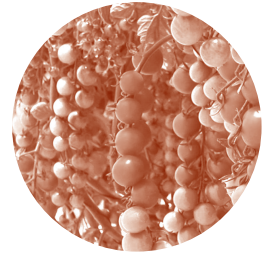




Agricultural Research Council
Strategic Plan
2005-2008



Agricultural Research Council

Strategic Plan

2005-2008

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Statement of Policy and Commitment

1. Introduction and Strategic Overview

1.1. Introduction

The Agricultural Research Council (ARC) is a public entity within the national system of agriculture mandated through the Agriculture Research Act:

- i. To conduct research,
- ii. To develop technology, and
- iii. To transfer technology that promotes agriculture and industry.

The ARC is listed as a Public entity in terms of the Public Finance Management Act (PFMA) Act 1 of 1999.

This legislation places responsibility on the Council of the organisation, as the accounting authority, to manage the resources in a manner that encourages efficiencies and accountability for the use of public funds.

A key responsibility is to present to the Executive an annual Strategic plan for a rolling five year period.

1.2. Purpose of the Strategic Plan

This document guides the processes and activities of ARC towards the realisation of its strategic goals. The strategic goals of the organisation are stated in Table 1 (page 14), and are fully described in later chapters of this document.

1.3. Responsibility

This plan is the responsibility of the management and the Council of the organisation. It is a product of consultation within the different levels of staff in the organisation. It is supported by different business plans, initiatives and projects emanating from the different business divisions within the organisation.

1.4. Policy

The plan is guided by national priorities applicable to the entity as a whole and it is devolved to all levels in the organisation through business plans and initiatives from the different business divisions.

1.5. Commitment

The Council acknowledges that it is accountable to the people of South Africa for the successful implementation of the strategic plan in meeting of the mandates of the ARC. The Council undertakes the overall responsibility for developing the vision of enabling policies and procedures that will enable the realisation of this strategic plan.

1.6. The Strategic Planning Process

This plan was developed through a process of consultation between management and Council through a series of workshops and interactions within the organisation. It is informed by the business drivers and factors identified as impacting on the organisation.

The Mandate & Business of the ARC

2. Mandate of the ARC

2.1. Primary Mandate

The ARC was established in terms of the Agricultural Research Council Act (Act No. 86 of 1990) and bears the statutory mandate to:

- i. To conduct research,
- ii. To develop technology, and
- iii. To transfer technology that promotes agriculture and industry.

This mandate is funded through an annual Parliamentary Grant.

2.2. Agency Mandates

2.2.1. Maintenance of National Assets

The national goods are maintained on behalf of the Department of Agriculture (DoA) and Department of Science and Technology (DST). The costs for the maintenance of these national assets are currently provided for through specific allocations from the DoA and the DST.

The ARC provides the custodian with a variety of national collections of plants, animals, bacteria, yeasts and viruses that form important sources for reference, and/or represent important sources of genetic material for future use in the development of future products of economic benefit, and/or the environmental sustainability of agriculture in South Africa.

2.2.2. Provision of National Services

The ARC currently provides and performs a variety of specialist services that are discipline related to research and development activities. These services could be located elsewhere without denaturing the quality of the substantive research and technology development work of the organisation. These aspects of the operations of the ARC are costed, and separated from the core strategic funding of the organisation. These services include the following:

- i. National quarantine services,
- ii. National diagnostic services,
- iii. Agricultural engineering services.

These mandates are funded through special allocations from DoA and DST and also through levying of fees for services rendered.

Business Drivers

3. Organisational Business Drivers - Environmental Assessment Providing the Context in which the ARC Operates

3.1. Introduction

The Agricultural Research Council is an organ of state and as such its primary reason of existence will be found within policies of government and what it sets out as its priorities. These policies and priorities emanate from different departments of government through directives, strategy plans and legislation. Notwithstanding these the ARC is also influenced and affected by various factors within its environment. These are mainly the demands of the industry it was created to serve, that of agriculture.

3.2. National Priorities

3.2.1. National imperatives

The business of the ARC continues to be influenced by and in support of the national priorities as stated by the President of the country in the Annual State of the Nation Address (SONA). The ARC supports these priorities in the following ways:

- a. To grow the competitiveness of the '1st' economy.
From time to time we conclude partnerships with industry groups to co-fund research projects which are in the national interest and are intended to raise the competitiveness of the South African farmers.
- b. To modernise the '2nd' economy.
We adopt a two pronged strategy of first ensuring that technologies already developed in the past are transferred into the Resource Poor Farmers' sector and secondly that at least 20% of our research effort is specifically directed at solving problems of Resource Poor Farmers.
- c. To create social security safety nets.
The research that we undertake in the pest and disease management projects assists in creating an environment where agricultural produce do not suffer from pests and diseases which may deal serious blows to the economic well being of the people of the country especially the poor who depend on the land and its produce.
- d. Increased support for SADC and NEPAD initiatives.
The research we do is also accessible to the SADC countries.

3.2.2. MinMec decisions

The work of the ARC is guided by MinMec decisions as they are determined from time to time. Management ensures that staff is compelled to embark on projects and activities that assist the achievement of the desired outcomes from MinMec's.

3.3. National system of agriculture - Department of Agriculture context

The mandated focus of the ARC is the agriculture sector of the South African economy, and the organisation is directed towards delivering on its mandate through its contribution in the value chain of agriculture as espoused in the Strategic Plan for South African Agriculture (2002). The Strategic Plan for South African Agriculture articulates a vision of:

“A united and prosperous agricultural sector”

The Strategic Plan identifies strategies that provide a foundation for the achievement of Strategic goals of the Agricultural sector. The ARC Strategic Plan support the attainment of the core strategies.

3.4. National System of Innovation

3.4.1. Department of Science and Technology context

The ARC is one of ten publicly funded science and technology performing institutions that constitute the National System of Innovation (NSI) that is funded through the Science Vote managed by the Department of Science and Technology.

In 1997 the Department of Arts, Culture, Science and Technology commissioned a national system wide review of all science, engineering and technology institutions (SETI) on behalf of the Minister's Committee on Science and Technology. The SETI Review established broad principles for the re-organisation of the National System of Innovation (NSI) and the use of public funds for Science Councils. This was in order to make the system more responsive to the goals of national policy. The review recommended a range of measures to be adopted by the Science Councils to improve internal management and their accountability for the use of public funds.

In 2002, the National Research and Development Strategy (NRDS) was accepted by Cabinet as the basis for the further development of the National System of Innovation. This was to address the challenges of a declining national investment in R&D, the variety of human, economic and other strategic risks facing the country and region, and the declining human resource base for science, engineering and technology (SET).

The Agricultural Research Council seeks to support the NRDS through engagement with the three key areas for its implementation, namely:

- a. Enhanced innovation.
This component of the NRDS encapsulates the establishment and funding of a range of new technology missions that are critical for the promotion of economic and social development, and include the development of new technology platforms, and mission based approaches to the application of technology to achieve desired goals.
- b. Providing SET human resources and transformation.
This component of the NRDS addresses the national need to radically increase the number of women and people from previously disadvantaged communities entering and remaining in the science system, and a strategy to maximise the pursuit of excellence in our science system.
- c. Creating an effective government Science & Technology system.
Through this component, the NRDS seeks to establish a clearer role for the line Departments that utilise science and technology for purposes of delivery in their specific sectors within a framework of best practice with respect to government funding of science and technology.

3.4.2. Technological factors

The South African White Paper on Science and Technology and subsequent National Biotechnology Strategy consider science and technology to be central to creating wealth and improving quality of life of the people of South Africa. The National Research and Technology Foresight exercise and the review of Science, Engineering and Technology Institutions (SETIs) recognized that developments in bioscience are driving an economic revolution that could shape the future of human development.

The ARC has developed its own biotechnology strategy, positioned within the South African Biotechnology Strategy and regional and African imperatives.



3.5. Economic factors

Agricultural production of food and industrial products represents a significant contribution to the national economy. Although agricultural primary production directly contributes only about 5% to the GDP of South Africa, it leverages a further contribution of about 9% through forward and backward linkages to other sectors in the economy (agricultural inputs and processing of agricultural products). South Africa's agricultural exports in 2000 were worth about R16 billion, or 10% of its total exports. The work of the ARC contributes towards the increase that agriculture contributes towards the GDP largely as a result of development of appropriate agricultural technologies.

3.6. Sociological factors

The following factors have been identified as affecting how the organisation delivers its products and services:

- i. Challenges to the health of the population,
- ii. Poverty alleviation and eradication,
- iii. Lack of focus in the development of indigenous knowledge systems,
- iv. High rates of unemployment,
- v. Skewed participation and access to the sector by previously disadvantaged individuals.

Primary agriculture accounts directly for 11% of formal sector employment of South Africa, and provides for the livelihoods, housing and education of over 20% of the total population. This leverages a similar contribution from other sectors of the economy. The net effect is that 40% of South Africa's total population depends on agriculture. The ARC contributes to the solutions towards these social factors by developing relevant and appropriate technologies.

