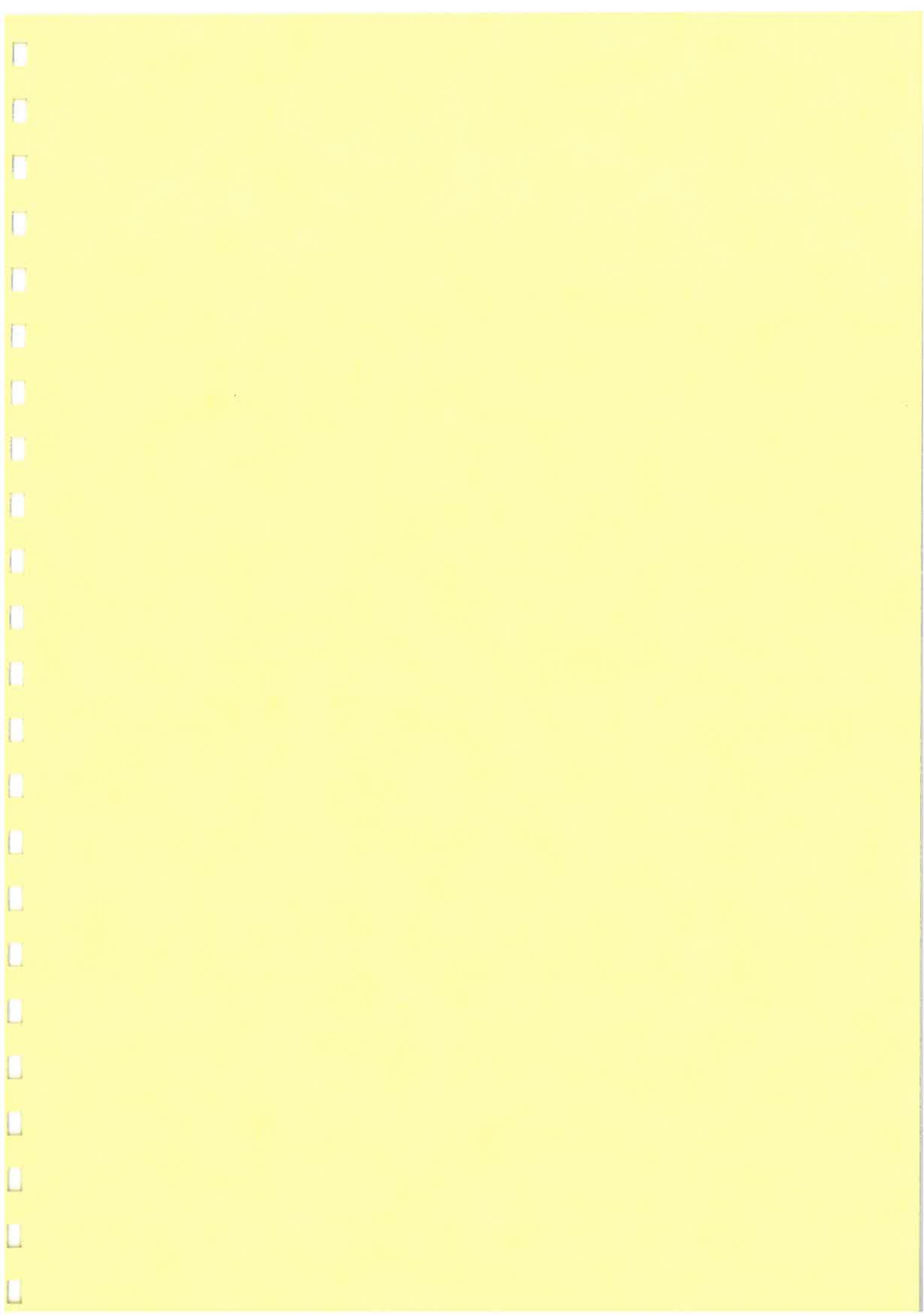
10. Please provide us with the number of researchers/professionals, administrators and other employees for the last three years. (Please split data per type of employee, race, gender and year).
 11. What percentage of your personnel budget do you spend for training of your staff? (Please provide figures for the last three years).
 12. Do you benchmark your institution with any other institutions, locally or abroad? If yes, with which institutions and what are the benchmarks?
-

...on Interaction, Integration and Cooperation (page viii)

13. Do you attempt to create interactive links with other institutions? Please provide lists of these efforts and institutions (Local & Foreign) for the last three years.
14. Do you undertake any studies of your organisational culture? Please give specific examples.

...on Commercialisation that deals with other sectors (page ix)

15. Do you have a code of conduct that deals specifically with other sectors? Please attach.
 16. Are there any activities that you think should be transferred to the private sector? If yes, state details.
 17. What do you think is a reasonable level of government funding in order to fulfil your objectives? Please justify.
 18. Is there any regulation or legislation which impacts adversely on your success? Which one(s) and how?
 19. Are there areas in which you compete with the private sector? Please list.
-



APPENDIX 3: RESPONSES BY SETIS

SETI Review - Annexure 3

Supplier Name	National Research Foundation
Contact Name	Dr Mokhele
Address	P.O Box 2600 Pretoria 0001
Phone Number	0124814144
Fax Number	0124814006
Meetings in last financial year	Numerous formal meetings depending on purpose
Do you have a Corporate Governance document	Yes, code of ethics and business conduct, fraud prevention plan, fraud policy and response plan
To what extent do Board members provide expertise	Sectoral rerepresentatively and expertise important. Linkages are provided when required, e.g. business in relation to the Masifunde project
Advisory panel usage	Yes, for all the funding activities as well as the national facilities
KPI	Yes
Use of Frascati manual	No, no guidelines received from DACST in this regard
Parliamentary grant funded programmes	For detail please see NRF Annual reports for the past three years
Justificaiton of funded programmes	All activities regarded as "Government appropriability" by virtue of our mandate
% funding over last 3 years	Isotope sales; 2000 - 0.9, 2001 - 0.6, 2002 - 1.8
No of employees	<p>2000/2001</p> <p>Top management</p> <p>African male 5 - Female 1</p> <p>Coloured male 1 - Female 0</p> <p>Indian male 0 - Female 1</p> <p>White male 16 - Female 3</p> <p>Senior Management</p> <p>African male 2 - Female 1</p> <p>Coloured male 4 - Female 0</p> <p>Indian male 0 - Female 0</p> <p>White male 23 - Female 13</p> <p>Professionally qualified and experienced and mid management</p> <p>African male 10 - Female 2</p> <p>Coloured male 2 - Female 5</p> <p>Indian male 1 - Female 5</p> <p>White male 48 - Female 23</p> <p>Skilled technical and academically qualified workers, junior management, supervisors, foremen and superintendants</p> <p>African male 25 - Female 22</p> <p>Coloured male 39 - Female 22</p> <p>Indian male 0 - Female 1</p> <p>White male 66 - Female 62</p> <p>Semi skilled</p> <p>African male 19 - Female 10</p> <p>Coloured male 26 - Female 10</p> <p>Indian male 0 - Female 1</p> <p>White male 2 - Female 16</p> <p>Unskilled</p> <p>African male 14 - Female 3</p> <p>Coloured male 26 - Female 21</p> <p>Indian male 0 - Female 0</p> <p>White male 0 - Female 2</p>

2002/2003

Top management
African male 4 - Female 0
Coloured male 2 - Female 0
Indian male 0 - Female 0
White male 4 - Female 2
Senior Management
African male 7 - Female 4
Coloured male 4 - Female 1
Indian male 1 - Female 1
White male 20 - Female 2
Professionally qualified and experienced and mid management
African male 22 - Female 14
Coloured male 24 - Female 20
Indian male 3 - Female 6
White male 77 - Female 25
Skilled technical and academically qualified workers, junior management, supervisors, foremen and superintendents
African male 15 - Female 16
Coloured male 31 - Female 14
Indian male 0 - Female 5
White male 24 - Female 44
Semi skilled
African male 5 - Female 14
Coloured male 21 - Female 4
Indian male 0 - Female 0
White male 1 - Female 21
Unskilled
African male 15 - Female 3
Coloured male 14 - Female 16
Indian male 0 - Female 0
White male 0 - Female 0

% of Staff training budget for 3 years 2000-1.39%, 2001-2.38%, 2002-2.37%

Benchmarking No formal benchmarking

Interactive links over 3 years Too numerous to mention. This is part of our mandate both with respect to the Research Support Agency and the national facilities. Some detail container in the annual reports.

Organisational culture studies Yes, such a study was recently undertaken at iThemba labs.

Code of conduct No

Transfer of activities to private sector No

Reasonable level of government funding See attached MTEF Submission to Minister of Arts, Culture, Science and Technology

Regulation or legislation hampering success None

Competition areas with companies in the private No

Additional Question 1 Please give documentary evidence, per year, for the last three year, of the budget split across divisions supporting vital research in each of the areas of natural science, social science and the humanities and basic and fundamental research.

See under "general review" of attached annual reports. Split between social sciences and humanities on the one hand and natural sciences and engineering on the other hand indicated for 1999/00 and 2000/01 only. Since then we operate in an integrated fashion.

As for "basic and fundamental" research - this question does not make any sense.

In case it should have read "basic and applied research" - we don make this distinction as it is our primary mandate to contribute to the strategic knowledge base irrespective of whether this is through basic or applied research.

Additional Question 2	<p>Outline the strategies that were implemented in the last three years to assure the development of human resource capacity through bursaries and scholarships and provide documentary proof of their impact.</p> <p>Strategy is to increase the numbers of research students through bursaries and scholarships (see annual report for details). Merger of CSD and FRD has resulted in a decline in the number of bursaries and scholarships granted because of alignment in bursary values and lack of resources to absorb the impact thereof.</p>
Additional Question 3	<p>How do your bursary programmes differ from others (e.g. form the private sector) and what percentage of the bursary market doe it cover? Please provide information for the last three years.</p> <p>We have not complied any surveys in this regard. Bursary values are considerably lower than those provided by private sector, which usually have conditions attached to them.</p>
Additional Question 4	<p>Give specific information on bursaries for postgraduate studies for the last three years, per year, at individual National facilities (e.g. number of bursaries, level of bursaries, success rates etc.</p> <p>2000</p> <p>PhD Rhodes - R21000 - in progress</p> <p>Msc Rhodes - R19400 - in progress</p> <p>PhD Rhodes - R21000 - awarded</p> <p>PhD Pretoria - R21000 - in progress</p> <p>MSc Rhodes - R14000 - awarded</p> <p>2001</p> <p>MSc Rhodes - R24000 - in progress</p> <p>MSc Rhodes - R19400 - in progress</p> <p>PhD Pretoria - R21000 - in progress</p> <p>2002</p> <p>PhD Rhodes - R21000 - in progress</p> <p>MSc Rhodes - R19400 - in progress</p> <p>MSc Rhodes - R24000 - in progress</p> <p>Bach Tech Cape Technikon - R40000 - in progress</p> <p>M Ing-Stellenbosch-R25000 - in progress</p> <p>Ithemba Labs Postgraduates</p> <p>1999</p> <p>Total cost - R217000</p> <p>MSc</p> <p>8 Students</p> <p>4 completed</p> <p>PhD</p> <p>1 Student</p> <p>2000</p> <p>Total cost - R512000</p> <p>MSc</p> <p>13 Students</p> <p>8 Completed</p> <p>PhD</p> <p>5 Students</p> <p>2 Completed</p> <p>2001</p> <p>Total cost - R871760</p> <p>MSc</p> <p>16 Students</p> <p>7 completed</p> <p>PhD</p> <p>10 students</p> <p>6 Completed</p> <p>2002</p> <p>Total cost - R1145309</p> <p>MSc</p> <p>22 Students</p> <p>2 completed</p> <p>PhD</p> <p>12 Students</p> <p>7 Completed</p>

Additional Question 5	<p>Give specific information on the periodic reviews of the national facilities and provide the latest recommendations for each one.</p> <p>Periodic reviews of national facilities normally every five years.</p> <p>Recommendations of latest reviews attached.</p>
Additional Question 6	<p>Are you working closely with the Medical Research Council (MRC)? Please provide information in changes in collaboration in the last three years.</p> <p>No changes. Close collaboration in terms of applications for medical research as and when required.</p>
Workforce profile	

Supplier Name	Africa Institute of South Africa
Contact Name	Mr Maloka
Address	P.O Box 630 Pretoria 0001
Phone Number	0123286970
Fax Number	0123213164
Meetings in last financial year	Twice
Do you have a Corporate Governance document	No
To what extent do Board members provide expertise	To a limited extent, Board members put to AISA's disposal their sectoral expertise. For instance, they share their links /networks and broad knowledge on pertinent issues at hand. It could be research programmes, especially research focus areas, advocacy and strategic areas of collaboration and alignment. For instance, Prof. S Buthelezi has shared constantly with the institute his research management skills while AISA has over the past year and a half acquired his service to improve research capacity with reference to meeting and running the Trade and International Economic Relations research, which has identified as a niche for AISA> AISA has now stronger links with institutions like UNISA, Fort Hare and Wits partly due to Board members' network.
Advisory panel usage	Yes, an International Editorial Committee for the journal (African Insight). Terms of Reference: review articles, suggest names of respected peer reviewers, help to market AISA and its publications.
KPI	<p>Yes</p> <p>KEY PERFORMANCE INDICATORS & MEASURING TOOLS</p> <p>PERFORMANCE INDICATOR</p> <p>MEASURING TOOL</p> <p>FINANCIAL & INVESTMENT PERSPECTIVE</p> <p>Investment is well targeted</p> <p>Total parliamentary grant & AISA generated funds are well disbursed.</p> <p>Research expenditure as a percentage of entire parliamentary grant.</p> <p>Audited Annual Financial Statements.</p> <p>Increase in subscriptions and sale of publications.</p> <p>Increase in programme grants (donors).</p> <p>Growth in external income</p> <p>sale of publications(% change).</p> <p>Additional resources leveraged/mobilised.</p> <p>ROI on intangible property/ savings to the state and society</p> <p>Training of students (interns).</p> <p>Increase in research articles.</p> <p>Influence/relevance in policy.</p> <p>Increase in research output.</p>

Royalty income as a percentage of external income.

Increase in number of publications.

Narrative evidence of policy impact/relevance of publications.

KEY PERFORMANCE INDICATOR□

MEASURING TOOL

Soundness of market/user
relationships

Increased external income.

Increased library users.

Improvement in exchange relationships.

Relationship with line departments.

Improved relationship with other government departments (DFA and the SANDF).

Launch of a regular e-mail accessions list (AISA Online).

Continuous online bibliography update on Africa Comparable to those of international larger institutions and indexing services.

High demand for researchers to occasionally present lectures at SANDF.

Frequent undertaken contract research.

Increased requests for commentaries on current affairs.

Effective and efficient
management of assets

Improvement in Asset Register maintenance and updating.

24 hour monitoring/security of assets.

Adherence to procurement policy and in line with PFMA.

Effective and efficient
management of costs

KEY PERFORMANCE INDICATOR

Strict control of overheads/ avoidance of unnecessary or fruitless expenditure.

Implementation and continuous compliance with the PFMA.

Annual assessment of financial activities and receipt of report from independent auditors.

Continuous monitoring of income and expenditure vs. overall budget.

MEASURING TOOL

Effective and efficient
management of technology

Decrease in IT costs through outsourcing.

Increase in electronic financial transactions.

Competitiveness

Key Performance Indicators□

Repeat sales.

Customer complaints / satisfaction.

Increased co-operation with competitors; reduced duplication.

Provision for important, but previously neglected areas.

Renewals of membership (%).

Customer complaints / satisfaction (%).

Increased co-operation with competitors, reduced duplication.

Subject coverage analysis to enhance acquisition, selection to identify neglected areas.

Specialised nature of resources.

MEASURING TOOL

Competitiveness

Key Performance Indicators

Repeat sales.

Customer complaints / satisfaction.

Increased co-operation with competitors; reduced duplication.

Provision for important, but previously neglected areas.

Renewals of membership (%).

Customer complaints / satisfaction (%).

Increased co-operation with competitors, reduced duplication.

Subject coverage analysis to enhance acquisition, selection to identify neglected areas.

Specialised nature of resources.

MEASURING TOOL

STAKEHOLDERS/CUSTOMER PERSPECTIVE

Support of the NSI goals

Annually research business plans with measurable objectives.

Enlisting of services of independent consultant to evaluate researchers and publications.

Increase in AISA's activities which receive a wide coverage or attention from both the print and audio-visual media.

Increased briefs, workshops/ seminars, and dialogues.

Increased visits to hot spots through fact-finding missions an aspect of knowledge innovation clusters.

Sustained democratisation
and transformation

Improved conditions of service and increased decision-making through consultation.

Increased staff attendance to courses, workshops, seminars and conferences.

On-going staff training and development and in line with the Skills Development Act.

Continued membership to the ETD P SETA.

Compliance to the requirements of the Workplace Skills Plan.

Increase in the employment and skilling of the previously disadvantaged individuals to key and professional positions.

Increase in users from disadvantaged communities.

Increase in number of authors, esp. black, Africa-based and female researchers.

Promoting macro-economic goals and objectives

KEY PERFORMANCE INDICATOR

Estimates of foreign exchange generated in terms of exchange publications (% of budget).

Creation of new research posts for increased research output.

MEASURING TOOL

Access to knowledge infrastructure

Monitor visits to website.

Monitor sales of publications.

Number of publications (all forms) per R million of core funding.

Monitor services provided on OPAC (website).

Number of visitors (% sector).

Established information networks with other research institutions local and international.

Success in/workable interdisciplinary approach to its research projects and programmes.

Continental focus of research.

Increase in regional integration in such topics as An African Initiative Program.

Increase in AISA's research projects- contribution to policy formulation and analysis.

Promoting networks and linkages

KEY PERFORMANCE INDICATOR □ Exchange database is being maintained.

User registration database maintained.

IVAISLP, SCECSAL membership.

Vendors, publishers database.

Client database is being maintained.

Co-publishing arrangements; textbook collaboration.

Website.

International editorial board system.

Regular facilitation of regional dialogues to bring peace and reconciliation in the region.

Ever-increasing signed collaborative agreements with international research organisations, both globally and continentally.

Number of research fellowships

resident to researchers from outside South Africa.

MEASURING TOOL

Sustained democratisation
and transformation

Increase in users from disadvantaged communities.

Increase in number of authors, esp black, Africa-based and female researchers.

Technology diffusion
/dissemination of information

Dissemination of meta-data (AISA Online, AKB).

Dissemination of research through: publications, website.

ORGANISATIONAL PERSPECTIVE

Close to operational best
practice

Awareness and adherence to the internal Human Resources and Financial Management Policies and Procedures.

Full compliance to the Employment Equity Act, Labour Relations Act, and The Public Finance Management Act.

Audited annual financial reports.

Employee acceptance of performance appraisal system.

Profile i.r.o. partnerships

KEY PERFORMANCE INDICATOR

Numerous research/collaborative projects with similar institutions globally: Africa Study Centre in Bali, Uganda, CODESRIA, African Civil Society Organisation, India, SAIIA.

Signed institutional agreements with universities.

Information exchange initiatives.

MEASURING TOOL

Quality of S&T base

Sale and monitoring of AISA's publications, some of which are written by AISA's researchers.

Researchers' varied skills and their qualifications reflect diverse disciplines from which they come: history, political studies, developmental studies.

User satisfaction monitoring.

Integrated database on African politics, economics and development issues.

Sales of products and services are monitored.

Monitor peer reviewed articles & publications.

Indication of use of experts in peer review.

Relevancy of the research
portfolio

KEY PERFORMANCE INDICATOR

Success rate of research proposals is always under scrutiny.

AISA's monitored and evaluated relevance of portfolio/ proposed focus areas with the objective of keeping its

programmes relevant to the research needs of the market.

Positioned research activities in line with other similar organisations / international grant-funding agencies.

Relevance of focus areas.

Penetration into continent important e.g. no of articles by other Africans.

MEASURING TOOL

INNOVATION AND LEARNING PERSPECTIVE

Contribution to knowledge
stock

Increase in AISA's disseminated research findings and intellectual capital to a wide range of stakeholders, in an accessible way and within a short turnaround time.

Respected publications, with excerpts regularly being featured in study collections, positive reviews being published in accredited journals, and citations being made in various studies and journals.

AISA Data Bank Pilot Project completed.

Implementation of BI software to monitor trends in African countries.

Increase in map production (%).

Increase in books/publications (%).

Number of requests for copyright permission.

Number of AISA's research specialists in their fields and their intellectual contribution to knowledge production.

Increase in internship programmes to graduate students, especially those who are from previously disadvantaged background.

Number of AISA's rated and well-known researchers, some of them serve in editorial boards of other institutions.

Nature & Extent of Foresight
Capacity Engagement in New
Core Technology Areas

AISA's own developed KPI's to evaluate its researchers.

Monitoring of trends in Knowledge Management & Competitive Intelligence areas.

Support for a knowledge-
based economy

KEY PERFORMANCE INDICATOR

Use of library resources by public.

Promotion of information literacy.

Promotion of goals of Information Society.

Use of information by public.

MEASURING TOOL

Development of human
Resources in S & T
(Knowledge Capital)

Number of AISA's researchers actively involved in reviewing publications for other institutions and are editors and board members: there are indications of their ratings and value to their individual fields of expertise.

Number student interns wishing to pursue research and those studying library sciences.

In-house development of professionals.

Yes

Research work

Data Collection and Collation based on IRIN and other internet sources, secondary literature and official documents. Retrieving information gathered by Prof. Buthelezi in Dakar and Lusaka;
 Organizing data sets that would suit the newly-introduced data software for library and research units. Training finished in end of April;
 Just finished the final draft chapter 'The Zimbabwean Crisis and Implications for Land Reform in Namibia' for the Henry Guggenheim Book on Zimbabwean Crisis and Land Reform, presented as a first draft in London;
 Busy writing the rural struggles chapter for the SADET Volume on Liberation Struggles in SA;
 Interpreting data for the SADC food security mechanism audit report being compiled at present;
 Will then begin with a contribution to a multi-authored chapter on Public Health Reform in South Africa in comparative perspective with African experiences in this area for a World Bank Project

Workshop/ Seminars

NEPAD Outreach Programmes' Workshops;
 SADET Book writing Workshop;
 French Foreign Ministry Delegation Engagement AISA's Cuban Foreign Policy and Swaziland: Current Developments Seminars;
 Transformation of the Transvaal Museum Workshop;
 DRC Dialogue. Co-Hosted with the United Nations Research Centre for Peace in Africa and the All Africa Women for Peace.

Professor Miti made a presentation on Burundi at AISA.

The Peace and Governance Programme at AISA and the Africa Center for Strategic Studies held a joint consultancy on Peace and Security issues in the SADC region.

Analytical Articles

For GCIS 'WSSD: An Acid Test for the Grand Goals of the AU and NEPAD' in GCIS Bua, August 2001.

Sowetan: □ 'African Union/ NEPAD: the will of the people'

'The "AU Launch Delay" is no cause for alarm'

The following article has appeared in Africa Insight Vol. 32(1) 2002:

Senzo Ngubane and Hussein Solomon – Reflections on the evolution of human security and its applicability to Southern Africa

Another article co-written by Hussein Solomon and Sally Matthews on ethnic conflict in Nigeria is appearing in the edition of Africa Insight.

Books

Two book manuscripts have been submitted. The first one is written by Francis Deng and deals with the conflict in the Sudan. The second one is written by Sophie Thomashausen and deals with humanitarian intervention in Africa.

Book Chapter

The following chapter written by Hussein Solomon, "Emigration Dynamics in Southern Africa: Forced Migrants and the African Renaissance," appeared in the book The Challenge of Forced Migration in Southern Africa edited by Zonke Majodina and published by AISA.

Other Publications

"The African Union: Forging Links for Greater Unity and Security," Conflict Trends No. 1/2002.

"Peace Before Development?," Conflict Trends No. 1/2002.

"SA Must Take the Lead," Financial Mail, 18 January 2002.

Of Myths and Migration: Illegal Immigration into South Africa. Book forthcoming from UNISA Press. 2002.

Lectures

Defence College on 'Political Violence in Africa; African Renaissance and Nepad and National Strategy'

Rau on 'Perspectives on South African Poverty'

Pretoria University on 'Sustainable Development and Africa' for a Governance Winter Course

Major Media Interviews

TV

SABC AFRICA (+3)

Channel Africa (1)
 SABC Morning Live (2)
 Radio
 SAFM's Tim Modise Show and PM Live (2)
 SABC Port Elizabeth (+5)
 Ukhozi Fm (+8)
 Consultations
 Dept of Transport on Nepad and African Union;
 Chinese Embassy on NEPAD and possible areas of intervention by the Chinese;
 Business Network (UK) on roles of private sector in capitalizing NEPAD.

Electronic Briefing Papers

"Namibia's Woes," Briefing Paper No.1/2002
 "Prospects for Democratization in Swaziland," Briefing Paper No.2/2002
 "Prospects for Africa's Development in the Light of NEPAD," Briefing Paper No. 3/2002
 "Breaking the Deadlock: Towards a Peaceful Settlement of Angola's Civil War," Briefing Paper No. 4/2002
 "Managing Electoral Crisis in Southern Africa," Briefing Paper No. 5/2002
 "Zimbabwe After the Elections: From Violence to Peaceful Coexistence?," Briefing Paper No. 6/2002
 "Another Chance for Peace in the DRC: The Inter-Congolese Dialogue at Sun City," Briefing Paper No. 7/2002
 "Understanding the Precarious Nature of the Current Zambian Parliament: A Conflict Resolution Perspective," Briefing Paper No. 8/2002
 "An Overview of Post-Savimbi Angola," Briefing Paper No. 9/2002
 "Refugees and Internally Displaced Peoples in the Great Lakes Region," Briefing Paper No. 10/2002
 "Lesotho's Elections Affirming Democracy in Africa?," Briefing Paper No. 11/2002
 Report of the International Conference on Armed Conflicts in the Democratic Republic of the Congo on the eve of the Inter-Congolese Dialogue: Building a Sustainable Peace in the Great Lakes Region

Occasional Papers

Peace and Security in Angola and the Democratic Republic of the Congo.
 Another paper on Lesotho's elections.

Presentations of papers

"South African Foreign Policy, Preventive Diplomacy and the False Promise of Conflict Resolution," paper presented to Forum 21-4. Hosted by the Departments of Philosophy and Political Science, University of Pretoria.
 "The State, Civil Society and Conflict in Africa," paper presented to the Capacity Building Sensitisation Workshop for Senior Policy Managers from SADC Countries. Co-Hosted by the South African Management Development Institute (SAMDI) and the Development Policy Management Forum (DPMF). Pretoria.
 "Preventive Diplomacy: Some Comparative Perspectives," paper presented to staff and post-graduate students of the Department of Political Studies, Rhodes University.
 "The African Union and Conflict Prevention in Africa," presented to the International Steering Committee of Global Action to Prevent War (GAPW). Hosted by the Heinrich Boll Stiftung. Berlin, Germany.
 "An Islamic Perspective on International Relations," presented to the Department of Political Sciences Seminar Series. Hosted by the Department of Political Sciences, University of Pretoria.
 "The External Environment and Prospects for Peace in the DRC," presented to the International Conference on Armed Conflict in the Democratic Republic of the Congo on the Eve of the Inter-Congolese Dialogue in South Africa. Hosted by the United Nations Regional Centre for Peace and Disarmament, the Africa Institute of South Africa and All Africa Women for Peace. Pretoria.
 "African Theories of Conflict Resolution," presented to the Continental Course in Conflict Transformation. Hosted by the Coalition for Peace in Africa (COPA). Johannesburg.

