



**Strategic Contextualisation for the
NRF 2011/12 – 2013/14
Annual Performance Plan**

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Executive Summary

This document provides an overview of the policy shifts relevant to the longer term strategic plan of the NRF, and concludes that no major changes are required to the strategic plan in the current financial year.

The status of the NRF Strategic Plan: *Vision 2015*

The National Research Foundation (NRF) has a long-term strategic plan developed through an extensive stakeholder consultation process: ***Vision 2015***. This plan is congruent with the statutory mandate of the NRF. The strategic plan identified important outcomes orientated goals over a seven-year period up to 2015.

The NRF long-term strategic plan ***Vision 2015*** is due for a mid term Board assessment during 2011. The process will be initiated as soon as the Minister has appointed the new NRF Board. It is expected that the revision process will commence during June/July 2011, and both the outgoing and incoming NRF Boards will be involved in the process.

The NRF Strategic Plan in context

The alignment of the current NRF strategic plan ***Vision 2015*** with developments in the context within which the NRF is operating was tested by conducting a scan of relevant national strategic plans and policies. This document contains a short contextual overview.

Although there are policy shifts in the service delivery environment of the NRF, it was concluded that, in view of the imminent assessment of ***Vision 2015***, no major changes need to be made to the NRF strategic plan at this point.

The NRF Annual Performance Plan

Policy shifts will be taken into account by the NRF in executing its 2011/12 Annual Performance (Business Plan). The NRF Annual Performance Plan is based on the Medium Term Expenditure Framework (MTEF) Parliamentary allocation for 2011/12 to 2013/14, and will include annual and quarterly targets where appropriate.

The main focus of the NRF Annual Performance Plan will be to contribute to:

1. Human capital development – especially by providing
 - financial support to first generation postgraduate students from poor and working class families; and
 - support to black and women researchers in order to develop the next generation of academics and researchers.
2. Strategic research infrastructure and equipment provision; and
3. Support for internationally competitive research as a basis for a knowledge economy.

1 Introduction

1.1 Development of the NRF strategy

The NRF strategic plan, *Vision 2015* (http://www.nrf.ac.za/doc/nrf_vision_nrf_2015.pdf) was the result of organisational introspection and reorientation that was initiated during 2007. *Vision 2015* took into account policy inputs such as the Review of the South African NSI by the Organisation for Economic Cooperation and Development (OECD) and the Ten-Year Innovation Plan of the Department of Science and Technology (DST), titled *Innovation towards a Knowledge-Based Economy*. Broad stakeholder consultation preceded the NRF Board approval of the NRF strategy early in 2008.

2 Core Aspects of *Vision 2015*

Vision 2015 has the explicit intention to address the mandate of the NRF.

2.1 Mandate of the NRF

The NRF receives its mandate from the National Research Foundation Act (Act No. 23 of 1998).

According to Section 3 of the Act, the object of the NRF is to:

promote and support research
through
funding, human resource development and
the provision of the necessary facilities
in order to
facilitate the creation of knowledge, innovation and development
in all fields of science and technology,
including indigenous knowledge,
and thereby
to contribute to the improvement of the quality of life
of all the people of the Republic.

2.2 The NRF vision statement

The vision of the NRF is summarised as follows:

- World-class research
- Transformed society
- Sustainable environment

2.3 NRF mission statement

The mission of the NRF is:

To contribute to the knowledge economy in South Africa by attaining at least 1% of global R&D output by 2015.

2.4 NRF strategic goals

Vision 2015 lists five strategic goals:

- Promoting internationally competitive research as the basis for a knowledge economy;
- Growing a representative science and technology workforce in South Africa;
- Providing cutting-edge research, technology and innovation platforms;
- Operating world-class evaluation and grant-making systems; and
- Contributing to a vibrant national innovation system.

3 Changing context for strategic plans

3.1 Policy developments

Since the adoption of *Vision 2015* in 2008, various developments impacted on the system within which the NRF operates. Some of these developments include:

