



science and technology

Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA

**GUIDELINES FOR THE IMPLEMENTATION OF THE
NATIONAL SCIENCE WEEK (2010 - 2011)**

TABLE OF CONTENT

ACRONYMS	2
EXECUTIVE SUMMARY	3
1. INTRODUCTION	5
2. OBJECTIVES TO BE ACHIEVED	6
3. RECOMMENDED DELIVERY APPROACH OF THE NSW	6
3.1 Principles applicable to the delivery of the project	6
3.2 Target participants	7
3.3 Date of the NSW	8
3.4 Marking the beginning of the event	8
3.5 Theme of the event	9
3.6 Delivery Approach	9
a) Learners	9
b) Scientists	10
c) General public	11
d) Politicians or decision-makers	12
e) Corporate sector organisations	12
f) Officials of the DST	12
g) Media	13
4. PUBLICITY OF THE EVENT	13
5. PROJECT MANAGEMENT	14
6. MONITORING AND EVALUATION	15

ACRONYMS

COHORT	Committee of Heads of Organisations for Research and Technology
CSIR	Council for Scientific and Industrial Research
DACST	Department of Arts, Culture, Science and Technology
DST	Department of Science and Technology
GCIS	Government Communication and Information System
IKS	Indigenous Knowledge Systems
NRF	National Research Foundation
NSTIEC	National Science, Technology and Innovation Education Campaign
NSW	National Science Week
NYS	National Youth Service
SAASTA	South African Agency for Science and Technology Advancement
SET	Science Engineering and Technology
SITA	State Information and Technology Agency
YCS	Young Christian Students
TYIP	Ten-Year Innovation Plan

EXECUTIVE SUMMARY

In response to the White Paper on Science and Technology (1996), the DST is involved in a number of science awareness initiatives, amongst them, the National Science Week (NSW). This annual event which displays the importance of science in people's daily lives reached its tenth year in 2009. The Minister of Science and Technology mentioned in her address at the 2009 opening ceremony that a ten-year review of the NSW will be conducted in 2010.

2009 also marked the end of a five-year period during which the event was dedicated to the youth of the country. Given that the ten-year review is underway, it would be ideal to have in place an interim implementation strategy for this event for at least two years (2010 and 2011). This is to provide an opportunity for the outcome of the review and its recommendations to inform the future medium-term implementation strategy of the NSW. The purpose of this document is to provide some broad guidelines to the South African Agency for Science and Technology Advancement (SAASTA) and other stakeholders involved in organising the NSW's activities on the implementation of the event in 2010 and 2011. SAASTA is responsible for the countrywide coordination of the implementation of the NSW.

In 2010 and 2011, the NSW will be conducted to achieve the following objectives:

- to contribute to the development of a society that values and appreciates SET;
- to provide a platform for scientists to engage each other and also to engage with the non-scientific community;
- to promote partnership between media and scientists;
- to profile the work of the DST and its priorities (for example, the grand challenges, Science platforms and the Technology Missions); and
- to attract learners to SET careers (including research).

The above objectives will be realised through the involvement of various participants. The key participants to make this possible are learners, scientists, the general public, corporate sector organisations, politicians or decision-makers, officials of the

Department of Science and Technology (DST) and media. The document is an attempt to describe the manner in which each of these key participants will get involved during the NSW.

Given the development in the science system, which includes the adoption of the Ten-Year Innovation Plan that seeks to transform the country's economy from a resource-based to a knowledge-based one, the theme of the NSW in 2010 and 2011 will be organised and conducted under the theme "The Role of Science in Economic Development". The United Nations continuously dedicates some years to selected scientific topics, (for instance, 2009 was the International Year of Astronomy), therefore the NSW in 2010 and 2011 will mainstream the celebrations of International Year of Biodiversity and International Year of Chemistry, respectively. In the same context, other matters of national importance will also be highlighted. As a result, the NSW 2010 will also highlight the science of soccer in recognition of the FIFA World Cup Soccer tournament that South Africa is hosting in 2010

As usual, the beginning of the NSW will be marked by a national launch led by the Minister of Science and Technology. The launch will be held in the provinces of Eastern Cape and KwaZulu-Natal in 2010 and 2011, respectively. The national launch date for the 2010 NSW will be 29 July, and the 2011 edition will be launched on 28 July. The event management of the launch will be led by the DST's Communication division whereas the Science and Youth Unit will be responsible for coordinating any content-related aspect of the launch programme, for example, exhibitions.

