

KSA 5: BUSINESS DEVELOPMENT, MARKETING AND COMMUNICATIONS

SCOPE

Globally, the scientific community agrees that knowledge use and uptake is challenging. The path from research to policy formulation is no longer a causal linear process where 'research results in a product which is passed from the researcher to the policy maker'. Policy formulation is a complex interaction of actors and includes several advocacy coalitions and networks. As other science councils and research organisations in the country, the WRC too has to try to narrow the 'knowledge chasm' between practitioners and the scientific research community by improving collaboration and strengthening partnerships.

The WRC research portfolio addresses the full water cycle through the four research KSAs and links this to the knowledge cycle. KSA 5: Business Development, Marketing and Communications supports and continues the knowledge cycle, with the support from KSA 5 contributing to the production and dissemination of research outputs, testing and demonstration, feedback and implementation.. Additionally, this KSA is in the process of undergoing significant transformation in terms of stakeholder communication and marketing, uptake of WRC-funded knowledge, the streamlining of WRC business processes, and, in so doing, changing from a reactive to proactive working modality.



Inga Jacobs: Executive Manager

The scope of this KSA includes:

- Facilitating and where appropriate formalising new partnerships
- Supporting the continuous improvement of the

political profile of the WRC by enhancing the credibility and relevance of the WRC through strategic positioning and strengthening stakeholder relations

- Leading the up-scaling and demonstration and commercialisation of water technologies in partnership with the research KSAs and strategic external partners
- Managing the intellectual property and innovation processes within the WRC as well as partners
- Coordinating the marketing and communication activities of the WRC including the media engagement, parliamentary liaison, strategic communication and marketing
- Providing the instruments to track, measure and report on the impact of the WRC in research and human capital development
- Coordinating local and international dialogues led by the WRC
- Supporting knowledge creation by providing appropriate research management tools and logistic support
- Sharing and disseminating water-centred knowledge internally and externally
- Providing strategic research advice to decision-makers and other stakeholder groups

- To position the WRC as a premier knowledge resource for all water-related issues, locally and internationally
- To effectively manage the WRC research cycle
- To provide strategic research advice to the water science and technology sector

OBJECTIVES

In execution of the WRC's mandate and functions, the objectives for KSA 5 are as follows:

THRUSTS AND PROGRAMMES

THRUST 1: RESEARCH – WATER-CENTRED KNOWLEDGE

Aim:

- To provide strategic research advice related to the water sector, R&D capacity, knowledge flow and ultimate impact

The WRC is mandated to lead and co-ordinate water research in South Africa. It is also tasked to promote effective knowledge transfer and enhance knowledge and capacity in the sector. It is therefore important that the WRC understands all of the elements driving the water knowledge cycle in South Africa.

This KSA focuses on researching various elements, drivers and trends affecting the dynamics of the water-centred knowledge cycle, from issues related to research capacity and overall funding of research by the sector to the effectiveness of research and its impact on policy and technology used by the sector. This functional area may also provide advice regarding sector needs and global trends, i.e., foresight and scenario studies.

Examples of research/studies to be carried out under the leadership of this functional area are:

- Assessment of the scope and extent of water research done in South Africa
- Analysis of research capacity, demographics, current and future needs
- Impact of research, including methodology for impact assessments
- Long-term scenario building
- Assessing knowledge uptake and dissemination and establishing new effective mechanisms

THRUST 2: TECHNOLOGY TRANSFER AND IP MANAGEMENT

- To demonstrate technologies and solutions through scale-up and demonstration facilities
- To manage the WRC patent portfolio and intellectual property according to the WRC IP Policy

This thrust ensures that the WRC promotes the effective transfer of information and technology through up-scaling and demonstration. In the words of the Department of Science and Technology's 10-year innovation plan, it serves as an enabler to address the 'innovation chasm' between research results and socioeconomic outcomes. The thrust also includes the management of intellectual property.