Parliamentary grant funded programmes

Administration
 1999/2000 - 4910050
 2000/2001 - 3271128
 2001/2002 - 3812388
 Research & Development
 1999/2000 - incl. in admin
 2000/2001 - 2372861
 2001/2002 - 2514101
 Communication & Publication
 1999/2000 - 131885
 2000/2001 - 788540
 2001/2002 - 918040

Documentation & Information services

1999/2000 - 279065

2000/2001 - 888471

2001/2002 - 933471

TOTALS

1999/2000 - 5321000

2000/2001 - 7321000

2001/2002 - 8178000

1. □ ADMINISTRATION & FINANCE

Mission

The administration & finance division aims to regulate financial management to ensure that all revenue, expenditure, assets and liabilities are managed efficiently and effectively; to provide help to managers entrusted with financial management responsibilities; and to actively strive to develop AISA as a dynamic organisation in human resources matters so that it remains aware, flexible and capable of coping proactively with the dynamic South African social and industrial environment within which it conducts its business operations.

ACTIVITY

Risk Management & Internal Control

Financial Administration

Financial Control

Auditing

Human Resources Management

2. □ Publications and Communications

Mission

The publications and communications division is dedicated to supporting AISA through the dissemination of high quality, timely and relevant information on Africa, for Africans and the international community, and to increasing awareness of the continent, especially among the youth. The division also strives to position AISA as the 'first port of call' on African affairs.

Objectives & Priorities

The division's strategic objectives for the next year are to:

maintain and sustain output of books, monographs, newsletter and journal;
improve content and use of website;
increase subscriptions and sales through better marketing;
ensure publications respond to needs and requests of users;
reach wider audiences and improve AISA's profile;
create more awareness of Africa, especially among the youth.

3. □ Library and Documentation Services

Mission

The Library and Documentation Services division seeks to contribute to more effective, informed decision-making and to advance the leadership role of AISA and our members in putting knowledge to work for the benefit of decision-makers in corporations, government, the professions, and society. This situates us in a support role to help shape the development of an information and knowledge-based society for Africa.

Vision and Values

Our vision is to become known as a strategic partner in the emerging information society, to promote it, and to create, shape and develop a virtual knowledge environment that will ensure a seamless flow of information within and across formats, databases, organisations, national, continental and international boundaries, and to transform the library into a powerhouse of information.

Information and knowledge management is at the centre of business and society in the 21st century. Special librarians will be change agents and leaders providing the information needed to help their organisations achieve their goals. Specific conditions that will impact on our success and effectiveness include:

Global nature of information: Faster pace/instant knowledge

Information as a commodity

Simplification of organisational structures

Partnering and collaboration in new and existing markets

Strategic Objectives

In line with the global objectives of special libraries, the main objectives of the LDS centre upon:

Change management

Communications

Global alliances

Strategic learning.

4. ☐ Research and Development

Mission

The division aims to facilitate the development of research expertise, knowledge production, education, training and promotion of awareness on Africa, for Africans and the international community.

Strategic targets

The research division's strategic targets for 2002-2003 – 2004/2005 are:

To build a competitive research capacity;

To meet expectations, especially on the policy front;

To brand AISA, including enhancing our capacity to generate our own income.

Programmes

The research agenda of AISA will still be programme-driven for 2002/2003 – 2004/2005 with NePAD and the African Union as cross-cutting issues. The following will be AISA's 2002/2003 – 2004/2005 research programmes:

African Unity and Governance

The programme will focus on various aspects of African unity, including African multilateral organisations; African Union organs, such as the Pan-African parliament; AU schedule and time-frames as well as regional integration.

Africa and Global Governance

The programme will focus on the impact on Africa of global multilateral organisations such as the World Trade Organisation, IMF, WB, and the United Nations, as well as on the role of foreign powers on the continent.

Peace and Governance

This programme will focus on the problematic of governance as well as peace and security matters as they pertain to the African Renaissance.

People, Democracy and Governance

The programme will focus on the management of natural resources, environmental and demographic matters pertaining to the continent.

Social and Sustainable Development

The programme will analyse global social development targets as they pertain to Africa and rural development issues.

Culture, knowledge Production and Society

- ☐ The programme will focus on issues regarding Africa in the global information
- ☐ and communications technological village.

Strategies

In addition to the programmes, various strategies will be employed to ensure AISA's research performance is optimal and that debate and discussion are encouraged. The programmes will be required to work around the following strategies:

Dialogues

Seminars, workshops and conferences

Risk Analysis and Scenario Planning

Research Reports

African studies research capacity development

Publications

Networking

International and other exchange programmes
 Fact-finding missions and related field work
 Election monitoring
 Commissioned work
 Current affairs commentaries

Key Performance Indicators

The division has designed a performance appraisal system that is based on the following performance indicators being met by each researcher:

Publications
 Policy relevance and impact
 Briefings
 Customer satisfaction
 Seminars, workshops and conferences
 Current affairs commentaries (including newspaper articles)
 Training and development
 Commissioned work and income generation
 Networking

Justification of funded programmes

Mandate as per the AISA Act 68 of 2001, otherwise funding is sourced from outside donors/funders

% funding over last 3 years

1999/2000 - 6%
 2000/2001 - 11%
 2001/2002 - 41%

No of employees

Chief Executive Officer
 African male 1 - Female 0
 Coloured male 0 - Female 0
 Indian male 0 - Female 0
 White male 0 - Female 0
 Chief Finance Officer
 African male 1 - Female 0
 Coloured male 0 - Female 0
 Indian male 0 - Female 0
 White male 0 - Female 0
 Directors
 African male 1 - Female 0
 Coloured male 0 - Female 0
 Indian male 0 - Female 0
 White male 0 - Female 0
 Deputy Directors
 African male 0 - Female 2
 Coloured male 0 - Female 0
 Indian male 0 - Female 0
 White male 0 - Female 0
 PROFESSIONAL STAFF
 Researchers
 African male 2 - Female 1
 Coloured male 0 - Female 0
 Indian male 0 - Female 0
 White male 1 - Female 0
 Assistant Manager Finance
 African male 1 - Female 0
 Coloured male 0 - Female 0
 Indian male 0 - Female 0
 White male 0 - Female 0
 Librarians
 African male 0 - Female 1
 Coloured male 0 - Female 0
 Indian male 0 - Female 0
 White male 0 - Female 1
 Cartographer
 African male 0 - Female 0
 Coloured male 0 - Female 0

Indian male 0 - Female 0
 White male 0 - Female 1
 TECHNICIANS & ASSOCIATE PROFESSIONS
 Information monitors
 African male 2 - Female 0
 Coloured male 0 - Female 0
 Indian male 0 - Female 0
 White male 0 - Female 0
 Research assistant - data bank
 African male 1 - Female 0
 Coloured male 0 - Female 0
 Indian male 0 - Female 0
 White male 0 - Female 0
 Parliamentary liaison
 African male 0 - Female 0
 Coloured male 0 - Female 0
 Indian male 0 - Female 1
 White male 0 - Female 0
 CLERKS
 Programme manager
 African male 0 - Female 1
 Coloured male 0 - Female 0
 Indian male 0 - Female 0
 White male 0 - Female 0
 Office manager
 African male 0 - Female 1
 Coloured male 0 - Female 0
 Indian male 0 - Female 0
 White male 0 - Female 0
 Secretarial assistants
 African male 0 - Female 2
 Coloured male 0 - Female 0
 Indian male 0 - Female 0
 White male 0 - Female 0
 Receptionist
 African male 0 - Female 1
 Coloured male 0 - Female 0
 Indian male 0 - Female 0
 White male 0 - Female 0
 Library assistants
 African male 0 - Female 0
 Coloured male 0 - Female 0
 Indian male 0 - Female 0
 White male 0 - Female 2
 Editorial assistants
 African male 0 - Female 0
 Coloured male 0 - Female 0
 Indian male 0 - Female 1
 White male 0 - Female 0
 ELEMENTARY OCCUPATION
 General assistant - Logistics
 African male 1 - Female 0
 Coloured male 0 - Female 0
 Indian male 0 - Female 0
 White male 0 - Female 0
 General assistant - Postal services
 African male 1 - Female 0
 Coloured male 0 - Female 0
 Indian male 0 - Female 0
 White male 0 - Female 0
 General assistants - Reprography
 African male 3 - Female 0
 Coloured male 0 - Female 0
 Indian male 0 - Female 0
 White male 0 - Female 0

	<p>General assistants - Cleaning</p> <p>African male 0 - Female 2</p> <p>Coloured male 0 - Female 0</p> <p>Indian male 0 - Female 0</p> <p>White male 0 - Female 0</p> <p>NON PERMANENT STAFF-PROFESSIONAL</p> <p>Researchers</p> <p>African male 4 - Female 0</p> <p>Coloured male 0 - Female 0</p> <p>Indian male 1 - Female 0</p> <p>White male 1 - Female 0</p>
% of Staff training budget for 3 years	<p>1999/2000 - 37%</p> <p>2000/2001 - 26%</p> <p>2001/2002 - 23%</p>
Benchmarking	Yes, regular comparative surveys with similar international institutions, such as Codesria and the Nordic Africa Institute, and CAIR, and locally (HSRC, NRF, IDASA, ACCORD, CSIR, IGD, & ISS) are carried out. For instance, we look at number of staff compared to output of publications, quality of publications, funding, and income derived from publications.
Interactive links over 3 years	Yes, we have specific publications links with several institutions, including Codesria (foreign), and Wits University, Vista University, UOFS and UCT (local).
Organisational culture studies	Yes, through staff forums, social clubs and bosberaads.
Code of conduct	No
Transfer of activities to private sector	Yes, the publications division could be privatised and form a commercial unit, but this is not necessarily the best direction for an academic publisher to follow. Other community-based programmes, e.g. outreach programmes on current issues.
Reasonable level of government funding	R19 000 000.00. Budget and motivation already sent to the Minister. AISA has just become the newest member of the Science Councils (Act 68 of 2001).
Regulation or legislation hampering success	No
Competition areas with companies in the private	Yes, our publications are on sale and cover areas which cannot be covered by the private sector. This constitutes competition.
Additional Question 1	<p>Have any interventions been undertaken in order for AISA to come under an academic umbrella body? If yes, please provide relevant documentation. If not, explain why not.</p> <p>Yes, AISA has been brought into the family of Science Councils through the proclamation of the Africa Institute of SA Act (Act 68 of 2001).</p>
Additional Question 2	<p>Was the research and postgraduate training capacity increased in any way in the last three year, and if so how? Please provide proof of the results.</p> <p>Yes,</p> <p>The research division has improved, albeit slightly in terms of human resource. Research production has also improved both in the sense that research projects are much more responsive to the continental needs, encapsulate the new agenda and the needs of the public sector, a major consumer of our production and private sector. A good blend of seasoned and younger scholars is being built up, raising prospects for long-term research capacity. There are four senior researchers with over 30 years of research and teaching expertise between them. We have in the past one and a half years recruited promising young intellectuals into our research programmes in the person of Siphamandla Zondi and Nthabiseng Nkosi. The fruits of this are appearing in the forth-coming research reports on regional integration and various other outputs (see attached report as example) and more will be seen in the near future. This year our staff turned out several outputs for publication with high-level publishers</p> <p>As a result, we have developed a productive relationship with several government departments as service providers. Professor Buthelezi and Hetani Ngobeni have finished a study report for the Department of Local and Provincial Government on Local government in Africa. The unit has had consultations with departments of Transport, Sport and Agriculture on matters to do with policy planning for AU and NEPAD. There is likely to be major studies to emerge out of these exercises.</p>

The SA Parliament has utilized our expertise on several occasions including expert input into protocol, for African Parliament and Trade-Policy. We have tendered for projects with DPSA and Parliament.

Post- Graduate Training
While AISA does not run a Post-Graduate academic programme, our senior researchers serve as external examiners and supervisors for masters students at Universities of Namibia, Swaziland, Port Elizabeth, Durban-Westville, Western Cape and Pretoria, and Technikon Pretoria. Some researchers teach at these institutions: Dr E. Maloka and Dr S. Makgetlaneng at UPE; Prof S. Buthelezi at SARRIPS (accredited by Fort Hare and University of Zimbabwe); and Prof S. Hussein at the University of Pretoria. They also offer intermittent guest lectures to joint-high command courses at Defence and Army Colleges, and lectures to diplomat-cadets at Foreign Service Institute.

Research internship is a vital element of our capacity building exercises with post-graduate students in SA universities. Interns are exposed to high-level research conduct and advocacy. Several of them have landed key positions in government and universities. For instance, Ms. Thokozile Madonko is assistant lecturer at Rhodes University, Mr Mbulaheni Mulaudzi is with GCIS's policy unit and Mr Patrick Rankhumise is a lecturer with North West University's History Department.

Additional Question 3

Is there a marketing strategy and if so, how was it implemented? Please provide appropriate documentation.

Yes, we have an informal marketing strategy, but have not had a dedicated member of staff and have thus lacked the capacity to draw up a marketing plan and to implement it.

Additional Question 4

N/A

Additional Question 5

N/A

Additional Question 6

N/A

Workforce profile

Legislators, Snr Officials & Managers

AFRICAN

Male - 4

Female - 0

COLOURED

Male - 0

Female - 0

INDIAN

Male - 0

Female - 0

WHITE

Male - 0

Female - 2

Technicians & Associate Professionals

AFRICAN

Male - 0

Female - 0

COLOURED

Male - 0

Female - 0

INDIAN

Male - 0

Female - 0

WHITE

Male - 0

Female - 0

Clerks

AFRICAN

Male - 6

Female - 8

COLOURED

Male - 0

Female - 0

INDIAN

Male - 0

Female - 0

WHITE

Male - 0
 Female - 3
 Service workers/General Assistants
 AFRICAN
 Male - 5
 Female - 2
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Skilled agricultural and fishery workers
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Craft and related trades workerts
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Plant machine operators and assemblers
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Elementray occupations
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE

Male - 0
Female - 0
Total permanent
AFRICAN
Male - 18
Female - 3
COLOURED
Male - 0
Female - 0
INDIAN
Male - 1
Female - 1
WHITE
Male - 3
Female - 5

Total non-permanent staff
AFRICAN
Male - 18
Female - 13
COLOURED
Male - 0
Female - 0
INDIAN
Male - 1
Female - 1
WHITE
Male - 3
Female - 5

Supplier Name	Nuclear Energy Corporation of South Africa
Contact Name	Mr Thobejane
Address	P.O Box 582 Pretoria 0001
Phone Number	0123054911
Fax Number	0123054111
Meetings in last financial year	Meetings with line departments within NECSA occur on a weekly basis. Formal meetings with NECSA's key stakeholders (Minister of Minerals & Energy and the Department of Minerals and Energy) have occurred very frequently during the last financial year (bi weekly)
Do you have a Corporate Governance document	Corporate governance within NECSA occurs through scheduled monitoring of the NECSA Board approved Strategic Plan and budget. This document covers the strategic intent, programme goals and resource requirements for a 5 year horizon. See attached budget document. Furthermore the corporation is also governed and controlled in accordance with the Nuclear Energy Act (Act No. 46 of 1999) and the PFMA (Public Finance Management Act).
To what extent do Board members provide expertise	NECSA Board representation is specified by the Nuclear Energy Act No. 46 of 1999. Section 7 of the Act makes provision for the appointment of Board members with sectoral expertise and linkages to the nuclear and related industry. IN this regard Directors representing the energy industry, commerce and relevant technology sectors are appointed to the Board of NECSA.
Advisory panel usage	Numerous advisory panels exist each with a clearly defined terms of reference as highlighted in Appendixes 1 to 4. These panels provide advisory inputs and undertake reviews on NECSA's activities. Examples include: Review of NECSA's nuclear liability assessment approach (DACST/DME April 2000) Appendix 1 Studsvik (Swedish nuclear waste management company) advising on design and implementation of proposed NECSA smelter for decontamination of contaminated materials (2000-2002) Appendix 2 IAEA Expert Mission investigating cracked drums at Vaalputs as well as benchmarking the disposal activities on this site (1999) Appendix 3 Review of the Safari Research reactor (DACST/DME, April 2000) Appendix 4 Advice is solicited from the IAEA on an ad hoc basis, e.g. the proposed conversion of Safari to low enriched uranium fuel and the design of a small angle neutron scattering facility.
KPI	Key performance indicators and objectives for the key activities with NECSA's core divisions (PNI and PT) are listed in Appendix 5.
Use of Frascati manual	No, the Frascati manual is not applied within NECSA
Parliamentary grant funded programmes	The NECSA programmes and activities that have been funded with the parliamentary grant for the last three years are as follows: Parliamentary grant to PNI R1million 2000/2001 - 92.4 2001/2002 - 106.8 2002/2003 - 114.8 Special allocation to decommissioning R1million 2000/2001 - 15.6 2001/2002 - 16.2 2002/2003 - 19.5 Grant to PT (for project development & NECSA Corporate Services R1million 2000/2001 - 49.7 2001/2002 - 22.3 2002/2003 - 20.1 Loan redemption R1million 2000/2001 - 4.3 2001/2002 - 2.4 2002/2003 - 233.4 Loan interest R1million

	2000/2001 - 33.3 2001/2002 - 32.6 2002/2003 - 32.1 IAEA R1million 2000/2001 - 4.9 2001/2002 - Nil 2002/2003 - Nil PT has received no Government Grant since 2002 KEY PROGRAMMES Operation of the Safari reactor for commercial and institutional applications such as training, service to the academic community and industry and as a leading facility in the African context. Maintenance, development and utilisation of nuclear technology as part of the NSI. This includes R&D and services in radiation and reactor theory, radiopharmaceuticals, nuclear waste technology, radioisotope technology, neutron beam applications, and nuclear instrumentation. Management of NECSA's nuclear waste and liabilities including the Vallputs national nuclear waste disposal facility. The programme includes the assessment of historic liabilities and the decommissioning and decontamination of closed nuclear facilities. Maintenance of the Pelindaba and Vaalputs nuclear sites Provision of a national safeguards of nuclear material service as required by the Nuclear Non-Proliferation Treaty as well as the safe keeping of the national HEU inventory. Management of the PBMR fuel programme on a subcontracting basis. Maintenance of and active contribution of South Africa's role in IAEA technical co-operation programmes and technical support in African countries under the AFRA agreement. Chemical product development aimed at the high value fluorine chemical market abroad.
Justification of funded programmes	PNI was established in 1999 to manage NECSA's institutional responsibilities and programmes as prescribed in the Nuclear energy Act. Activities which may in future be considered for privatisation were grouped under PT.
% funding over last 3 years	Percentage of funding emanating from business activities for the two core divisions with NECSA is: PNI 2000/2001-31% 2001/2002-25% 2002/2003-30% PT 2000/2001-79% 2001/2002-100% 2002/2003-100%
No of employees	Research & Professionals Engineers 06/2000 Black - 11 White - 28 06/2001 Black - 15 White - 22 06/2002 Black - 9 White - 20 Scientists 06/2000 Black - 18 White - 63 06/2001 Black - 21 White - 64 06/2002 Black - 24 White - 60 Other 06/2000 Black - 11 White - 99 06/2001 Black - 12

White - 88
06/2002
Black - 15
White - 87
Administrative
Skilled
06/2000
Black - 12
White - 237
06/2001
Black - 20
White - 211
06/2002
Black - 26
White - 215
Semi-skilled
06/2000
Black - 109
White - 86
06/2001
Black - 119
White - 89
06/2002
Black - 132
White - 75

% of Staff training budget
for 3 years

For the past three years the training and development expenditure of NECSA for the relative periods are:

2000/2001 - R1.85m (1.08% total salary budget)
2001/2002 - R2.04m (1.04% total salary budget)
2002/2003 - R4.07m (1.76% total salary budget)

Benchmarking

Key programmes and functions within NECSA are benchmarked against internal best practices abroad e.g. BNFL consultation on benchmarking of the NECSA nuclear liabilities assessment approach (1999).
Audits of NECSA's nuclear liability assessment
-Belgium nuclear waste management company
-UKAEA
-Price Waterhouse Coopers
RWE/NUKEM technical audit of the nuclear liabilities management facilities at Pelindaba.
National nuclear regulator ensuing ongoing NECSA compliance with licencing requirements.
NECSA's radio analysis group participates in international inter comparison studies (organised by the IAEA, CEO, CTBTO etc.) on a continuous basis.
Reactor physics calculational methods and computer codes are validated through international benchmarking.
Reactor safety analysis protocols are compared, under the auspices of the IAEA with those of other research reactors.
The cost of internal utilities (steam, demin water, compressed air, etc.) as well as building maintenance costs, building rentals, gardening services, etc. are presently being benchmarked by BENSAs (Benchmarking South Africa)
Chemical projects are also benchmarked against operations within leading organisations such as CSIR, Mintek and external clients.
Salary and benefits are benchmarked annually against the surveys undertaken by the four major comparison consultant organisations in SA. Other personnel practices/conditions of services are also regularly compared with those of other similar organisation during discussions with parastatal organisations Compensation Forum and other networking forums.
The performance of the retirement fund is benchmarked against the fifty quadrant survey of portfolio performances.
Employment equity is benchmarked according to Breakwater monitor, Dol and Deloitte and Touche survey.

Interactive links over 3
years

Numerous interactive links with other institutions are being pursued.

Over the last number of years the Nuclear technology (NT) division has a continuous programme to strengthen and expand collaboration with the local higher education and research communities and with international universities and research institutes. This is done through lectures, training and research projects at undergraduate and post graduate level, collaborative research projects etc.

Over the last three years NT collaborated with numerous local universities (Cape Town, Fort Hare, Free State,

Medunsa, Natal, Northwest, Port Elizabeth, Potchefstroom, Pretoria, Rand Afrikaans, Rhodes, Stellenbosch, Unisa, Vista, Witwatersrand, Zululand, Technikons: (Pretoria, Southern Africa, Witwatersrand) and research institutions (CSIR, Eskom, iThemba Labs, Medical Research Council, Taurus). Overseas collaboration include the IAEA, AFRA (nuclear collaboration between African countries), universities in Australia (Curtin), France (Paris), Germany (Marburg), Netherlands (Delft) and the USA (Massachusetts-Lowell, Michigan, Missouri, MIT, Penn State, Purdue) and research institutes in Germany (Forschungszentrum Julich, Institute for Atmospheric research, Hahn Meitner Institute), Netherlands (Joint Research centre Petten), Portugal (Institute for nuclear technology), Sweden (ABB Atom, Compusim, Studsvik), Switzerland (Paul Scherer Institute) and the USA (Argonne National Laboratory, Brookhaven National lab, Los Alamos National Lab.)

A high level of interaction exists with the IAEA in the field of nuclear waste management through participation in co-ordinated research projects, technical meetings, consultant meetings and presentations at IAEA conferences.

NECSA is deeply involved with many African countries in nuclear science and technology through experts in various fields.

Continuous interaction takes place with Eskom in the field of nuclear waste management.

NECSA is actively involved with the PBMR project through the provision of a wide range of scientific and technical services and joint planning.

Interactive links with national quality organisations exist through membership of the SA Quality Institute, the SA National Technical committee for quality management and quality assurance and through the chairmanship of the SA working group for the revision of ISA 1006 as well as a directorship on SANAS.

Execution of the national nuclear safeguards function results in interactive links with all SA organisations where nuclear material is used.

On the commercial side links with Rotek (locally), universities and leading chemical development organisations abroad (BOE, 3M, Dyneon) are periodically undertaken.

NECSA has through its HR & D unit, various interactive links with local and international institutions in the fields of:

- Personnel: Institute of Personnel Management
- Training and development
- CHIETA
- ESETA
- SAQA
- DoL
- ASTD
- Frankling Covey
- Pacific Institute
- Universities (local and international)
- Training providers
- Learning resources
- Quantum Learning systems
- Compensation
- P3 Management consultants (Hay System)
- Deloitte & Touch/Human Capital Corp (Peromnes)
- PE Corporate services (Paterson)
- Parastatal organisations compensation forum
- Recruitment: recruitment consultants and universities (bursars)
- Psychometrics: Thomas International, BIOS and industrial Psych. Society
- Organisation development
- Institute for Organisation development and transformation (ITESA)
- Consultants in change management
- Personnel benefits
- Medical aid: Alexander Forbes and Discovery Health
- Retirement fund: Fifth quadrant
- Sanlam full investment fund
- Old mutual asset management
- Old mutual employee benefits
- Coronation

Organisational culture studies	<p>Yes, organisational climate surveys are undertaken at the corporate level of the organisation to determine staff perceptions about motivation, management, equity etc. Internal organisational surveys that were undertaken during the past few years include:</p> <ul style="list-style-type: none"> diversity and trust organisation climate, leadership and effectiveness communication leadership profile affirmative action climate for groups risk management organisation values <p>Very recently, Behavioural science technology (BST) conducted an organisational functioning survey to determine NECSA's safety culture as a first step in the implementation of a Behaviour based safety process.</p>
Code of conduct	<p>Yes, NECSA has a formal code of conduct which has been approved by its Board of Directors. The audit committee of the Board measures the performance of NECSA on an annual basis against the approved code of conduct. Appendix 6</p>
Transfer of activities to private sector	<p>Certain commercial activities within NECSA have already been corporatised in an attempt to enhance its alignment with private sector business. This strategy has been endorsed by the recent CSIR/DACST review on NECSA's commercial businesses.</p> <p>The radioisotope business of NECSA (NTP) will be positioned as a corporatised entity in the near future. The fabrication facility of NECSA may also be enhanced as a corporatised or privatised entity.</p>
Reasonable level of government funding	<p>Although existing activities within PNI could continue at the present level of funding (if maintained in real terms), several urgent initiatives are required to ensure future effective opportunities created by the PBMR project (fuel development and testing), the strengthening of research capability in neutron science/applications and resources for investigations on deep geological disposal of nuclear waste. Additional funding is also required for the conversion of Safari to low-enriched uranium fuel. Once-off expenditures of R25m total over the next 4 years would be required, while additional annual operational expenditures of about R15m would be required for 5 to 7 years to implement the initiatives. A significant portion of the additional funding would be recovered from future income from the new capabilities.</p> <p>Furthermore, on the commercial side of NECSA (PT), an amount of R11m is required to assist NECSA in retaining and preserving the fluorochemistry base (which is unique in the Southern hemisphere) as a platform in support of the nuclear industry. See appendix 7</p>
Regulation or legislation hampering success	<p>The Nuclear Act at times does not allow the fabrication activities within PT to operate smoothly and efficiently in the fast pace and dynamic commercial markets.</p> <p>Although environmental legislation is sound and helpful, commercial departments within NECSA often cannot deliver within specific time frames due to funding and capacity constraints.</p> <p>Legislation and regulations which affect PNI activities are realistic and should not impact adversely on our success. Implementation of these measures by the respective authorities does, however, create problems and results in long delays which impact negatively on our projects. A relevant example is the effectiveness of the process through which a nuclear licence is obtained.</p>
Competition areas with companies in the private	<p>Yes, NECSA within its corporatised structures and entities do compete with the private sector. These programmes however, obtain no grant or subsidy from government. NECSA's business portfolio consists of nuclear and non-nuclear products such as a vast range of radioisotopes sold in international markets, fluorine-based gases and chemicals, specialised high-precision fabricated equipment, radioactive sources, membranes, filters etc.</p>
Additional Question 1	<p>To what extent have you increased your joint ventures and partnership during the last three years. Please specify.</p> <p>NECSA has pursued joint ventures and partnerships with large chemical business entities abroad (Dyneon, BOC, 3M, Incos Fluor). The partnership with DOW Chemicals (Fluoropharm) has also been terminated. In the radiation field partnerships have been strengthened with numerous universities and international nuclear bodies to broaden the base of intellectual capital in this area and to optimise the utilisation of facilities.</p> <p>In general the formation of joint ventures within the commercial business portfolio of NECSA has at times been hampered as a result of limited commercial autonomy and bureaucracy.</p>