The 2010 edition will be conducted from 01 - 07 August, while the 2011 will be from 01 - 06 August. Where possible the dates include two Saturdays in an endeavour to accommodate members of the general public who are not easily available to take part in the event's activities during the week.

With the assistance of the National Youth Service volunteers, data will be collected from participants, organisers and other relevant stakeholders to establish their perception about the event.

1. INTRODUCTION

The White Paper on Science and Technology (1996) emphasises the need to create a society that understands and values science, engineering and technology (SET) and their critical role in ensuring national prosperity and sustainable development. It further acknowledges that the creation of such a society depends on effective dissemination of science and technology information in a more user-friendly way. The Department of Science and Technology conducts and supports several initiatives to promote and allow people to engage with SET. Among such initiatives is the National Science Week (NSW). This is an annual countrywide celebration of the importance of SET in people's daily lives.

The NSW started in 2000, with 2009 being the tenth and the final year of the five years (2005 - 2009) during which the NSW celebrations were dedicated to the youth. The Minister announced during the national launch address in Kimberly (2009) that a ten-year review of the NSW will be conducted in 2010. The end of the five years dedicated to the youth would have led to the development of a new implementation strategy for the next cycle. However, given the ten-year review to be conducted, the development of the next cycle's implementation strategy will be deferred until the conclusion of the ten-year review. The outcome and recommendations of the review will provide the necessary guidance to the development of the implementation strategy. It is against this background that an interim strategy needs to be put in place for the implementation of the NSW in 2010 and 2011.

The purpose of this document is to provide broad guidelines to the South African Agency for Science and Technology Advancement (SAASTA) and other stakeholders involved in organising the NSW's activities on the implementation of the event in 2010 and 2011. SAASTA is responsible for the countrywide coordination of the implementation of the NSW and it has been playing this role since 2000.

2. OBJECTIVES TO BE ACHIEVED

Activities organised and conducted during the NSW will be aimed at achieving the following objectives:

- 2.1 to contribute to the development of a society that values and appreciates SET;
- 2.2 to provide a platform for scientists to engage each other and also to engage with the non-scientific community;
- 2.3 to promote partnership between media and scientists;
- 2.4 to profile the work of the DST and its priorities (for example, the grand challenges and the Technology Innovation Agency); and
- 2.5 to attract learners to SET careers (including research).

3. RECOMMENDED DELIVERY APPROACH OF THE NSW

The following are basic guidelines to support and direct the planning and implementation of the NSW:

3.1 Principles Applicable to the Delivery of the Project

- (a) Provincial activities should emphasise scientific areas where provinces have geographic and knowledge strength.
- (b) Support of the learning of mathematics and other science disciplines should be integrated into the overall design of activities.
- (c) The programme should display a healthy balance of information, learning and fun.
- (d) Optimum use of existing infrastructure should be prioritised.
- (e) Application of resources should be cost effective and economically optimal.

- (f) Maximum economic spillover should be generated to ensure optimum economic impact of the project, especially support of local youth service and unemployed science graduates.
- (g) The project should, where possible, be integrated with other science awareness initiatives in the country.
- (h) Overall design should integrate ongoing DST's awareness promotion initiatives. For instance, the Space Science Awareness initiative, Public Understanding of Biotechnology, Nano Science and Technology Awareness, etc.
- (i) Overall design should consider communicating to the public the achievements in the science system since the inception of the first democratic government.
- (j) The NSW should offer citizens an opportunity to learn more about the DST and science councils (including national facilities).
- (k) Branding of the project should promote and maintain the good image of the DST.
- (l) Collaboration between the DST and other government departments should be promoted. Departments that have been collaborating with the DST in the NSW over the past years include Basic Education, Water Affairs and Land Affairs.

3.2 Target Participants

Activities conducted during the NSW will contribute to the achievement of the above objectives by accommodating the participation of the following groups of people:

- (a) learners;
- (b) scientists;
- (c) general public;
- (d) corporate sector organisations;
- (e) politicians or decision-makers;
- (f) officials of the DST; and

(g) media.

According to the projected performance indicators, at least 525 000 people should participate in the NSW over a two-year period (250 000 and 275 000 in 2010 and 2011, respectively). On the other hand, 5 million people should be reached per annum over this two-year period, through various forms of media.