3.7. Compliance to legislation - Legal factors

There are several legislations that the organisation operates under which include among others the following:

- i. The Agricultural Research Council Act, Act # 86, 1990,
- ii. The Public Finance Management Act, Act # 1, 1999,
- iii. The Preferential Procurement Framework Act, Act # , 2000,
- iv. The different legislations dealing with different aspects of agriculture.

3.8. Findings and Recommendations of the Institutional review process

An independent institutional review was conducted towards the end of 2004. At the time of preparing this plan the formal report had not been tabled. The findings and recommendations will inform organisational plans going forward. These findings and recommendations which will inform the organisational plans going forward will be brought to the attention of the Executive Authority.

3.9. Financial Management

The Agricultural Research Council (ARC) is a Public Entity listed in Schedule 3A of the Public Finance Management Act (PFMA), Act 1 of 1999. This legislation places responsibility on the Council of the organisation, as the accounting authority, to manage the resources in a manner that encourages efficiencies and accountability for the use of public funds.

3.10. Funding pressures

The ARC needs to maintain a certain critical research capacity, skill and infrastructure to be ready at all times to enable the country to mitigate the effects of any pest or disease in agriculture that threatens food security or economic well being of the nation. The quest to maintain this critical capacity leads to situations where the Core Strategic fund cannot adequately cover the expenditures without the organisation complementing it through external income by levying fees in commercially driven projects.

Drivers as a Research Organisation

4. ARC Strategic Thrust

4.1. Introduction

Emanating from the contexts described in chapter 3 the organisation has developed its research strategic goals meant to guide its areas of activity. The research output of the organisation will be judged against the achievement of these goals. From time to time there will be Research and Development Summits held where inputs about the research thrust of the organisation will be determined.

4.2. Strategic public interest research

4.2.1. Mitigation of present challenges

The problems that agriculture faces creates the need for the adaptive research we undertake. This we do through primary research in the behaviour of certain aspects in crops and animals which then serve as a basis for the technology development program.

4.2.2. Fore sighting and Mitigation of future challenges

The ARC recognises the fact that its statutory responsibilities for research, technology development and transfer require it to engage with strategic and long term research questions to the national system of agriculture. This encompasses the ability to foresee future challenges to the agriculture sector and developing appropriate advice and technologies to alleviate and/or mitigate these future challenges that other organisations involved in this arena cannot commit to.

4.2.3. Contribution and Support for the National Strategy for Agriculture

The key outcomes of the research the organisation undertakes are in support of the Core Strategies as they are espoused in the Strategic Plan for South African Agriculture.

The strategic objectives of the National Strategy for Agriculture include

- a. **Equitable access and participation**
To enhance equitable access to and participation in agricultural opportunities, to deracialise land and agricultural enterprise ownership, and to unlock the full entrepreneurial potential in the sector.
- b. **Global competitiveness and profitability**
To enhance profitability and ensure sustained global competitiveness in the sector's input supply, primary production, agro-processing and agro-tourism industries.
- c. **Sustainable resource management**
To enhance farmer capacities to use resources in a sustainable manner and to ensure the wise use and management of natural resources.
- d. **Provision of safe and quality food.**
To ensure that the food produced by the agricultural sector is safe and nutritious for human consumption and that post-harvest losses are minimised. Safe food implies food that is either free of certain micro organisms or toxins or is within acceptable safety limits.

e. **Food security**

This strategy aims to identify appropriate adaptation and mitigation strategies to combat the negative effects of natural phenomenon on food production. The changes in the climatic conditions, compounded by the severities brought by the El Niño and la Niña phenomena, dictate the cycles of the research output required from the organisation. The primary outcome of this strategy is an enhanced and expanded base for food production throughout the year that reduces the periods of dependence on stored produce in rural households, and reduces the risks of hunger caused by climate change and dependence on a small group of crops.

4.3. Conventions and protocols

The different national and international conventions that deal with the degradation of the environment impact on the operations of the organisation. The work the ARC does, especially in disease and pest management, require that stringent standards are adhered to in order to prevent any contamination that may be caused. This requires significant and continuous investment in appropriate facilities.

4.4. Enhancing the identity of the organisation as a research and development institution.

The ARC remains committed to its quest to be a world-class agricultural research organisation that consistently generates quality science and innovation in addressing the present and future challenges of our agricultural sector.

Strategy Statement

5. Strategic Goals and objectives

5.1. Introduction

Through its Strategic Planning processes the organisation has determined the goals listed in Table 1 as its strategic goals. These goals were arrived at after due consideration of the factors that impact on the ARC.

Table 1: Strategic goals of the Agricultural Research Council

1. Providing agricultural research products and services, which contribute to:
 - i. The sustainable use of the natural resource base and the environment,
 - ii. The competitiveness of the South African agricultural sector,
 - iii. Increased participation and access to the sector by resource poor farmers,
 - iv. The production of high quality and safe food,
 - v. An informed society.
2. Effectively managing the resources of the organisation.
3. Creating a diversified, competent, empowered and performance oriented cadre of employees.
4. Creating a well functioning, integrated and efficient organisation.
5. Providing products and services desired by our customers

5.2. The Vision of the organisation

To be a nationally and internationally recognised centre of excellence in agricultural science and innovation.

5.3. The Mission of the organisation

To promote the agricultural and related sectors through research, technology development and technology transfer.

5.4. Organisational strategic objectives in the context of the ARC's Strategic goals

5.4.1. Purpose of the strategic objectives

The organisation's strategic objectives are the statements that describe the processes and activities that will be implemented to achieve the strategic goals or outcomes. As such they describe or define the outputs that the organisation will seek to produce in order to realise its Strategic Goals. (a) These objectives are used to develop the relevant Key Performance Indicators (KPI's) with which our outputs in the different strategic goals are measured. The KPI's are tabled in the Balanced Scorecard which is the performance measurement tool adopted in the organisation. (b) Focus our projects, initiatives and actions so as to achieve specific strategic outcomes and to discourage activities, initiatives and projects that are not value adding and do not contribute to the strategic goals of the ARC. (c) Guide our resource allocation.

5.4.2. List of the Strategic Objectives

The organisation has adopted the strategic objectives listed below to guide its activities during the year. They have been grouped under the five (5) perspectives of the Balanced Scorecard such that they support the different strategic goals.

- a. Creating a Centre of Innovation and Learning perspective.
 - i. To ensure that the ARC continues to deliver on its mandate,
 - ii. To ensure that the ARC remains at the forefront of agricultural research,
 - iii. To ensure that the ARC contributes to the Generation of new knowledge.
- b. Meeting our customers needs perspective.
 - i. To ensure that the ARC delivers products and services required by its customers,
 - ii. To maintain value-added customer relations,
 - iii. To maintain value-added shareholder relations,
 - iv. To ensure that the ARC contributes to the equitable access to and participation in agricultural opportunities.
- c. Managing our finances to meet our mandates perspective.
 - i. To ensure that the ARC is financially sustainable,
 - ii. To ensure effective management of resources,
 - iii. To ensure positive cash flows,
- d. Investing in our people and transformation perspective.
 - i. To ensure that the ARC is a transforming organisation,
 - ii. To ensure that the ARC is an employer of choice,
- e. Building a better organisation perspective.
 - i. To ensure that the ARC is a responsible corporate citizen,
 - ii. To ensure the ARC's business continuity,
 - iii. To manage the ARC effectively,
 - iv. To ensure that the ARC delivers its services according to acceptable quality standards,

Stakeholder Support

6. SUPPORT MECHANISMS

6.1. Introduction

The ARC, by virtue of its statutory status and responsibility for the promotion of agriculture and related sectors for the benefit of all South Africans, aligns itself and its activities to the formation of alliances, partnerships and other forms of association such that the research we undertake will contribute towards the needs of our stakeholders. The partnerships and alliances that we wish to form are guided by value addition to our mandates and the creation of new knowledge and will always endeavour to maximise returns on the public funds invested in the ARC by the people of South Africa.

6.2. Partners

6.2.1. Organs of state - Public sector organisations

Our relationships with these organisations shall be based firstly on the premise that as public entities we are driven by national policies and priorities and secondly by the acknowledgement of each others role in the state machinery. The organs of state considered to be parties include:

- i. National Department of Agriculture (DoA),
- ii. Department of Science and Technology (DST),
- iii. The nine Provincial Departments of Agriculture (PDA's),
- iv. The agriculture faculties at the Universities,
- v. National Research Foundation (NRF),
- vi. Other science Councils, (where applicable)
- vii. Other departments in the spheres of government, (where applicable)

6.2.2. Commercial organisations – Private sector organisations

Our relationships with these organisations are premised on their quest to seek solutions to their problems and our desire to assist them with due recognition and consideration of obligations created in delivering the solutions they need.