- The drive of government to improve its service delivery by adopting a Government-wide Monitoring and Evaluation System with specific focus on monitoring outcomes (<http://www.thepresidency.gov.za/pebble.asp?relid=1689>)
- The increased focus on the five manifesto priorities of the ruling party identified in 2009 (refer to **Box 1**) (<http://www.anc.org.za/elections/2009/manifesto/manifesto.html>);
- The Cabinet Lekgotla of January 2010, where 12 Outcomes for government were identified (refer to **Box 2**) [www.northern-cape.gov.za/index.php?option=com](http://www.northern-cape.gov.za/index.php?option=com;);
- The development of the Framework for the New Growth Path conducted during 2009-2010 that focuses on job creation and the development of an employment rich economy (refer to **Box 3**) (<http://www.pmg.org.za/files/docs/101123new-growth-path.pdf>);
- The Draft National Human Resource Development Strategy for South Africa (October 2010) that prioritises accelerated training output in the areas of engineering technicians, technologists and designers. (<http://www.sabinetlaw.co.za/education/articles>)
- The Framework for National Skills Development Strategy 2011/12-2015/16 (http://www.inseta.org.za/downloads/framework_for_NSDD_3.pdf);
- The Industrial Policy Action Plan 2010/11 (IPAP2) that emphasises the maintenance of the country's technological edge in knowledge-intensive sectors in collaboration with support strategies of DST (refer to **Box 4**) <http://www.led.co.za/content/industrial-policy-action-plan-ipap-2-201011>.
- Together Doing More and Better: Medium Term Strategic Framework. *A Framework to Guide Government's Programmes in the Electoral Mandate Period (2009 – 2014)* (Refer to **Boxes 5, 6 & 7**) http://www.thepresidency.gov.za/docs/pcsap/planing/mtsf_july09.pdf

3.2 Structural, organisational and management changes

The policy developments outlined above were accompanied by important structural, organisational and management changes, e.g. the establishment of the Department of Higher Education and Training (DHET); the restructuring of SETAs; the adoption of the Outcomes Approach in government planning and reporting; the establishment of Implementation Forums; explicit arrangements regarding collaborative efforts between coordinating ministers and contributing ministers in terms of the new Government Implementation Actions monitoring system, etc.

3.3 National challenges

Many of the policies referred to above, were designed to address the serious challenges facing South Africa. The ANC manifesto outlined the priorities listed in **Box 1**.

Box 1: National priorities

Five priority areas for the period to 2014

- creation of decent work and sustainable livelihoods;
- education;
- health;
- rural development, food security and land reform; and
- the fight against crime and corruption.

During January 2011, the following areas were highlighted as requiring specific attention: Unemployment; Health; Education; Peace and stability; Rural development and land reform; Social transformation including housing, water supply, and electricity; Local government; and Building a better Africa and a better world (<http://www.anc.org.za/7123>).

3.4 12 Outcomes of Government

The 2010 Cabinet Lekgotla identified the 12 Outcomes of Government as listed in **Box 2**. For the National System of Innovation (NSI) and the National Research Foundation (NRF), outcomes 1, 2, 4 and 5 are of particular importance.

Outcome 5, i.e. the goal to have *a skilled and capable workforce to support an inclusive growth path* is to be attained by mainly two outputs, i.e.:

- Increased access to high level occupationally directed programmes in needed areas; and
- Human capital for a growing knowledge economy based on research, development and innovation.

Box 2: The 12 outcomes of Government

1. **Improved quality of basic education;**
2. **A long and healthy life for all South Africans;**
3. All people in South Africa are and feel safe;
4. **Decent employment through inclusive economic growth;**
5. **A skilled and capable workforce to support an inclusive growth path;**
6. An efficient, competitive and responsive economic infrastructure network;
7. Vibrant, equitable and sustainable rural communities with food security for all;
8. Sustainable human settlements and improved quality of household life;
9. A responsive, accountable, effective and efficient local government system;
10. Environmental assets and natural resources that are well protected and continually enhanced;
11. Create a better South Africa and contribute to a better and safer Africa and world; and
12. An efficient, effective and development oriented public service and an empowered, fair and inclusive citizenship.

3.5 The New Growth Path: The Framework

The New Growth Path forms the framework for reducing poverty and unemployment. **Box 3** provides a summary of the issues relevant to the NSI and the NRF.

Box 3: Aspects of the New Growth Path relevant to the National System of Innovation

- **Infrastructure development** is identified as a critical driver of jobs across the economy. The document identifies investments in five key physical and social infrastructure areas, namely energy, transport, communication, water and housing.
- **Scarce and key skills** were identified and government departments and agencies should work together to meet targets including the aim to produce:
 - 30 000 more engineers by 2014, with an improved focus on high school maths and science and changes to university funding formulae to achieve this; and
 - 50 000 more artisans by 2015, with annual targets for Eskom and Transnet and for individual SETAs.
- **Areas of strength** should be used as a driver of the programme to create jobs. Strong sectors include agriculture, mining, tourism and other high-level services, the green economy and manufacturing.
 - In the **green economy**, expansions in construction and the production of technologies for solar, wind and biofuels are supported by the draft plan for electricity which proposes that green energy sources should contribute 30% of new energy generation in the next 20 years. Clean manufacturing services is projected to create 300 000 jobs over the next decade.
 - The New Growth Path calls for re-industrialisation in the South African economy based on improving **manufacturing** performance through innovation, strong skills development and reduced input costs in the economy. The document targets a doubling of South Africa's research and development investment to 2% of GDP by 2018.
 - It identifies the employment potential of **tourism and other high-level services** and calls for South Africa to position itself as the higher education hub of the African continent.