3.3 Date of the NSW

The National Science Week will be conducted during the first week of August. Where possible, this will include two Saturdays in an effort to accommodate participation of the public who are not available during the week. The exact dates are:

- (a)** 2010: 2 to 7 August
- (b)** 2011: 1 to 6 August

3.4 Marking the Beginning of the Event

A national launch led by the Minister of Science and Technology will mark the beginning of each NSW event. The launch will be held on the Thursday following the focus week. There is a standing decision that each of the nine provinces would be given an opportunity to host the launch of the NSW. The provinces of Eastern Cape and KwaZulu-Natal are yet to host the launch. The launch of the event in 2010 and 2011 will take place in the following order:

- (a)** 2010: In Eastern Cape on 29 July 2010
- (b)** 2011: In KwaZulu-Natal on 28 July 2011

The DST's corporate Communications sub-programme will take full responsibility for the event management aspect of the launch, whilst the Science and Youth Unit will be responsible for the scientific content of the launch programme and related activities like exhibition.

3.5 Theme of the Event

In 2008, the DST adopted a Ten-Year Innovation Plan (TYIP), which sets out a road map of transforming the local economy from a resource-based to a knowledge-based one. In the light of the goal of the TYIP, the theme of the NSW in 2010 and 2011 will be “Role of Science in Economic Development”. In 2010, highlights of the International Year of Biodiversity will be mainstreamed while 2011 will give such attention to the International Year of Chemistry.

3.6 Delivery Approach

Working through a network of stakeholders or organisers that are spread throughout the country, activities that accommodate the involvement of various participant groups will be conducted. SAASTA, in consultation with the DST, will identify individuals or organisations to organise such activities. Whilst the following is an outline of the approach that will be followed in organising and celebrating the NSW, individual organisers are allowed to propose and introduce other relevant activities and/or approaches. The approach outlined here recommends ways in which the involvement of each target participant could be maximised.

(a) Learners

Over the five-year period (2005-2009) a strong network of individuals and organisations, which organise activities targeting learners, was developed. Such organisers include science centres, some provincial Basic Education Departments, Dinaledi schools adopted by the DST, schools under the Historic Schools Restoration Project, outreach units of some science councils and some higher education institutions. This network collectively contributed to the participation of around 791 384 learners over a five-year period. This being a success story, activities targeting learners will still be organised and conducted through this network.

The work of the network will be complemented or strengthened by other activities:

- around 25 000 copies of the SET Career booklets that the DST produces in partnership with Beyond 2000 Publishers will be distributed;
- a national list of role models who will be deployed to the 500 Dinaledi schools across the country will be established. The DST will arrange with its Basic Education counterpart for identified SET professionals to access schools after normal schooling hours. Support will be sought from National Science, Technology and Innovation Education Campaign (NSTIEC) which is based at the Council for Scientific and Industrial Research (CSIR);
- arrangements will be made that small SET exhibitions are set up in public libraries. An appropriate spot would be the foyer or reception area of a library building. The intention is to have one public library in each of the 52 municipal districts and metros hosting a SET exhibition by 2011;
- the 18 Dinaledi schools adopted by the DST and the 6 schools under the Historical Schools Restoration Project will host the NSW activities at their own premises throughout the week (after normal learning time); and
- SET messages will be disseminated through posters (including cartoons) targeting various age groups of learners. Such materials will be developed in various official languages.

(b) Scientists

Scientists who are easier to access are mainly those that are located in science councils and higher education institutions. In order to enhance their participation in the NSW, the following opportunities will be used:

- the Academy of Science of South Africa whose objective is to promote and apply scientific thinking in the service of society will be requested to organise lectures, seminars and workshops involving scientists in academia throughout the 23 higher education institutions;

- most local higher education institutions have established community engagement divisions under which outreach programmes operate. Participation of university-based scientists will also be organised through community engagement programmes;
- scientists in academia, science councils and non-governmental organisations will be identified to write articles on selected topics for publishing in media;
- scientists will be identified to take up interviews with electronic or print media;
- the DST will also extend invitations to scientists in academia through the National Science Deans Forum. The forum has since requested to be kept abreast of developments regarding preparations for the NSW; and
- the DST will encourage the participation of science councils in the NSW by taking up the matter with the Committee of the Heads of Research and Technology (COHORT).