- i. Agricultural commodity organisations and individual farmers,
- ii. Representative farmers' organisations,
- iii. Agribusiness (Agro processing)

6.2.3. International

Our relationships with these organisations are premised on our desire to tap into the repository of resources outside our country in order to continuously improve our ability to meet our mandates and also on the quest to contribute to the creation and sharing of knowledge. These organisations include:

- i. Other agricultural research organisations,
- ii. International funding organisations,
- iii. International institutions of higher learning.

6.3. Nature of the support

6.3.1. Financial support

The financial support that the ARC derives from these organisations includes the following:

- i. Government primary funding in the form of parliamentary grant for public interest research, technology development and technology transfer
- ii. Secondary funding in the form of grants
- iii. Industry primary funding in the form of fees for products produced and services rendered,

6.3.2. Technical support

The technical support that the ARC derives from these organisations includes the following:

- i. Research collaboration opportunities,
- ii. Knowledge sharing opportunities.

Governance

7. Organisational Structure

7.1. Organisational structure

7.1.1. The Council

The ARC Council, appointed by the Minister of Agriculture, governs the ARC. The functions of the Council are determined in the ARC Act and the PFMA and include inter alia the following:

- i. To be the Accounting Authority,
- ii. To approve the strategic plan, corporate business plan and annual budget,
- iii. To set corporate policies of the ARC,
- iv. To oversee the activities of the President,
- v. To set performance targets for the organisation.

7.1.2. The Management

The President and Chief Executive Officer, who is the Accounting Officer of the organisation, heads the Executive Management Committee (EMC) comprising Group Executives heading different business divisions.

The purpose of the EMC is to provide corporate strategic management, administrative and programme support, and managerial leadership to the organisation.

The EMC is accountable for the implementation of the policies and mandates of the organisation as determined by the Council.

7.1.3. The structure of the organisation

The activities of the organisation are undertaken by the business divisions mentioned below. The divisions of the organisation can be grouped into the performing or core divisions and the service divisions in support of the core divisions.

7.2. Core divisions

7.2.1. Grains and Industrial Crops division,

- a. The Grains and Industrial Crops division conducts applied and adaptive research in grain and industrial crop production and systems.
- b. The division also manages National Assets (Gene banks of seed collections).

7.2.2. The Public Support Services division

- a. The PSS division provides research services, technology development and transfer of technologies to enhance the quality of agro ecosystems through better understanding of the links between soils, water and biotic resources.
- b. The division also manages National Assets (Agro-meteorological network, databanks and soil collections) and also provides National services (quarantine services, surveillance and monitoring services)

7.2.3. The Livestock division

- a. The Livestock division conducts applied and adaptive research in animal production and animal health.
- b. The division also manages National Assets (databanks, collections and Gene banks) and provides National services (Foot and mouth and rabies laboratories, livestock improvement schemes, diagnostic and analytical services and blood vaccine production).

7.2.4. The Horticulture division,

- a. The Horticulture division conducts applied and adaptive research in improved fruit and vegetable crop, and ornamental plants production and systems.
- b. The division also manages National Assets (Gene banks and yeast collections).

7.2.5. Sustainable Rural Livelihood Division

- a. The SRL division is responsible for the identification and coordination of the needs of Resource Poor Farmers (RPF's) and emergent farmers emanating from provinces.
- b. The division is also responsible for the coordination of the appropriate solutions within the ARC system.
- c. The Sustainable Rural Livelihood manages an internal competitive Fund set aside to specifically focus on research, technology development and technology transfer interventions aimed at previously disadvantaged target groups.

7.3 Support divisions

The support organisation consist of the divisions mentioned below who in turn charge-out their operational costs to the core business divisions to ensure correct costing and pricing of the ARC's products and services:

7.3.1. Human Resources and Administration Division

- a. The Human Resources and Administration division is responsible to deliver support services for the acquisition, development, and retention of the human resource capital within the ARC.
- b. The division also provides corporate administrative services.

7.3.2. Finance and ICT Services Division,

- a. The Finance and ICT Services division is focused on delivering support services for the provisioning of and effective use and control of financial resources within the ARC.
- b. It is responsible for the reporting function in compliance with relevant financial statutes and regulations.
- c. The division is also responsible for the procurement function and IT services in the organisation.

7.3.3. Business Development and International Relations Division.

- a. The BDIR division is responsible for the intergovernmental relations between the ARC and Government.
- b. The Business Development and International Relations division focuses on support geared towards best business practices in the areas of marketing and business development, communication and international relations.

7.4. Decision making and delegations within the organisation

7.4.1. Delegated Authority

The organisation has a system of delegating authority from the Council to the lowest levels of staff where decisions are necessary and are to be made. The framework comprises the following core documents for the different levels where decisions are made:

- i. The Board Charter – detailing the powers of the Council and its subcommittees.
- ii. The Delegated Authority Framework – detailing the powers of the different officers of the organisation from the President to the lowest levels where decisions are made.

7.4.2. Monitoring and control of the delegations

- a. Every officer of the organisation who is given decision making power is given a specific Letter of delegation from either the President or the Group Executive detailing the profile they have i.e. what the ambit and limitations on the categories of decisions they can have.
- b. These delegations are then checked every time a transaction is generated in all the systems of the organisation.
- c. The internal audit function has, as part of their annual audit plan, the responsibility to audit the compliance and adherence of the different officers to the delegations.

Organisational Resources

8. Organisational Resources and Capabilities

8.1. Location

The infrastructural facilities of the ARC are spread across ten main institutes countrywide, which positions the organisation in a manner that its research and development capacity can conduct basic and applied research in varied agro-ecological zones. The spread enables the organisation to undertake its work in most biophysical and ecological zones of the country which largely resemble the SADC regional zones.

8.2. Characteristics of the resources of the organisation

8.2.1. Human capital

The ARC employs 2600 employees in all the divisions at the different sites spread all over the country. These employees comprise the management teams, researchers and technical staff, and support staff. The competences and capabilities of our staff, especially the research and technical staff, keep the ARC at the forefront of research.

8.2.2. Land and Buildings

The ARC owns 50 experimental farms spread all over the country in all the provinces. A number of these have been mothballed as some of the projects have been curtailed or funding reprioritised to other areas. It is a strategic objective of the organisation to look at alternative use of whatever extra capacity it has.

8.2.3. Laboratories and Equipment

The ARC owns numerous accredited and reference laboratories, and other specialized facilities and equipment in all the provinces of South Africa. There are challenges to modernise some of the laboratories and equipment so that new crops and animals and new techniques can be researched.

8.2.4. Process technologies and resources for innovation

Over time the ARC has developed or acquired process technologies through all the levels of biotechnology that enables it to do research through the total value chain of agriculture and in most crops and animals.

8.2.5. Scientific Resources

The scientific resources, like germplasm, collections etc. that the organisation has acquired over the years continue to be a source for excellent scientific output.

8.2.6. Intangible assets.

The ARC is a statutory body and as such understands that all intellectual property derived from its activities vests in the state. The ARC has acquired numerous patents, cultivars and breeds as intellectual property for the people of this country. This intellectual property and the good name of the organisation represents reputational assets that are leveraged to attract more customers, grants and talent towards the organisation.

8.2.7. Financial resources

- a. The operations of the organisation are mainly financed by an annual Parliamentary Grant through the science vote. The organisation then has to look to other private sector sources to increase revenue.
- b. The organisation generates external income from customers and this contributes towards the funding requirements to fully carry out its mandates.

Performance Management

8.3. Performance management system

8.3.1. Introduction

The performance of the ARC is evaluated, firstly, on its contribution towards the desired outcomes of the implementation of the Agriculture Sector Strategy. Measures of this performance are outputs that contribute to improved innovation and knowledge available to the agricultural sector, and the services that the organisation can provide to the sector.

The corporate performance is also evaluated on the broad-based evaluation processes of the National System of Innovation. This evaluation is based on a combination of the achievement of anticipated outputs and outcomes, inside and outside of the organisation, and the ability of the organisation to leverage external funding for use in complementary activities. As a result some of the KPI's in the scorecard are those specifically identified by the DST as appropriate for the Science Councils.

8.3.2. The Balanced Scorecard

The organisation adopted the Balanced Scorecard methodology as a performance measurement tool which is the instrument of choice of DST. This scorecard entails the Key Performance Indicators (KPI's) considered relevant for the operations of the ARC, i.e. for the measurement of those critical aspects that will lead to the achievement of the ARC strategic goals. The tool helps us to focus on the measurements that are relevant to meeting the mandates we have. The Balanced Scorecard also forms the basis of performance contracts for the Executive Management and designated levels of staff. We believe this approach will make it easy for effective management towards desired outputs and outcomes and will facilitate ease of detecting weaknesses and implementation of corrective action where required. The choice of the Strategic Objectives and Key Performance Indicators (KPI's) is the product of consultation between the Council and the management of the organisation.

The following are the perspectives of the ARC Balanced Scorecard and they are based on the strategic goals:

- a. Meeting our customer needs
- b. Creating a centre of innovation and learning.
- c. Managing our finances to meet our mandates,
- d. Building a better organisation,
- e. Investing in our people and transformation,

8.3.3. Adequacy of the system

The organisation agreed a set of KPI's and targets for the year 2004/5 and put in place a monitoring system on these KPI's.