THRUST 3: STRATEGIC POSITIONING AND PARTNERSHIPS

Aims:

- To enhance the credibility and relevance of the WRC locally and globally
- To coordinate strategic local, continental and international partnerships and facilitate dialogues which position the WRC as a significant international player and a recognised asset to South Africa

This initiative has in the past been decentralised in the WRC. This caused, to an extent, individuals rather than the organisation to be recognised. This thrust was created to coordinate national, continental and global initiatives and to formalise strategic partnerships without compromising the individual efforts of our Research Managers and Executive Managers. It provides the golden thread for key selected dialogues and partnerships in which the WRC wants to play a major leading role.

Another major initiative is the establishment of the Water Knowledge and Capacity Advancement Programme (WaterKCAP), in partnership with the DWA. The aim of the WaterKCAP is to provide a dedicated programme of support that enables research supervisors to provide higher numbers of high-quality Doctorate and Masters level graduates in priority water-relevant disciplines.

The WRC also continues to establish strategic partnerships with large industry, local government as well as national government departments and their agencies.

Other initiatives addressed in this thrust are:

- Establishing and strengthening of relationships with government departments and a number of portfolio committees
 - Establish and maintain relationships with the National Planning Commission, portfolio committees, and various departments including Department of Water Affairs, Department of Health, Department of Science and Technology, Department of Agriculture, Forestry and Fisheries, Department of Cooperative Governance and Traditional Affairs, Department of Human Settlements
 - Provide interactive information sessions to the portfolio committees and respond to their knowledge requirements
- Supporting national, African and global initiatives
 - Support national initiatives of key importance to the water and other related sectors where the WRC plays a significant role
 - Support other KSA initiatives through providing support related to exhibitions, media briefings, events management, etc.
 - Support African initiatives for building water science and technology in the continent (example: NEPAD)

- Establish and maintain bilateral relationships
- Support global initiatives and partnerships, for example, through:
 - Linking to international associations such as the International Water Association, World Water Forum, etc.
 - Linking with the global research community through *Water SA*
- Prepare positioning material such as the WRC Annual Report, strategic messages, ministerial and policy briefs

THRUST 4: PUBLIC RELATIONS AND COMMUNICATIONS

Aims:

- To effectively share and disseminate relevant knowledge in the water sector and within the WRC and to develop knowledge-sharing mechanisms/ instruments to support the objectives of the WRC
- To build and maintain relationships with stakeholders
- To market the WRC effectively

This thrust complements the objectives of Thrust 3 utilising public relations, marketing and communication mechanisms. The KSA ensures that the WRC leads and participates in knowledge-sharing and knowledge-dissemination activities (e.g. workshops, exhibitions). It strengthens the WRC's ability to exchange information and data on developments around water management issues. It also oversees the flow of water-centred knowledge to and from the WRC by improving access to external information and water-centred knowledge, and acting as a resource centre to meet the information requirements of the WRC and the water sector in general. It includes:

- Driving the implementation of the WRC communication strategy
 - Improving knowledge uptake with the aim to increase implementation
 - Enhancing sector involvement in the WRC research processes
 - Strengthening awareness of the mandate and role of the WRC in the South African water sector
- Establishing working relationships with industry, decision makers and key stakeholders
 - Strengthening relationships through formal memoranda of understanding
 - Providing knowledge in a format that is fit-for-use
 - Delivering multimedia presentations to inform various target groups about the WRC and its accomplishments
- Supporting water-related youth and learner awareness programmes
- Knowledge sharing (external)
 - Preparing media briefings, media conferences and networking events in order to create and sustain an awareness

- and appreciation among the media of the WRC's position of leadership within the water sector
- Developing and maintaining an Electronic Water Knowledge Hub for easy access to all WRC publications and resources
 - Developing mechanisms for effective knowledge sharing and information transfer
 - Exhibiting at high-profile, water-centred conferences nationally and, if necessary, internationally
- Knowledge sharing (internal)
 - Organising knowledge-sharing events such as internal open days, guest lectures and regular research managers' meetings
 - Enhancing the effectiveness of knowledge dissemination
 - Supporting the research community
 - Improving the relationship and interaction with the research community (during and beyond the project)
 - Promoting the WRC at carefully selected opportunities
 - Contributing to and/or advertising in selected media or periodicals to coincide with events of special significance for water, e.g. Water Week
 - Engaging with the youth through science festivals, games and competitions to serve the dual purpose of positioning the WRC and stimulating interest in water-centred science, engineering and technology

THRUST 5: BUSINESS SYSTEMS MANAGEMENT

Aim:

To coordinate the research funding cycle and provide effective tools, systems and procedures to support the core business of the WRC.