Additional Question 2	N/A
Additional Question 3	N/A
Additional Question 4	N/A
Additional Question 5	N/A
Additional Question 6	N/A
Workforce profile	<p>AUGUST 2001</p> <p>Legislators, Snr Officials & Managers</p> <p>AFRICAN</p> <p>Male - 7</p> <p>Female - 1</p> <p>COLOURED</p> <p>Male - 3</p> <p>Female - 0</p> <p>INDIAN</p> <p>Male - 1</p> <p>Female - 0</p> <p>WHITE</p> <p>Male - 94</p> <p>Female - 3</p> <p>Professionals</p> <p>AFRICAN</p> <p>Male - 23</p> <p>Female - 7</p> <p>COLOURED</p> <p>Male - 5</p> <p>Female - 4</p> <p>INDIAN</p> <p>Male - 7</p> <p>Female - 1</p> <p>WHITE</p> <p>Male - 131</p> <p>Female - 30</p> <p>Technicians & Associate Professionals</p> <p>AFRICAN</p> <p>Male - 34</p> <p>Female - 15</p> <p>COLOURED</p> <p>Male - 4</p> <p>Female - 2</p> <p>INDIAN</p> <p>Male - 1</p> <p>Female - 0</p> <p>WHITE</p> <p>Male - 191</p> <p>Female - 29</p> <p>Clerks</p> <p>AFRICAN</p> <p>Male - 10</p> <p>Female - 17</p> <p>COLOURED</p> <p>Male - 0</p> <p>Female - 5</p> <p>INDIAN</p> <p>Male - 0</p> <p>Female - 0</p> <p>WHITE</p> <p>Male - 6</p> <p>Female - 102</p> <p>Service workers/General Assistants</p> <p>AFRICAN</p>

Male - 49
 Female - 4
 COLOURED
 Male - 4
 Female - 1
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 68
 Female - 25
 Skilled agricultural and fishery workers
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Craft and related trades workerts
 AFRICAN
 Male - 19
 Female - 0
 COLOURED
 Male - 2
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 76
 Female - 0
 Plant machine operators and assemblers
 AFRICAN
 Male - 91
 Female - 1
 COLOURED
 Male - 6
 Female - 4
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 93
 Female - 10
 Elementray occupations
 AFRICAN
 Male - 62
 Female - 1
 COLOURED
 Male - 3
 Female - 2
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 12
 Female - 6
 Total permanent
 AFRICAN

Male - 295
Female - 48
COLOURED
Male - 27
Female - 18
INDIAN
Male - 9
Female - 1
WHITE
Male - 671
Female - 205

Total non-permanent staff

AFRICAN
Male - 7
Female - 1
COLOURED
Male - 1
Female - 0
INDIAN
Male - 0
Female - 0
WHITE
Male - 20
Female - 8

JUNE 2002

Legislators, Snr Officials & Managers

AFRICAN
Male - 12
Female - 2
COLOURED
Male - 4
Female - 0
INDIAN
Male - 3
Female - 0
WHITE

Male - 95
Female - 3
Professionals
AFRICAN
Male - 21
Female - 9
COLOURED
Male - 5
Female - 4
INDIAN
Male - 6
Female - 2
WHITE

Male - 131
Female - 31

Technicians & Associate Professionals

AFRICAN
Male - 36
Female - 20
COLOURED
Male - 5
Female - 2
INDIAN
Male - 1
Female - 0
WHITE
Male - 194

Female - 29
 Clerks
 AFRICAN
 Male - 10
 Female - 23
 COLOURED
 Male - 0
 Female - 6
 INDIAN
 Male - 0
 Female - 1
 WHITE
 Male - 6
 Female - 107
 Service workers/General Assistants
 AFRICAN
 Male - 93
 Female - 7
 COLOURED
 Male - 4
 Female - 1
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 67
 Female - 26
 Skilled agricultural and fishery workers
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Craft and related trades workers
 AFRICAN
 Male - 21
 Female - 0
 COLOURED
 Male - 2
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 72
 Female - 0
 Plant machine operators and assemblers
 AFRICAN
 Male - 99
 Female - 2
 COLOURED
 Male - 10
 Female - 4
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 91

Female - 8
Elementray occupations
AFRICAN
Male - 62
Female - 1
COLOURED
Male - 1
Female - 2
INDIAN
Male - 0
Female - 0
WHITE
Male - 10
Female - 6
Total permanent
AFRICAN
Male - 354
Female - 64
COLOURED
Male - 31
Female - 19
INDIAN
Male - 10
Female - 3
WHITE
Male - 666
Female - 210

Total non-permanent staff
AFRICAN
Male - 5
Female - 1
COLOURED
Male - 1
Female - 0
INDIAN
Male - 0
Female - 0
WHITE
Male - 7
Female - 0

Supplier Name	Agricultural Research Council
Contact Name	Dr Tau-Mzamane
Address	P.O Box 8783 Pretoria 0001
Phone Number	0124279700
Fax Number	0124275814
Meetings in last financial year	<p>Meetings with the National Department of Agriculture (NDA) The Chairperson of the council has met with the Minister of Agriculture and Land Affairs three times during the past financial year. The full council once.</p> <p>The CEO had a number of bi-lateral meetings with the DG of the NDA and also participated in the meetings of the inter-departmental technical committee on agriculture, Minmec, and the Group Executive meetings of the NDA.</p> <p>Many other meetings between the ARC and NDA were also held to deal with policy and operational issues.</p> <p>MEETINGS WITH THE DACST The Chairperson of the council has met with the Minister of Arts, Culture, Science and Technology on ARC business twice during the past financial year. The full council once.</p> <p>Various meetings were also held between ARC and DACST executives dealing with policy and operational issues.</p>
Do you have a Corporate Governance document	<p>The ARC has policy documents on finances, human resources, employment equity, marketing etc. A new ARC HR procedure manual is currently being developed which covers aspects such as code of conduct, organisational architecture, people procurement, people utilisation, people conversation, directive and rates.</p> <p>Addendum 1: Policy documents of ARC</p> <p>Addendum 1: Policy documents of the ARC</p> <p>AFFIRMATIVE ACTION - ARC Guiding principles to address affirmative action AIDS - Policy on AIDS* APPOINTMENT - Recruitment and Selection Policy Guidelines ARC BOARD - Reconstruction and appointment of the ARC Council Draft declaration of intent by the Board of the ARC Future constitution of the board of the ARC <input type="checkbox"/> Appointment of Council committees Submissions to the council and minuting of council meetings ARTS - Arts Policy* ASSETS - Numbering of Assets AUDIT - Internal Audit Charter; Audit Committees AWARDS - Policy in respect of Special Awards</p> <p>BUILDING & STRUCTURES - Procedure for the erection of Buildings and Structures BURSARY - ARC Bursary policy BUSINESS PLAN - Guide for compiling a Business Plan</p> <p>CHRISTMAS RECESS - Christmas Recess Policy COMMUNICATION - Guidelines for an internal communication plan A strategic communication plan Congress - See Domestic Gatherings CONDITIONS OF SERVICE - ARC Conditions of Service</p> <p>CONFIDENTIALITY AGREEMENT CO-OPERATION AND AGREEMENTS - Policy on exercising powers of the ARC outside the Republic of South Africa* CO-ORDINATION - The co-ordination and management of foreign official development assistance to the South African government and its institutions: Guidelines <input type="checkbox"/> and functions*</p>

Corporate Gifts - See Gifts
 Corporate Liaison Plan - See Liaison
 CORPORATE IDENTITY - Corporate Identity Manual*
 COSTING - ARC Guidelines for Costing within the ARC
 COUNCIL NATURAL SCIENCE - Policy on the South African Council for Natural Science Professions*
 Court - See Witnesses

 ELECTION - The election policy of the ARC
 ELECTRON MICROSCOPE - Electron Microscope Strategy
 Employee Service Conditions - See Conditions of Service of Employees of the ARC
 EXECUTIVE MANAGEMENT COMMITTEE - Appointment of the Executive Management Committee

 FACILITATE APPLICATION - A step-by-step guide to facilitate applications to selected National and International grants, exchanges, fellowships, collaborations and other funding opportunities for research development and technology transfer projects of the ARC of South Africa*
 FINANCES - Proposed Procedure for dealing with Financial matters of the ARC on an Agency Basis
 Financial Policy
 FIXED ASSETS - (Capital Budget) Guidelines for Substantiation
 FOREIGN TOURS - Policy: Foreign Tours*
 Formal Training - See Training
 FUNDING - ARC Guidelines for funding
 Project Funding

 GIFTS - Draft Policy: Corporate Gifts

 HOME LOANS - Conditions of service - Housing scheme

 INFORMATION TECHNOLOGY - ARC Information Technology
 INSURANCE - Insurance Cover: Loss or damage: Personal Property of Employees
 ☐ Insurance Policy (Risk Management)
 INTELLECTUAL PROPERTY - The Intellectual Property Policy of the ARC
 Internal Audit - See Audit
 INVESTMENT - ARC Investment policy*
 IT - ARC IT Strategy for Internet* See Information Technology

 JOB DESIGNATIONS - Job designations

 LABORATORY PRACTICE - Good Laboratory Practice
 LABOUR RELATIONS - Labour Relations Policy*
 LIAISON - Corporate liaison plan for the ARC
 LIVESTOCK - Guidelines: Handling of Livestock
 LOGOGRAM - Logogram of the Agricultural Research Council structures of the ARC institutes
 LONG SERVICE - Conditions of service - Long-service

 MARKETING - Corporate Marketing policy of the ARC
 Guidelines for a marketing strategy and plan
 Strategy: Marketing of ARC Training Courses
 ☐ Corporate Marketing plan 1995
 MEDICAL AID - Conditions of service - Medical-aid schemes
 ☐ Traditional Healers*
 MOTORCAR SCHEME - Conditions of service - Motorcar scheme

 OVERTIME - Overtime and overtime remuneration policy

 PENSION FUND / PROVIDENT FUND - Conditions of service - Pension
 PERSONNEL SAFETY - Procedure for dealing with a situation where an employee threatens to put others in mortal danger
 PLANNING COMMITTEE - Guideline document on ARC Planning Committees
 POLICY DRAFTING - Format for the drafting of new policies
 POST STRUCTURE - Amendments and recommendations regarding the post structure policy

PRESS RELEASES - Procedure for press releases
 PRICING - ARC Pricing Policy for Products and Services
 Probation appointment - Conditions of service - Appointment on Probation
 PROCUREMENT - Procurement Policy
 Project Funding - See Funding
 PROPOSALS - Procedures for dealing with proposals by means of a suggestion box
 PUBLICATION - Guidelines for the publication of scientific articles arising from post-graduate studies of researchers of the ARC
 PUBLIC RELATIONS - Policy Document

RECRUITMENT AND SELECTION - Recruitment and Selection Policy Guidelines
 REMUNERATION - Remuneration Policy

SAGENE - SAGENE: Code of conduct
 SCIENTIFIC ORGANISATIONS - Membership of Scientific Organisations
 SECURITY - Security guidelines for dealing with classified documents in the ARC as well as clearance of employees
 Safety - See Personnel safety
 Special Awards - See Awards
 SPEECHES - Electronic Publication of Speeches and Keynote Addresses
 STUDY DEBT - ARC policy for taking over study debt
 Structures & Buildings - See Buildings & Structures

TOBACCO PRODUCTS - Use of Tobacco Products at ARC-Central Office TRAVEL

POLICY: LOCAL - Subsistence and Travel Policy: Local

Vacant Posts - See Recruitment and Selection Policy Guidelines
 VISITORS - Corporate Visitors Policy
 WITNESSES - Policy regarding employees of the ARC being made available as expert witnesses in court cases
 WORKING GROUPS - Appointment of working groups to formulate policy guidelines with regard to certain matters for consideration by the ARC Management and Planning Committee
 WORKING HOURS - Conditions of service - Hours of duty

To what extent do Board members provide expertise Board members provide sectoral expertise in the agricultural industry, agro-processing, banking and tertiary education level.

Advisory panel usage Yes.
 Corporate level - A stakeholder meeting was held in 2000 to develop a 5 year research strategy for the ARC. This was followed by a workshop to discuss funding policies on agricultural research. Subsequent to that, a continuation team was created to establish the National Agricultural research forum as an advisory body to the agricultural system. The NARF was established on 23 May 2002.
 Institute level - A large number of industry advisory committees provide input on research delivery and direction. Some of these committees have been in existence since the establishment of the Institutes.
 ARC regularly interacts with NDA, PDAs, NAFU, AgriSA, value adding enterprises and others to consult on the needs for transformation to improve service delivery.
 Addendum 2: ARC strategy document

KPI Yes, the initial KPI document was developed in consultation with DACST.
 Addendum 3: Key performance indicators
 KPI Measures
 1. FINANCIAL AND INVESTMENT PERSPECTIVE ☐ ☐
 Investment is well targeted and managed ☐ 1.1.1 ☐ Strategic plan, Financial statements, Budget according to strategic & programme plans
 ROI on property/savings to state & society ☐ 1.2.1 ☐ Relate to information in presentation, targeted IA case studies. Periodic review
 Soundness of market relationships. Show the relationship with users ☐ 1.3.1 ☐ Prioritise commodities and relate to # projects
☐ 1.3.2 ☐ Customer satisfaction survey
 Competitiveness (first, second or last port of call) ☐ 1.4.1 ☐ Relationships/contracts with government (NDA, PDA)

- s)
- ☐ 1.4.2 ☐ Customer satisfaction survey
 - ☐ 1.4.3 ☐ Relative share of competitive bidding funds accruing to ARC Institutes
 - Effective and efficient management of costs ☐ 1.5.1 ☐ Control & management systems, are they in place and applied
 - Effective and efficient management of technology ☐ 1.6.1 ☐ Development & use of technology e.g. gene banks, New cv's, Info products, training
 - Effective and efficient management of assets ☐ 1.7.1 ☐ Qualitative indicators of asset management - systems for IP, Farms, apparatus
 - ☐ ☐
 - 2. STAKEHOLDER/CUSTOMER PERSPECTIVE ☐ ☐
 - Support of NSI and Agricultural goals ☐ 2.1.1 ☐ Consensus building among stakeholders; # outputs against goal, ISRD nodes
 - Sustained democratization & transformation ☐ 2.2.1 ☐ Are we acceptable to clients = our profile & policies, participatory planning & review process, progress with transformation to deliver
 - Promoting macro-economic goals & objectives ☐ 2.3.1 ☐ Perform on MINMEC & PIPs w.r.t. job creation, export, competitiveness, SRL
 - Ensuring access to knowledge infrastructure ☐ 2.4.1 ☐ Internet, info products, customer survey. PR events. User trends
 - Ensuring technology diffusion/dissemination of information & research results ☐ 2.5.1 ☐ Internet, info products, training, customer survey. PR events. Quality
 - Supporting quality/policy decision-making ☐ 2.6.1 ☐ Inputs into ISRD, DSS for planning - AGIS, participation, Decision-making models, regulatory standards
 - Promoting networks & linkages ☐ 2.7.1 ☐ MoU, MoA, ISI, cooperation local, international, networks, membership of scientific associations
 - Relevance of ARC ☐ 2.8.1 ☐ Customer satisfaction, correct service provider, citations in Parliament & agric. Congresses, forums etc.
 - ☐ ☐
 - 3. ORGANIZATIONAL PERSPECTIVE ☐ ☐
 - Close to operational best practice ☐ 3.1.1 ☐ Audit report, King report compliance, progress on implementation of SETI Review recommendations
 - Quality of science and technology base ☐ 3.2.1 ☐ Recognised as center of excellence local & intl. Involvement papers, specialist researchers
 - ☐ 3.2.2 ☐ Quality of equipment - strategic specific apparatus & operators, computers, ISO standards, lab accreditation
 - Quality of science and technology services ☐ 3.3.1 ☐ Demand for analyses, advice, growth in use of cultivars & vaccines, international contracts, recognition of good service
 - Relevancy of the Research portfolio ☐ 3.4.1 ☐ Stakeholder financial support, MinMec, PIPs, Foresight, commercial vs RPA based on PRA, funding allocated per goal & programme
 - Profile in respect of partnerships/joint ventures/co-operation agreements ☐ 3.5.1 ☐ Local, regional & intl projects, contracts & competitive bids, networks - science councils, universities, agric. Organisations
 - Corporate culture ☐ 3.6.1 ☐ Employee survey on leadership, org. climate & culture, communication, job challenge, satisfaction & motivation, operational effectiveness. Code of conduct & value system. Consult HSRC
 - ☐ ☐
 - 4. INNOVATION AND LEARNING PERSPECTIVE ☐ ☐
 - Contribution to knowledge stock ☐ 4.1.1 ☐ research scope : using information effectively e.g. packaging of information, discoveries, Maintenance of databases, gene banks, collections
 - Development of human resources in science and technology (knowledge capital) ☐ 4.2.1 ☐ Development of the organisation's Skills base / discipline, post docs, researcher exchange, training visits etc
 - Support for a knowledge-based economy ☐ 4.3.1 ☐ Training courses, internships at ARC, lecture at Universities of researchers & producers, extension officers. DSS / AGIS, improvements to website
 - Nature & extent of engagement in new core technology areas (Foresight) ☐ 4.4.1 ☐ Biotech, biodiversity, environmental sustainability, agro-processing - projects, staff, funding
 - Nature and degree of commitment to promoting public understanding of science and technology ☐ 4.5.1 ☐ Portfolio committee, addressing public perspectives regarding Controversial issues,
 - ☐ 4.5.2 ☐ Science week, press releases, popular articles, general exhibits, school children
 - New & appropriate technologies ☐ 4.6.1 ☐ Innovative new methods, new cultivars, patents, apparatus, commercialisation,
 - ☐ ☐
 - 5. HUMAN RESOURCES AND TRANSFORMATION ☐ ☐
 - Training and development ☐ 5.1.1 ☐ PDP, training of staff, informal training, succession planning for research & management
 - Employment equity ☐ 5.2.1 ☐ w.r.t. appointments, training,
 - Remuneration equity ☐ 5.3.1 ☐ compare to other science councils & national level, recognition & reward
 - Democratization ☐ 5.4.1 ☐ internal complaints, medical aid, skills development act, representation, consultation,

communication,

Use of Frascati manual

ARC research delivery is measured according to an adaptation of certain standard output items similar to that used by the Consultative group on the international agricultural research (CGIAR). A more comprehensive outline of a self assessment procedure has been developed by the International service for National Agricultural Research, a CGIAR Institute based in the Hague. A subset of key statistics is published in the Annual Report.

Addendum 4: Agricultural Research Organisations: The assessment and improvement of performance

Parliamentary grant funded programmes

The ARC is the principal agricultural research institution in South Africa and is committed to agricultural research, technology development and technology transfer, directed at the optimisation of agriculture's role in the national growth and development of South Africa. The ARC comprises a Central office and 13 research institutes that are grouped into five business divisions, namely Grain and industrial crops, Horticulture, livestock, National Support Services and Sustainable Rural livelihoods.

Included in the respective division budgets is the funding for the sustainable rural livelihoods division. IN 1999/2000 this amounted to a total spending of R52.4 million, in 2000/2001 and 2001/2002 an amount of R25 392 million of the PG was earmarked for SRL.

Addendum 5a: PG per programme

ARC facilities are spread throughout the country with eight research institutes in Pretoria, and one each in Stellenbosch, Potchefstroom, Bethlehem, Nelspruit, Rustenburg. In addition, ARC has a number of laboratories, office buildings and research farms away from these main locations in support of its research mission. All these facilities are publicly owned and form the basis from which ARC accomplishes its research objectives and projects. The ARC has developed five goals that guide its activities.

GOALS

Natural Resource Use and Management

To enhance the quality of the environment through better understanding of and building on the complex links of agriculture and forestry with soil, water, air and biotic resources.

Quality of Life

To empower people and communities, through research and research-based information and education to address the economic and social challenges of our youth, families and communities

Competitiveness

To empower the agricultural system, through research and technology exchange, with knowledge that will improve competitiveness in domestic production, processing and marketing

Informed Society

To ensure and enhance world-wide access to agricultural information in the possession of the ARC and international agricultural research and development organisations.

Integrated Rural Development

To empower resource poor people and communities, through research and research-based information and education, and to address the economic and social challenges of our youth, families and communities.

GRAIN AND INDUSTRIAL CROPS DIVISION

ARC – GCI □□ Grain Crops Institute (Potchefstroom)

Improvement and cultivation of grain crops: summer grains such as maize, sorghum and millet, oil and protein seeds like sunflower, groundnut, soybeans, dry beans, cowpeas, sweet white lupin and bambara. Research: Plant breeding, evaluation of cultivars, grain quality, plant physiology, tillage, weed science, plant pathology, entomology and yield.

ARC – SGI □□ Small Grain Institute (Bethlehem)

Improvement and cultivation of small grain crops: wheat, barley, oats, triticale and rye. Research: Plant breeding, evaluation of cultivars, grain quality, plant physiology, tillage, weed science, plant pathology, entomology and yield.

ARC – IIC □□ Institute for Industrial Crops (Rustenburg)

Fundamental and applied research on cotton and tobacco, industrial crops such as hemp, sisal and flax.

HORTICULTURE DIVISION

ARC – ITSC □□ Institute for Tropical & Subtropical Crops (Nelspruit)

Cultivation of tropical and subtropical fruits: citrus, pineapple, banana, avocado, mango, litchi, guava, papaya and granadilla, tea, coffee and spices, pecan, macadamia and cashew nuts. Lesser-known exotic crops with potential e.g. cacao, coconut, feijoa, annona types, carambola, jaboticaba and white sapote. Research:

horticulture, cultivar development, plant nutrition and irrigation.

ARC – VOPI □ □ Roodeplaas Vegetable & Ornamental Plant Institute (Pretoria)

Commercial vegetables: onions, potatoes, tomatoes and sweet potatoes, indigenous vegetables: cassava, Zulu round potato plectranthus, amaranthus, pigeonpeas, cowpeas and bambara. Research: Production and development of ornamentals and indigenous flora: fynbos, woody ornamentals and bulbs, and natural products.

ARC – IFVW □ □ Infruitec/Nietvoorbij (Stellenbosch)

Cultivation and post-harvest technology of deciduous fruit such as apples, peaches, plums and pears, berry fruits, tree nut crops, rooibos tea, honeybush tea, dates, olives, kiwi fruit and hops. Research: Cultivation of table, raisin and wine grapes as well as the production of wine and brandy.

LIVESTOCK DIVISION

ARC – AII □ □ Animal Improvement Institute (Irene)

Technologies for the improved quality of animals, genetic and physiological methods to identify and study superior livestock breeding material in order to improve the efficiency and production of the national herd.

ARC – ANPI □ □ Animal Nutrition & Products Institute (Irene)

Promote animal production through improved nutrition. Research is conducted on beef and dairy cattle, sheep, pigs, goats and poultry and technologies to enhance the quality of meat and dairy products.

ARC – OVI □ □ Onderstepoort Veterinary Institute (Pretoria)

Prevention and control of animal diseases as well as a public health service regarding animal products such as milk, meat and eggs. Research in specialised diagnostics, parasitology, toxicology and related disciplines. Various vaccines and other biological products are developed and produced. Research into infectious diseases such as foot and mouth disease and African swine fever.

ARC – RFI □ □ Range & Forage Institute (Pretoria)

Holistic and integrated land-use strategies, guidelines for sustainable livestock and rangeland management systems. Research on vegetation, rehabilitation ecology, pasture agronomy and vegetation biology.

NATIONAL SUPPORT SERVICES DIVISION

ARC – IAE □ □ Institute for Agricultural Engineering (Pretoria)

Agricultural mechanization, resource conservation, farm structures, irrigation, alternative energy, aquaculture and product processing, performance testing of equipment. Applications for rural areas. Prototypes and pilot equipment.

ARC – ISCW □ □ Institute for Soil, Climate & Water (Pretoria)

Characterisation, sustainable utilisation and protection of natural resources. Research activities cover soil science, agro meteorology, water utilization and analytical services. Remote sensing and geographic information systems.

ARC – PPRI □ □ Plant Protection Research Institute (Pretoria)

Biosystematics, ecology and epidemiology of vertebrates, fungi, pathogenic and useful bacteria, and viruses. Control of pests and invasive plants through pesticide management, biological and integrated control strategies. Plant genetic resource, quarantine of imported biocontrol agents, apiculture, quality control of legume inocula, provision of cultures of biocontrol agents, identification of organisms important in agriculture, as well as specialised information on pesticide application and biological control.

SUSTAINABLE RURAL LIVELIHOODS DIVISION

Promote sustainable development and improve the quality of marginalised groups and communities to alleviate poverty through enhanced production productivity, creation of employment opportunities and a more equitable distribution of resources.

Justification of funded programmes

The ARC deploys the PG in accordance with the policy stated in the White Paper on Science & Technology. The PG is used as an investment in strategic scientific capacity. This investment also enables the ARC both financially and technologically to attract further business. The diversity of clients of the ARC include a majority who cannot pay for the services of the ARC. PG invested in this area generate benefits used in generating external income.

% funding over last 3 years

Addendum 5b: External income of ARC as a percentage of total income

No of employees

Addendum 6: Human resources distribution

% of Staff training budget for 3 years

The ARC Human Resource development interventions comprises formal and informal training of ARC employees, the Professional Development Programme, and an ARC bursary programme. Since the 2000/2001 financial year, the ARC also commenced with payments of a skills levy as required by Skills Development Legislation to the amount of R1.078 million (2000/01) and R2.639 million (2001/02).

Figures are in Rmillion
 Total personnel budget
 1999/2000 - 292927
 2000/2001 - 284589
 2001/2002 - 289806
 Training budget
 1999/2000 - 8661
 2000/2001 - 8504
 2001/2002 - 9288
 % Personnel budget spent on training
 1999/2000 - 3.0%
 2000/2001 - 3.0%
 2001/2002 - 3.2%

Benchmarking

Yes.

The ARC has recently participated in two benchmarking studies by Mullin Consulting Ltd., Canada. The results from the first study show that the ARC is among the leaders in the sample in the area of generating external income. The ARC was also found to be among the leaders when it comes to generating income from non-governmental sources. Countries and organisations that are specifically comparable to the ARC are Brazil (EMBRAPA), Chile (INIA), Australia (CSIRO) and Korea (NLRI).

This study focused on benchmarks specific to income generating performance. Amongst the indicators used was, pricing policies, IPR protection and management, financing of new competencies, activity in foreign markets, financial and administrative freedom, internal financial targets, staff incentives and unfair competition.

The ARC is also participating in a more recent survey focusing on Resource Allocation Processes in Public Technological Institutes. These results are not yet available.

Interactive links over 3 years

Numerous successful partnerships have been established between the ARC and the following funds and institutions:

Innovation fund, Lead, THRIP, European Union, International Foundation for Science, international donors such as FAO, IAEA, charitable foundations such as Gatsby and McKnight, Bi-national agreements with African and other countries, competitive bidding for local agricultural industry funds.