8.3.4. Efficacy of the system

The system seems to be operating well overall. The performance compacts and job descriptions of all employees are being updated and aligned with the KPI's as they appear in the scorecard. The system has been accepted by all levels as the one that best aligns daily activity to corporate goals and outputs.

8.4. Evaluation of the current performance

The performance of the organisation on the majority of the KPI's it has agreed for the year 2004/5 is satisfactory as at end of the 3rd quarter. There is no indication that the strategic and business plans for the following years could not be based on the current year's plans.

8.5. Performance targets for 2005/6 – 2009/10.

The line function and corporate performance targets of the ARC are developed into a Corporate Balanced Scorecard approved by Council.

Strategy Implementation

9. IMPLEMENTATION OF STRATEGY

9.1. Introduction

The implementation of this strategic plan will be through the development of different strategic choices in the different programs of the business. The ARC is engaged in close on to 1600 research projects at any point in time. These projects range in complexity from projects and initiatives that have a life span of 1 month to those that have a life span of 15-20 years.

For each strategy we will set out its strategic aim and the investment strategies (options) to be undertaken to achieve the goal. This method will then facilitate the development of annual budgets and performance plans. We will also provide a brief description of addressing the measure of when the ARC is making progress towards that goal.

9.2. Organisational Strategic Alignment

At the beginning of each financial year a corporate strategic plan and corporate business plan is developed. At the end of this process each business division is asked to develop its divisional action plans, strategic initiatives and projects to support the strategic plan and business plan. Figure 1 depicts this process.

9.3. Strategic options

Invariably the development of a strategic plan leads to a state where choices have to be made on which options to pursue and resource. The organisation however takes the view that in order to keep all the key performance indicators on the radar screen it would employ a system of weighting the different options each year and using these weights to decide on the investment strategies that would encourage desired organisational behaviour. This would lead to a situation of prioritising the options and then pursuing those that resources allow.

9.4. What guides the resource allocation towards the strategic objectives.

The following three variables are considered when decisions are taken on resource allocation, namely:

- i. The current state or level of development or maturity of the strategic objective considering its KPI's and the desired state the organisation wants to be at on a maturity profile.
- ii. The desired improvement in the option and/or KPI.
- iii. Strategic considerations in line with the shareholder determinations

9.5. Nature and scope of planned projects, organisational initiatives and action plans.

9.5.1. Core strategic mandate

9.5.2. National priority driven projects

The research projects undertaken by our core divisions in order to meet our core strategic mandate define what we are all about. These projects are proposed and are funded according to their contribution to the meeting of the ARC's contribution to the national priorities and imperatives. The following areas have been identified as encompassing the national priorities and therefore deserving attention:

- a. Ensuring household and national food security, through
 - i. Mitigating the impact of climate changes
 - ii. Mitigating against pest and disease impact

- b. Broadening access to technology solutions to include the needs of RPF's
- c. Growing and sustaining the competitiveness of agro products

This area of our operations will be receiving more attention in the next few years. This will be aligned and driven and guided by the fore sighting initiatives.

9.5.3. Prioritised Partnership driven projects

From time to time our customers indicate their desire for certain projects to be undertaken. The organisation evaluates these projects and where it is found that they enhance the achievement of the national priorities partnership agreements are entered to co-fund the expenses. These projects are evaluated by a Projects Approval Authority established by each GE. The inputs of the Divisional Advisory Panels are considered when the research decisions are taken.

This area of our business is based on partnerships we are able to create with the commercial sector.

9.6. Maintenance of National Assets

This ARC agency mandate is from DoA and DST to manage the national assets. These comprise a variety of national collections of plants, animals, bacteria, yeasts and viruses that form important sources for reference, and/or represent important sources of genetic material for future use in the development of future products of economic benefit, and/or the environmental sustainability of agriculture in South Africa.

The upkeep of these national goods remains in the forefront of the activities we do in this business area. We however wish to enter into Memoranda of Agreement with the clients on their expectations and the obligations created.

9.7. Provision of National Services

The services we provide here include the Diagnostic and surveillance services around pests and diseases that can befall the whole agricultural sector. Our Exotic Diseases Department continues to provide critical capacity in the research necessary for containment of economically devastating diseases like Foot and Mouth Disease and Avian Flu.

9.8. Shareholder ring fenced programs

From time to time the shareholder allocates to the organisation special or ring fenced funds to achieve certain goals.

In the last few years allocations were made towards the following:

- a. SADC projects,
Examples of some of the projects include:
 - i. Development of country specific information systems to facilitate SADC wide information flow about migrant pests such as armyworm, locusts and Qualea birds.
 - ii. Projects related to crop protection, and Regional disease surveillance on industrial crops for SADC countries e.g. monitoring of the mutation of verticillium wilts of cotton.
- b. Development of scientific capacity.

The organisation develops separate business plans on how it intends to meet its obligations created by these allocations.

9.9. Shareholder determined projects

From time to time the shareholder determines certain projects and request the ARC to undertake them. A Memorandum of Understanding has been entered into between the President and CEO of the ARC and the Director General of DoA to govern this area. In the last few years allocations were made towards the following:

- a. Livestock improvement schemes
One of the flagship programs is the extension of the livestock recording schemes to RPF's.
- b. Engineering services.
Development of Agro processing machinery and equipment for RPF's and SMME e.g. ground nut machines.

9.10. Commercially driven research projects

From time to time we undertake research projects for customers who cover the total costs for the work performed.

9.11. Corporate initiatives in support of the strategic goals

The organisation will be embarking on a number of initiatives meant to assist the achievement of the ARC's strategic objectives in the different business areas. Examples of these are the following:

- a. Marketing campaigns,
- b. Workshops,
- c. Seminars,
- d. Surveys,
- e. Development of different strategies,
- f. Specialised training programs, etc.

Strategies

10. Strategies to Achieve Research Outcomes

10.1. Introduction

These strategies are at the core of the business of the ARC. All the other strategies in other areas of the business are meant to support the achievement of the research outputs and outcomes. As a result, the organisation will endeavour to create processes that will focus and align the research activities in a matrix approach such that the research done in one part of the organisation is in sync and informed by what is happening in other parts.

Outputs are the tangible products and services produced whereas the outcomes are the benefits derived from the products and services we produce.

10.2. Strategic Objective 1: The sustainable use of the natural resource base and environment

10.2.1. Aim

The aim of this Objective is to develop production technologies and systems that will not degrade land under agricultural production thereby ensuring effective use of the resource to get more from less.

10.2.2. Measurement of success

The ARC will be successful in making progress towards this outcome when, through its contribution to other efforts, there is preservation of agricultural biodiversity and sustainable use of land and natural resources under agricultural production.

10.2.3. Key Investment Strategies:

- i. The ARC will invest in the conservation of the germplasm collections.
- ii. The ARC will develop economically and agronomic optimal production systems and practices.
- iii. The ARC will develop and conserve livestock genetic resources for the enhancement of sustainable animal production.
- iv. The ARC will invest in new practices and technologies to conserve natural base and balance production efficiency and environmental quality.

10.3. Strategic Objective 2: To contribute to a globally competitive agricultural sector

10.3.1. Aim

The aim of this Objective is to strengthen competitiveness and enhance the productivity and profitability in the agricultural sector.

10.3.2. Measurement of success

The ARC will be successful in making progress towards this outcome when high yielding, pest and disease resistant commercial and indigenous varieties have been developed and are used by all farmers (both commercial and resource poor)

10.3.3. Investment Strategies:

- i. The ARC will breed and develop cultivars with higher grain and fibre yield, better adapted to climate changes, improved pest and disease resistance with superior quality for processing and end use purposes.
- ii. The ARC will identify new crops and alternative uses of crops for commercial purposes.
- iii. The ARC will improve technologies which would enhance animal production value, shelve life and quality

10.4. Strategic Objective 3: Increased access to the agricultural sector by resource poor farmers

10.4.1. Aim

The aim of this Objective is to contribute to the enhanced equitable access and participation in agricultural opportunities for resource poor farmers and emerging farmers.

10.4.2. Measurement of success

The ARC will be successful in making progress towards this outcome when at least 5,000 resource poor farmers have successful access to relevant technologies developed by ARC resulting in increased productivity and efficient use of resources.

10.4.3. Key Investment Strategies

- i. The ARC will develop relevant crop production technologies and sustainable production systems.
- ii. The ARC will encourage co-operation and communication with resource poor farmers to also find out what their needs are.
- iii. Use products of livestock and related research for economic development and well being, including food security, job creation and income generation.

10.5. Strategic Objective 4: Ensure high quality and safe food

10.5.1. Aim

The aim of this strategy is to promote nutritious and safe food.

10.5.2. Measurement of success

The ARC will be successful in making progress towards this outcome when, through its contribution, the primary agricultural products produced in South Africa are of a high quality and nutritional value.