This KSA provides support to the 'engine room' of the WRC, i.e., the four key strategic areas mandated to coordinate and fund water research. It supports the management of research projects, enhances innovation and provides the tools and processes for protecting technological developments. It also links the financial processes with the technical fund management. This includes research management:

- Coordinate the annual funding cycle
- Provide the logistics required for the flow of research-related information into and out of the WRC
- Increasing the user-friendliness of the WRC Fund Management System (FMS) for both external and internal users

- Advance the linkage between financial and technical management of research projects
- Provide support to the research KSAs with regard to proposal cycle and project management on FMS
- Develop the FMS as a management information tool

THRUST 6: PRODUCTION AND KNOWLEDGE PACKAGING

Aims:

- To provide an effective printing and distribution service
- To package water-centred knowledge for different users

This KSA manages the production of WRC-funded research reports, technology transfer reports, *the Water Wheel*, *Water SA*, brochures and briefs. It includes:

- Printing and distribution
 - Manage the quality-control process of WRC technical and technology transfer final reports
 - Manage the process of layout and printing of the WRC reports and other publications
 - Manage the effective distribution of research reports
 - Manage effective report distribution facilities (manual and electronic)
- Knowledge packaging
 - Develop and maintain innovative ways to share and disseminate WRC products, e.g. brochures, project briefing notes, Knowledge Review, media briefings.
 - Support KSAs 1 to 4 with the production of technology transfer documents
- Promote the public understanding of science
 - Produce and publish *the Water Wheel*
 - Produce and publish special publications such as books and learning material
- Ensure that scientific knowledge is globally recognised and exchanged
 - Manage the production and publication of *Water SA*

STRATEGIC CONTEXT

Globally, the scientific community is in agreement that knowledge use and uptake is challenging. The path from research to policy formulation is no longer a causal linear process where 'research results in a product which is passed from the researcher to the policy maker' (Whitty, 2008). Policy formulation is a complex interaction of actors and includes several advocacy coalitions and networks. Similarly to other science councils and research organisations in the country, the WRC has to try to narrow the institutional gap between policy-makers and the scientific research community by improving collaboration and strengthening partnerships.

In the South African water sector, the challenge is compounded by the constant change in the institutional and political environment. The organisations tasked with implementing legal and policy frameworks are constantly faced with a change in leadership, institutional changes and instability, high staff turnover, declining institutional memory and a highly-regulated environment which hinders the testing of developing concepts and technologies.

However, the outcome-based strategic approach developed by the South African Government provides a conducive environment for knowledge uptake as the sector gears itself to improve the impact of its efforts. This KSA will support the research KSAs in clearly communicating the link between research outputs and how these can assist Government in achieving the desired outputs. This KSA also coordinates the local and international dialogues aimed at firmly positioning the WRC in carefully selected themes such as adaptation to climate change.

Sector threats

The South African water sector faces challenges that could threaten the sustainability of its water resources. The dominant challenges to the country being able to sustainably supply water to meet its development goals in the future include issues related to water availability, climate change, infrastructure, human resources, compliance and enforcement, raw water quality, financial support and water pricing (Water for Growth and Development Framework, Version 7). Challenges in terms of a knowledgeable, productive water sector include:

- Functioning and pursuing continuous development in a resource-constrained environment
- The desperate and urgent need for solutions in the sector
- Working in a complex and multidisciplinary environment and often across institutions and disciplines
- Human resource capacity in the public sector – often qualified but less experienced people need to acquire a level of competence in a short period of time without the luxury of continuous mentorship
- Limited research capacity in certain of the water-related research areas and reduced ability to deliver on research contracts
- Shortage of South African students studying towards a higher degree in water-related disciplines – a balance is required between the need to continue research (creating knowledge) to ensure a sustainable water sector and the need to build capacity to export to other African states

- Relevance of the WRC; ability to provide South Africa with the knowledge required in the right format to improve service delivery and policy formulation

Relevance and impact

The relevance of the WRC depends in part on the organisation's ability to be the preferred supplier of knowledge to the sector. The absorptive capacity for knowledge generated by WRC-funded research is dependent on the manner in which it is packaged, understanding the complexity of the sector as well as the image of the WRC. The WRC, through this KSA, has started to place more emphasis on understanding and enabling knowledge uptake rather than focusing purely on knowledge dissemination.