National Partnerships

All South African Universities and Technikons
 Innovation consortia such as DACST, IDT, and other science councils – CSIR, MRC
 National & Provincial Departments Agriculture.
 Government departments other than agriculture – DWAF, DEAT
 Agricultural industries, Agro-industries, ecotourism, conservation agencies
 Other local research and technology organisations – WRC, NRF

International Partnerships

International agricultural research centers of the Consultative Group on International Agricultural Research (CGIAR) in Africa & elsewhere
 Universities on all continents
 Other research institutions and international agencies - USDA, CIRAD, EMBRAPA, INRA, INIA, etc

Organisational culture studies

Reviews of organisational culture were completed. Some examples are:

1. ☐ In preparation of the compilation of a strategic employment equity policy and plan for the organisation in 1999, the ARC embarked on a qualitative analysis pertaining to organisational culture in support of this plan.
2. ☐ A situational analysis of professional (core business) issues relating to human resources in the ARC focusing on evaluating the research culture of ARC vis a vis national and international best practices and internal environmental issues relating to diversity, HR practices and alignment to the ARC mandate.

Code of conduct

ARC Council approved a Code of Conduct, defining inter alia the relationship framework with ARC stakeholders (Government), the public at large and customers and clients.

Addendum 7: Code of Conduct

Addendum 7: Code of Conduct

ARC CODE OF CONDUCT

SYNOPSIS

ARC Code of Conduct exists to provide direction to employees with regard to their relationship with stakeholders, customers, fellow employees and the public at large, indicating the spirit in which ARC-employees should perform their duties, what should be done to avoid conflicts of interest and what is expected from employees in terms of their personal conduct in public and as far as it reflects negatively on the ARC, employees of the ARC and business operations of the ARC.

PRINCIPLE GUIDELINES

The ARC's Code of Conduct is forthcoming out of the value statement of the ARC as outlined in the Pre-ambles of the Human Resources Policy Manual (Chapter I, par 1.9)

ARC CODE OF CONDUCT

Purpose

It defines what is expected from ARC employees from an ethical point of view in their individual relationship with others.

Scope

The ARC Code of Conduct focuses on ARC employees' relationships with stakeholders, the public, fellow employees, performance of duties, personal conduct and disclosure of relevant information.

Objectives

Enhance professionalism and help to ensure confidence in the ARC as a public institution.
Promote exemplary conduct of ARC employees.

Policy Statement

Relationship with stakeholders (Government)

An employee –
is faithful to the Republic and upholds the spirit of the Constitution and abides thereby in the execution of his/her daily tasks;
puts the public interest first in the execution of his/her duties;
loyally executes the policies of the ARC in the performance of his/her official duties as contained in all statutory and other prescripts;
strives to be familiar with and abides by all statutory and other instructions applicable to his/her conduct and duties; and
co-operates with public institutions established under legislation and the Constitution in promoting the public interest.

Relationship with the public

An employee –
promotes the unity and well-being of the South African nation in performing his/her official duties;
will serve the public in an unbiased and impartial manner in order to create confidence in the ARC.
is polite, helpful and reasonably accessible in his/her dealings with the public, at all times providing high standards of service.
has regard for the circumstances and concerns of the public in performing his/her official duties and in the making of decisions affecting them;
is committed to the development and upliftment of all South Africans;
does not unfairly discriminate against any member of the public on account of race, gender, ethnic or social origin, colour, sexual orientation, age, disability, religion political persuasion, conscience, belief, culture or language;
does not abuse his/her position in the ARC to promote or prejudice the interest of any political party or interest group;
respects and protects every person's dignity and his/her rights as contained in the Constitution; and
recognises the public's right of access to information, excluding information that is specifically protected by law.

Relationship with customers/clients

An employee should-
continuously promote and motivate the ARC's services to current and potential customers/clients;
continuously seek to maintain and enhance a good relationship with ARC clients/customers;
directly or indirectly promote the maintenance and enhancement of client/customer service levels.

Relationship amongst employees

An employee –
co-operates fully with other employees to advance the public interest;
executes all reasonable instructions by persons officially assigned to give them, provided these are not contrary to the provisions of the Constitution and / or any other law;
refrains from potential treatment of relatives and friends in work related activities and never abuses his/her authority or influences another employee, nor is influenced to abuse his/her authority;
uses the appropriate channels to air his/her grievances or to direct representations;

is committed to the optimal development, motivation and utilisation of his or her staff and the promotion of sound labour and interpersonal relations;
deals fairly, professionally and equitably with other employees, irrespective of race, gender, ethnic or social origin, colour, sexual orientation, age, disability, religion, political persuasion, conscience, belief, culture or language; and
refrains from party political activities to the extent that these activities are conducted in contravention of clause 2.1 of the Human Resources Procedure Manual.

Performance of duties

An employee –
strives to achieve the objectives of his/her institution in a cost-effective manner and in the ARC's best interest;
is creative in thought and in the execution of his/her duties, seeks innovative ways to solve problems and enhances effectiveness and efficiency within the context of the law;
is punctual in the execution of his/her duties;
executes his/her duties in a professional and competent manner;
does not engage in any transaction or action that is in conflict with or infringes on the execution of his/her official duties;
will restrain himself or herself from any official action or decision making process which may result in improper personal gain, or could lead to allegations of nepotism or bias which should be properly declared by the employee;
accepts the responsibility to avail him-/herself of ongoing training and self development throughout his or her career;
is honest and accountable in dealing with public funds and uses the public service's property and other resources effectively, efficiently, and only for authorised official purposes;
engages in sound, efficient, effective, transparent and accountable administration;
in the course of his/her official duties, shall report to the appropriate authorities, fraud, corruption, nepotism, mal-administration and any other act which constitutes an offence or misconduct which is prejudicial to the ARC's interest;
gives honest and impartial advice, based on all available relevant information, to higher authority when asked for assistance of this kind;
honours the confidentiality of matters, documents and discussions, classified or implied as being confidential or secret;
will inform the ARC management of any discovery or invention and after that keep the ARC advised on all progress until completion;
will not disclose any discovery or invention, or any information relating to it, to any person except with the consent of the ARC; and
upon request, will furnish the ARC with any information and assistance regarding any discovery, invention, modification or improvement as may be required for its optimum utilisation and application.

Personal conduct and private interests

An employee –
during official duties, dresses and behaves in a manner that enhances the reputation of the public service;
acts responsibly as far as the use of alcoholic beverages or any other substance with an intoxicating effect is concerned;
does not use his/her official position to obtain gifts or benefits for him-/ herself during the performance of his/her official duties nor does he/she accept any gifts or benefits when offered by any service provider, potential

service provider or beneficiary of ARC funds and services, as these may be construed as bribes. does not use or disclose any official information for personal gain or the gain of others; and does not, without approval, undertake remunerative work outside his/her official duties or use office equipment for such work.

Disclosure of designated employee interests

Every designated employee shall not later than 30 April of each year, disclose to the relevant executing authority, on the form determined for this purpose by the ARC, particulars of all his/her registrable interests in respect of the period 1 April of the previous year to 31 March of the year in question.

Any person who assumes duty as designated employee after 1 April in a year shall make such disclosure within 30 days after assumption of duty in respect of the period of 12 months preceding his/her assumption of duty.

The following kinds of financial interests are registrable interests:
shares and other financial interests in private or public companies and other corporate entities recognised by law;
directorships and partnerships;
remunerated work outside the ARC;
consultancies and retainerships;
sponsorships;
gifts and hospitality from a source that can be regarded as a potential beneficiary of ARC funds or services;
ownership and other interests in land and property, whether inside or outside the Republic;
Board memberships of other institutions and organisations.

Procedures

The following regulations can be found in the Human Resources Procedure Manual.

Participation in political activities (clause 2.1)

Membership of non-party political bodies (clause 2.2)

Obedying instructions (clause 2.3)

Communication channels (clause 2.4)

Confidentiality (clause 2.5)

Private use of research results and other material (clause 2.6)

Ownership of Intellectual property (clause 2.7)

Acceptance of gifts, commission or other remuneration (clause 2.8)

Undertaking private work (clause 2.9)

Temporary/Part time appointments at Universities, Technikons, National/International Research organisations or similar organisations (clause 2.10)

Private financial matters (clause 2.11)

Details of registrable interest to be disclosed (clause 2.12)

Transfer of activities to private sector

No

Reasonable level of government funding

In the Table below it is indicated that, in 1992, the ARC received baseline funding that would have enabled it to address the needs of research and technology transfer service delivery limited to commercial agriculture.

The inclusion of the resource poor farming sector since 1994 would require an increase in this baseline of at least 20 percent. Adjusting this base amount with inflation indicates that the ARC should currently have received R578 million in Parliamentary Grant. This level of core funding would also enable the ARC to optimise the execution of its expanded core mandate.

Financial Year	Parliamentary Grant
1992/1993	229,219,433
1993/1994	231,596,226
1994/1995	231,837,860
1995/1996	292,997,879
1996/1997	351,739,955
1997/1998	349,166,615
1998/1999	294,645,583
1999/2000	282,367,103
2000/2001	276,278,000
2001/2002	267,683,356

Regulation or legislation hampering success	Recommendations have been made to the NDA for the review of the Agricultural Research Act in line with developments nationally and internationally.
Competition areas with companies in the private	ARC business complements, but does not compete with the private sector. Limited volumes of by-products of research are sold at market related prices.
Additional Question 1	<p>What percentage of the budget is allocated to capital equipment and how does this compare with similar organisations abroad? Please provide information for the last three years.</p> <p>No recent updates for the international Agricultural Science and Technology Indicator series, monitored by CGIAR exist. According to earlier time series up to 1991, capital expenditure in agricultural research were in the order of 14 percent.</p> <p>1999/2000 Total budget (PG & External) <input type="checkbox"/> 451,898,720 <input type="checkbox"/> Capital expenditure <input type="checkbox"/> 16,179,632 <input type="checkbox"/> % of Total Budget 3.5</p> <p>2000/2001 Total budget (PG & External) <input type="checkbox"/> 447,277,338 <input type="checkbox"/> Capital expenditure <input type="checkbox"/> 16,667,381 <input type="checkbox"/> % of Total Budget 3.7</p> <p>2001/2002 <input type="checkbox"/> Total budget (PG & External) <input type="checkbox"/> 439,811,997 <input type="checkbox"/> Capital expenditure <input type="checkbox"/> 15,059,934 <input type="checkbox"/> % of Total Budget 3.4</p>
Additional Question 2	<p>Explain, by giving examples, your role in technology transfer management in the last three years in collaboration with provincial governments and other relevant role players.</p> <p>A series of visits were made in 1999 by the, then, CEO to the various provinces where problems and expectations regarding ARC involvement at provincial level were highlighted. From this consultative process, a number of agreements on the nature of ARC support were reached. This was taken further in terms of its implementation by the relevant institutes operating in the provinces.</p> <p>Under the Sustainable Rural Livelihoods (SRL) Division ARC involvement with Rural Development has been stepped up and more appropriately structured in terms of co-ordination with provincial stakeholders. The programme is structured on a matrix basis to harness all ARC and nonARC capacity in a multi-disciplinary, farming systems focussed framework. This is constantly monitored and evaluated by the SRL Executive Director, who has since been appointed. These relationships build on the agreements reached with provincial authorities.</p> <p>A national level information system is under development in collaboration with the NDA, and the provincial IT and IS role players. This initiative, called the Agricultural Geo-referenced Information System (AGIS), provides and extensive decision support information system through the internet. It augments existing paper-based information products and traditional dissemination events, and caters for various levels of agricultural skills and literacy. AGIS has now reached a point where a national level strategy on Information and Communication Technology is being considered.</p> <p>This national level strategy will be developed in collaboration with the newly established National Agricultural Research Forum (ARC is a founding member and key resource provider in its establishment). This strategy will pave the way for participation in technology transfer by all stakeholders within agricultural research system, as well as the users of the technology.</p>
Additional Question 3	N/A
Additional Question 4	N/A

Additional Question 5

N/A

Additional Question 6

N/A

Workforce profile

APRIL 2001
Legislators, Snr Officials & Managers
AFRICAN
Male - 4
Female - 5
COLOURED
Male - 1
Female - 1
INDIAN
Male - 0
Female - 1
WHITE
Male - 108
Female - 17
Professionals
AFRICAN
Male - 21
Female - 15
COLOURED
Male - 8
Female - 6
INDIAN
Male - 2
Female - 2
WHITE
Male - 212
Female - 189
Technicians & Associate Professionals
AFRICAN
Male - 171
Female - 67
COLOURED
Male - 42
Female - 40
INDIAN
Male - 5
Female - 2
WHITE
Male - 221
Female - 308
Clerks
AFRICAN
Male - 20
Female - 13
COLOURED
Male - 2
Female - 13
INDIAN
Male - 0
Female - 0
WHITE
Male - 45
Female - 211
Service workers/General Assistants
AFRICAN
Male - 4
Female - 6
COLOURED
Male - 0
Female - 5
INDIAN

Male - 0
 Female - 0
 WHITE
 Male - 6
 Female - 23
 Skilled agricultural and fishery workers
 AFRICAN
 Male - 5
 Female - 0
 COLOURED
 Male - 7
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 28
 Female - 0
 Craft and related trades workerts
 AFRICAN
 Male - 37
 Female - 0
 COLOURED
 Male - 2
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 38
 Female - 2
 Plant machine operators and assemblers
 AFRICAN
 Male - 68
 Female - 0
 COLOURED
 Male - 4
 Female - 1
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 10
 Female - 0
 Elementray occupations
 AFRICAN
 Male - 671
 Female - 173
 COLOURED
 Male - 172
 Female - 23
 INDIAN
 Male - 1
 Female - 0
 WHITE
 Male - 4
 Female - 1
 Total permanent
 AFRICAN
 Male - 962
 Female - 261
 COLOURED
 Male - 238
 Female - 89
 INDIAN

Male - 5
Female - 5
WHITE
Male - 672
Female - 745

Total non-permanent staff

AFRICAN
Male - 39
Female - 18
COLOURED
Male - 0
Female - 0
INDIAN
Male - 3
Female - 0
WHITE
Male - 0
Female - 6

APRIL 2002

Legislators, Snr Officials & Managers

AFRICAN
Male - 8
Female - 4
COLOURED
Male - 1
Female - 0
INDIAN
Male - 1
Female - 0
WHITE
Male - 95
Female - 16

Professionals

AFRICAN
Male - 29
Female - 21
COLOURED
Male - 7
Female - 7
INDIAN
Male - 3
Female - 3
WHITE
Male - 187
Female - 176

Technicians & Associate Professionals

AFRICAN
Male - 158
Female - 66
COLOURED
Male - 42
Female - 38
INDIAN
Male - 2
Female - 3
WHITE
Male - 210
Female - 282
Clerks
AFRICAN
Male - 16
Female - 11
COLOURED

Male - 2
 Female - 12
 INDIAN
 Male - 0
 Female - 1
 WHITE
 Male - 40
 Female - 191
 Service workers/General Assistants
 AFRICAN
 Male - 4
 Female - 7
 COLOURED
 Male - 0
 Female - 4
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 4
 Female - 23
 Skilled agricultural and fishery workers
 AFRICAN
 Male - 5
 Female - 0
 COLOURED
 Male - 7
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 27
 Female - 0
 Craft and related trades workers
 AFRICAN
 Male - 30
 Female - 0
 COLOURED
 Male - 2
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 33
 Female - 2
 Plant machine operators and assemblers
 AFRICAN
 Male - 65
 Female - 0
 COLOURED
 Male - 4
 Female - 1
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 8
 Female - 0
 Elementary occupations
 AFRICAN
 Male - 635
 Female - 166
 COLOURED

Male - 159
Female - 23
INDIAN
Male - 1
Female - 0
WHITE
Male - 4
Female - 1
Total permanent
AFRICAN
Male - 912
Female - 256
COLOURED
Male - 221
Female - 72
INDIAN
Male - 5
Female - 6
WHITE
Male - 600
Female - 685

Total non-permanent staff
AFRICAN
Male - 38
Female - 19
COLOURED
Male - 3
Female - 13
INDIAN
Male - 2
Female - 1
WHITE
Male - 8
Female - 6

Supplier Name	Council for Geosciences
Contact Name	Dr Frick
Address	Private Bag X112 Pretoria 0001
Phone Number	0128411230
Fax Number	0128411203
Meetings in last financial year	<p>Line Departments</p> <p>The COG meets once quarterly with the DG of Minerals and Energy in a forum where all the heads of all the associated institutions of the Department of Minerals and Energy discuss common problems and strategies.</p> <p>In addition, a large number of scheduled and ad hoc meetings at all levels of staff in the COG and the Department of Minerals and Energy takes place very frequently.</p> <p>Department of Arts, Culture, Science and Technology</p> <p>During the past one year one meeting took place with the DG of DACST and a further meeting between the Management of the COG and senior officials of DACST took place.</p>
Do you have a Corporate Governance document	<p>The COG uses the King II Report on Corporate Governance as the basis for managing the Corporate Governance of the organisation.</p> <p>In addition, a number of aspects relating to the Governance of the council are prescribed in the Geoscience Act 100 of 1993 and the Public Finance and management Act 1 of 1999. Full compliance exists with respect to the above.</p> <p>Apart from the above, the Council has some procedural rules with respect to Board meetings and with respect to the functions of the Chairman of the Board and the Chief Executive Officer.</p>
To what extent do Board members provide expertise	<p>The Board of COG is constituted on the basis of external nominations from specific sectors (continuencies). The mechanism for the input of sectoral expertise and requirements into the Council's programmes is thus implicit in the composition of the Board. The degrees of sectoral inputs is thus more dependant on the caliber of the board members than on the mechanisms to make input.</p> <p>Over the years considerable inputs have been made with respect to Mining sector linkages (Chamber of Mines representative), Universities (Geological Society representative), Industrial Sector (IDC and TISA representative), Water Sector (Water affairs representative), Minerals and Energy Sector (DME representative) etc. Such inputs were related to amongst others co-operation with Universities, Mining companies, Export promotion, Risk management etc.</p>
Advisory panel usage	<p>The board has the following committees with the following attached charters:</p> <p>Technical committee</p> <p>Finance committee</p> <p>Audit committee</p> <p>Transformation committee</p> <p>Personnel and remuneration committee</p>
KPI	<p>The COG has a range of performance indicators which addresses the following:</p> <p>Scientific and technical performance measured against specific targets set at the beginning of each year</p> <p>A performance index for all business units (both in respect of State funded and commercial projects) measured against targets set for each business unit</p> <p>Corporate performance targets</p>
Use of Frascati manual	No
Parliamentary grant funded programmes	<p>Programmes and activities which are funded with the parliamentary grant are:</p> <p>The basic geological mapping of South Africa on 1:250 000 and 1:50 000 scales with a view of publishing national geological map products</p> <p>The engineering geological mapping and the mitigation of natural hazards (i.e. dolomite, landslides etc). This programme is carried out to provide the knowledge base for the development and management of infrastructure in South Africa.</p> <p>Metallogenic mapping of South Africa with a view to the publication to metallogenic maps to attract new investment into South Africa.</p>

Maintenance and development of the South African stratigraphic code which serves amongst others as the basis for the listing of mining shares on the JSE.

Systematic marine geological and geophysical mapping with a view to ensure the management and use of the marine environment (coastal and deep sea areas) in South Africa.

Systematic geochemical mapping of SA with a view to attracting new investments into the mining sector, setting environmental geochemical baselines, documenting the chemistry of our soils for a range of applications.

Systematic geophysical (gravity, magnetic, radiometric, electromagnetic etc) mapping of SA to understand the subsurface geology of SA.

Continuous seismological surveillance of all natural and man made seismological activity in SA to constrain seismological risks. This programme monitors underground and upper atmospheric nuclear explosions.

Study of groundwater parameters in SA including the development of groundwater targets and the modeling of pollution plumes.

Management of the National Geoscience Information and knowledge repositories, including the electronic databases. The repository includes the data from mining and exploration companies. The objective of the repositories are to make the data and information available for public use.

Management of the national borehole core repository (includes, mining company borehole core) the geoscience heritage collections (minerals, ores, fossils etc) the national geoscience library etc.

Economic geological research to understand the formation of ore bodies and metallogenic provinces in SA.

Conducts research into the origin and evolution of life over the past 3 billion years in SA.

Maintenance of a large research infrastructure including mineralogical, chemical, geophysical etc. laboratories, workshops etc.

The funding levels over the past three years for these activities are summarised below.

Geological Engineering geological and metallogenic mapping

2001/2001- 14649664

2000/2001-12901897

1999/2000-15803614

Geophysical and seismological mapping

2001/2001-6834741

2000/2001-4751359

1999/2000-6709352

Geochemical mapping

2001/2001-6553779

2000/2001-1452362

1999/2000-3715328

Geohydrology

2001/2001-1598184

2000/2001-837480

1999/2000-1571107

Economic geology

2001/2001- 1716789

2000/2001-1264651

1999/2000-1666186

Marine geoscience mapping

2001/2001-2277677

2000/2001-1402605

1999/2000-1666706

Information, library & spatial data

2001/2001- 7505840

2000/2001-6396686

1999/2000-7751729

Collections management

2001/2001- 1816287

2000/2001-1411640

1999/2000-2009395

Dam and underground

2001/2001- 654165

2000/2001-1825400

1999/2000-783814

Support functions

2001/2001- 22338274

2000/2001-28610722

1999/2000-22117003

Justification of funded programmes

The systematic collection of geological data and knowledge for a specific country and/or territory can only be

done by the country itself and cannot be bought internationally. The geoscience data is collected with a vast range of diverse applications in mind and without a specific commercial objective for the COG. The data must be public domain and affordable for all citizens to use the data for their specific purposes.

The agency which carries out the mapping must have access to all private properties and also all company geoscience data and may not have an economic interest in the data to develop a physical business for itself. Such a public function constitutes a national public benefit which is worldwide the responsibility of the state. No private sector can or will the work because it will always make a loss.

% funding over last 3 years	State funding
	1999/2000-63794
	2000/2001-60856
	2001/2002-65946
	Own income
	1999/2000-20839
	2000/2001-34673
	2001/2002-31951
	Total income
	1999/2000-84633
	2000/2001-95529
	2001/2002-97897
	% own income
	1999/2000-24.62%
	2000/2001-36.30%
	2001/2002-32.62%

No of employees	Management
	1999
	Female-1
	Male-3
	Black-1
	White-3
	2000
	Female-1
	Male-2
	Black-1
	White-2
	2001
	Female-1
	Male-2
	Black-1
	White-2
	2002
	Female-1
	Male-3
	Black-2
	White-2
	Scientific
	1999
	Female-29
	Male-102
	Black-10
	White-121
	2000
	Female-24
	Male-102
	Black-12
	White-114
	2001
	Female-25
	Male-99
	Black-15
	White-109
	2002
	Female-29

Male-99
 Black-19
 White-109
 Technical
 1999
 Female-37
 Male-58
 Black-33
 White-62
 2000
 Female-30
 Male-42
 Black-29
 White-43
 2001
 Female-35
 Male-57
 Black-51
 White-41
 2002
 Female-33
 Male-61
 Black-52
 White-42
 Admin Officers
 1999
 Female-47
 Male-41
 Black-26
 White-53
 2000
 Female-32
 Male-20
 Black-13
 White-39
 2001
 Female-38
 Male-20
 Black-16
 White-42
 2002
 Female-39
 Male-19
 Black-16
 White-42
 Auxiliary Officer
 1999
 Female-43
 Male-63
 Black-106
 White-0
 2000
 Female-10
 Male-34
 Black-44
 White-0
 2001
 Female-25
 Male-7
 Black-25
 White-0
 2002
 Female-7
 Male-19
 Black-26

	White-0 Professional 2000 Female-8 Male-0 Black-0 White-8
% of Staff training budget for 3 years	Salary budget 1999/2000-52307 2000/2001-48338 2001/2002-46818 Training (excludes attendance at conferences, symposia and oversees study tours) 1999/2000-764 2000/2001-429 2001/2002-686 % Spent 1999/2000-1.46% 2000/2001-0.89% 2001/2002-1.47%
Benchmarking	<p>The COG benchmarks itself against the approximately 120 geological surveys which exist internationally. Because of our competencies and sophistication we usually only look at the world leaders which include the British, French, German and Canadian surveys.</p> <p>We use the number and quality of outputs as a basis of our benchmark for state funded research. These outputs include maps, official publications, and published journal papers. We are currently leading the pack in this respect.</p> <p>We compete in open international tenders with some of these geological surveys and our success rate to win tenders compared to the surveys serves as our benchmark with respect to commercial competitiveness. At the moment the COG and the British Geological Survey (British) are more or less on a par and leading the world.</p>
Interactive links over 3 years	<p>Yes the COG has a very extensive list of institutions with which it collaborates and/or partner with for local and/or international business. The partnerships can be classified into business partners and research partners. The former are usually joint venture partnerships for tenders and includes a range of SA companies as well as partners in other countries of the world. With respect to the latter, the COG has partners in Argentina, Brazil, Morocco, Mauritania, Ghana, UK< France, Spain etc. These are usually small companies with complimentary skills. IN SA these partners are construction companies as well as companies in the water and mining sectors.</p> <p>Research collaboration is mainly with Geological surveys (i.e. India, UK, Zambia etc.) but also includes universities, research institutes and multi-lateral organisations i.e.. SADC, CCMW etc.</p>
Organisational culture studies	<p>Yes, the council has over the years undertaken a number of organisational studies which includes amongst others:</p> <ul style="list-style-type: none"> Climate survey Strategic planning exercises Reviews of the organisational systems Business risk assessments etc.
Code of conduct	<p>No, the COG does not have a code of conduct that deals specifically with other sectors.</p> <p>All possible tenders dealing with other sectors are dealt with on an ad hoc basis. The COG does, however, have the policy to only become involved in multi sectoral projects by contributing to those in fields which our geoscience skills are specifically required. The COG tends to avoid entering into projects which will result in a dilution of our core competencies.</p>
Transfer of activities to private sector	<p>No, none of the commercial or mandated projects ever go into fields outside our primary mandate. The policy is that the COG only embarks on activities which constitute the mandate of the COG as is provided for in the Geoscience Act 100 of 1993.</p>
Reasonable level of government funding	<p>All government funding received by the COG is used only to obtain new geoscience data and knowledge in SA and to maintain the National Geoscience knowledge infrastructure the legal mandate of the COG. The aims of the mandated research and mapping programme of the COG includes amongst other to lower the geological exploration risk, to attract new investments into SA, and to ensure that the knowledge base contributes to the more optimal development of new physical infrastructure, water provision etc.</p>

The present budget allocation from the government is such that most of the mapping and research function had to be severely downscaled over the past five to seven years. The traditional budget allocation in the past from the government to carry out these functions was about \$US12 million per annum. This amount has now declined to some \$US6.6 million which means that the total volume of new data outputs had to decline by a corresponding percentage.

Should the government wish to attract new investments into SA the budget of the COG should again be increased to the \$US12 million mark.

Regulation or legislation hampering success

No, there are not any legislation and/or regulations which adversely impacts on the activities of the COG at present.

Competition areas with companies in the private

Although there are some minor areas, particularly in the engineering geology field where some overlap and competition with the Private sector can exist., the council has always refrained from participation in this market segment.