10.5.3. Key Investment Strategies

- i. The ARC will undertake research and development of technologies in production of high quality products
- ii. The ARC will encourage through research production of indigenous crops
- iii. Generate knowledge that would contribute to development of markets and enterprises within livestock industry

10.6. Strategic Objective 5: Support an informed society

10.6.1. Aim

The aim of this strategy is the promotion of an informed society.

10.6.2. Measurement of success

The ARC will be successful in making progress towards this outcome when information is accessible to all levels of the farming community in South Africa in their language of choice

10.6.3. Key Investment Strategies

- i. The ARC will develop and implement elaborate multimedia approaches to disseminate information and transfer technology to all involved in agriculture
- ii. The ARC will develop crop decision-making models and cultivate good working relationships and networks with all customers
- iii. The ARC will provide livestock based technology transfer and dissemination

11. Strategies to Enhance the Resources and Capabilities of the Organisation

11.1. Introduction

The ARC recognises the importance of its resources and capabilities as a source for competitive advantage and corporate profitability. It recognises that it is through the effective and efficient utilisation of these resources and capabilities that it will be able to realise its strategic goals. The organisation therefore acknowledges that it will have to make investments in its different resources and capabilities to maintain and enhance its competitive edge and relevance.

11.2. Objective

The strategies that the ARC adopts regarding its resources are premised on the following:

- i. We need to compete by making the most of our resources and capabilities.
- ii. We need to ensure that our resources and capabilities are fully employed and their potential exploited to the limit.
- iii. We need to continuously build the organisation's resource and capability base.

11.3. Human capital

11.3.1. Strategy aim

The aim of this strategy is to ensure that the ARC has the human resources that will enable it to meet current and future customer demands and needs.

11.3.2. Introduction

a. Number

The ARC employs 2600 employees in all the divisions at the different sites spread all over the country. These employees comprise the management teams, researchers and technical staff, and support staff.

b. Competences

The competences and capabilities of our staff, especially the research and technical staff, keep the ARC at the forefront of research. In order that the organisation conducts research at the frontiers of knowledge, highly trained and specialized individualized are recruited into the organisation.

The demands put on our country by the global economy and its two economies put unique challenges on the ARC. It is vitally important that the ARC uses a diversified workforce as a strategy to effectively deliver on its mandate and address the emergent priorities of this country.

c. Environment

In order to achieve its aims, the Organisation must provide an innovative and professional service which is able to meet tough targets on quality, timeliness and helpfulness whilst giving good value for money. The staff we need must be professional, highly trained, flexible, well motivated and experienced to be able to respond to the growing variety of customer requirements.

To balance the aims of ARC with the aspirations of individuals we have a duty to continuously provide rewarding and competitive conditions of employment. We therefore aim to create a working environment where employees can realise their true potential and are fully recognised for their contribution.

11.3.3. Objectives

In order to continue providing the products and services that our customers need we need to effectively manage our human resources. We have determined through research and experience that the following are critical for this:

- a. Acquiring a diverse and appropriately qualified staff,
- b. Continuous training and skills development of staff,
- c. Effective retention strategies within a high performance environment.

11.3.4. Implications

The objectives we have chosen gives rise to the following themes that underpin our people strategy:

- a. Everyone in ARC should have a stake in the business:
Every employee should be aware of what is expected of him/her, his/her performance and his/her contribution to the organisation through his/her Performance Compact, etc.
- b. Effective communication improves our business:
ARC wants all its people to continuously enhance their inter-personal and communication skills needed in teamwork and for a customer focused organisation.
The EMC will be having regular Institute visits, team briefings and strategic road shows and an “open door” policy of access to improve effective communication with all employees.
- c. Everyone should be encouraged to develop to his or her full potential:
ARC aims to have Personal Development Plans (PDP) for each employee so that a structured and supported program is put in place to benefit all. These plans will have as their objective the identification and addressing of the employees’ performance requirements in their current jobs and also addressing their career aspirations.

11.3.5. Key investment strategies

- a. We will ensure that every employee has a clear understanding of his or her role and value in the organisation. Performance Compacts will be developed detailing clearly what is expected of him or her and how he or she will be evaluated. These contracts are aligned with the strategic objectives and are an expression of how each employee contributes to the attainment of those objectives.
- b. We will ensure that all employees have six monthly performance reviews and that annual plans are completed on time containing agreed objectives.
- c. We will ensure that all ARC employees have agreed Personal Development Plans that are aligned with the ARC objectives. We undertake to make time and resources available to achieve this.
- d. We will conduct annual employee satisfaction surveys that have detailed targets set for the aspects that are important for this measure.
- e. We commit to listen to the staff and provide feedback on their concerns.
- f. We will continue to improve recognition for outstanding performance.
- g. We will invest resources to effective retention frameworks to enable the organisation to acquire and retain high performing personnel.
- h. We will engage in deliberate programs designed to increase numbers of previously underrepresented groups to enhance the diversity of our workforce. As part of our diversity programs we will ensure a heightened commitment to equip our workforce with skills and competencies to operate within a changing culture.
- i. We will improve our policies and practices when we deal with the commercial environment to incorporate the objectives of the National Broad based Black Economic Empowerment Strategy.

11.3.6. The statutory requirements that ARC will meet or exceed

ARC is a public entity within the Ministry of Agriculture and Land Affairs. As a public funded entity our employees are expected to have very high standards of honesty, integrity, political impartiality, objectivity and professionalism. ARC must in turn have the highest standards of people management.

Some of the undertakings set out above are principles laid down in the different legislation affecting public sector organisations. Others are based on the values that the ARC holds. As a well managed, people focused organisation ARC would wish to measure its performance and meet or exceed the following requirements:

- a. Ensuring that its Employment Equity plan is achieved.
- b. Ensuring freedom from harassment, prejudice or unfair discrimination and adherence to fair labour practice.
- c. Providing safe environment that meet Safety, Health and Environmental (SHE) requirements.

11.4. Infrastructure

11.4.1. Strategy aim

The aim of this strategy is to enable the organisation to have adequate and necessary infrastructure to enable it to do its work.

11.4.2. Introduction

Organisations that do not take care of their infrastructure lose their ability in the long run to provide the products and/or services sought by their customers. The ARC recognises that whilst there may be short term gains to be had when planned refurbishment or replacement of infrastructure is postponed or deferred to future time periods it normally costs more.

11.4.3. Objectives

In order to continue providing the products and services that our customers need we need to effectively manage our infrastructure. We have determined through research and experience that the following are critical for this:

- a. Optimal utilisation of infrastructure,
- b. Timeous refurbishment and replacement of existing infrastructure,
- c. Planned capital acquisition and discarding program.

11.4.4. Implications

- a. The organisation needs a well developed capital investment evaluation and authorisation process.
- b. The annual budgets should be alive to the needs of this strategy.

11.4.5. Key investment strategies

- a. We will ensure that the ARC knows what its optimal infrastructural requirements are.

11.5. Goods and services

11.5.1. Strategy aim

The aim of this strategy is to manage the acquisition, use, storage and/or disposal of goods and services to realize the best Total Cost of Ownership (TCO) for the organisation.

11.5.2. Introduction

To provide the products and services that our customers need we continuously need inputs and services from other service providers in the commercial world. This process of acquiring these goods and/or services is governed by the Supply Chain Directives and Policies applicable to organs of state. The investments made throughout the organisation do not justify the most complex procurement structures and practices found in manufacturing or retail organisations.

11.5.3. Objectives

We have determined the following to be critical for this:

- a. A transparent and competitive procurement system,
- b. Procurement opportunities also being exploited by those previously excluded,

11.5.4. Implications

- a. Compliance to all government supply chain policies
- b. The organisation may have to pay premiums or developmental costs when using BEE suppliers.

11.5.5. Key investment strategies

- a. We will create a corporate wide suppliers' database that enables the supply of demanded goods and services.
- b. We will create and resource tactical cross functional sourcing teams to take advantage of procurement opportunities arising from corporate wide needs.
- c. We will invest in programs and processes that would promote procurement from BEE suppliers throughout the commodities.

11.5.6. The statutory requirements that ARC will meet or exceed

As a well managed organ of state the ARC wishes to measure its performance and meet or exceed the following requirements:

- a. Stipulations and targets set in the BEE Act, and
- b. Ensuring that its Black Economic Empowerment plan is achieved.

11.6. Intangible resources

11.6.1. Strategy aim

The aim of this strategy is to maintain and grow the ARC's reputational name such that the organisation can leverage the confidence that the customers and other stakeholders attach to the brand, reputation and image of the organisation.

11.6.2. Introduction

The organisation recognises that there is a lot of weight that different stakeholders place on its name, image and reputation. This recognition compels the organisation to consider these as part of resources that need to be managed effectively. For the ARC to have maximum impact, we need to continue to make our products, services and more importantly our resources and capabilities known nationally and internationally.

It is our aim to build the ARC into a brand that can be leveraged by our researchers and institutes to attract projects, grants and talent.