In order to address the challenges and priorities mentioned above, South Africa can use some global trends as drivers in its growth plan:

The global economic crisis that started late 2008, is forcing SA to reposition itself regionally and globally as an important emerging economy;

- According to the World Bank, developing economies is expected to contribute to 46% of the growth in the global economy and South Africa can benefit from this opportunity;
- The requirement for resources by major economies such as that of China, can still be used to the advantage of South Africa as a resource-based economy in the interim; and
- Accelerating technological changes as a result of efforts to reduce global warming can be used to advance a more equitable global economic order.

Areas of potential growth as highlighted in the Industrial Policy Action Plan 2010/2 are indicated in **Box 4** below. These focus areas will have to be taken into account when research, technology development and innovation are funded by government and its agencies.

Box 4: The Industrial Policy Action Plan 2010/11 (IPAP2)

Pertinent issues in the APAP2

- New *areas of focus* of industrial policy include:
 - Metals fabrication, capital and transport equipment, green and energy saving industries and agro processing
- IPAP2 will build on and broaden interventions in *sectors* which were identified in the first Industrial Policy Action Plan, namely:
 - Automotives and components, medium and heavy vehicles; plastics, pharmaceuticals and chemicals; clothing, textiles, footwear and leather; bio-fuels; forestry, paper, pulp and furniture; cultural industries and tourism and Business Process Services (or Call Centres.)
- IPAP2 focuses on sectors with the potential to *develop long-term advanced capabilities*:
 - Nuclear, advanced materials and aerospace

3.6 The Medium Term Strategic Framework

Together doing more and better, is a Framework to Guide Government's Programmes in the Electoral Mandate Period 2009–2014. **Box 5** outlines the thrust and main focus of the framework.

Box 5: Basic Thrust and focus of the Medium Term Strategic Framework (MTSF)

- 25** The *basic thrust* of MTSF 2009 – 2014 is to improve the conditions of life of all South Africans and contribute to building a better Africa and a better world.
- 26** Given the new challenges arising from the dramatic changes in the global economic environment, the *main focus* is to minimise the impact of the economic downturn on the country's productive capacity as well as jobs and poverty-reduction measures, to identify opportunities for new areas of growth and economic participation, and progressively to set the country on a new growth and development path. Fundamental to the attainment of all our objectives is a growing economy, appropriately transformed, so that the benefits of growth are shared by all. In this regard, the programmes we undertake should aim at reducing inequality.
- 28** One of the *strategic priorities*, deriving from the popular mandate and advancing this mission is to:
- strengthen the skills and human resource base.

In **Box 6**, an excerpt from the MTSF shows the relevance of priority 1 for the NSI and NRF.

Box 6: MTSF Strategic Priority 1 and relevant programmes

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Strategic Priority 1: Speeding up growth and transforming the economy to create decent work and sustainable livelihoods

Elements of strategy include:

36.5 Ensuring the country keeps up with global technological trends and fully exploits our comparative advantages, including the usage of ICTs. Recognising that science and technological innovation and development are important sources of industrial competitiveness and sustaining growth, government will:

- Build on the range of strategies and support programmes already supporting innovation in firms, and research and development (R&D) in the private and public sectors. In particular, measures will be put in place to support innovation and technological development in biotechnology and pharmaceuticals, space science and technology, alternative energy technologies and address challenges and opportunities presented by climate change.
- Accelerate the socio-economic development of South Africa by increasing access to as well as uptake and usage of ICTs through partnerships with business and civil society. This will entail creating a favourable ICT environment, including through digital migration and the industrial possibilities that it presents (such as set-top-box manufacturing), and ensure a competitive market in domestic and international bandwidth.
- In the long term, the quality of our skills and human resource base are vital to the success of our innovation and R&D objectives. This means ensuring that our educational system produces quality outcomes particularly in regard to the rate of high school passes in Mathematics and Science, the number of university graduates in the Science, Engineering and Technology fields and in advanced research.

In **Box 7**, an excerpt from the MTSF shows the relevance of priority 4 for the NSI and NRF.

Box 7: MTSF Strategic Priority 4 and relevant Programmes

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Strategic Priority 4: Strengthen the skills and human resource base

The elements of strategy include:

39.8 Broadening access to post-secondary education and improve Higher Education (HE) throughput rate by 20% by 2014, including access by people with disabilities. HE should contribute to the economic and social well-being of the country and the wider global community. It should endeavour to transfer knowledge into practical applications, through contributing to international, national, regional and local policy formulation; and through social engagement in teaching and research agendas. It should encourage intellectual curiosity, and develop skilled and socially-conscious graduates.