Additional Question 1

N/A

Additional Question 2

N/A

Additional Question 3

N/A

Additional Question 4

N/A

Additional Question 5

N/A

Additional Question 6

N/A

Workforce profile

OCTOBER 2002
 Management
 AFRICAN
 Male - 1
 Female - 1
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 2
 Female - 0
 Scientific officers
 AFRICAN
 Male - 10
 Female - 3
 COLOURED
 Male - 0
 Female - 2
 INDIAN
 Male - 0
 Female - 3
 WHITE
 Male - 84
 Female - 22
 Technical officers
 AFRICAN
 Male - 36
 Female - 9
 COLOURED
 Male - 7
 Female - 0
 INDIAN
 Male - 2
 Female - 0

WHITE
 Male - 15
 Female - 29
 Administrative officers
 AFRICAN
 Male - 10
 Female - 7
 COLOURED
 Male - 0
 Female - 1
 INDIAN
 Male - 1
 Female - 0
 WHITE
 Male - 11
 Female - 32
 General clerks(Auxiliary)
 AFRICAN
 Male - 14
 Female - 7
 COLOURED
 Male - 1
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Total permanent
 AFRICAN
 Male - 71
 Female - 27
 COLOURED
 Male - 8
 Female - 3
 INDIAN
 Male - 3
 Female - 3
 WHITE
 Male - 112
 Female - 83
 Non permanent staff
 AFRICAN
 Male - 8
 Female - 1
 COLOURED
 Male - 0
 Female - 1
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 25
 Female - 14

 Employees with disabilities

 Scientific officer
 1 White male
 1 white female
 General clerks
 2 African males

Supplier Name	SABS Holdings (Pty) Limited
Contact Name	Dr Carolissen
Address	Private Bag X191 Pretoria 0001
Phone Number	0124287054
Fax Number	0124286687
Meetings in last financial year	Four times annually (COTII) Four times annually (COHORT) Minister (CEO meets Minister once per month and CFO and Group MD interacts with Minister at COTII Leadership conference.
Do you have a Corporate Governance document	Yes, Annexure A.
To what extent do Board members provide expertise	The SABS council is comprised of mainly industry representatives appointed by the Minister of Trade & Industry. SABS Holdings Board has drawn 14 directors from private sector.
Advisory panel usage	Standards intends to set up a number of sectoral policy advisory committees "Sector boards" to advise it on policy with regard to standardization, in accordance with the SQAM review recommendations. Currently only one is in place - the Electromechanical sector board. There is an advisory committee for GCS and the terms of reference is in the attached CrtSP 007D.
KPI	Yes
Use of Frascati manual	Research output is not measured according to Frascati manual Research outputs are and will be reported in the SABS Annual report. The SABS R&D has been created during 2001, and therefore does not have a three year information history.
Parliamentary grant funded programmes	Standards development, including development of national compulsory standards for use in regulation, national voluntary standards, participation in targeted international standards work to provide source material for national standards, regional standardisation (RSA holds the Secretariat for SADCSTAN - "SADC co-operation in standardisation", and related liaison activities in the national interest. NETFA 2001 - R1million - Planned to upgrade the high current laboratory for adequacy and relevance. 2002 - R2.1million - Used to upgrade the high power laboratory safety features and testing capabilities. TEST HOUSE The only activity funded in Test house via the parliamentary grant is the Acoustics facility, which has received R600 000 each year for the past three years.
Justification of funded programmes	Standards; Worldwide the development of national standards is commonly seen as a centralised function in the national interest, and is funded by central government. SABS is the only body in SA authorised to issue national standards. By participation in standards committees, private sector organisations are already contributing to the cost of standardisation. NETFA: The high power and high current laboratories are high sophisticated facilities with expensive equipment that is strategic for the development of technology within SA. The present market for these laboratories cannot fully support and sustain these laboratories. Various institutions and universities utilise these facilities for research and development which will be cost prohibitive if it had to be done in the available facilities abroad. TEST HOUSE: The facility is a fixed asset in the form of a dedicated specially designed building which houses acoustic laboratories and equipment. It is the last remaining facility in SA which is fully operational. Industry has a need for its services but the demand is low and consequently it is underutilised and not commercially viable.
% funding over last 3 years	2002 - 73.1% 2001 - 71.9% 2000 - 71.2% 1999 - 68.8%

No of employees

1998
 Grade 1 - 5
 Asian Female 0 - Male 0
 Black Female 0 - Male 6
 Coloured Female 0 - Male 1
 White Female 6 - Male 90
 Grade 6-11
 Asian Female 13 - Male 20
 Black Female 44 - Male 115
 Coloured Female 12 - Male 9
 White Female 355 - Male 429
 Grade 12 - 15
 Asian Female 2 - Male 0
 Black Female 31 - Male 285
 Coloured Female 3 - Male 1
 White Female 13 - Male 3
 2002
 Grade 1 - 5
 Asian Female 0 - Male 0
 Black Female 0 - Male 4
 Coloured Female 0 - Male 4
 White Female 4 - Male 11
 Grade 6-12
 Asian Female 18 - Male 23
 Black Female 78 - Male 156
 Coloured Female 14 - Male 24
 White Female 245 - Male 286
 Grade 13 - 18
 Asian Female 2 - Male 1
 Black Female 30 - Male 141
 Coloured Female 5 - Male 3
 White Female 16 - Male 3
 2000
 Legislators, senior officials and managers
 Asian Female 0 - Male 2
 Black Female 1 - Male 11
 Coloured Female 0 - Male 3
 White Female 8 - Male 62
 Professionals
 Asian Female 1 - Male 6
 Black Female 2 - Male 9
 Coloured Female 1 - Male 3
 White Female 10 - Male 35
 Technicians & Associate professionals
 Asian Female 4 - Male 5
 Black Female 6 - Male 30
 Coloured Female 0 - Male 2
 White Female 36 - Male 116
 Clerks
 Asian Female 14 - Male 5
 Black Female 63 - Male 245
 Coloured Female 12 - Male 7
 White Female 236 - Male 144
 Service and sales workers
 Asian Female 0 - Male 0
 Black Female 0 - Male 36
 Coloured Female 0 - Male 2
 White Female 5 - Male 18
 Skilled agricultural and fishery workers
 Asian Female 0 - Male 0
 Black Female 0 - Male 0
 Coloured Female 0 - Male 0
 White Female 0 - Male 0
 Craft and related trades workers
 Asian Female 1 - Male 6

	and mentoring or training material in the laboratories or protective clothing.
Benchmarking	<p>We use the SABEM model for benchmarking commercial activities and regularly compare our activities with international annual reports.</p> <p>Standards uses the following benchmarks which are used in one form or another by many national standards bodies and also by international standards bodies:</p> <p>Costs controlled within a budget per project.</p> <p>Time for preparation controlled in accordance with time estimates.</p> <p>Overall cost per published page targeted at R1500.</p> <p>Full compliance with WTO-TBT requirements.</p>
Interactive links over 3 years	<p>COTII organisations which all belong to the DTI family, such as CSIR, SABS, SAQI, NTSIKA, KHULA, NAMAC and internationally with PASC.</p> <p>Various strategic issues are discussed under sub committees with a view to optimise resources and/or sharing of marketing opportunities.</p> <p>Science councils and Parliamentary portfolio committees.</p> <p>Various levels of government departments.</p> <p>Various ISO bodies and technical committees.</p> <p>IEC.</p> <p>Chambers of commerce: We are permanent structures within the Tshwane chamber of commerce. In addition, we have embarked on a roadshow to host a number of these, with a view to discuss and explore possible common areas of interest.</p> <p>SABS also sits on various boards of companies and technical committees to represent its interests and to add value where required.</p> <p>A number of strategic alliances have been concluded with national and multinational organisations. Details of these are available on request.</p> <p>In terms of the NEPAD framework, we have also concluded twinning agreements with various countries.</p> <p>SADC standardisation institutions and bodies in countries such as Mozambique, Botswana, Lesotho, Namibia, Zimbabwe. We provide administrative support on bodies such as SADCSTAN and SADCMEI.</p> <p>Standards historically has had representatives on the governance committees of ISO and IEC.</p> <p>Standards also has concluded MOU's with ICASA and the Railway regulatory body over the development of national standards in these areas. Further such co-operation is being planned - for instance with the mining sector.</p>
Organisational culture studies	<p>As part of the SABS transformation, a multidisciplinary transformation exercise was embarked upon, during which all staff members and executives were exposed to state-of-the-art cultural interventions and studies.</p> <p>Various instruments were applied including questionnaires and interviews with the executive team, representative structures and the rest of the staff.</p> <p>Since this time, on an annual basis, all companies within the SABS group conduct cultural and climate studies.</p> <p>Specific questions are asked staff on various issues such as management style, conditions of service, industrial relations etc. A system, with a databank of questions is in place to provide continuous service to all companies within the Group. This can be demonstrated on request.</p>
Code of conduct	Customers have been aware of our commitment to the contents of this code, and have also been informed to report all behaviour by any staff member, which may be in contravention of the code. (Annexure F)
Transfer of activities to private sector	Yes, SABS has already grouped all of its commercial activities under the SABS holdings, which as a tax paying organisation competed in the private sector.
Reasonable level of government funding	An increase of 15% on existing allocations to allow SABS standards to maintain and upgrade electronic document processing facilities and meet the demands and growing trends towards electronic committee procedures and electronic transacting. This will allow for increased participation in standards settings and a means to interface with countries that are currently unable to meet the huge travel costs. This will aid the participation of especially African countries in SADC trade integration and overall further the ideals of NEPAD. In the interest of the developing economies, where SABS already plays a leading role, the proposed electronic upgrade will also allow for the expansion of our participation in international standardisation work. This includes more ISA/IEC chairmanships and secretariats, better interfacing with the developed world standardisation dialogue and effective input into bodies such as the WTO.

	<p>Increased consumer protection through administration of existing compulsory standards as well as the introduction of new measures is the aim for the next financial year (2003/4). To give effect to these objectives, the SABS regulatory affairs and consumer protection division needs to establish forensic audit competency/inspectorate to provide an intelligence/information on the importers, manufacturers, wholesalers, distributors and retailers and conduct forensic audits on these companies to ensure compliance with the statutory levy requirements and expose unfair competitive practices. R600000 per year is required for salaries and infrastructure.</p> <p>SABS presidential imperatives department requires R1m for the implementation of the rural science, maths and technology project in the Northern provinces. Currently the department is implementing the project in the Eastern Cape area.</p> <p>Legal metrology expansion (2002/3) requires R31m and for (2003/4) R37m</p>
Regulation or legislation hampering success	Exemptions from PFMA was also requested and attached. The current standards act is in need of fundamental revision to incorporate and enable compliance with, inter alia, the recommendations of the SQAM review. A re-draft is with DTI for comment and further action. A proposed new regulatory act is also with DTI in draft form.
Competition areas with companies in the private	<p>It could be argued that the activity of standards in preparing "Private specifications" for purchasing by government departments (e.g. SANDF, Correctional services, etc.) could be carried out by the private sector. In practice however, the expertise required for this function has always resided within SABS, and the private sector has shown no interest in competition in this field, which is not profitable.</p> <p>The SABS holds group of companies operate in the conformity assessment segment of the standardisation value chain. Internationally these fall within the private sector and includes testing, certification, consulting and training. SABS holdings compete both nationally and internationally with major players such as TUV, SGS and BVQI.</p>
Additional Question 1	N/A
Additional Question 2	N/A
Additional Question 3	N/A
Additional Question 4	N/A
Additional Question 5	N/A
Additional Question 6	N/A
Workforce profile	<p>MARCH 2001</p> <p>Legislators, Snr Officials & Managers</p> <p>AFRICAN</p> <p>Male - 14</p> <p>Female - 1</p> <p>COLOURED</p> <p>Male - 5</p> <p>Female - 0</p> <p>INDIAN</p> <p>Male - 4</p> <p>Female - 0</p> <p>WHITE</p> <p>Male - 42</p> <p>Female - 10</p> <p>Professionals</p> <p>AFRICAN</p> <p>Male - 20</p> <p>Female - 4</p> <p>COLOURED</p> <p>Male - 1</p> <p>Female - 1</p> <p>INDIAN</p> <p>Male - 0</p> <p>Female - 0</p>

WHITE
 Male - 71
 Female - 23
 Technicians & Associate Professionals
 AFRICAN
 Male - 120
 Female - 38
 COLOURED
 Male - 15
 Female - 3
 INDIAN
 Male - 21
 Female - 8
 WHITE
 Male - 215
 Female - 146
 Clerks
 AFRICAN
 Male - 20
 Female - 42
 COLOURED
 Male - 2
 Female - 10
 INDIAN
 Male - 0
 Female - 74
 WHITE
 Male - 11
 Female - 96
 Service workers/General Assistants
 AFRICAN
 Male - 3
 Female - 3
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 3
 Female - 2
 Skilled agricultural and fishery workers
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Craft and related trades workers
 AFRICAN
 Male - 3
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0

WHITE
 Male - 5
 Female - 1
 Plant machine operators and assemblers
 AFRICAN
 Male - 104
 Female - 2
 COLOURED
 Male - 3
 Female - 1
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 12
 Female - 4
 Elementary occupations
 AFRICAN
 Male - 54
 Female - 5
 COLOURED
 Male - 1
 Female - 2
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Total permanent
 AFRICAN
 Male - 338
 Female - 95
 COLOURED
 Male - 27
 Female - 17
 INDIAN
 Male - 25
 Female - 15
 WHITE
 Male - 359
 Female - 282

MARCH 2002
 Legislators, Snr Officials & Managers
 AFRICAN
 Male - 3
 Female - 1
 COLOURED
 Male - 2
 Female - 0
 INDIAN
 Male - 1
 Female - 0
 WHITE
 Male - 12
 Female - 4
 Professionals
 AFRICAN
 Male - 7
 Female - 4
 COLOURED
 Male - 1
 Female - 0
 INDIAN

Male - 0
 Female - 0
 WHITE
 Male - 20
 Female - 11
 Technicians & Associate Professionals
 AFRICAN
 Male - 40
 Female - 23
 COLOURED
 Male - 8
 Female - 1
 INDIAN
 Male - 1
 Female - 1
 WHITE
 Male - 64
 Female - 39
 Clerks
 AFRICAN
 Male - 4
 Female - 12
 COLOURED
 Male - 1
 Female - 1
 INDIAN
 Male - 0
 Female - 1
 WHITE
 Male - 3
 Female - 36
 Service workers/General Assistants
 AFRICAN
 Male - 2
 Female - 3
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Skilled agricultural and fishery workers
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Craft and related trades workerts
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 1
 Female - 0
 INDIAN

Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Plant machine operators and assemblers
 AFRICAN
 Male - 1
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 1
 Elementary occupations
 AFRICAN
 Male - 10
 Female - 0
 COLOURED
 Male - 1
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Total permanent
 AFRICAN
 Male - 67
 Female - 43
 COLOURED
 Male - 14
 Female - 2
 INDIAN
 Male - 2
 Female - 2
 WHITE
 Male - 99
 Female - 91
 Total non-permanent staff
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0

Supplier Name	Mintek
Contact Name	Dr Jourdan
Address	Private Bag X3015 Randburg 2125
Phone Number	0117094111
Fax Number	0117094269
Meetings in last financial year	About once a week
Do you have a Corporate Governance document	Mintek does not have a formal, council approved corporate governance document, rather it refers to the King II Report. The extent to which Mintek subscribes and adheres to this report is assessed annually by the internal auditor.
To what extent do Board members provide expertise	To some degree. Mintek's board facilitates linkages to three key sectors; tertiary, private sector/industry and government.
Advisory panel usage	Sub-committees of the board including Human resources committee, transformation committee and the audit committee
KPI	Mintek's KPIs' for 2001-2002 are listed in Annexure A. The complete NACI/KPI report is available on request.
Use of Frascati manual	No, Mintek does however publish research outputs, publications, patent figures, and details of tangible outputs each year in the Mintek Annual report.
Parliamentary grant funded programmes	<p>Mintek has started to implement a ring-fenced system of core funds to ensure that long term applied research is carried out, aligned with national priorities and market demands. Projects funded with the parliamentary grant over the past three years (some of which are still under development) include:</p> <ul style="list-style-type: none"> The adapted miniature process for gold refining. The plantstar control platform. The biological leaching of gold and copper. The recovery of platinum from UG2 reef ores. The smelting of ferro-alloys and limonite using DC arc furnace technology. Jigging technology for the recovery of ferro-alloys from slags. Control systems for submerged arc smelting, floatation and milling. The development of a method for casting metals using the biobulator technique. "Hands free" recovery of gold from CIP elutes to reduce theft of gold (estimated at some 6% of gold produced or R1.48billion). An economic heap bioleaching process employing high temperature bacteria for the treatment of low-grade chalcopyrite containing ores. Economic process for bioleaching zinc concentrates. Recovery of non-ferrous metals by the resin-in-pulp RIP process. Interpreting expert system for online training. A new form of artificial intelligence, it will interpret expertise to assist humans (DACST Supported). Production of ferronickel from finely sized (100%<3mm) nickel laterite ores based on the DC arc furnace. The development of low cost technology for the production of magnesium metal from calcined dolomite (partially supported by DACST lead programme funds). Establishment of facilities for the development of a local titanium industry (partially supported by the DACST innovation fund). The industrial uses of gold will receive close attention under the auspices of Project Autek. Research into novel gold catalysts, if successfully, could increase the industrial demand for gold. The Conroast process for the recovery of PGMs from chromite rich concentrates and tailings, offering higher PGM recovery and better SO2 capture. Development and support of the commercial implementation on an improved process for the distillation and refining of PWG zinc to produce high and special high grade zinc (partially supported by the DACST innovation fund). First commercial application of the DC arc furnace technology for the remelting of ferralloy fines, smelting of stainless steel bag-house dust, and the production of magnesium metal and ferronickel. Treatment of acid mine drainage using the Savmin water treatment process. Fluidised bed technology for the chlorination of titanium slag fines.

Justification of funded programmes	A considerable portion of the research effort at Mintek is aimed at developing long range, break through technologies with an industry wide beneficial effect. State funding is essential in this area of research as industry is generally averse to the funding of long-term R&D particularly in its initial stages.
% funding over last 3 years	<p>State core funding</p> <p>1997/98 - 61.9%</p> <p>1998/99 - 59.3%</p> <p>1999/00 - 46.8%</p> <p>2000/01 - 41.5%</p> <p>2001/02 - 40.2%</p> <p>Operational income, private clients</p> <p>1997/98 - 28.1%</p> <p>1998/99 - 33.6%</p> <p>1999/00 - 46.2%</p> <p>2000/01 - 47.9%</p> <p>2001/02 - 46.5%</p> <p>Operational income, earmarked funding</p> <p>1997/98 - 00.0%</p> <p>1998/99 - 00.3%</p> <p>1999/00 - 01.0%</p> <p>2000/01 - 05.0%</p> <p>2001/02 - 04.1%</p> <p>Interest received</p> <p>1997/98 - 06.2%</p> <p>1998/99 - 01.9%</p> <p>1999/00 - 02.7%</p> <p>2000/01 - 02.8%</p> <p>2001/02 - 03.6%</p> <p>Sundry income</p> <p>1997/98 - 02.5%</p> <p>1998/99 - 03.0%</p> <p>1999/00 - 02.9%</p> <p>2000/01 - 02.8%</p> <p>2001/02 - 05.6%</p> <p>Transfer from reserves</p> <p>1997/98 - 01.3%</p> <p>1998/99 - 01.9%</p> <p>1999/00 - 00.4%</p> <p>2000/01 - 00.0%</p> <p>2001/02 - 00.0%</p> <p>Operational income is defined as the income generated from the sales of R&D, technical services and tangible products and processes both through direct marketing and from joint ventures. It includes income generated from earmarked funding (Innovation fund and lead programme)</p>
No of employees	<p>2000</p> <p>Executive and divisional managers</p> <p>African male 1 - Female 0</p> <p>Coloured male 0 - Female 0</p> <p>Indian male 0 - Female 0</p> <p>White male 16 - Female 1</p> <p>Professionals</p> <p>African male 14 - Female 5</p> <p>Coloured male 2 - Female 0</p> <p>Indian male 14 - Female 8</p> <p>White male 128 - Female 44</p> <p>Technicians and associated professionals</p> <p>African male 33 - Female 12</p> <p>Coloured male 3 - Female 0</p> <p>Indian male 3 - Female 3</p> <p>White male 41 - Female 17</p> <p>Clerks</p> <p>African male 17 - Female 7</p> <p>Coloured male 1 - Female 3</p> <p>Indian male 1 - Female 0</p>

White male 5 - Female 40
 Craft and related trades
 African male 28 - Female 0
 Coloured male 2 - Female 0
 Indian male 0 - Female 0
 White male 21 - Female 2
 Plant/machine operators
 African male 64 - Female 1
 Coloured male 1 - Female 1
 Indian male 0 - Female 0
 White male 1 - Female 1
 Elementary occupations
 African male 27 - Female 1
 Coloured male 0 - Female 0
 Indian male 0 - Female 0
 White male 0 - Female 0
 2001
 Executive and divisional managers
 African male 0 - Female 0
 Coloured male 0 - Female 0
 Indian male 1 - Female 0
 White male 19 - Female 1
 Professionals
 African male 12 - Female 5
 Coloured male 3 - Female 0
 Indian male 11 - Female 8
 White male 112 - Female 35
 Technicians and associated professionals
 African male 35 - Female 10
 Coloured male 2 - Female 0
 Indian male 3 - Female 3
 White male 29 - Female 14
 Clerks
 African male 17 - Female 6
 Coloured male 2 - Female 4
 Indian male 1 - Female 5
 White male 3 - Female 33
 Craft and related trades
 African male 30 - Female 0
 Coloured male 3 - Female 0
 Indian male 0 - Female 0
 White male 20 - Female 2
 Plant/machine operators
 African male 60 - Female 2
 Coloured male 1 - Female 1
 Indian male 0 - Female 0
 White male 1 - Female 0
 Elementary occupations
 African male 19 - Female 1
 Coloured male 0 - Female 0
 Indian male 0 - Female 0
 White male 0 - Female 0
 2002
 Executive and divisional managers
 African male 1 - Female 1
 Coloured male 1 - Female 0
 Indian male 1 - Female 0
 White male 13 - Female 1
 Professionals
 African male 17 - Female 7
 Coloured male 5 - Female 0
 Indian male 14 - Female 7
 White male 102 - Female 28
 Technicians and associated professionals
 African male 38 - Female 9

	Coloured male 3 - Female 0 Indian male 1 - Female 2 White male 27 - Female 13 Clerks African male 9 - Female 9 Coloured male 2 - Female 5 Indian male 1 - Female 4 White male 4 - Female 24 Craft and related trades African male 15 - Female 0 Coloured male 2 - Female 0 Indian male 0 - Female 0 White male 13 - Female 1 Plant/machine operators African male 59 - Female 2 Coloured male 1 - Female 0 Indian male 1 - Female 0 White male 2 - Female 0 Elementary occupations African male 23 - Female 2 Coloured male 0 - Female 0 Indian male 0 - Female 0 White male 0 - Female 0
% of Staff training budget for 3 years	1999/2000 - 1.7% 2000/2001 - 1.3% 2001/2002 - 1.0%
Benchmarking	No
Interactive links over 3 years	Yes, with other Science councils (CSIR, NRF, ARC, Council for geosciences); industry and tertiary institutions (Universities and technikons). These efforts are focused on research collaboration, utilisation of joint equipment, optimisation of human resources and joint ventures.
Organisational culture studies	No
Code of conduct	No
Transfer of activities to private sector	No
Reasonable level of government funding	A reasonable level would be 50% with a minimum level of 40%. Anything less than 40% would cause Mintek to deviate from its core function, i.e. as a provider of high calibre research, development and technology transfer in the field of minerals processing and metallurgy.
Regulation or legislation hampering success	Yes, The Mintek Act is restrictive in that any project with outside partners requiring funding needs ministerial approval from both the Minister of Finances and Minerals and Energy.
Competition areas with companies in the private	In house R&D undertaken by mining houses and other private entities.
Additional Question 1	Please give detailed statistics on patents, inventions and technical reports and scientific publications emanating from staff for the last three years. The publication output which is a measure of R&D productivity is tabulated below: Technical memoranda 1997 - 105 1998 - 141 1999 - 143 2000 - 109 2001 - 76 Confidential communications 1997 - 159 1998 - 118 1999 - 159 2000 - 192

2001 - 219
 Staff papers
 1997 - 59
 1998 - 57
 1999 - 55
 2000 - 37
 2001 - 46
 Published reports (Including special publications and Mintek communications)
 1997 - 5
 1998 - 4
 1999 - 3
 2000 - 0
 2001 - 0
 Subtotal publications
 1997 - 328
 1998 - 320
 1999 - 360
 2000 - 338
 2001 - 341
 Research & service documents (Short research reports, including external investigation, inter divisional communications, service reports, mineralogical communications, analytical notes and confidential reports)
 1997 - 236
 1998 - 265
 1999 - 275
 2000 - 123
 2001 - 117
 Patent filings (Including foreign filings but excluding provisional patents)
 1997 - 21
 1998 - 2
 1999 - 10
 2000 - 5
 2001 - 11
 Total documents
 1997 - 585
 1998 - 587
 1999 - 645
 2000 - 466
 2001 - 469
 Staff papers per output man-year
 1997 - 0.18
 1998 - 0.13
 1999 - 0.15
 2000 - 0.11
 2001 - 0.15
 Publications per output man-year
 1997 - 1.01
 1998 - 0.82
 1999 - 0.97
 2000 - 1.03
 2001 - 1.11
 Documents per output man-year
 1997 - 1.81
 1998 - 1.51
 1999 - 1.74
 2000 - 1.43
 2001 - 1.53
 Patented technologies
 1997 - 4
 1998 - 2 (+7 provisional patents)
 1999 - 3 (+6 provisional patents)
 2000 - 2 (+7 Provisional patents)
 2001 - No data

Additional Question 2

How have the organisations activities expanded in the sub-region in the last three years? Please outline their importance.

Mintek continually researches and applies technology in areas that are of a benefit to SA and the sub-region. In many cases the full benefits of the technology only become clear as time progresses. Outlined below are some narrative examples illustrating the extent of the diffusion of Minteks' technology and expertise.

At the international level:

At the sub-regional level:

The mineral wealth of SA has been extensively mapped and explored and most of the known mineral resources are being actively exploited. However, this is not true for SADC region as a whole and consequently there is great potential for minerals led economic revival in the region. Mintek plays an important role in catalysing this development in a sustainable manner. In this regard Mintek is currently undertaking studies on the mineral based development potential of two regional Spatial Development initiatives (SDIs), the Gariep SDI and the area covered by the Zambezi River basin and the Beira Development Corridor. Further mineral scans will be undertaken in the SADC region as the need arises. In addition, on going maintenance of mineral data and support a geographic information system (GIS) on the areas considered to be of interest to our major stakeholders will continue. Mintek will continue to perform surveys, scoping studies, evaluations, commodity and market studies in support of initiatives by national, provincial or local government or international, regional or industry associations.

Mintek has also expanded its commercial activities in the sub-region in the past few years, for example:

The FloatStar controller for flotation has been installed in various parts of southern Africa. Cooperative linkages will be further established with flotation equipment suppliers in order to secure a niche in the potentially lucrative Zambian and DRC base metal markets.

Minteks Minstrel controller is already a market leader in South Africa, Zimbabwe and there is potential for work in Botswana.

The Millstar has been successfully installed in Zimbabwe and South Africa.

A minatur refinery plant was installed in Algeria and at Harmony, South Africa.

At national level: support of SMMEs

Implementation of a pilot plant to recover copper from waste dumps by leaching-cementation at O'Kiep, Northern Cape. About 50 miners are involved in this project, and funding is being sought to establish a larger scale project.

Development of a fine milling process to add value to mica and feldspar from pegmatites in the Steinkopf area. Testwork was done to assist the Steinkopf small miners association prepare a bankable feasibility document and to form a legal company.

Brick-making at Osizweni, KwaZulu Natal. The mineral rights to the clay deposit have been passed to the local Trust, and Corobrik has formed a joint venture with the small scale entrepreneurs. A plant is expected to be built during 2002.