11.6.3. Objectives

In order to continue providing the products and services that our customers need we need to effectively manage the name, brand and reputation of the organisation as a centre of excellence. We have determined that the following are critical for this:

- i. Building the Brand and Reputation of the organisation,
- ii. Protecting and popularising the Intellectual property value created by the organisation,
- iii. Registering Patents emanating from our activities as a research organisation,
- iv. Ensuring that the intellectual output and publications emanating from our activities is protected through the Copyright laws applicable.
- v. Protection of the organisations Trade secrets which may be embodied in techniques, practices, protocols and methodologies.

11.6.4. Implications

- a. The Brand and associated insignia of the organisation will be popularised and consistently displayed at all occasions where the ARC and its staff are participating, especially if the ARC contributes resources.
- b. Brand building is an activity that we need our people to engage in all their activities and interactions.

11.6.5. Key investment strategies

- a. We will publicise the major benefits our work has had for our customers including the DOA and PDA's and the ways it has impacted the South African agriculture and beyond.
- b. We will maximise our use of contacts within the DOA and beyond in the Government popularising our capabilities.
- c. We will invest in activities nationally and internationally using our brand as a platform for future contacts and alliances.
- d. We will create opportunities for our employees to showcase the achievements of the organisation and their own achievements.

This strategy is allied with the strategies dealing with customers and building value added partnerships and networks.

12. Strategies to Finance the Operations of the Organisation

12.1. Strategy aim

The aim of this strategy is to ensure that there is effective management of the finances available throughout the organisation.

12.2. Introduction

As a publicly funded organisation the ARC competes with other national priorities for its funding. The funding we receives from the Science vote is not adequate to cover all our public mandates. The core strategic fund, allocated for Research, technology and technology transfer, has also been used to fund the management of the national assets and provision of national services. We have engaged in processes to decouple the funds required to do this and have engaged the DoA and DST to fully fund this aspect of our mandate. This engagement is beginning to bear fruit. There is definitive movement towards meeting the full costs of delivering this mandate.

12.3. Objectives

In order to continue providing the products and services that our customers need we need to effectively manage our financial resources. We have determined through research and experience that the following are critical for this:

- a. Ability to generate more external income and grants.
- b. Effective management of costs especially overhead and support costs.
- c. Collecting fees due to the organisation as and when they fall due.
- d. Spending money through prioritisation of research projects and initiatives.
- e. Systems to foster financial control and discipline at all levels of management.
- f. Continuous training and skills development at the appropriate levels of management.
- g. Acquiring a diverse and appropriately functionally qualified staff.

12.4. Implications

The success of this strategy is premised on creating an effective financial control and support system that empowers the organisation. The objectives we have chosen gives rise to the following themes that underpin our finance strategy:

- a. A strong management accountability framework,
- b. Cost containment, and
- c. Leveraging our existing infrastructure to attract more external income

12.5. Key investment strategies

- a. We will ensure that financial controls are created and adhered to.
- b. We will ensure that our information systems are enhanced

12.6. The statutory requirements that the ARC will meet or exceed

As a well managed organ of state the ARC wishes to measure its performance and meet or exceed the following requirements:

- a. Provisions of and regulations emanating from the PFMA



13. Strategies to Build a Better Organisation

13.1. Strategy Aim

To define what ARC needs to do to be an effective and efficient outward looking organisation consistently meeting our customer's expectations and giving excellent value for money.

13.2. Introduction

An organisation like the ARC needs to be well run benchmarking its practices against the best practice within its environment. This has to be done so that it not only offers the best for its staff but to ensure that it delivers on its customers demands and needs.

As a publicly funded organisation the ARC competes with other national priorities for resources from the fiscus. It therefore means that the use of resources is a matter of public interest.

13.3. Objectives

There are certain core operational aspects of our service that are fundamental to meeting customer expectations. Management has determined that the following receive top priority:

- a. A comprehensive system of corporate planning,
- b. Development and agreeing stretching and challenging targets for the organisation and individuals,
- c. A systematic and thorough review of all aspects of the business
- d. Effective corporate governance and controls,
- e. Regular reporting of performance,
- f. Effective and value added support to the core divisions by the service divisions,
- g. Open communication,
- h. Business Continuity,

13.4. Key investment strategies

13.4.1. Corporate Planning

The Organisation has a comprehensive system of corporate planning that integrates research projects and the provision of national services, input from stakeholders and creates a focused and manageable Corporate Plan. This Corporate Business Plan is agreed by the Executive Authority and The Council and forms the basis of the Medium Term Plan (MTF) bid for funding.

The Corporate Business Plan also provides the framework for the development of divisional business plans and Action Plans. These focus on the services to be delivered by the core divisions through Customer Service Level Agreements, Project Agreements or Supplier Agreements. It also focuses the service divisions towards services delivered within the Organisation in support of the core divisions. Institute Action Plans will be presented to responsible Group Executives for final agreement.

The Corporate Business Plan needs to be communicated to everyone in the Organisation, so that there is understanding of direction of the organisation, and what everyone is expected to contribute towards the achievement of the objectives for the particular period.

13.4.2. Corporate performance targets

Important outputs from the corporate planning process are the targets for the organisation and individuals. The organisation's Key Targets are a major part of the Chief Executive's personal responsibility plan as agreed with Council, and need to cascade through Group Executives to Institute Heads, departmental managers, team leaders and team members. These targets, based on agreed Key Performance Indicators (KPI's), form the Balanced Scorecard of the organisation.

13.4.3. Review

a. Business

Building on the principles of the SETI reviews conducted in the mid 1990's all aspects of the ARC's business are continuously reviewed. We will undertake reviews that are systematic and thorough, so that strengths and areas for improvement are identified and taken forward. Where appropriate, external scrutiny shall form part of the review. The ARC will undergo a fundamental review every five years.

b. Structure

At the beginning of each financial year the President will apprise the ARC's Council on the structure of the organisation to ensure it is best designed to deliver the services.

c. Policies

Key corporate ARC policies adopted in order to establish consistent, uniform and compliant standards and practices, such as the Safety, Health and Environment (SHE) and Employment Equity (EE) Policies should be reviewed at least biannually. Some of the policies will include review as part of the policy, for example, the regular risk assessment required by the SHE Policy.

d. Processes and systems

At the process level, Key Processes and systems need to be reviewed at least annually to ensure they remain up to date and well managed. Our processes and procedures are reviewed with a view of increasing integration of systems. Other processes need regular, though less frequent review.

e. Projects

At the end of each project a formal Review should be conducted to learn lessons for the future. Proper project management is to be exercised, using effective project management tools.


13.4.4. Effective corporate governance

Effective corporate governance requires an appropriate system of delegated authorities and controls within the organisation, so that decisions are taken at the appropriate level within the organisation, and that the ARC acts with propriety in its use of public funds.

We will continue improving and streamlining the decision-making processes to enable a strong culture of accountability within the ARC.

13.4.5. Business Continuity

The success of our business relies on our ability to continue functioning despite disruption that can occur through a wide variety of reasons.

- 
- a. Human factors
We are developing rigorous succession planning initiatives that are primarily geared towards mitigating against staff turnover. These are supported by the key investment strategies defined in the People and Socio-economic Transformation Strategy.
 - b. Business processes
We are embarking on a program to document our processes within a Total Quality Management system. This is also to mitigate the effects of reliance on the human factor.
 - c. Resources
The safe keeping of resources and critical work is a subject of Risk Management Committees and management within each of our divisions.
 - d. Knowledge and information
We will strive to make and store computer back-ups off-site. We will review our current practices with a view to improving the safekeeping of information and knowledge generated within the ARC.

13.4.6. Regular reporting of performance

An essential mechanism for ensuring the Organisation stays on track and achieves its Corporate Plan is systematic, regular and timely reporting of performance at all levels. The Organisation uses the Balanced Scorecard and traffic-lighting approach to reporting performance to the Executive Committee on a quarterly basis. The different Key Performance Indicators (KPI's) and targets are agreed at the beginning of each financial year. These KPI's are closely linked to this Corporate Strategy document.

- a. Corporate
At year-end we must produce an Annual Report audited by the Auditor-General and submitted to Parliament.
- b. Divisional
The following performance reports are prepared quarterly for the Performance Monitoring Committee of the Council:
 - i. Financial review of the organisation showing how the finances are being managed,
 - ii. Divisional Performance report showing how the division is performing against predetermined performance targets.
- c. Individual
All employees are required to sign individual performance compacts based on their deliverables as they contribute to the KPI's in the annual Balanced Scorecard. Their performance is reviewed half-yearly and the review contributes to the Personal Development Plans that each employee has.

13.4.7. Communication

To get the best from the organisation, we need effective and efficient communication within and outside the Organisation.

ARC's Council and Executive Management Committee will operate in as transparent and open fashion as possible with minutes and actions being available to all. The access to this information will be according to the dictates of the law affecting confidential and classified information.

We expect divisions to keep the Executive Management Committee informed timeously of problems and successes, so that we can help solve the former and celebrate the latter.