(c) General public

A combination of approaches will be used to access the public:

- digital marketing where promotional messages are sent to people via SMS. The DST has some bulk SMSs available through an arrangement with its cellphone service provider;
- making use of electronic information display screens in banks and airports will be explored;
- taking science awareness and engagement promotion campaigns (e.g. shows) to public places with high concentration of people such as shopping centres. The DST and SAASTA will generate a list of such places country wide and secure access to them;
- arrangements will be made to celebrate the NSW through existing initiatives that admit people every day, for example, the National Zoological Gardens;

- brochures will be developed and distributed to people queuing at service delivery points like electricity/water pay points; and
- arranging with the State Information Technology Agency (SITA) for the distribution of e-mail messages with interactive cartoons (with SET messages) to all the civil servants who in turn will be requested to forward the e-mail to their friends and associates (business and personal) outside government.

(d) Politicians or decision-makers

Proper protocol will be followed to secure the participation in the NSW of political leaders at various spheres of government. Organisers intending to invite political leaders to their activities should convey message about this to the DST through SAASTA so that proper arrangements are put in place.

(e) Corporate sector organisations

A proposal will be made to selected corporate sector organisations to publish their success stories on the science linked to either their business activities or how technology has enhanced their business objectives. Participating organisations will be requested to sponsor a newspaper insert in national newspapers. Each organisation will be requested to include the kind of science-based careers and bursary opportunities available with it. The task of urging corporate sector organisations to participate in this manner will be carried out by the DST's corporate communication division.

(f) Officials of the DST

The Science and Youth Unit will coordinate the involvement of other sections of the DST to ensure that:

- an exhibition is set up at the foyer of the ground floor of the DST head office building;

- various awareness initiatives within the DST are featured in the NSW;
- different sections of the DST urge their external stakeholders or partners to find a way of supporting the NSW. For instance, the High End Skills Unit will ensure that institutions hosting the Centres of Excellence take part in the event; and
- achievements and priorities of the DST are communicated to the people.

(g) Media

- the practice of live broadcasting the national launch of the NSW through a network of community radio stations will be maintained. This has been taking place over the past five years through an arrangement made by the Government Communication and Information System (GCIS);
- workshops and/or round table discussions on a selected SET topics will be organised between journalists and scientists. At least one such activity per province and each province's discussion will tackle a different topic; and
- existing radio and television programmes on SET and related activities will be identified and approached to either feature special broadcasts linked to the theme and/or thrusts of the NSW (where possible). Radio stations or television channels could contribute to the NSW by dedicating broadcasts of their existing SET programmes to the event.

4. PUBLICITY OF THE EVENT

Publicity of the event will be carried out in a manner consistent with government communication policies and led by the DST's corporate communications division. A project communication strategy will be made available by the DST.

The highlights of activities planned throughout the country will be published in selected national print media, to coincide with the national launch of the event.

5. PROJECT MANAGEMENT

- 5.1 The South African Agency for Science and Technology Advancement (SAASTA), a business unit of the National Research Foundation, will serve as a national project manager. SAASTA's role include administering small grants to qualifying organisers of the NSW activities.
- 5.2 SAASTA will be required to establish a multidisciplinary project team.
- 5.3 DST's Project Manager will participate in an advisory capacity in the project team meetings.
- 5.4 SAASTA's appointed Project Team Leader will provide team members with Terms of Reference outlining among others, responsibilities of each team member. The Terms of Reference should be made available to Project Team members during the first Project Team meeting.
- 5.5 The multidisciplinary project team must have team members with sound knowledge and expertise in the following areas:
 - (a) Mathematics, Science and Technology Education;
 - (b) SET careers;
 - (c) SET awareness promotion and engagement; and
 - (d) communication and publicity.
- 5.6 In implementing the project, SAASTA will be required to adhere to project milestones schedule jointly agreed to with the DST.
- 5.7 Project communication between SAASTA and DST will be handled in the following way:
 - (a) SAASTA will discuss progress with the DST every two weeks; and
 - (b) SAASTA will submit written quarterly reports in terms of the reporting protocol between the DST and the National Research Foundation (NRF).

6. MONITORING AND EVALUATION

The DST and SAASTA will develop data collection instruments that will be used during the focus week. The instruments will collect data on target participants and their activities, as well perceptions about the quality of experience.

Additional human resources required to administer the instruments will be provided through the National Youth Service (NYS) programme.

(#173274)