Design and the establishment of a pilot scale diamond recovery plant (funded by the NSC) to test the viability of alluvial deposits near Lichtenburg. The Council for Geoscience and CSIR (Miningtek) are assisting in various aspects of the project.

Kaolin mining at Ndwendwe, KwaZulu Natal. A safer mining area has been identified and a pilot plant will be built to improve the quality of the clay.

Further development and implementation of the mercury-free iGoli process for small-scale gold extraction. Five technical people from Tanzania were trained in the use of the process and will in turn instruct small scale operators in their own country. A small leaching plant has been developed to treat concentrates more efficiently on a slightly larger scale.

Investigation of a possible centralised treatment plant for refractory gold ore concentrates in Mpumalanga. Advice was given to many small operators in the fields of gold, industrial minerals, dimension stone, PGMs, copper and other minerals.

Additional Question 3

N/A

Additional Question 4

N/A

Additional Question 5

N/A

Additional Question 6

N/A

Workforce profile

SEPTEMBER 2001
Legislators, Snr Officials & Managers
AFRICAN
Male - 0
Female - 0
COLOURED

Male - 0
 Female - 0
 INDIAN
 Male - 1
 Female - 0
 WHITE
 Male - 17
 Female - 1
 Professionals
 AFRICAN
 Male - 17
 Female - 4
 COLOURED
 Male - 6
 Female - 0
 INDIAN
 Male - 10
 Female - 7
 WHITE
 Male - 117
 Female - 34
 Technicians & Associate Professionals
 AFRICAN
 Male - 42
 Female - 12
 COLOURED
 Male - 3
 Female - 0
 INDIAN
 Male - 2
 Female - 3
 WHITE
 Male - 26
 Female - 18
 Clerks
 AFRICAN
 Male - 16
 Female - 10
 COLOURED
 Male - 0
 Female - 5
 INDIAN
 Male - 1
 Female - 2
 WHITE
 Male - 12
 Female - 29
 Service workers/General Assistants
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Skilled agricultural and fishery workers
 AFRICAN
 Male - 0
 Female - 0
 COLOURED

Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Craft and related trades workerts
 AFRICAN
 Male - 38
 Female - 3
 COLOURED
 Male - 2
 Female - 0
 INDIAN
 Male - 0
 Female - 2
 WHITE
 Male - 21
 Female - 1
 Plant machine operators and assemblers
 AFRICAN
 Male - 40
 Female - 2
 COLOURED
 Male - 1
 Female - 1
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 1
 Female - 0
 Elementray occupations
 AFRICAN
 Male - 24
 Female - 2
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Total permanent
 AFRICAN
 Male - 177
 Female - 33
 COLOURED
 Male - 12
 Female - 6
 INDIAN
 Male - 14
 Female - 14
 WHITE
 Male - 194
 Female - 83
 Total non-permanent staff
 AFRICAN
 Male - 0
 Female - 0
 COLOURED

Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0

 SEPTEMBER 2002
 Legislators, Snr Officials & Managers
 AFRICAN
 Male - 1
 Female - 1
 COLOURED
 Male - 1
 Female - 0
 INDIAN
 Male - 1
 Female - 0
 WHITE
 Male - 15
 Female - 1
 Professionals
 AFRICAN
 Male - 24
 Female - 8
 COLOURED
 Male - 2
 Female - 0
 INDIAN
 Male - 18
 Female - 10
 WHITE
 Male - 94
 Female - 34
 Technicians & Associate Professionals
 AFRICAN
 Male - 50
 Female - 16
 COLOURED
 Male - 3
 Female - 1
 INDIAN
 Male - 3
 Female - 6
 WHITE
 Male - 20
 Female - 15
 Clerks
 AFRICAN
 Male - 20
 Female - 13
 COLOURED
 Male - 2
 Female - 3
 INDIAN
 Male - 2
 Female - 1
 WHITE
 Male - 6
 Female - 102
 Service workers/General Assistants
 AFRICAN
 Male - 0

Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Skilled agricultural and fishery workers
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Craft and related trades workers
 AFRICAN
 Male - 47
 Female - 6
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 15
 Female - 1
 Plant machine operators and assemblers
 AFRICAN
 Male - 38
 Female - 2
 COLOURED
 Male - 3
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 2
 Female - 0
 Elementary occupations
 AFRICAN
 Male - 13
 Female - 1
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Total permanent
 AFRICAN
 Male - 193

Female - 47
COLOURED
Male - 11
Female - 4
INDIAN
Male - 24
Female - 17
WHITE
Male - 152
Female - 64
Total non-permanent staff
AFRICAN
Male - 0
Female - 0
COLOURED
Male - 0
Female - 0
INDIAN
Male - 0
Female - 0
WHITE
Male - 0
Female - 0

Supplier Name	Human Sciences Research Council
Contact Name	Dr Orkin
Address	Private Bag X41 Pretoria 0001
Phone Number	0123022999
Fax Number	0123022828
Meetings in last financial year	<p>The HSRC CEO accompanied by members of the executive management team of the organisation had at least 7 formal meetings with its line department in the period 1 April 2001 until 31 March 2002.</p> <p>The HSRC council and where appropriate the council audit committee was fully briefed about exchanges of documentation and information on current initiatives and expected priorities.</p>
Do you have a Corporate Governance document	<p>No.</p> <p>The HSRC executive management and both HSRC councils that were in place during and subsequent to the institutional review, took note of the contents of the first report of the King Commission and incorporated the recommendations in the planning and execution of activities.</p> <p>The preparation and adoption of a formal corporate governance document, which is a requirement of King II, will shortly receive attention. Preceding the formal adoption of a corporate governance document, the HSRC council approved a set of delegations to the CEO as well as a matrix of reporting in terms of which the delegations will be monitored. Likewise, the Audit committee has a matrix and associated timetable of reporting. These approved documents comply with the principles outlined in the King II report.</p> <p>Other aspects of good corporate governance already addressed by the HSRC, its council and Audit Committee include the following:</p> <ul style="list-style-type: none"> Undertaking a strategic risk assessment, under the guidance of the council audit committee. Preparing for the establishment of a Research ethics committee to oversee the professional research activities of the HSRC. Incorporating KPIs for management and accountability purposes and covering all requisite financial and performance controls at organisational level. A commitment to growth closely monitored in relation to financial sustainability. A performance management system in place for staff members. An AIDS voluntary counseling and treatment policy preparation.
To what extent do Board members provide expertise	<p>The HSRC is privileged to have a council consisting of highly-placed and committed individuals.</p> <p>The expertise and linkages provided by council members individually and collectively cut across the following:</p> <ul style="list-style-type: none"> Public and private sector Service and for profit organisations Academic and applied research Experience in governance and as managers Local, provincial, continental and international networks and influence. <p>In depth knowledge of specific subject areas of expertise is also present in the council members as a team and individually. These include:</p> <ul style="list-style-type: none"> Education and training policies and practice Communication Information needs and decision-making in government Integrated development, rural development priorities Language, literature, cultural studies Legal matters National and government development priorities Political science Sociology Skills development, employment and economic policies Research, development, manufacturing and marketing <p>Council members are not directly involved in the day-to-day research and networking activities of the HSRC. However, they do contribute to improved linkages between HSRC and related sectors by advising on the</p>

research approach and agenda of the HSRC, through discussions at council level and in the council research subcommittee, and to take note of important developments in the HSRC that may be relevant to external stakeholders.

A recent meeting of the council subcommittee on research, for instance was attended by four members of the HSRC council, the 12 HSRC executive directors and about 20 senior research staff. During this meeting, a range of issues in research management was debated, and questions to inform further work identified.

By attending important HSRC events such as research workshops and conferences, or launches of its annual report or new publications, council members signal that they value the contribution of the HSRC and its research activities, they are also able to share informally and where relevant, information on the HSRC and its research activities with important stakeholders and decision makers in their respective sectors.

The HSRC council currently has three vacancies. The Minister of Science and Technology will appoint new members after due consultation and deliberation.

Advisory panel usage

Yes. Executive directors of research programmes are required to appoint advisory panels to inform the selection and approval of research projects that are eligible for parliamentary fundings.

At research project level, project steering committees are established with terms of reference that reflect project-specific requirements. Formal terms of reference do not exist at institutional level.

Following council approval of the terms of reference and proposed composition of a research ethics committee that will serve the organisation as a whole, the HSRC is currently in the process of appointing membership to its ethics committee. Once established, this committee will also apply to relevant international authorities for accreditation as a recognised institutional review board.

KPI

Yes. Annexure 3 contains a copy of the KPI Framework documents for 2001/2, as approved by the HSRC Council on 23 May 2002. This is followed by a document showing how we are calculating actual values for the quantitative measures, to report on our performance against quantitative targets. These figures are also contained in our audited financial statements, which will be published in the annual report.

From the comprehensive list of KPIs, the CEO of the HSRC selected 6 sentinel indicators, expressed as the elements of the organisation's "COUPE" strategy. A table to reflect organisational performance over time in terms of these indicators, is included in the message from the CEO in the annual report. The indicators are:

- C - Contracts (Research earnings as a % of total income)
- O - Outreach (% of research projects with external researcher involvement)
- U - User needs (% successful competitive tender or grant applications)
- P - Performance (equity (% black research staff and efficiency (% researchers in staff)
- E - Excellence (Number of referred journal articles per researcher head)

Use of Frascati manual

No. Since DST is currently conducting the national R&D survey according to the guidelines as set out in the Frascati manual, the HSRC like other science councils will have Frascati compliant measures available for subsequent reporting periods.

Parliamentary grant funded programmes

The HSRC's research and administrative functions (the two main programmes listed in MTEF submissions for parliamentary grant) are funded by the parliamentary grant as well as by external income obtained mainly from research contracts and grants. As from 2001/02, a ring-fenced amount of R5m was allocated to the HSRC for a project on Human Resources development planning for the new millennium for a three year period.

The parliamentary grant amounts received for the last three years are as follows:

1999/2000 - R64 419 000
2000/2001 - R61 452 000
2001/2002 - R60 492 000

During 2001/02, the HSRC restructured its administrative services, ensuring that a larger portion of the parliamentary allocation would be available for research. At the same time, targets for external research earnings were steadily increased. By achieving these targets for external research earnings over the past three years, the HSRC was able to expand on the research programmes funded by the parliamentary grant.

Because of the transformation and expansion of the HSRC research portfolio over the past three years, the allocation of the parliamentary grant and external income targets at programme level varied to such an extent that comparative figures are not available over the last three years, with an indication of parliamentary grant allocations and external targets per research programme, for the 2002/03 budget year. As at August 2002, indications are that external income targets for the year will not only be met but probably exceeded.

1999/2000

DEMOCRACY & GOVERNANCE

Assessment research and technology

Assessment technology and education evaluation

PG - R5.8m

EI - R4.4m

Total R10.2m

ECONOMIC & SOCIAL ANALYSIS

Child, youth & family development

PG - R4.1m

EI - 5.7m

Total - 9.8m

EDUCATION & TRAINING

Democracy and governance

PG -R7.7m

EI - R5.7m

Total - R9.8m

Educational Consulting

Education policy research

PG - R2.4m

EI - R2.8m

Total - R5.2m

Human resources development

Employment and economic policy research

PG - R5.1m

EI - R5.7m

Total - R10.8m

Integrated development

Human resources development

PG - R4.5m

EI - R9.9m

Total - 14.4m

Labour market and job creation

Integrated rural and regional development

PG - R7.4m

EI - R6.9m

Total - R13.3

Social aspects of HIV/AIDS and health

Knowledge management

PG - R2.0m

EI - R1.2m

Total - R3.2m

Surveys analyses and mapping

Social aspects of HIV/AIDS and health

PG - R6.0m

EI - R5.3m

Total - R11.3m

Social cohesion and integration

PG - R3.4m

EI - R2.8m

Total R6.2m

Surveys, analyses, modeling and mapping

PG - R10.1m

EI - R2.8m

Total - R6.2m

Total

PG - R60m

EI - R55m

Total - R115m

Justification of funded
programmes

The HSRC uses its parliamentary grant to undertake research projects that anticipate research needs, handle tasks for sectors or communities of users that cannot afford to commission work, create infrastructure, build external networks and internal capacity, and update skills and technology.

The type of research work undertaken by the HSRC - policy-relevant, large scale, multi disciplinary and often long term in nature - is typically not the kind of projects undertaken by individual research departments of institutes of higher learning, or by the private sector. Where the public or private sector requires information based on such research, they would prefer to commission an organisation such as the HSRC to do the research.

% funding over last 3 years The share of total revenue from sources other than the parliamentary grant has risen rapidly over the past three financial years: from 24.5% through 31.1% to 44.3%.

The table in the response to question 7 shows that the HSRC's external income target as share of total budgeted income will be 47.8% for 2002/2003. As at August 2002, not yet halfway through the budget year, this target has already been met in terms of signed contracts and grant agreements.

No of employees Annexure 4 contains tables that were used to report on progress with the appointment of black staff over the past three years. Please note that the tables in Annexure 4 provide information on level of appointment and race, but do not differentiate according to gender and purpose of employment (research/admin). The tables were compiled from available HR data for the 2000/01 budget years. Unfortunately, comparable HR information for 1999/00 was not available.

March 2001

Research

Black female 12 - Male 12

White female 18 - Male 18

Admin

Black female 30 - Male 37

White female 56 - Male 14

2002

Research

Black female 16 - Male 29

White female 27 - Male 27

Admin

Black female 30 - Male 24

White female 31 - Male 8

Please refer to the response to Question 21 for more information on staff composition and figures reflecting improved representation in terms of race and gender at all employment levels.

% of Staff training budget for 3 years +/-8%

In addition to the 1% of payroll paid to the ETDPA SETA, the HSRC's direct financial investment in staff training is estimated to be between 7 to 8% of the total payroll. Indirect investment in the form of labour cost all the parties providing and benefiting from staff development is not included in this estimation.

The following are examples of investments currently made in staff training and development:

DIRECT COSTS

Bursaries for formal training courses at institutes of higher learning.

Costs of attending workshops and training courses.

Costs of arranging internal seminars and discussion groups.

Costs of participating in local and international conferences.

Costs of providing training infrastructure and in-house trainers, e.g. in the area of IT, project management and project specific data analysis.

Costs of contracting external service providers to offer specialised short courses e.g. in contract management, labour relations and specialised research areas.

Costs of international travel as well as related travel and subsistence in cases of study visits, researcher exchange programmes or sabbaticals from distinguished international research partners.

Labour costs

Study leave, examination leave and sabbatical leave.

Time associated with preparing for and attending workshops, training programmes and conferences.

Time associated with tutoring, mentoring, on-site instruction, revision and discussion of proposals and outputs, as well as academic writing.

Benchmarking

The HSRC sets performance targets by taking into account past performance, and working towards international best practice as reflected in management literature and refined through interaction with international counterparts. It does not benchmark itself with individual institutions.

One example where interaction with another institution helped with the setting of a performance target: The (IDS) Institute for developing studies in the UK has a funding application hit rate of approximately, one in four, which is considered to be excellent by international standards. The HSRC has achieved a roughly similar target.

Interactive links over 3 years

Another example related to international benchmarking for a desired ratio of admin: research staff. Three international organisations furnished a range averaging 40% admin, 60% research. The HSRC was guided by this, while taking into account local conditions and organisational-specific requirements, when setting targets for restructuring the admin component of the HSRC during 2001/02.

Yes. At institutional level, regular exchanges of information and opportunities for co-operation is supported with international counterparts such as the CNRS in France and the Chinese academy. The HSRC, NRF and CNRS host annual workshops focusing on specific themes of mutual interest - in 2000 the workshop was hosted by the HSRC in Pretoria, and the workshop theme was "globalisation" and the 2001 workshop focusing on monitoring and evaluation, will be held in the Limpopo province. Publications and possible joint proposals to interested funders for further collaborative work are intended outputs of these workshops. Collaboration with international counterparts is sometimes formalised in a memorandum of understanding (MOU) to guide collaborative work and exchange programmes.

In SA, the HSRC and its sister science councils such as the ARC, CSIR, MINTEK, MRC and NRF regularly exchange ideas for collaboration and are involved in several joint projects where the available expertise of the different councils complement each other.

Several senior research leaders hold joint appointments with universities (e.g. the Universities of Durban-Westville, Natal, Port Elizabeth, Pretoria, Stellenbosch and Western Cape), and opportunities for internship programmes, involving co-operation between HSRC research programmes and university faculties are also introduced at project level.

At project level, specific attention is given to the involvement of external partners, and researchers from institutions across the SADC region are regularly involved in HSRC projects. Special attention is given to the involvement of HDI's, also because this helps the HSRC to meaningfully involve all regions in the country in its research. Collaboration with international visitors, where capacity building, joint publications and preparation for further collaborative projects are direct benefits. A recent example is the visit from two scholars in the field of demography and public health, from the University of Michigan.

The HSRC's emphasis on "outreach" as part of its strategic management plan is monitored in terms of the proportion of research projects involving external partners. For 2001/02, 62% of all projects involved external partners, ranging from individual consultants, to institutions to outsourced work on a competitive procurement basis. The HSRC is committed to black economic empowerment in its procurement of services.

Organisational culture studies

Yes. During 2001/02, a strategic assessment of the HSRC's risk areas during its transition was undertaken, under the guidance of the Council audit committee of the HSRC. This was done in collaboration with an external partner. One of the sections of the report of this assessment dealt with a "control culture profile."

Given the rapid transformation of the HSRC over the past two years, new studies to focus on various aspects of the organisational culture are planned, to further refine current approaches to staff training and development, as well as employee support programmes.

Code of conduct

Yes. Annexure 5 for the 1997, "Code of research ethics" and "Code of business ethics." The Code of research ethics will be freshly revised by the new research ethics committee, referred to in the response to Question 4.

Transfer of activities to private sector

No. The HSRC has recently transferred its register of graduates to SAQA and appointed an external service provider to provide digital printing and distribution services on behalf of its newly established Publishing department. Product sales - with special emphasis on test production and sales - will also be co-sourced in future.

Reasonable level of government funding

At least 50% of its total research budget.

The HSRC is experiencing rising demands to grow, in order to meet research needs of a rapidly expanding range of clients and stakeholders. At the same time, in the interest of balanced and sustainable growth, it is considered advisable to increase research and related earnings beyond 50% of total earnings. For HSRC research to address and anticipate the social-scientific research required by the strategic developmental needs of the nation, it would need to have a commitment to and from the parliamentary grant as a substantial funder of its research.

Regulation or legislation hampering success

No. However, universities are currently VAT exempt whereas the HSRC and other science councils do not have access to tax or other incentives to attract investments in R&D from the public or private sectors.

Competition areas with companies in the private

No. The strategic focus of the HSRC is on large scale, collaborative and policy relevant research. As a rule, the private sector does not undertake this type of research - in fact, it would rather provide financial support to, or commission such research if and when required.

Also refer to the response to Question 8.

Additional Question 1

Has the number and quality of scientific publications improved over the past three years? Please provide statistical evidence.

The 1999/00 budget year saw a dramatic increase in the number of published research outputs in comparison to the previous years - largely the result of management intervention following the 1997 HSRC review. The message from the CEO contained in the 1999/00 annual report states: "Despite a reduced research capacity of 160.41 researcher years (compared to 270.09 in 1998/99), the HSRC was able to increase its publications output".

The total number of publications published in 2000/01 showed a decrease in comparison to 1999/00. Taking into account, however, the impact of the retrenchments in 2000/01 on the year on the number of researchers, the number of publications per researcher head had not decreased.

Books and chapters in HSRC books

2001/02 - 43

2000/01 - 30

1999/00 - 40

Books and chapters in non-HSRC book

2001/02 - 24

2000/01 - 15

1999/00 - 36

Journal articles

2001/02 - 31

2000/01 - 18

1999/00 - 36

Referred

2001/02 - 20

2000/01 - 14

1999/00 - 28

Non-referred

2001/02 - 11

2000/01 - 4

1999/00 - 8

Research reports to clients/users

2001/02 - 50

2000/01 - 30

1999/00 - 78

Total

2001/02 - 148

2000/01 - 93

1999/00 - 175

Average number of researchers

2001/02 - 80

2000/01 - 60

1999/00 - 160

Total no of publications per researcher

2001/02 - 1.85

2000/01 - 1.55

1999/00 - 1.09

No. of referred articles per researcher

2001/02 - 0.25

2000/01 - 0.23

1999/00 - 0.175

The HSRC has selected the number of peer-reviewed journal articles published, divided by the average number of full time researchers, a sentinel indicator to measure the quality of its research outputs. Falling short of the "research excellence" target set for 2000/01, the trend is nevertheless positive. The number of published peer-reviewed journal articles is expected to increase more in the 2000/01 budget year, when the on take highly skilled new research staff, with publication requirements built into letters of appointment will become evident.

Another very relevant indication of the quality of research output is the uptake and eventual implementation of research findings. Anecdotal evidence of critical acclaim for publications, and/or the acceptance, further dissemination and uptake of research findings, will be collected for the purposes of the forthcoming institutional review of the HSRC in 2003.

Additional Question 2

To what extent your representativity in staff has changed during the past three years? Please provide the number of black researchers on full time employee and the number of new posts filled during the period.

During the past three years, the HSRC was involved in two restructuring exercises -general downsizing affecting research and support staff, in 2001/02. Representativity was a supplementary criterion in both restructuring exercises, and remains an important consideration for recruitment at all levels. As a result there has been further progress in transforming the demographic profile of the organisation with respect of race and gender.

Over the last three financial years, the percentage of black members of staff in the overall complement of the HSRC had increased from 40% through 47% to 52%. By contrast, the HSRC previously had a strong preponderance of women, so that the percentage of women decreased from 59% to 54%. At higher levels of appointment, increases were more for both black and female staff.

Please refer to the answer to Question 10 for tables reflecting actual numbers per job category and race.

The following figures illustrate improvements in race and gender respectively in the HSRC over the last two years.

Black employees in level

Level 1-2

2000/01 - 79%

2001/02 - 88%

Level 3

2000/01 - 38%

2001/02 - 61%

Level 4

2000/01 - 45%

2001/02 - 47%

Level 5

2000/01 - 22%

2001/02 - 39%

Level 6

2000/01 - 25%

2001/02 - 35%

Level 7

2000/01 - 33%

2001/02 - 43%

Level 8-9-10

2000/01 - 33%

2001/02 - 50%

Female employees per employment level

Level 1-2

2000/01 - 54%

2001/02 - 42%

Level 3

2000/01 - 85%

2001/02 - 79%

Level 4

2000/01 - 71%

2001/02 - 71%

Level 5

2000/01 - 63%

2001/02 - 72%

Level 6

2000/01 - 25%

2001/02 - 35%

Level 7

2000/01 - 22%

2001/02 - 36%

Level 8-9-10

2000/01 - 0 %

2001/02 - 33%

Additional Question 3

N/A

Additional Question 4	N/A
Additional Question 5	N/A
Additional Question 6	N/A
Workforce profile	<p>JULY 2000 - MARCH 2002</p> <p>Legislators, Snr Officials & Managers</p> <p>AFRICAN</p> <p>Male - 4</p> <p>Female - 2</p> <p>COLOURED</p> <p>Male - 2</p> <p>Female - 1</p> <p>INDIAN</p> <p>Male - 4</p> <p>Female - 1</p> <p>WHITE</p> <p>Male - 11</p> <p>Female - 6</p> <p>Professionals</p> <p>AFRICAN</p> <p>Male - 15</p> <p>Female - 5</p> <p>COLOURED</p> <p>Male - 2</p> <p>Female - 2</p> <p>INDIAN</p> <p>Male - 4</p> <p>Female - 1</p> <p>WHITE</p> <p>Male - 24</p> <p>Female - 31</p> <p>Technicians & Associate Professionals</p> <p>AFRICAN</p> <p>Male - 11</p> <p>Female - 31</p> <p>COLOURED</p> <p>Male - 2</p> <p>Female - 5</p> <p>INDIAN</p> <p>Male - 2</p> <p>Female - 4</p> <p>WHITE</p> <p>Male - 9</p> <p>Female - 48</p> <p>Clerks</p> <p>AFRICAN</p> <p>Male - 18</p> <p>Female - 10</p> <p>COLOURED</p> <p>Male - 0</p> <p>Female - 3</p> <p>INDIAN</p> <p>Male - 0</p> <p>Female - 0</p> <p>WHITE</p> <p>Male - 18</p> <p>Female - 10</p> <p>Service workers/General Assistants</p> <p>AFRICAN</p> <p>Male - 7</p> <p>Female - 5</p> <p>COLOURED</p> <p>Male - 0</p>

Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Skilled agricultural and fishery workers
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Craft and related trades workers
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Plant machine operators and assemblers
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Elementary occupations
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Total permanent
 AFRICAN
 Male - 55
 Female - 53
 COLOURED
 Male - 6

Female - 11
INDIAN
Male - 10
Female - 5
WHITE
Male - 44
Female - 95
Total non-permanent staff
AFRICAN
Male - 20
Female - 19
COLOURED
Male - 2
Female - 2
INDIAN
Male - 1
Female - 0
WHITE
Male - 1
Female - 9

Supplier Name	CSIR
Contact Name	Dr Sibisi
Address	P.O Box 395 Pretoria 0001
Phone Number	0128412429
Fax Number	0128413549
Meetings in last financial year	<p>Interaction between CSIR and its relevant ministries (DACST & DTI) occurs regularly.</p> <p>The CSIR president meets regularly with the Ministers and Directors Generals of DACST and DTI. CSIR and DTI meet six times a year under the auspices of DTI bilateral institutional framework agreement. CSIR is a member of COTII which meets quarterly. CSIR regularly does presentations to parliamentary portfolio committees of Trade & Industry and Arts, Culture, Science and Technology. Presentations of the CSIR business plan and budget are made to DACST and DTI annually. Other meetings with DACST are ongoing as required.</p>
Do you have a Corporate Governance document	<p>The CSIR board and the Executive board believe that the organisation complies with the principles incorporated in the code of corporate practices and conduct as set out in the King Report.</p> <p>The underpinning principles of the group's corporate governance rest upon the three cornerstones of an effective and efficient organisation, namely day-to-day management processes, a long term strategic planning process and effective transformation processes. These processes are supported by systems which are used to plan, execute, monitor and control strategic and operational domains of the organisation. The supporting infrastructure and its evolution are documented in CSIR's IT-based management model, which is regularly reviewed and updated.</p> <p>The CSIR board annually approves the Annual Report, which includes the foci and governance structure. The relevant information on the foci and structures as available in the CSIR Annual report of 2000 is given in Appendix A (Full report attached and also available on www.csir.co.za).</p> <p>CSIR was a finalist in the 1998 corporate governance award (sponsored by Deloitte and Touche) and winner of the award in 1999.</p>
To what extent do Board members provide expertise	<p>The CSIR board is very actively involved in strategic and advisory roles to CSIR's executive management team.</p> <p>The CSIR board is actively involved in sectoral activities e.g. the development of industrial sector sales information and a re-evaluation of the CSIR's involvement in the energy sector as a result of board member inputs.</p> <p>Board members represent academia, industry, government and international business and contribute this expertise continuously.</p> <p>The CSIR board members serve on a number of specialist sub-committees. The CSIR board members has the following committees: Human Resources and remuneration committee, Audit committee, Mergers, acquisitions and commercialisation committee and the strategic review committee. These committees comprise members of the CSIR board and CSIR Vice presidents ex officio. The members are selected according to the skills sets required for the committees to fulfill their function.</p>
Advisory panel usage	<p>The point made in the April 1998 CSIR feedback to DACST on the recommendations from the SETI review about potential conflicts of interest and accountability/responsibility issues of advisory panels still apply.</p> <p>CSIR expects each business unit to undertake a benchmark and external peer review at least every three years, from which feedback on performance and needs are gathered. The terms of reference of such reviews are often very detailed and specific to each activity. An example of the introduction to the terms of reference of one such review is attached in Annexure B.</p> <p>External peer reviews of business units and other CSIR activities conducted in recent years are given below:</p> <p>1998</p> <p>Mimotek</p> <p>1999</p> <p>Textile technology field</p> <p>Investment process and approach in core activities.</p> <p>Technology for development</p> <p>2000</p> <p>Building and construction technology</p> <p>Water, environment and forest technology</p> <p>International business activities</p> <p>Metrology</p> <p>2001</p> <p>Transportek</p>

Satellite application centre

Funding streams which are linked to specific criteria, inform research in terms of market needs. Within this area the CSIR is developing a system of idea development and screening before the calls are made.
Funding streams such as the innovation fund, evaluate the acceptability of projects through review panels, which can be regarded as advisory panels commenting on the appropriateness of research ideas.
The strategic review committee of the CSIR board and the CSIR board itself acts in an advisory capacity too.