13.4.8. Effective support to the core divisions by the service divisions

The service divisions in the ARC exist to support the core divisions on matters of finance, procurement, ICT, Legal, Human capital and corporate activities. The service divisions will use Internal Service Level Agreements to agree mutual responsibilities and seek regular feedback on their performance to effect continuous improvement.

14. Strategies to Build Value Added Networks and Partnerships

14.1. Strategy aim

The aim of this strategy is to ensure that the ARC develops and maintains effective partnerships with the shareholder, research institutions, funding organisations, and suppliers.

14.2. Introduction

The organisation needs to improve the quality of the relationships between itself and its stakeholders through both the formally established channels for governance, the advisory forums created by the organisation and the ARC's participation in general information sharing within the agricultural community.

14.3. Objectives

There are certain partnerships and alliances to our service that are fundamental to meeting customer expectations and remain at the fore front of research. Management has determined that the following receive top priority:

- i. Relationship with the shareholder,
- ii. Relationships with other research institutions,
- iii. Relations with funding organisations,


14.4. Implications

The success of this strategy is premised on creating and restoring capacity within the organisation that is focussed on creating, fostering and managing the relationships identified.

14.5. Key investment strategies

a. Shareholder departments

The relationship with the Shareholder is crucial. The Shareholder acts as our champion and critical friend. The ARC acknowledges that the shareholder provides the majority of its funding and recognizes that this continued support is critical for the provision of public interest research outputs. We aim to keep our Shareholder well informed about our activities, and use it as a source of intelligence about issues affecting the nation that may impact on ARC. The organisation commits to highlight to the shareholder the true costs of meeting its mandates and will endeavour to develop agreement on the appropriate funding model for this.

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- b. **Advisory panels**
Similarly, we aim to keep our Advisory Panels and other investors in our work as a source of valuable input through regular visits by us and to us. Our relationship with customers is dealt with in detail in the Customer Strategy. We however will strive to create partnerships that are aligned to the Medium Term Expenditure Framework (MTEF) of the shareholder.
 - c. **Other research institutions**
Partnerships with other research institutions, especially within the National System of Innovation, remain underdeveloped. We aim to enhance the relationships we have with these institutions, including institutions of higher learning, for joint projects and leveraging of resources.
 - d. **Funding organisations**
The organisation will identify funding organisations nationally and internationally who have specific interest to assist resource poor farmers and also those that encourage the pursuit of scientific knowledge.
 - e. **Suppliers**
For suppliers, we aim to be a good customer, giving clear statements about our requirements and feedback on the services provided. Where appropriate we aim to sign Service Level Agreements or Customer Supplier Agreements with them.

It is a priority to increase the procurement of goods and services with Black Economic Empowerment (BEE) enterprises and where we form Public-Private Partnerships we have a bias towards enterprises that promote BEE.

15. CUSTOMER STRATEGY

15.1. Strategy Aim

The aim of this strategy is to define what the ARC needs to do to provide excellent service to all its customers, including other organisations within the government departments that consume our services or are part of the sector.

15.2. Introduction

Good customer relations are vital for us to achieve our mandate so that we succeed as a Science Council. We aim to offer excellent customer service to all our customers.

Our customer base range from the 3 spheres of government, through industry organisations up to individual farmers. This base is continually expanding and changing and the demands placed upon us are increasing. In order to continuously try to meet all of these demands all of the time, the management of customer expectations is a key consideration for us. We aim to work closely with our customers to agree priorities, and deliver the agreed programmes of products and services.

15.3. Objectives

There are certain core aspects of our service that are fundamental to meeting customer expectations. Management has determined that the following are the top three expectations that customers have of the ARC:

- a. Delivery on agreed Service Level Agreements,
- b. Good customer feedback and communication, and
- c. An understanding of the customer's businesses and their needs.

Our customers expect a first class service from us in these areas and we need to make these aspects of the service the focus of our activity.

15.4. Implications

The objectives we have give rise to four themes that underpin our customer strategy:

- a. Management of our customers' expectations:
While striving to satisfy customer expectations there needs to be an understanding that customer demands are sometimes unrealistic or require resources that cannot be justified. Where we are unable to fully meet the customer's expectations then we should be positive about what we can achieve.
- b. Keep customers informed:
We aim to work closely with our customers to agree realistic and achievable programmes of work and to set priorities. We aim to promise only what we know we can deliver and we will keep our customers fully informed at all times especially when we encounter problems.
- c. Development of long-term partnerships with customers:
We aim to develop long term partnerships with our key customers especially progressive industry organisations. Our relationships with customers should be beyond that of customer/supplier and developed into a partnership where the research we produce is to the benefit of the people of South Africa and our region. In this environment, we can be proactive and creative with our output that will offer value-added services.
- d. Treat customers with respect:
We should treat our customers, big or small, with courtesy and respect at all times. Each contact with a customer, whether by phone, in writing or face to face is a defining moment for the organisation, and provides the customer with its impression of ARC. We aim to treat our customers with respect and courtesy and we recognise that every contact a customer has with us influences their perception of the ARC. We must be helpful, proactive, and flexible and above all we must be sensitive to their individual needs.

15.5. Key Investments Strategies

Our strategy flows from these four key themes and takes the form of a ten-point contract with all our customers, both external and internal.

15.5.1. Customer expectation

We will maintain Service Level Agreements and Project Control Mechanisms to define the basic service with most of our customers. We will aim to meet all of the targets laid down in these agreements. Where this proves impossible we will give the customer the maximum possible warning time and re-negotiate what can be done within what time scale. Even when things are on schedule, we will keep customers fully informed of progress.



15.5.2. Customer feedback

We will seek regular feedback from our customers through the annual Customer Satisfaction Survey, Industry Advisory Panels and through management's visits. Our aim is for all of our customers to express themselves at least satisfied with the timeliness and quality of our work and the helpfulness of our staff in the annual survey, and for a good proportion of them to acknowledge a year on year improvement. We will act on the feedback we receive and tell customers what we have done to put right any problems they have raised. We will take customer complaints seriously and deal with them appropriately in line with the ARC policy for handling customer complaints.

15.5.3. Customer influence

We will involve customers in influencing the ARC's direction and setting of strategic priorities. At corporate level, this will be achieved through the Shareholders Compact with government, Progressive Industry Advisory Panels and organised bodies for different customers and through formal and informal contacts with ARC's Chief Executive and Group Executives. At a working level, ARC's institute managers will plan and negotiate forward work programs with their strategic customers, making sure that our resources are deployed to have most impact on the customers' business. We will assess the relative merits of deploying resources to different projects and business opportunities. As well as considering the deployment of resources within existing funding, possible sources of funding for new work will need to be considered

15.5.4. Proximity to customers

We aim to relook at some of our operational locations. It is our aim to locate close to our strategic customers, especially resource poor farmers in the erstwhile homelands, so that we can work closely with them and develop a deep knowledge of their businesses and their needs. In this partnership, our customers have a responsibility to keep us fully informed on policy and organisational developments, to invite us to sit on relevant committees and working groups, and to give us feedback on the impact that our work has had. This will justify our continued existence and grow the support we get from government. Internally, we will use inter team meetings and visits to gain understanding of customer needs.

15.5.5. Development of appropriate products and services

We aim to innovate and create new products and services for both existing customers and the resource poor farmers. We will stay abreast of wider issues affecting our customers' business to try to anticipate their demands and needs. To do this for existing, mainly organised customers, we will continue seeking to understand their business and using the tried methods that have served us very well thus far.

We will remain ceased on the needs and demands of the resource poor farmers and gather market intelligence on what their requirements might be. As the number and diversity of our customers' increase, an increasingly important part of the relationship is how and when we charge for new work. Our policy is to seek funding transfers wherever practical to cover new work we take on.

15.5.6. Customer orientation

- a. We recognise that our staff is critical to the provision of the service we undertake. To this end we will provide our customer contact staff with customer service training and encourage everyone in the organisation to be helpful, courteous and knowledgeable when dealing with customers.
- b. We will deal efficiently and politely with customers. We aim to answer the telephone promptly and be courteous and clear. When we are not available we will use answering machines and call diversions to make sure that no call is lost. We aim to make sure that our offices are staffed between normal business hours on working days.

15.5.7. Product presentation and knowledge

- a. We will present our products in a clear and informative fashion. Our advice and information will be accurate, relevant to the business and in plain language for all our customers.
- b. We aim to maintain sufficient expertise on all of our major products and services so that our ability to meet our customer expectations is not solely reliant on any single expert within ARC. To this extent we intend using multidisciplinary delivery systems where possible.

15.6. Internal customer satisfaction

We also recognise that we have internal customers within ARC, who deserve the same excellent service as our external customers. This will be expanded on more in the section dealing with Building a better organisation.

16. Strategies to Build a Better Brand

16.1. Strategy Aim

The aim of this strategy is to ensure that the ARC develops a reputation that can help it to attract more research opportunities, grants and talent.

16.2. Introduction

The brand of an organisation is one of the most important assets it can have. The goodwill and value derived from a good brand is what sustains an organisation. The ARC brand is only known to a market segment that is directly involved with primary agriculture. The work we do is not associated with the brand.