Van Ryneveld and Sproule (2009) defined knowledge uptake as 'the active acquisition of disseminated information, the comprehension of the information and the ability of practitioners to apply the information in the field'. While the WRC continues to generate water-related knowledge-based products which contribute to addressing the knowledge gaps in the water sector, it also seeks to understand the mechanisms of knowledge uptake.

The role of KSA 5 is therefore important for the continued relevance of the WRC and for the sustainability of a knowledge-based water sector. The emphasis has now moved to better understanding knowledge flow and developing and applying methodologies to enhance the uptake and application of the water-related knowledge generated by the WRC to solve the water challenges that South Africa faces. KSA 5 therefore aims to lead a consultative knowledge flows programme to create a better understanding of what the knowledge uptake drivers are.

It also strives to assist the research KSAs to enhance and encourage sector involvement from the early stages of appropriate research projects/programmes to:

- Improve knowledge sharing with the aim to increase implementation
- Enhance sector involvement in the WRC research processes

This KSA continues to support the organisation with knowledge creation and sharing through:

- Supporting research management and providing logistic support
- Developing effective internal and external knowledge sharing and dissemination mechanisms/instruments
- Enhancing the credibility and relevance of the WRC, locally, in the rest of the African continent, and globally
- Ensuring the appropriate management of intellectual property
- Supporting the WRC with advice on research contract matters

KNOWLEDGE DISSEMINATION

The WRC aims to constantly improve its contribution towards knowledge as well as to enhance the sharing and dissemination of WRC-funded research findings. This is also linked to Government Outcomes/Outputs related to building skills, by addressing the building of future research capacity and improving knowledge dissemination. The WRC strives to improve its contribution towards the water-centred knowledge base in South Africa by enhancing the WRC knowledge-sharing activities and positioning.

Enhancing public understanding of water research: *the Water Wheel*

The WRC aims to enhance public understanding of science through the publication of *the Water Wheel*. The magazine currently serves over 8 000 subscribers and is published every two months. The WRC published six issues as well as a special edition of *the Water Wheel* in 2013/14.

Briefs

The WRC technical, policy and ministerial briefs are communication tools that aim to communicate, in a clear and brief format, the outcome of various research studies to the water sector, with special emphasis on non-technical professionals, policy- and decision-makers. For all finalised research projects, one- to two-page briefing notes are produced, which are short communiques highlighting research outcomes and sharing pertinent messages and recommendations. Another 89 technical and policy briefing notes were produced in 2013/14. All technical and policy briefs and reports are available electronically on the WRC website: www.wrc.org.za.

Ministerial briefs are targeted messages aimed at communicating very specific research findings or knowledge generated from WRC research to Governmental ministers, most particularly, the Minister of Water and Environmental Affairs. Seven (7) ministerial briefs were produced in 2013/14.

Water SA

Water SA is the WRC's accredited scientific journal which contains original research articles and review articles on all aspects of water science, technology, engineering and policy. *Water SA* has been in publication since 1975 and includes articles by both local and international authors. The journal is issued quarterly (four issues per year). In 2013/14, the WRC published five issues (four regular issues and one special edition).

Distribution of WRC research and technology transfer reports

Table 1 indicates the number of WRC reports (print copies) distributed to various stakeholder groups in 2013/14. Table 2 lists the ten most popular reports in 2013/14 in terms of numbers of print copies requested. Table 3 indicates the number of e-reads and downloads of research reports from the WRC website in 2013/14, and Table 4 lists the most popular reports in 2013/14 in terms of number of downloads from the WRC website.