KPI

The CSIR's strategy translates into operational priorities against which the organisations performance both quantitatively and qualitatively is measured. These priorities in turn provide the CSIR's business goals.
For the 2001/02 financial reporting period, the business goals have been to:
Grow our business.
Embed quality in everything we do.
Create and increasingly innovative and rewarding working environment for our people.
Make an impact on sustainable development.
Harness the information revolution.

Information on the performance of CSIR against these targets in 2001/02 financial year are provided in Annexure C - this also indicates the targets as requested (further information is available in the attached CSIR annual report 2002 available on www.csir.co.za).
From the 2002/03 reporting year onwards, the CSIR will report on the above business goals and relevant measures in the format of the DACST KPIs' as approved by the CSIR board. The link between DACST KPIs', CSIR measures and business goals are provided in Appendix D.

Use of Frascati manual

The CSIR measures its technological inputs and outputs taking into account the Frascati measures but adapting these to suit the CSIR.
CSIR has commenced a process of reporting the above as part of the Annual report as from the 2001/02 financial year. The report contains data some of which indicate relevant trends over the past three years.
A copy of the report (The state of science and technology in the CSIR 2002) is attached.

Parliamentary grant funded programmes

As part of the CSIR's role to provide knowledge based technology offerings, relevant competencies need to be built and renewed and a culture of S&T excellence needs to be promoted through effective and efficient investment of the parliamentary grant.
The CSIR invests in five technology based core competence areas, which have been defined based on the outcomes of the system wide SETI review in 1997 and additional strategic thinking informed through foresight studies, business intelligence (market and technology intelligence) etc.
These core competencies span across various CSIR business units, which are market facing activities that harness the competence areas to address specific stakeholder and customer needs.
The investment of the parliamentary grant into these core competences over the 2001/02 financial year is shown in the table below. (Note that this is investment into technology areas, the balance of parliamentary grant is invested into organisational and strategic competences necessary to support these technology domains e.g. project management, technology management). The total parliamentary grant available to the CSIR in the three years is given in the last row.

Table: Investment of CSIR parliamentary grant associated with technological core competences.

Technology based competence
Manufacturing
Parliamentary grant investment (%)
1999/2000 - 34%
2000/2001 - 31%
2001/2002 - 31%
Technology based competence
Information
Parliamentary grant investment (%)
1999/2000 - 19%
2000/2001 - 22%
2001/2002 - 22%
Technology based competence
Environmental
Parliamentary grant investment (%)
1999/2000 - 12%
2000/2001 - 11%
2001/2002 - 11%
Technology based competence
Bioscience
Parliamentary grant investment (%)

1999/2000 - 5%
 2000/2001 - 9%
 2001/2002 - 9%
 Technology based competence
 Infrastructure
 Parliamentary grant investment (%)
 1999/2000 - 14%
 2000/2001 - 12%
 2001/2002 - 12%
 Total (%)
 1999/2000 - 84%
 2000/2001 - 85%
 2001/2002 - 85%
 Total CSIR parliamentary grant (R'000)
 1999/2000 - R317 334
 2000/2001 - R296 332
 2001/2002 - R296 883

The CSIR uses a portfolio approach to the management of investment, which is supported by appropriate processes, systems and tools. The portfolio of thrusts links CSIR's business and technology strategies, and provides a match between the needs and the investment to build the competencies for developing market specific offerings. Market and technology trends are addressed through the business units and via a number of crosscutting organisational initiatives, to strengthen, combine or build new core competences. The CSIR invests the parliamentary grant within strategic criteria and measures aimed at enhancing investment decision and improving the content and process of investment. These criteria include:

- Support to the CSIR's core process of innovation (market-to-mind-to-market) linking market needs, through scenario/foresight studies and market research with the required competence development.
- Accelerating the evolution of the CSIR to a KITO (Knowledge Intensive Technology organisation) which contributes to the African Renaissance and is both internationally competitive and regionally relevant.
- Alignment and relevance to the national system of innovation and national imperatives.
- Development of human skills and leveraging/accelerating transformation, including the development of bursary and internship programmes in partnership mode across innovative networks comprising academia, research institutions and industry.
- Having impact, making a difference, and ensuring that benefit is accrued by the nation in priority areas.
- Contribution to developing the CSIR's core competences as recommended by the DACST led review, including the development/creation of synergistic overlaps between core competencies which induce high levels of innovation.
- Building competence through networking and collaboration such as through the innovation fund.
- Contributing to the CSIR's financial sustainability.
- Strengthening science and technology (S&T) excellence and the quality of research.

The CSIR operates under a mandate to foster industrial and scientific development by engaging with both the public and the private sector in its efforts to improve the quality of life for all South Africans. Examples of solutions achieved through a combination of CSIR's knowledge resources and technology are given in the attached Technology impact 2000 (also available at www.csir.co.za).

Justification of funded programmes

As indicated in 7 above, the CSIR invests its parliamentary grant in core competence and capacity building to be able to fulfill its mandate according to the CSIR Act as follows: "In the national interest the CSIR through directed and multidisciplinary research and technological innovation, should foster industrial and scientific development either by itself or in partnership with public and private sector institutions, to contribute to the improvement of the quality of life of the people of South Africa.

It has been estimated that the SA private sector only spends 0.35% of GDP on R&D whereas countries such as Australia and South Korea show 2 and 5 times higher private sector expenditure respectively. In a survey of twenty two large SA companies in 2001-2002, it became apparent that their R7D spend increased nominally, but decreased from 0.61% to 0.42% of turnover over that period. Although the outsourcing of R&D is growing, 70% of the interviewed companies indicated that they would use offshore resources. It is apparent that the SA private sector does not have a major impact on R&D capacity.

The investment by government provides for CSIR to fulfill its mandate in the national interest and within the National system of innovation. It is well known that private sector funded research leads to short-term focus and the risk of depletion of cutting edge scientific and technological knowledge necessary for national growth. CSIR generates external income from the competences thus developed through the development and commercialisation or licensing of intellectual property as well as contract research for local and internationally based companies and other organisations.

For example, the continued relative increase in bioscience will allow the CSIR to align with the recommendations of the Cabinet-approved "Biotechnology strategy for SA" and continue to build competence in

S&T professionals decreased by 1.3% over the three years (1999-2000) whereas the rest of the staff complement decreased by 8.1%. Thus in spite of a decrease in total staff, the number of S&T professionals remained essentially constant. Over the same three year period the total S&T professional staff complement increased from 41.8% to 43.6% of total staff. Professionals increased from 57.3% to 59.7%.

1999/2000

S & T Professionals

Female Black 83 - Male 167

Female White 269 - Male 539

Manager & Executive

Female Black 24 - Male 39

Female White 68 - Male 233

Non S&T Professionals

Female Black 26 - Male 183

Female White 55 - Male 128

Support

Female Black 139 - Male 223

Female White 313 - Male 42

2000/2001

S & T Professionals

Female Black 86 - Male 176

Female White 250 - Male 497

Manager & Executive

Female Black 25 - Male 37

Female White 62 - Male 206

Non S&T Professionals

Female Black 29 - Male 171

Female White 48 - Male 121

Support

Female Black 139 - Male 216

Female White 285 - Male 39

2001/02

S & T Professionals

Female Black 105 - Male 204

Female White 253 - Male 482

Manager & Executive

Female Black 29 - Male 44

Female White 64 - Male 198

Non S&T Professionals

Female Black 39 - Male 182

Female White 44 - Male 121

Support

Female Black 126 - Male 209

Female White 225 - Male 42

The attached "The State of Science and Technology in the CSIR 2002" report contains current data in a slightly more detailed format.

% of Staff training budget
for 3 years

The positioning of the CSIR as a knowledge intensive organisation (KITO) has challenged the CSIR to imbue concepts such as flexibility, partnering, networking, cross-boundary behaviour, knowledge management, innovation management, affordability, continuous learning and management of diversity in its daily operations. CSIR remains challenged to develop appropriate responses and skills to ensure it fulfills its role as a National Human R&D Resource Development Strategy and contributed substantially to building a science and technology resource base equipped to address national and regional imperatives through innovation.

The CSIR:

Directly spent under R10.5m (2.6% of personal budget) in 1999/2000 and R11 million each year for 2000/01 (2.7% of personnel budget) and 2001/2002 (2.5% of personnel budget) on skills development.

In addition, the CSIR focused on staff development as illustrated in the following:

Through the CSIR Innovation Leadership and Innovation Academy (CILLA) played a more facilitating role in emerging learning related issues.

Utilised Bursary and Internship schemes to develop SET talent including: undergraduate bursaries, postgraduate bursaries, internships, UP/CSIR prestige bursaries and employee study rebates at UP.

Actively involved in Black professionals in projects to create new capacity and knowledge.
 Utilised mentorship and coaching schemes to fast track black professionals.
 Managed implementation of personal development plans through regular performance reviews.
 As an example of the CSIR's ability to leverage funding for the development of internal staff and staff of partners, the CSIR Deepmine project resulted in 85 students from all partners (see 20 below) being registered at seven technikons for qualifications ranging from diplomas to PhDs. The Deepmine project ran over the four years and the students are at various stages of completion of their studies. The project combined CSIR, THRIP and industry funding to achieve its outputs.

Benchmarking

Benchmarking is done regularly in the CSIR through local or international review panels. The detail of this is related to the specific business area needs (see Appendix B for an example).

CSIR expects each business unit to undertake a benchmark and external peer review at least every three years, from which feedback on performance and needs are gathered.

CSIR performs regular internal reviews e.g. (i) a self assessment by each business unit as to its progress measurements against KRAs. The learning from these reviews help with continuous improvement, strategic planning and also serve as input into the external reviews.

Examples of local organisations for benchmarking will include relevant other science councils. International organisations include other KITO's and research organisations such as CSIRO, CSIR India, TNO, Fraunhofer Gesellschaft, VTT, SRI, DTI (Denmark), SIRIM and KIRDL.

CSIR for example benchmarked itself against local and international contract research organisations recently to compare income, costs and margins. CSIR benchmarks well with regard to total human resource costs against other SETIs (local, international) e.g. CSIR salary costs are the lowest of all organisations benchmarked, the independence ratio of the CSIR is high by SA standards, but average internationally, operating expenses of the CSIR is average by SA standards but high compared to international organisations and the margin from core operations is high for the CSIR (see table below)

SA Science councils
Depreciation costs 3%
Operating expenses 40%
Salary costs 58%
External income 41%
Margin -1
International CROs
Depreciation costs 6%
Operating expenses 37%
Salary costs 55%
External income 64%
Margin +2
CSIR
Depreciation costs 5%
Operating expenses 41%
Salary costs 48%
External income 64%
Margin +6

All the above are a percentage of total income

Notes:

Total income excludes "other incomes" such as rent, interest, investments.

CSIR operating expenses adjusted for extraordinary expenses.

Margin is from core operations.

6 SA Councils, 5 International CROs' included.

The CSIR state of Science and Technology Report used international benchmark institutions for comparisons of S&T inputs, manpower and outputs.

CSIR frequently also benchmarks itself informally during visits local and international research organisations and KITO's.

Interactive links over 3 years

The CSIR requires links with local, regional and international organisation to ensure relevance and impact in SA and the region, support sustainable development and economic growth in the context of national priorities, to contribute to the African renaissance and support sustainable real growth in external sales.

CSIR is a member of COTII and COHORT

Examples of alliances in SA and outside its borders are given below. This information covers the most recent developments since (i) many of these require a few years to establish and (ii) the CSIR has numerous relationships and the space only allows the use of examples.

Alliances with research organisations, public and private sector organisations (in SA and outside the country's borders);

The future mine collaborative research programme is the successor to the deepmine programme. CSIR Miningtek, African Rainbow Minerals, AngloGold, Gold Fields, Harmony and Placer Dome Western Areas JV have representatives serving on a Steering Committee for this industry-driven initiative. Future mine aims to bring together the resources and expertise of the CSIR and other research organisations, mining companies, worker organisations, TEIs and government in a collaborative effort to provide the technological solutions and competencies that will ensure the continued viability of underground gold mining operations.

The Global Mining Research alliance is an alliance through partnership with CANMET, CSIR-Miningtek, CSIRO-Division of exploration and mining and NIOSH, with a strategic intent to be the global supplier of high quality products, services, mining technologies and knowledge to the mining industry, within the domain of applied research and technology development.

The CSIR has developed a relationship with SAACE to increase impact in engineering fields.

A formal relationship with Armscor has been established to combine and focus expertise in the SA defence industry.

Various consortia have been established through the projects obtained from the Innovation Fund, THRIP, Regional S&T Fund and other similar funding streams. The following table indicates the number of projects obtained through the IF and some measure of the involvement of consortium members.

CSIR's involvement in the Innovation fund since its inception

IF Round 1

CSIR as Leader - 5

CSIR as consortium member - 7

IF Round 2

CSIR as leader - 4

CSIR as consortium member - 1

IF Round 3

CSIR as leader - 5

CSIR as consortium member - 4

IF Round 4

CSIR as leader - 8

CSIR as consortium member - 3

Each project involves a consortium of research institutions and/or private sector organisations with at least two or more members per consortium. The average number of consortium members per project is four.

In addition to established CSIR footprints in Houston and London, as well as a joint venture in Australia, the organisation's international portfolio includes alliances with leading multinational corporation (MNCs), knowledge generating relationships with KITO's and close associations with global leaders and opinion makers. The CSIR has established formal relations with a number of KITO's including TNO (Netherlands), CNRS (France), IRIS (Sweden), NIST (USA), and the Fraunhofer Gesellschaft (Germany). Links have also been established with amongst others, the Danish technological institute, CSIRO (Australia) and SRI International in California.

The CSIR has established a global research alliance, which has committed itself to jointly undertake large impact projects for the benefit of society. This alliance combines the knowledge of CSIRO (Australia), CSIR India, VTT (Finland), TNO (Netherlands), Fraunhofer Gesellschaft, Danish Technology Institute, SIRIM and CSIR. KIRDI (Kenya) is still awaiting formal board approval.

CSIR Miningtek has signed a Memorandum of Understanding with Hatch Africa through which the two organisations will cooperate in pursuing joint integrated projects on behalf of the mining industry, primarily in Africa but also worldwide. Hatch Africa is a branch of the Canadian based global consulting engineering, IT and project management company which provides comprehensive services to the mining and metals industry.

The NEPAD has established special task forces for its priority programmes. The ICT sector is one of these priority programmes, with the e-Africa Commission as its task force. The secretariat of this commission is based at the CSIR, with Sello Matsabu, Director of CSIR icomtek serving as Commissioner. CSIR has also created alliances with DBSA, Eskom enterprises, and IDC to increase its impact in NEPAD.

Examples of further relationships and work on the African continent include:

The African Association of Remote Sensing of the Environment.

The International laboratory for Research on animal diseases (Kenya)

The expert advisory group for UNEP's telecommunications and information management strategy

The scientific and industrial research and development centre in Zimbabwe.

The Kenya Industrial research and development institute.

The Government of Malawi (for the CSIR's assistance with environmental conservation, water quality, water supply and sanitation systems and effluent treatment technology).

The Mauritian Export processing zone development authority (for the CSIR's assistance with Mauritian

economic development using environmentally sustainable principles.)

Organisational culture studies

The CSIR can only fulfill its mandate if organisational excellence is of the highest priority. CSIR therefore has a number of actions to interrogate organisation culture, for example:

The CSIR's strategy is to "accelerate the evolution to a knowledge intensive technology organisation (KITO) which contributes to the African Renaissance and is both internationally competitive and regionally relevant." This requires the CSIR to respond to critical issues, including an understanding of the characteristics of a KITO within the context of the CSIR being a Science Council in SA, the role in NEPAD and the challenges of globalisation and knowledge economy. A knowledge-intensive organisation includes some of the following characteristics:

Structure which allows for decentralised decision making at an operational level, with clear strategic direction and leadership for the whole organisation.

Culture of trust, sharing, collaboration

Management and empowerment of knowledge workers who have strong commitment, loyalty, ownership.

Management of diversity.

CSIR performs an annual interview review to evaluate its progress in the evolution of KITO.

A further internal evaluation programme entitled CEO (Customer Excitement and Obsession) is a quarterly evaluation of various criteria under each of the following headings:

Leadership, role modeling

Policy and strategy

Customer and market focus

People management

Resources and information management

Processes

Impact on society

Customer satisfaction

People satisfaction

Supplier and partnership performance

Business results

Customer information systems

e-business

Internet webpages

Moment of truth

Telephone efficiency

An important measure mentioned above is the Employee Satisfaction survey. This is conducted periodically and allows for timely interventions to address gaps and to build on organisational strengths. It is also a key measurement tool for assessing alignment of Human Resource Management plans and processes with overall organisational goals and strategy. The survey covers various issues under the headings of:

Job enjoyment and importance

Personal and professional development

Performance and reward

Management and leadership

Policies and practices

Teamwork and participation

Work environment and quality of life

Diversity

Communications

Survey information on retention

Comments (space for open feedback)

With a 1999/00 overall Employee satisfaction index of 73.7%, the CSIR is close to its target of 75% (which is at the top end of industry norms). The history of the CSIR's index (as a percentage) is reflected in the table below:

CSIR Overall employee satisfaction results (%)

1996 - 67.1%

1997 - 68.6%

1998 - 70.9%

1999 - 73.7%

The results of the next overall organisational survey of employee satisfaction are due in August 2002.

Code of conduct

The SETI review document listed specific points suggested for policy documentation, these have been addressed as follows:

CSIR has a formal policy decision making process which covers commercialisation.

Intellectual property (IP) rights policies are evolving.

The CSIR conditions of service have just been reviewed and changed including clauses on IP protection and commercialisation.

Service pricing; practices on full cost recovery are in place, whereas value based pricing practices are being investigated.

Besides the above specifically mentioned document, the CSIR has various policies covering customer, supplier and media relations as well as funding and contracting mechanisms.

As indicated under 2 above, the CSIR has documentation covering its governance structure and processes, which is maintained in an IT based Management model (CMM). This documentation is too extensive to attach, but the CSIR is prepared to demonstrate the model to interested stakeholders. Appendix F contains more information on the structure of the CMM.

Transfer of activities to private sector

CSIR management continuously evaluates the relevance of internal activities for potential transfer to the private sector. It is crucial that such transfers meet the requirements of competition policy and achieve returns, which are consistent with the investment made to develop such activities. CSIR therefore treats every case on its own merits and where necessary, consults with DTI and/or DACST should there be areas, which directly impact the national interest.

Some examples of such transfers in the past five years are:

Routine services are typically spun out thus creating new business e.g. M & Mtek ventures, environmental and construction analytical services and Swift Microbiological laboratory.

In manufacturing and advanced materials the CSIR combined textile technology with other activities of M & Mtek and has created a number of technology centres and spin offs.

In 1999, Snowden Mining Engineering Consultants (Australia) and CSIR Miningtek merged their consulting engineering services to form Snowden Mining Industry consultants, with offices in Perth, Kalgoorlie, Sydney, Vancouver, Jakarta and Johannesburg. Snowden's Johannesburg office offers a wide range of underground mining engineering services with substantial support provided by the Perth office.

Where applicable, technology developed by CSIR is spun off through the establishment of venture companies with varying initial levels of CSIR involvement. Such involvement is decreased over time while the technology becomes established.

The CSIR board approved the establishment of Technovent. The company sources technologies and entrepreneurs from the CSIR, other S&T institutions, universities or any developer of technologies and develops them into viable businesses with the aim of spinning them off.

Reasonable level of government funding

A reasonable level of government funding for the CSIR to fulfill its mandate, i.e. in the national interest the CSIR, through directed and multidisciplinary research and technological innovation, should foster industrial and scientific development, either by itself or in partnership with public and private sector institutions, to contribute to the improvement of the quality of life of the people of SA, would be 40-50% of income compared to the current 35% (see 9 above). Additional funding would be utilised for:

Skills development and transformation for example to increase the pipeline of trained scientists and engineers and for mentorships.

Support of the National R&D strategy for example in implementation of technology missions, biotechnology, energy and infrastructure.

More support to the private sector.

Increased focus on excellence in science and technology.

The concern about the availability of sufficient numbers of scientists, engineers and technologists to sustain SA's competitiveness into the future requires the commitment of all role-players in science and technology from school education to research organisations to train and mentor such people. This needs government support.

SA needs to invest in relevant science and technology to put in at the forefront and play a significant role in Africa and the global economy.

Regulation or legislation hampering success

The Acts applicable to the CSIR's business and which support good governance and Scientific Research Council Act (Act 46 of 1988, as amended by Act 71 of 1999) that provides for control of public funds. The CSIR is listed as a public entity in terms of the Public Finance Management Act.

Currently the CSIR is concerned about the potential impact of the PFMA Treasury Regulation 16 on its day-to-day activities and is in discussion with National Treasury to assess the situation.

CSIR as a technology provider and expert in specific areas, is prepared to take part in debates around the shaping of relevant acts which will support South Africa's competitiveness.

Competition areas with companies in the private

The following can be mentioned:

CSIR's mandate is described in section 3 of the Scientific Research Council Act (Act 46 of 1988, as amended by Act 71, of 1990) which states, "In the national interest, the CSIR through directed and multidisciplinary research and technological innovation, should foster industrial and scientific development, either by itself or in partnership with public and private sector institutions to contribute to the improvement of the quality of life of the people of South Africa.

Furthermore, CSIR is a national government business enterprise (3B public entity in terms of the PFMA) which "provides goods or services in accordance with ordinary business principles." Over the past decade of CSIR's activities as a market focused research organisation serving national priorities, issues of unfair competition have been debated. A handful of complaints have been brought to the attention of the Competition Board, but on detailed investigation not one of these has been formally upheld.

CSIR has an agreement with the SAACE that CSIR will as far as possible engage private consultants in work related to the private sector.

Additional Question 1

Outline the links with higher education institutions and their impact in mobilising South African technological talent. Please give specific examples:

The extent of CSIR's links and cooperation with higher education institutions have been discussed and numerous examples given in 13 above.

Activities under the National Human Resource strategy, involving internships, bursaries and mentoring have been detailed in 11 above.

Further examples of collaboration with higher education institutions are:

As far as the innovation fund consortia are concerned, CSIR is involved in 37 projects to date. With an average of four members per consortium, this would imply links to 149 institutions of which the majority are HEI's. CSIR is thus practically cooperating with each HEI either as the consortium leader or member (see also IF information in 13 above).

The CSIR Miningtek Deepmine project comprised o a team of 200 researchers from six Universities, two Technikons and twelve companies which focused on the development of knowledge and technology for ultra-deep level mines, stimulation of education and training, establishment of a culture of innovation and encouraging rapid technology for ultra deep level mines, stimulation of education and training, establishment of a culture of innovation and encouraging rapid technology transfer and implementation.

The forestry and forest products centre has been established as a joint venture between CSIR and University of Natal. There are many reciprocal benefits to both organisations and industry (mondi, Sappi) who support the initiative.

The African centre for Gener Technologies (ACGT) is an initiative started by CSIR Bio/Chemteck and the University of Pretoria to create a world-class platform in gene technologies, focusing on gene and genome analysis and their applications. The Centre's vision is to establish a national centre of excellence in third generation biotechnology discovery to generate intellectual property, train students, and meet the needs of the developing biotechnology industry in SA.

Additional Question 2

Has the organisation reprioritised its activities in the last three years? How were DACST and other government bodies supportive towards the new strategy? Please give specific examples and provide documentary proof.

The CSIR continuously reviews its strategy for relevance to its mandate, stakeholders and customers.

As indicated throughout the document, the CSIR has embarked upon a transformation into a knowledge intensive organisation with the following characteristics.

The accelerated evolution to a KITO requires that the CSIR needs to be managed as both a knowledge intensive and a technology based organisation.

A knowledge intensive organisation includes some of the following characteristics:

Structure which allows for decentralised decision making at an operational level with clear strategic direction and leadership for the whole organisation.

Culture of trust, sharing and collaboration.

Management and empowerment of knowledge workers who have strong commitment, loyalty, ownership.

Management of diversity.

A technology based organisation needs to develop and manage innovation (market to mind to market)

strategically, supported by:

Processes and systems to facilitate excellent research management, project management, business development, technology management, technology transfer.

Structure which allows for a partnership and value-addition between business development and technology management.

Embedding 'third generation' an implementing 'fourth generation' R&D; this requires effective management of intellectual property, knowledge management, technology based core competencies.

S&T excellence.

The KITO also needs to be supported by:

Strategic management of relationships.

Learning organisation approach.

Excellent communication.

Appropriate IT infrastructure, e-enablement, networking and information flow.

CEO (Customer excitement and obsession).

Growth which supports relevance, impact, sustainability in the CSIR's traditional market as well as business beyond usual including internationally and regionally.

This strategy has been discussed with the approved by the CSIR board and DACST and DTI and has been captured in the business plans submitted and agreed upon with DACST and DTI over the past three years.

The following are examples of activities in support of the above transformation:

More attention was given to investment (see 7 above) and activity in the area of biotechnology. For example, the research and development department of AECI was transferred to the CSIR on 1 February 1999 (as a result of

the company's reduction in investment in R&D) and integrated with CSIR Foodtek into a new business unit called Division for food, biological and chemical technologies (Bio/Chemtek). The business unit provides powerful technological support for the agrofood, fine chemicals and pharmaceutical market. CSIR increased its investment in ICT (see 7 above) as a result of the recommendation made in the SETI review of 197 and based on global trends.

A business unit was created at the CSIR which merged all the organisations defence related functions under one umbrella. Defence technology comprises expertise in Defence electronics, Defence aeronautics, the Hermanus magnetic observatory, Security systems and a Centre for Integrated Sensing systems which will have defence and manufacturing elements. The new area of Security systems will serve the police and the security establishment, thus supporting CSIR's to put more effort into crime prevention and security.

New centres were developed at the Division of manufacturing and materials technology (M&Mtek) to address the needs of specific sectors, e.g. the NPDC and AIDC (see also 8 above).

CSIR increased its efforts to access and supply technology internationally, e.g. through the establishment of joint ventures and associated companies such as Snowden Mining Consultants (see 16 above) and Quo-Tec Ltd (UK).

CSIR focused its efforts in poverty alleviation and development of SMMEs through a CSIR integrated thrust and active participation in the DACST Poverty Relief Fund projects as well as the establishment of incubators under the DACST GODISA programme.