16.3. Objectives

We need to strengthen the brand in the current markets and introduce the brand to other segments that are critical to the business of the ARC.

16.4. Implications

The success of this strategy is premised on creating an internal understanding of the value the brand has for the organisation.

16.5. Investment Strategies

- a. We will evaluate the ARC brand,
- b. We will develop appropriate marketing channels to cover the targeted audiences and market segments.



17. Learning and Innovation Strategy

17.1. Strategy aim

To define what the ARC will do to create a centre of learning and innovation.

17.2. Introduction

Discovery of new ideas, theories, technologies, processes and methodologies are at the heart of solutions to the ever-increasing problems the world faces. The quest for discovery drives the imagination, creativity and work of researchers. The innovation that results is a driving force for continued economic growth and opens more opportunities for entrance of resource poor farmers.

17.3. Objectives

There are certain core operational aspects of our organisation that are fundamental to creating a learning and innovative environment. Management has determined that the following receive top priority:

- a. Encouraging new ideas and methods,
- b. Enhancing the opportunities offered by indigenous knowledge systems,
- c. Encouraging cross-disciplinary approaches,
- d. Encouraging co-operative research efforts and exchange programs,
- e. Use of the advancing ICT as a backbone to generate, organise and package, and share knowledge.
- f. Continued upgrading of research infrastructure.
- g. Expanding the knowledge base on natural resource management for sustainable agricultural production.
- h. Promote value adding technologies and the beneficiation of primary agricultural products.
- i. Expanding the technology base to address the needs of resource poor farmers.

17.4. Key investment strategies

17.4.1. Encouraging new ideas and methods

The ARC will create an environment where researchers will be able to propose and pursue ideas and have the confidence that there is a transparent and fair review process.

17.4.2. Opportunities offered by indigenous knowledge systems

The ARC will provide resources and performance measures to encourage the tapping in into indigenous knowledge systems. The tacit involvement of the knowledge holders is critical for embarking on this program.

17.4.3. Encouraging cross-disciplinary approaches

The solutions needed by farmers, especially in the erstwhile homelands, or emergent farmers and/or beneficiaries of land reform programs require multi-disciplinary approaches that promote integrated farming systems. Our divisions will be encouraged to engage in co-operative research efforts in order to provide comprehensive solutions but also unleash the potentialities inherent in synergistic efforts.

17.4.4. Encourage co-operative research efforts and exchange programs

The ARC recognises that it does not have all skills required in agricultural research. It will continue to create alliances with national and international organisations to offer itself and its staff the opportunities to engage at the cutting edge.

17.4.5. Use the advancing ICT as a backbone to generate, organise, package and share knowledge

The ARC recognises the immense potential that the advancing ICT innovations present for the generation, organising, packaging and sharing of information and knowledge. We will therefore implement initiatives that will enable our researchers to take advantage of and participate within the information revolution.

17.4.6. Continued upgrading of research infrastructure

We recognise that we will have to make resources available to upgrade our research infrastructure: instruments, equipment, laboratories, research farms and related facilities, to state of the art levels to enable our researchers to be at the cutting edge of research.

17.4.7. Expanding the knowledge base on natural resource management for sustainable agricultural production

The country has a problem of declining high to medium potential agricultural lands arising from interactions between unsustainable agricultural and environmental land use practices. The ARC will undertake resource auditing and mapping, reclamation of degraded soils, control of invasive alien vegetation and the rehabilitation of degraded environments and irrigation schemes, we will be able to contribute to the sustenance and expansion of land under agricultural production.

17.4.8. Create value addition technologies and promote the beneficiation of primary agricultural products

One of the national priorities identified for the 2nd 10. years of democracy is that of Value addition on primary products or natural resources of our country. Agro processing of primary agricultural products can create jobs, increase the shelf life, safety and quality of food and provide a better return on investment. The ARC will therefore embark on research and development of such technologies for farmers so that they could derive maximum benefit from post harvest processing.

17.4.9. Expanding the technology base to address the needs of resource poor farmers

The ARC recognises the importance of technology for the development and improvement of livelihoods. We will continue to support the development and transfer of existing and new high level technologies to assist small-scale farmers in their efforts to commercialise.



18. Information Strategy

18.1. Strategy aim

To define how the ARC treats information.

18.2. Introduction

The ARC requires speedy access to its research and management information to allow it to stay abreast of its complex spans of interest. Our managers want simple, clear views of the information and do not want to spend much time looking for it. Similarly our research staff want their project information in clear but more comprehensive manners.

There are many interest groups outside the ARC that make extensive use of ARC services and information resources to run their own activities. They want the high level information but they also want tailored products to suit their needs.

All these internal and external users of ARC information will require different accesses to the information they require without compromising the security and legal imperatives that govern the information managed within the organisation. The ARC maintains the highest ethical standards in the management of the information at its disposal respecting copyright and confidentiality laws.

18.3. Key investment strategies

18.3.1. Processes

We will systematically review the quality of our main information systems and processes. We will work with our suppliers to implement improvements. We will operate effective policies for disaster recovery and security.

18.3.2. Software

We aim to ensure we are using the best software and data architecture methods available at an affordable price. The software we have has been deployed for sometime. We however need to look closely at whether we are using the best possible methods to support the business for the coming years and therefore we will stay abreast of alternatives in the market place.

18.3.3. Hardware

To meet the needs of all of the different users ARC will need to develop new access tools and databases and build on those that already exist. We will continue evaluating the investment we make in hardware as part of our infrastructure renewal program to allow us to maintain a competitive edge.

18.3.4. Project management

The ARC has determined that it is a project based and driven organisation. This requires best practice and skills in project management systems. We will be investing considerable resources and effort to ensure that project management is at the centre of what we do. Our core divisions are already utilising the system that is deployed. We are implementing the same system for the service divisions. The highest priority is the further development of our output costs model that takes care of all the costs within the ARC. The project costing framework will be taken forward quickly.

19. CRITICAL STRATEGIC INVESTMENTS

19.1. Introduction

There are certain key investments that need to be made emanating from the different strategies which are critical to the successful implementation and realisation of the goals of the organisation. Those investments (options) are highlighted because they have the ability to affect other components or dimensions within the strategic framework.

19.2. Objective

The objective is to isolate these investments for special attention by all in the organisation. The following have been identified as deserving this special attention:

- a. Obtain full funding for public research,
- b. Secure and implement bi-lateral agreements and secondments to relevant department,
- c. Obtain clarity of mandates between Department of Science and Technology and Department of Agriculture,
- d. Setting up an internal report unit to centralise the external reporting function,
- e. Developing and implementing processes to collect outstanding payments and get customers to pay for services,
- f. Creating clear differentiation between primary or core functions and staff or support functions,
- g. Enforcing the differentiation through strong accountability frameworks and service level agreements.
- h. The development of a knowledge management system;
- i. Development of attractive and competitive employee incentive schemes to attract, absorb and maintain relevant resources.
- j. Implementing a system to identify new markets, products and services and create mechanisms to exploit these.
- k. Strengthen relationship with provinces and local government in an effort to improve levels of governance,
- l. The development of a capacity management system that would ensure the effective and efficient management of resources.

19.3. Key investments to be made

These are addressed under the different strategies.



20. Critical Success Factors

20.1. Managing the organisation for excellence

The ARC will be managed through setting of quantitative and qualitative performance goals and performance targets that are predetermined at the beginning of the year and assessed at the end of the year.

20.2. Project Management and approval system

The ARC will operate a robust project management and approval system to enable it to prioritise research projects.

Projects will have to answer the following questions:

- a. Are the projects going to produce mandated outcomes the ARC desires?
- b. Are the projects based on sound science?
- c. Does the project assist the ARC to contribute to the national priorities?

20.3. A diverse and high performing human capital

Existing and new customer needs require the continuous acquisition, development and retention of a diverse and high performing workforce.

20.4. Accountability

The ARC recognises that it has to be accountable to the South African public with regards resources invested in it. The development of predetermined performance indicators and targets helps to describe how the ARC is accountable for the public funds at its disposal. Individuals in the ARC are also held accountable for the decisions they take. This is supported by a system of delegated authorities given to them.

20.5. Increasing investment for research and development

The size of the allocation from the Science vote in relation to the costs to maintain certain critical capacity does not facilitate for good balance of projects to be undertaken. We recognise the movement of the shareholder towards increasing investment in the ARC. However, the application of the funds in the ARC still remains a challenge because of the historical way the funds were applied towards one section within the agricultural sector. The ARC will continue in becoming more efficient in its effort to manage its costs and increase external funding whilst at the same time engaging the shareholder in increasing investment in Research for Development. We believe that the totality of our efforts will build the necessary confidence to attract further funding.

20.6. The link between the research output and desired outcomes

The ARC recognises that its outputs are a part in the value chain and their success also depends on the capacity and capability of the end users, commercial farmers and small scale farmers to extract the promised value. The ARC will continue to create value-added alliances within the value chain to facilitate the attainment of the desired outcomes.



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