Table 1: Reports distributed in 2013/14

Client	No. of Reports
Foundation for Water Research	244
Institutes	8 013
Municipalities	680
Private	7 187
Schools	21
State Library	138
University/University of Technology	1 011
WRC	1 064
TOTAL (print)	18 358

Table 2: Most popular reports (print copies) distributed in 2013/14

Report no.	Title	KSA	Total
KV309/12	Soil-plant carbon stocks in the Weatherley Catchment	1	347
TT 522/12	The state of non-revenue water in South Africa	3	346
TT 540/4/12	Training material for extension advisors in irrigation water management	4	243

1856/1/12	Development of a revised desktop model for the determination of the ecological reserve for rivers	2	231
2087/1/P/13	Trends in the insight into the growing South African municipal water service delivery problem	3	215
TT 565/13	Energy efficiency in the South African Water Industry: A compendium of best practices and case studies	3	214
1648/1/12	Assessment of the social and economic acceptability of rainwater harvesting and conservation	4	205
TT 568/13	Production guidelines for small-scale broiler enterprises	4	184
TT 566/13	Improving plot holder livelihood on smallholder canal irrigation	4	167
2087/2/P/13	Perspectives on the market processes followed in setting South African water services tariffs	3	163

Table 3: Downloads and e-reads of research reports from the WRC website in 2013/14

	Downloads	E-reads
WRC research reports	22 239	3 773

Table 4: Most popular reports (downloads from website) in 2013/14

Report title	Downloads
Water purification works design	735
Guideline for the inspection of wastewater treatment works	545
National standards for drinking water treatment chemicals	402
A simple guide to the chemistry, selection and use of chemicals for water and wastewater treatment	380
The state of non-revenue water in South Africa	223

Guidelines and training aids for the sustainable operation and maintenance of small water treatment plants	218
Easy identification of some South African wetland plants	171
State of the art: fracking for shale gas exploration in South Africa and the impact on water resources	158
Drivers for wastewater technology selection – Assessment of the selection of wastewater technology by municipalities in relation to the management capability and legislative requirements	151
Compendium of water conservation and water demand management interventions and measures at the municipal level in South Africa	119
Water use and nutrient content of crop and animal food products for improved household food security: A scoping study	116
Energy efficiency in the South African water industry: A compendium of best practices and case studies	103
A 2011 perspective on climate change and the South African water sector	100
Guides to the freshwater invertebrates of SA: Volume 8: Insecta II	94
Guideline document: Package plants for the treatment of domestic wastewater	90
Theory, design and operation of nutrient removal activated sludge processes	90
Water resources of South Africa, 2005 study (WR2005) - 2011 Update: Executive Summary (version 2, 2011)	89
WET-RehabMethods national guidelines and methods for wetland rehabilitation	82
Handbook for the operation of water treatment works	80
Quality of domestic water supplies Volume 1: Assessment Guide	79

CONTACT PERSONS

Executive Manager

Inga Jacobs
E-mail: ingaj@wrc.org.za

Business development

Setsipane Mokoduwe
E-mail: setsim@wrc.org.za

Marketing and communications

Adriaan Taljaard
E-mail: adriaant@wrc.org.za

Reports

Patrick Kgoale
Thobile Gebashe
E-mail: orders@wrc.org.za

Report quality control

Reg Sutton
E-mail: regs@wrc.org.za

Stakeholder liaison

Hlengiwe Cele
E-mail: hlengiwece@wrc.org.za

The Water Wheel

Lani van Vuuren
E-mail: laniv@wrc.org.za

Water SA

Tamsyn Sherwill
E-mail: watersa@wrc.org.za

Layout and design

Drinie van Rensburg
E-mail: drinie@wrc.org.za

Subscriptions

Mmatsie Masekwa
E-mail: subs@wrc.org.za

PR events

Zagry Scholtz
E-mail: zagrys@wrc.org.za

FMS

Inga Jacobs
E-mail: ingaj@wrc.org.za

IP management

Inga Jacobs
E-mail: ingaj@wrc.org.za