- A diverse mix of sites of learning and types of training-providers will be used to deliver post-secondary education. Non-government training institutions will be encouraged to play an increasing role in the provision of training opportunities of various kinds.
- Where appropriate, colleges for various professions will be established to address skills shortages.
- Learners will be given the tools to make informed choices regarding education opportunities, i.e. labour-market information, information about programmes, etc.
- Government will ensure that financial need is not a barrier and that physical capacity of the post-secondary system meets learner demand. HE should purposefully skew resources to areas of study that will aid in addressing the skills shortages and ensure enrolment of the ablest of students, irrespective of socioeconomic background, and that no student is excluded on financial grounds.
- The transformation of HE institutions will be intensified, at both academic and student levels, including demographics of participation and the promotion of a culture built on professionalism, innovation and personal accountability – with systems of performance management, which encourage outstanding performance and deal effectively with underperformance.
- Through incentives and other means, efforts will be made to increase the proportion of students studying at postgraduate level in all fields of study, including basic and applied R&D in single, multi- or interdisciplinary areas – working in partnership with the private sector to contribute to innovation across society.
- Government, working with the sector, will develop a sustainable investment strategy to secure the HE sector's position for the longer term.

4 The role of the National System of Innovation (NSI)

Given the above-mentioned policies, strategies, priorities and programmes, the National System of Innovation (NSI) can support government plans as follows:

4.1 Transforming the economy through research, development and innovation

The NSI can contribute to changing the economy from a resource-based one to a growing knowledge economy, where knowledge production (research) and dissemination (e.g. publications and patents) can be translated into social and economic benefits, technological developments and concomitant global competitiveness. Improvement of the economic competitiveness ranking of South Africa is dependent on increased research and development (R&D) intensity and innovation.

4.2 R&D expenditure

Adequate funding for R&D remains a challenge, but government has set a target of allocating 1% of GDP expenditure to R&D. The NSI can support government by disbursing and using these funds optimally and in line with the priority areas set out in the policy documents.

4.3 Skilled workforce

The NSI can contribute to the New Growth Path by producing a representative workforce that is highly skilled in relevant fields where economic growth is expected. According to the framework, appropriate human capacity should be trained through occupationally directed programmes. Funding should afford students access to these programmes. Special efforts will be required in delivering graduates in Engineering Sciences and in the Natural and Physical Sciences.

4.4 Areas of research

The NSI can support government by directing research focus and research funding to issues and sectors supporting the New Growth Path. Major issues within the ambit of the NSI include decent employment through inclusive economic growth; improved quality of basic education; and quality of life issues.

It is clear that the New Growth Path will require re-orientation not only from national departments but also amongst others, from government agencies, the science councils and universities.

5 The contribution of the NRF

5.1 Re-orientation of current strategic goals

Given the mandate of the NRF, and the strategic goals of the NRF as outlined in *Vision 2015*, the NRF is well positioned to respond meaningfully to the requirements of the New Growth Path, the MSTF and other important policy guidelines.

It is clear that the NRF long-term strategy is still well aligned to expected outcomes. During 2011/12 the NRF intends to pursue its strategic goals, and by doing so, will contribute to developing the human resource skills base and improving South Africa's competitiveness.

In terms of its strategic plan ***Vision 2015*** the NRF will continue to

- Promote and support the increase of a representative, highly skilled workforce that can contribute to a knowledge economy;
- Promote and conduct research and development in areas that will increase South Africa's global economic competitiveness;
- Provide cutting-edge research, technology and innovation platforms
- Operate world-class evaluation and grant-making systems; and
- Contribute to a vibrant national innovation system.

It stands to reason that the NRF will take developments in the policy and operational environment into account in the execution of its 2011-2014 Annual Performance Plan.

5.2 Assessment of the NRF Strategic Plan

The NRF seven –year Strategic Plan is due for a mid-term Board Assessment. The process will be initiated as soon as the Minister has appointed the new NRF Board. It is expected that the revision process will commence during June/July 2011, and both the outgoing and incoming NRF Boards will be involved in the process.

It should also be noted that the NRF Act of 1998 is up for revision and that may have an impact on the mandate and strategic positioning of the NRF.

6 Conclusion

This document provides an overview of the policy shifts relevant to the longer term strategic plan of the NRF, and concludes that no major changes are required to the strategic plan in the current financial year. However, the NRF will take developments in the policy and operational environment into account in the execution of its 2011-2014 Annual Performance Plan.