Capacity is continuously developed to support issues of sustainable development and projects under NEPAD. Increased efforts are placed on collaboration e.g. Deepmine, and various other programmes (see also 11, 13 and 20 above)

Additional Question 3	N/A
Additional Question 4	N/A
Additional Question 5	N/A
Additional Question 6	N/A
Workforce profile	<p>MARCH 2001</p> <p>Legislators, Snr Officials & Managers</p> <p>AFRICAN</p> <p>Male - 20</p> <p>Female - 16</p> <p>COLOURED</p> <p>Male - 4</p> <p>Female - 4</p> <p>INDIAN</p> <p>Male - 10</p> <p>Female - 2</p> <p>WHITE</p> <p>Male - 185</p> <p>Female - 85</p> <p>Professionals</p> <p>AFRICAN</p> <p>Male - 77</p> <p>Female - 43</p> <p>COLOURED</p> <p>Male - 11</p> <p>Female - 13</p> <p>INDIAN</p> <p>Male - 37</p> <p>Female - 15</p> <p>WHITE</p> <p>Male - 431</p> <p>Female - 245</p> <p>Technicians & Associate Professionals</p> <p>AFRICAN</p> <p>Male - 69</p> <p>Female - 25</p> <p>COLOURED</p> <p>Male - 13</p> <p>Female - 10</p> <p>INDIAN</p> <p>Male - 15</p>

Female - 14
 WHITE
 Male - 164
 Female - 89
 Clerks
 AFRICAN
 Male - 67
 Female - 55
 COLOURED
 Male - 7
 Female - 33
 INDIAN
 Male - 2
 Female - 14
 WHITE
 Male - 19
 Female - 220
 Service workers/General Assistants
 AFRICAN
 Male - 3
 Female - 1
 COLOURED
 Male - 2
 Female - 1
 INDIAN
 Male - 1
 Female - 0
 WHITE
 Male - 4
 Female - 5
 Skilled agricultural and fishery workers
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Craft and related trades workerts
 AFRICAN
 Male - 23
 Female - 0
 COLOURED
 Male - 5
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 53
 Female - 0
 Plant machine operators and assemblers
 AFRICAN
 Male - 41
 Female - 4
 COLOURED
 Male - 6
 Female - 1
 INDIAN
 Male - 0

Female - 0
 WHITE
 Male - 3
 Female - 0
 Elementray occupations
 AFRICAN
 Male - 173
 Female - 24
 COLOURED
 Male - 13
 Female - 4
 INDIAN
 Male - 1
 Female - 0
 WHITE
 Male - 4
 Female - 1
 Total permanent
 AFRICAN
 Male - 473
 Female - 168
 COLOURED
 Male - 61
 Female - 66
 INDIAN
 Male - 66
 Female - 45
 WHITE
 Male - 863
 Female - 645
 Total non-permanent staff
 AFRICAN
 Male - 41
 Female - 48
 COLOURED
 Male - 6
 Female - 5
 INDIAN
 Male - 7
 Female - 9
 WHITE
 Male - 15
 Female - 16

 MARCH 2002
 Legislators, Snr Officials & Managers
 AFRICAN
 Male - 27
 Female - 20
 COLOURED
 Male - 3
 Female - 2
 INDIAN
 Male - 13
 Female - 2
 WHITE
 Male - 182
 Female - 63
 Professionals
 AFRICAN
 Male - 79
 Female - 51
 COLOURED
 Male - 17
 Female - 14

INDIAN
 Male - 48
 Female - 27
 WHITE
 Male - 410
 Female - 251
 Technicians & Associate Professionals
 AFRICAN
 Male - 83
 Female - 37
 COLOURED
 Male - 16
 Female - 7
 INDIAN
 Male - 16
 Female - 7
 WHITE
 Male - 175
 Female - 93
 Clerks
 AFRICAN
 Male - 66
 Female - 58
 COLOURED
 Male - 3
 Female - 26
 INDIAN
 Male - 2
 Female - 13
 WHITE
 Male - 22
 Female - 199
 Service workers/General Assistants
 AFRICAN
 Male - 3
 Female - 0
 COLOURED
 Male - 1
 Female - 1
 INDIAN
 Male - 1
 Female - 0
 WHITE
 Male - 2
 Female - 7
 Skilled agricultural and fishery workers
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Craft and related trades workerts
 AFRICAN
 Male - 26
 Female - 0
 COLOURED
 Male - 5
 Female - 0

INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 45
 Female - 0
 Plant machine operators and assemblers
 AFRICAN
 Male - 35
 Female - 3
 COLOURED
 Male - 8
 Female - 1
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 2
 Female - 0
 Elementray occupations
 AFRICAN
 Male - 177
 Female - 23
 COLOURED
 Male - 9
 Female - 6
 INDIAN
 Male - 1
 Female - 1
 WHITE
 Male - 5
 Female - 3
 Total permanent
 AFRICAN
 Male - 496
 Female - 192
 COLOURED
 Male - 62
 Female - 57
 INDIAN
 Male - 81
 Female - 50
 WHITE
 Male - 843
 Female - 616
 Total non-permanent staff
 AFRICAN
 Male - 50
 Female - 41
 COLOURED
 Male - 7
 Female - 6
 INDIAN
 Male - 6
 Female - 7
 WHITE
 Male - 15
 Female - 22

Supplier Name	Medical Research Council
Contact Name	Prof W Pick
Address	P.O Box 19070
Phone Number	0219380911
Fax Number	0219380829
Meetings in last financial year	There is an existing arrangement in place to meet quarterly with the Department of Health to report on research progress and discuss priorities. Regular meetings with the Department of Science and Technology take place in accordance with the timelines linked to the management and appropriation of the Science Vote, such a submission of the Strategic Plan, Business Plan, budget motivations etc. Ad hoc meetings are also held with both Departments on several operational issues and agreements, such as the management of the national Biotechnology Roadmap exercise.
Do you have a Corporate Governance document	Yes, see annexure A
To what extent do Board members provide expertise	<p>The composition of the board has been carefully crafted such that the sectoral expertise required by the Board in carrying out its functions, is available. In addition, the board is composed of representatives of all the major sectors/stakeholders with relevance to the fulfilment of the mission of the MRC. In the prosecution of its duties, Board members provide expertise in a number of ways. The following examples illustrate the point:</p> <p>Ms Z Manasse, an accountant and until recently a member of the Board served as Chairperson of the Finance and Remuneration Committee</p> <p>Mr P Canca, Board member and lawyer provides legal expertise to the board and gives guidance to the Board's deliberations on matters with legal implications.</p> <p>Ms N Makhanya provides insights into the non-government health systems sector</p> <p>Prof. M Ramashala provides expertise on the university education sector</p> <p>Prof. L Uys provides advice on all matters that affect nursing research</p> <p>Prof. D Ncayiyana and D Du Toit provide advice on matters that affect the technikon sector</p> <p>Prof. T Gugushe provides support in matters concerned with oral health.</p> <p>Prof. G Padayachee brings perspectives and informs the board on matters affecting health services faculties</p> <p>Ms N Matsau provides the link between the MRC and the National Department of Health</p> <p>Prof. S Mokgokong, T Mokoena and R Emsley provide information and advice on matters related to clinical practice</p> <p>Prof. W Pick and H Schneider provide Health and Health Policy insights</p> <p>In addition a number of board members serve on other statutory bodies, such as the Health Professions Council, Medical Schemes Council, and are active in a range of professional organisations.</p>
Advisory panel usage	Yes, advisory/review panels are used extensively in making grants to individual researchers as well as groups and units of the MRC. See Annexure B.
KPI	See Annexure C. All KPIs are translated into quantitative indicators used to evaluate each KPI.
Use of Frascati manual	The data from Frascati-based surveys are used for strategic planning purposes and to benchmark the MRC in the science system
Parliamentary grant funded programmes	<p>National programmes</p> <p>Molecules to disease</p> <p>2000/2001 - 6 million</p> <p>2001/2002 - 7.6 million</p> <p>2002/2003 - 8.9 million</p> <p>Total - 22.5 million</p> <p>Health systems & policy</p> <p>2000/2001 - 6.8 million</p> <p>2001/2002 - 8.9 million</p> <p>2002/2003 - 8.8 million</p> <p>Total - 24.5 million</p> <p>Women & Child health</p> <p>2000/2001 - 2 million</p>

2001/2002 - 2.5 million
 2002/2003 - 2.6 million
 Total - 7.1 million

Infection & immunity
 2000/2001 - 12.7 million
 2001/2002 - 13.7 million
 2002/2003 - 14.6 million
 Total - 41.0 million

Non-communicable diseases
 2000/2001 - 16.7 million
 2001/2002 - 16.8 million
 2002/2003 - 20 million
 Total - 53.5 million

Environment & Development
 2000/2001 - 4.3 million
 2001/2002 - 4.9 million
 2002/2003 - 5.9 million
 Total - 15.1 million

Sub total
 2000/2001 - 48.5 million
 2001/2002 - 54.4 million
 2002/2003 - 60.8 million
 Total - 163.8 million

Support & Corporate expenditure
 2000/2001 - 127.5 million
 2001/2002 - 135.8 million
 2002/2003 - 179.2 million
 Total - 442.5 million

Grand Total
 2000/2001 - 176 million
 2001/2002 - 190.2 million
 2002/2003 - 240 million
 Total - 606.2 million

Justification of funded programmes

While some of the above could conceivably be done in the private sector, most of the research programmes address issues that are neglected by private sector researchers. Research directed at the critical health challenges such as HIV/AIDS, Tuberculosis and Malaria are essentially the responsibility of government, particularly in view of the enormous social and economic impact of these diseases.

Similarly, infectious diseases as a group continue to pose major threats to the health and productivity of South Africans.

Clinical trials, which make up a large component of privately funded health research, is not a major feature of MRC programmes.

It is important to note that more than 60% of all direct research income is spent on the key priority areas of HIV/AIDS, Tuberculosis, Malaria, Nutrition and Women's Health. Research in these areas is the responsibility of government.

% funding over last 3 years

Source of funds
 Baseline
 2001 - 102 - 58%
 2002 - 127 - 67%
 2003 - 145 - 60%
 Grants/contracts
 2001 - 62 - 35%
 2002 - 62 - 32%
 2003 - 82 - 34%
 Sundry income@

2001 - 12 - 7%

2002 - 10 - 1%

2003 - 13 - 6%

Total

2001 - 176

2002 - 190.2

2003 - 240

@ sundry income will include everything from rent received, interest received, sale of blood, disposal of assets etc.

No of employees

2002

Management

African male 10 - Female 13

Coloured male 9 - Female 12

Indian male 10 - Female 11

White male 25 - Female 55

Researchers

African male 24 - Female 26

Coloured male 3 - Female 14

Indian male 8 - Female 10

White male 23 - Female 48

Technical staff

African male 21 - Female 37

Coloured male 12 - Female 30

Indian male 2 - Female 8

White male 12 - Female 20

Support staff

African male 29 - Female 43

Coloured male 26 - Female 46

Indian male 2 - Female 11

White male 10 - Female 15

New appointments

African male 23 - Female 20

Coloured male 3 - Female 11

Indian male 1 - Female 13

White male 3 - Female 18

Resignations

African male 5 - Female 12

Coloured male 1 - Female 6

Indian male 1 - Female 2

White male 3 - Female 15

2001

Management

African male 9 - Female 10

Coloured male 8 - Female 11

Indian male 10 - Female 9

White male 28 - Female 52

Researchers

African male 16 - Female 18

Coloured male 1 - Female 10

Indian male 7 - Female 5

White male 25 - Female 47

Technical staff

African male 14 - Female 28

Coloured male 9 - Female 28

Indian male 2 - Female 2

White male 12 - Female 9

Support staff

African male 19 - Female 47

Coloured male 31 - Female 48

Indian male 2 - Female 11

White male 3 - Female 21

New appointments

African male 13 - Female 22
 Coloured male 4 - Female 7
 Indian male 10- Female 8
 White male 5 - Female 10
 Resignations
 African male 6 - Female 10
 Coloured male 5 - Female 5
 Indian male 1 - Female 2
 White male 7 - Female 13

2000

Management

African male 9 - Female 13
 Coloured male 4- Female 10
 Indian male 9 - Female 11
 White male 58 - Female 50

Researchers

African male 8 - Female 15
 Coloured male 1 - Female 9
 Indian male 3 - Female 9
 White male 7 - Female 50

Technical staff

African male 6 - Female 25
 Coloured male 5 - Female 17
 Indian male 2 - Female 2
 White male 5 - Female 17

Support staff

African male 21 - Female 45
 Coloured male 30 - Female 49
 Indian male 2 - Female 10
 White male 12 - Female

New appointments

African male 8 - Female 21
 Coloured male 6 - Female 15
 Indian male 3 - Female 3
 White male 7 - Female 19

Resignations

African male 19- Female 43
 Coloured male 5 - Female 12
 Indian male 4 - Female 5
 White male 8 - Female 13

Retirements

African male 0- Female 0
 Coloured male 0 - Female 0
 Indian male 0 - Female 0
 White male 2 - Female 0

1999

Management

African male 9 - Female 0
 White male 20 - Female 0

Researchers

African male 55- Female 0
 White male 89- Female 0

Technical staff

African male 64- Female 0
 White male 27- Female 0

Support staff

African male 147- Female 0
 White male 92 - Female 0

New appointments

African male 16- Female 43
 Coloured male 4 - Female 13
 Indian male 2 - Female 10
 White male 3 - Female 22

Resignations

African male 7- Female 11
Coloured male 8 - Female 8
Indian male 3 - Female 6
White male 12- Female 26

% of Staff training budget
for 3 years

Training expenditure vs payroll

The MRC workplace skills plan for the period 2002 to 2003 has been completed and submitted to the Department of Labour. Reflecting the commitment of the MRC to increase the skills and knowledge base of the science sector, the percentage of training expenditure vs payroll has once increased year on year. The graph shows the steady climb from 2.52% in the 2000-2001 budget cycle, 2.75% in the 2002-2002 budget cycle to 3.10% in the 2002-2003 budget cycle.

Although not reaching the very ambitious % of 4%, the current 3.10% by far exceeds the national legal requirement of 1%.

Benchmarking

The table below compares the MRC data for 2001 and 2002 with the SA Employment Equity statistics (from first national EE statistics supplied by the Department of Labour).

Top management

2001

Black 55%

Female 22.2%

2002

Black 67%

Female 22%

Current SA EE Statistics

Black 12.6%

Female 12.5%

Snr Management

2001

Black 29%

Female 36%

2002

Black 19%

Female 38%

Current SA EE Statistics

Black 18.4%

Female 21.0%

Middle management

2001

Black 40%

Female 62%

2002

Black 43%

Female 59%

Current SA EE Statistics

Black 44.0%

Female 43.1%

Junior management

2001

Black 64%

Female 73%

2002

Black 72%

Female 70.0%

Current SA EE Statistics

Black 56.4%

Female 40.0%

Semi skilled

2001

Black 83%

Female 70.0%

2002

Black 81%

Interactive links over 3 years

Female 72.0%
Current SA EE Statistics
Black 82.2%
Female 38.6%
Unskilled
2001
Black 95%
Female 57.0%
2002
Black 98%
Female 52.0%
Current SA EE Statistics
Black 98%
Female 28.6%

HIV/AIDS Prevention & Vaccine Development research unit
- The MRC has received major research grants to conduct and manage (a) the Southern African - New York HIV Vaccine Trials Unit and (b) the South African MRC HIV prevention trials unit.
Total funding for these major projects over a 5 year period could be more than R120 million
NIH

Malaria Research programme
- R4.7 million has been granted to provide and manage malaria control systems to the communities living near the Mozal Aluminium Smelter in Maputo, Mozambique
Mozal Community Development Trust

Tuberculosis Drug Research
- Money was granted to the MRC to establish an International Co-ordinating office and resource centre for the coalition of TB Research and Development.
The Rockefeller Foundation

Gender and Health Group (Women's Health)
- Funds (R1.52 million over 3 years) have been granted to support a collaborative partnership to create a South African gender-based violence and health initiative.
The Rockefeller Foundation

HIV/AIDS Prevention and Vaccine Development Research Unit
- The INStitute of Child Health and Human Development has awarded a grant of R1.6million for 3 years to conduct a study on the Acceptability of Vaginal Microbiocides.
NIH

Alcohol and drug abuse research group
- SADC has contracted the MRC, through funding from the European Union, for the development and extension of the Epidemiological Network on Substance Abuse (SENDU) in all SADC member states. The value of the 5 year contract is R2.8million.
SADC (European Union Funding)

Malaria Research Programme
- The WHO has awarded the MRC funding to the value of R1 million for research projects on insecticide resistance and the extension of the "Mapping Malaria Risk in Africa" project.
WHO

Health Technology research group
- Glaxo SmithKline (UK) has renewed its contract with the MRC to manage the South African component of the international "Action TB" project. The value of the contract for 2001/2002 is R5.9million.
Glaxo SmithKline

Organisational culture studies

Yes, the MRC recently conducted an organisation-wide exercise involving all staff to develop a new set of values which supports the cultural diversity of the MRC and the new strategy of the organisation for the next five years.

Code of conduct

Code of conducts are developed within the framework of the attached "MRC-Industry Partner Selection Criteria" document (Annexure C). Formal agreements which include these criteria are developed on an individual basis.

Transfer of activities to private sector

No. Partnerships with the private sector however, in all areas of research and innovation is important. This is a growing area of activity in the MRC.

Thursday, May 22, 2003

Page 104 of 116

Reasonable level of government funding	Currently the level of government funding is R145 million, which constitutes 9% of the Science Vote. Internationally equivalent research organisations as a benchmark would receive about 20% of the Science vote. This international benchmarking is largely representative of developed countries. However, taking into account the 'triple-burden of disease' (infectious diseases including HIV/AIDS, poverty related diseases and the burden related to crime, violence and injury) the MRC's share of the Science Vote should be increased - to at least 12%.
Regulation or legislation hampering success	The Public Finance Management Act has slowed down decision making in some instances.
Competition areas with companies in the private	The following are areas of potential competition with the private sector: Drug discovery and development Clinical trials Health information management and products Medical equipment R & D Limited supply of specialised chemicals and reagents Limited supply of specialised laboratory animals
Additional Question 1	Have you developed a monitoring system of health indicators in the country? If yes, please attach relevant documentation. Yes, Please refer to the set of national health indicators developed by the Department of Health in co-operation with the MRC. This is underpinned by MRC research in the area of Burden of Disease.
Additional Question 2	Do you undertake a national health policy (research) for the country? If yes, please attach relevant documentation. The MRC regularly issues policy briefs related to important research findings. In addition, the MRC Health Policy research group conducts health policy research as its central function. In so doing, it provides critical input into national health policy formulation.
Additional Question 3	Are you working closely with the National Research Foundation (NRF)? Please provide information in changes in collaboration in the last three years. The following examples of interaction between the MRC and the NRF: MRC provides the biomedical and health research expertise to the NRF to facilitate their system of peer review and to allow appropriate allocation of research grants to health researchers.* Reciprocal referral to appropriate research proposals happens between the two science councils.* Joint strategic planning of the national Indigenous Knowledge Systems* MRC is represented on the National Committee for ICSTI and CODATA. *These arrangements have been in place for at least three years.
Additional Question 4	N/A
Additional Question 5	N/A
Additional Question 6	N/A
Workforce profile	SEPTEMBER 2000 Legislators, Snr Officials & Managers AFRICAN Male - 6 Female - 1 COLOURED Male - 1 Female - 3 INDIAN Male - 1 Female - 1 WHITE Male - 27 Female - 13 Professionals AFRICAN Male - 4

Female - 9
 COLOURED
 Male - 2
 Female - 7
 INDIAN
 Male - 8
 Female - 9
 WHITE
 Male - 32
 Female - 37
 Technicians & Associate Professionals
 AFRICAN
 Male - 17
 Female - 41
 COLOURED
 Male - 6
 Female - 21
 INDIAN
 Male - 7
 Female - 11
 WHITE
 Male - 14
 Female - 63
 Clerks
 AFRICAN
 Male - 10
 Female - 27
 COLOURED
 Male - 17
 Female - 30
 INDIAN
 Male - 1
 Female - 8
 WHITE
 Male - 8
 Female - 17
 Service workers/General Assistants
 AFRICAN
 Male - 11
 Female - 13
 COLOURED
 Male - 12
 Female - 13
 INDIAN
 Male - 0
 Female - 2
 WHITE
 Male - 1
 Female - 0
 Skilled agricultural and fishery workers
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Craft and related trades workerts
 AFRICAN
 Male - 0

Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Plant machine operators and assemblers
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Elementary occupations
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Total permanent
 AFRICAN
 Male - 48
 Female - 91
 COLOURED
 Male - 38
 Female - 74
 INDIAN
 Male - 17
 Female - 31
 WHITE
 Male - 82
 Female - 130
 Total non-permanent staff
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 SEPTEMBER 2001
 Legislators, Snr Officials & Managers

AFRICAN
 Male - 5
 Female - 3
 COLOURED
 Male - 3
 Female - 2
 INDIAN
 Male - 1
 Female - 3
 WHITE
 Male - 28
 Female - 13
 Professionals
 AFRICAN
 Male - 4
 Female - 7
 COLOURED
 Male - 5
 Female - 9
 INDIAN
 Male - 9
 Female - 6
 WHITE
 Male - 20
 Female - 39
 Technicians & Associate Professionals
 AFRICAN
 Male - 18
 Female - 46
 COLOURED
 Male - 13
 Female - 34
 INDIAN
 Male - 7
 Female - 12
 WHITE
 Male - 16
 Female - 57
 Clerks
 AFRICAN
 Male - 19
 Female - 35
 COLOURED
 Male - 19
 Female - 37
 INDIAN
 Male - 2
 Female - 5
 WHITE
 Male - 3
 Female - 21
 Service workers/General Assistants
 AFRICAN
 Male - 12
 Female - 12
 COLOURED
 Male - 9
 Female - 15
 INDIAN
 Male - 0
 Female - 2
 WHITE
 Male - 1
 Female - 0
 Skilled agricultural and fishery workers

AFRICAN
Male - 0
Female - 0
COLOURED
Male - 0
Female - 0
INDIAN
Male - 0
Female - 0
WHITE
Male - 0
Female - 0
Craft and related trades workerts
AFRICAN
Male - 0
Female - 0
COLOURED
Male - 0
Female - 0
INDIAN
Male - 0
Female - 0
WHITE
Male - 0
Female - 0
Plant machine operators and assemblers
AFRICAN
Male - 0
Female - 0
COLOURED
Male - 0
Female - 0
INDIAN
Male - 0
Female - 0
WHITE
Male - 0
Female - 0
Elementray occupations
AFRICAN
Male - 0
Female - 0
COLOURED
Male - 0
Female - 0
INDIAN
Male - 0
Female - 0
WHITE
Male - 0
Female - 0
Total permanent
AFRICAN
Male - 58
Female - 103
COLOURED
Male - 49
Female - 97
INDIAN
Male - 19
Female - 28
WHITE
Male - 68
Female - 130
Total non-permanent staff

AFRICAN
Male - 0
Female - 0
COLOURED
Male - 0
Female - 0
INDIAN
Male - 0
Female - 0
WHITE
Male - 0
Female - 0

SEPTEMBER 2002

Legislators, Snr Officials & Managers

AFRICAN
Male - 5
Female - 1

COLOURED
Male - 3
Female - 3

INDIAN
Male - 1
Female - 4

WHITE
Male - 31
Female - 15

Professionals

AFRICAN
Male - 8
Female - 7

COLOURED
Male - 6
Female - 8

INDIAN
Male - 7
Female - 7

WHITE
Male - 21
Female - 37

Technicians & Associate Professionals

AFRICAN
Male - 36
Female - 70

COLOURED
Male - 21
Female - 46

INDIAN
Male - 11
Female - 21

WHITE
Male - 16
Female - 62

Clerks

AFRICAN
Male - 20
Female - 32

COLOURED
Male - 12
Female - 31

INDIAN
Male - 1
Female - 7

WHITE
Male - 1

Female - 24
 Service workers/General Assistants
 AFRICAN
 Male - 14
 Female - 11
 COLOURED
 Male - 8
 Female - 13
 INDIAN
 Male - 1
 Female - 2
 WHITE
 Male - 1
 Female - 0
 Skilled agricultural and fishery workers
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Craft and related trades workerts
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Plant machine operators and assemblers
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Elementray occupations
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0

Female - 0
Total permanent
AFRICAN
Male - 83
Female - 121
COLOURED
Male - 50
Female - 101
INDIAN
Male - 21
Female - 41
WHITE
Male - 70
Female - 138
Total non-permanent staff
AFRICAN
Male - 0
Female - 0
COLOURED
Male - 0
Female - 0
INDIAN
Male - 0
Female - 0
WHITE
Male - 0
Female - 0

Supplier Name	SA Weather Bureau
Contact Name	Dr Nadison
Address	Private Bag X097 Pretoria 0001
Phone Number	0123093419
Fax Number	0123093629
Meetings in last financial year	
Do you have a Corporate Governance document	
To what extent do Board members provide expertise	
Advisory panel usage	
KPI	
Use of Frascati manual	
Parliamentary grant funded programmes	
Justification of funded programmes	
% funding over last 3 years	
No of employees	
% of Staff training budget for 3 years	
Benchmarking	
Interactive links over 3 years	
Organisational culture studies	
Code of conduct	
Transfer of activities to private sector	
Reasonable level of government funding	
Regulation or legislation hampering success	
Competition areas with companies in the private	
Additional Question 1	
Additional Question 2	
Additional Question 3	
Additional Question 4	
Additional Question 5	
Additional Question 6	
Workforce profile	2002 Legislators, Snr Officials & Managers

AFRICAN
 Male - 1
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 5
 Female - 0
 Professionals
 AFRICAN
 Male - 4
 Female - 1
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 17
 Female - 4
 Technicians & Associate Professionals
 AFRICAN
 Male - 19
 Female - 5
 COLOURED
 Male - 2
 Female - 2
 INDIAN
 Male - 2
 Female - 2
 WHITE
 Male - 49
 Female - 17
 Clerks
 AFRICAN
 Male - 39
 Female - 16
 COLOURED
 Male - 16
 Female - 0
 INDIAN
 Male - 3
 Female - 0
 WHITE
 Male - 30
 Female - 34
 Service workers/General Assistants
 AFRICAN
 Male - 0
 Female - 0
 COLOURED
 Male - 0
 Female - 0
 INDIAN
 Male - 0
 Female - 0
 WHITE
 Male - 0
 Female - 0
 Skilled agricultural and fishery workers

AFRICAN
Male - 0
Female - 0
COLOURED
Male - 0
Female - 0
INDIAN
Male - 0
Female - 0
WHITE
Male - 0
Female - 0
Craft and related trades workerts
AFRICAN
Male - 14
Female - 7
COLOURED
Male - 1
Female - 1
INDIAN
Male - 0
Female - 1
WHITE
Male - 0
Female - 1
Plant machine operators and assemblers
AFRICAN
Male - 0
Female - 0
COLOURED
Male - 0
Female - 0
INDIAN
Male - 0
Female - 0
WHITE
Male - 0
Female - 0
Elementray occupations
AFRICAN
Male - 30
Female - 7
COLOURED
Male - 11
Female - 2
INDIAN
Male - 0
Female - 0
WHITE
Male - 0
Female - 0
Total permanent
AFRICAN
Male - 107
Female - 36
COLOURED
Male - 30
Female - 3
INDIAN
Male - 5
Female - 3
WHITE
Male - 101
Female - 56
Total non-permanent staff

AFRICAN

Male - 1

Female - 1

COLOURED

Male - 2

Female - 0

INDIAN

Male - 0

Female - 1

WHITE

Male - 0

Female - 0