



KNOWLEDGE MANAGEMENT

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 measurement and sharing, and interact with peers
 nationally and internationally

Knowledge Management (KM) has completed its second full year of operations and in many ways has now "cut its teeth". Moreover the original vision that led to the creation of the KM Research Programme has been vindicated by the growth of research output, and a staff that has demonstrated its ability to deliver, to innovate, and to stretch the boundaries of its knowledge and expertise.

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KM has grown to comprise 12 research staff. The longest serving members are Professor Michael Kahn, William Blankley and Sagren Moodley who have now been joined by Sulochini Pather, Neo Molotja, Carly Steyn, Iona Gutuza, Nkosikho Batatu, Simone Esua, Yolisa Nogenga, Stanley Ntakumba and Natalie Vlotman. Valda West is our administrator and is assisted by Fredericka Davies. The group represents a sound mix of group, gender, skill and disciplinary focus.

The group was also happy to relocate to new custom-designed premises on the 12th floor of Pleinpark in Cape Town where we now occupy half the available space. This workspace is intended to promote knowledge sharing and also includes a communal lounge area, an important facility that was lacking until now.

At inception the Research Programme was conceived of as covering three overlapping domains: **Information Society**, **National System of Innovation Studies**, and **Knowledge-intensive Research Organisations** respectively, as shown in the diagram. This schema continues to provide a useful cohesion to

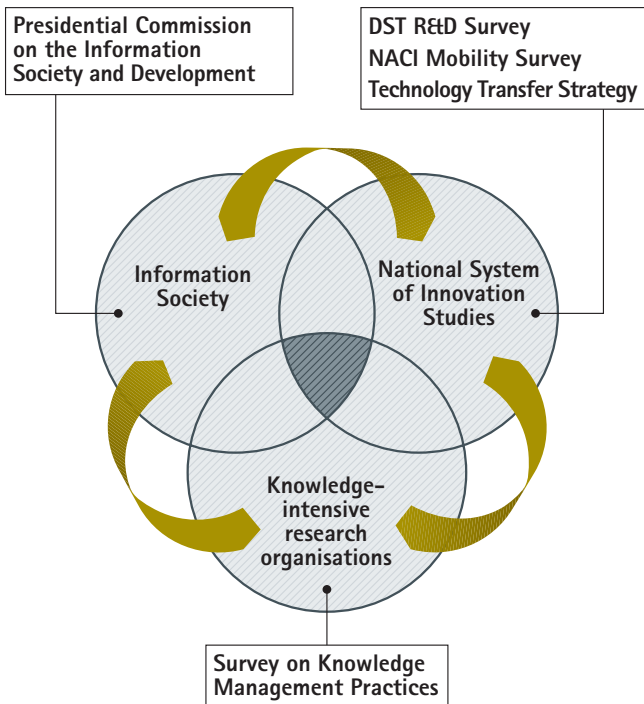


Figure C: The KM Programme



our work and is being retained. We recognise the central overlap area as representing the zone of knowledge management and knowledge sharing. So we shall continue to be known as "Knowledge Management".

The **Information Society** domain has developed a strong working relationship with the **Presidential National Commission** for the Information Society and Development (PNC-ISAD) and was instrumental in preparing the PNC-ISAD Interim Report that was delivered in July 2003. In parallel with that work, KM was appointed as the Research Manager of the PNC-ISAD and took on the responsibility of co-ordinating background research work that the Commission had put out to independent tender. KM has assisted the PNC-ISAD in shaping its thinking regarding its specific recommendations, as well as the form that a future Commission might take.

Within the area of **National System of Innovation Studies** two major studies peaked in January 2004. The first was the publication of the "Key High-Level Results of the 2001/02 Research and Experimental Development Survey", launched by

Minister Ben Ngubane at Parliament. This important study goes to the core of informing decision-making in respect of funding for the **national system of innovation** and shows that national expenditure on research and development (R&D) is now at a level of 0,76% of GDP. This is a modest rise in real terms since the survey was last performed in 1997, but is still short of the target of 1% set in the National R&D Strategy. Other publications based on the Survey are in the pipeline. The R&D Survey will henceforth be conducted annually, with 'lite' and 'full-bodied' versions in sequence. The R&D Survey represents ongoing collaboration between Knowledge Management and Icomtek of the Council for Scientific and Industrial Research (CSIR), who engineered the Survey Management and Results System database for us.

The second study resulted in the publication of *Flight of the Flamingos*. This arose out of the study on the mobility of R&D workers that we effected for the National Advisory Council on Innovation. This work was conducted in partnership with CSIR Policy and the HSRC's Assessment Technology and Education

Evaluation Research Programme (ATEE). The mobility study is a comprehensive piece of research that goes beyond a simplistic "brain drain" approach by seeking to provide evidence on the production, stocks and flows of R&D personnel. Related to this work is ongoing analysis of the production of high-level mathematics and physical sciences students in our schools, which is key to the monitoring of redress.

The publication of *Flight of the Flamingos* was timed to coincide with the inception of our new premises, as well as to mark the conclusion of our first in-house training course.

The course "Issues in Science and Technology Policy", was co-taught by Dr Al Teich, Director of Science and Public Policy of the American Association for the Advancement of Science and Professor Michael Kahn. The course participants included all the KM staff, colleagues from the Universities of Cape Town and Stellenbosch, the Department of Science and Technology, and the Ministry of Higher Education, Science and Technology of Mozambique. Other workshop, conference and course activities will follow over the next months.

This training activity also marks the beginning of the work of the new **Centre for Science, Technology and Innovation Indicators** (CeSTII). The formation of CeSTII on ring-fenced

funding provided by the Department of Science and Technology (DST) arises out of the shared recognition that reliable indicators are now an essential component of strategic planning in government. CeSTII is conceptualised as a **national resource that interacts with a network of peers domestically, regionally and internationally.**

CeSTII will be responsible primarily for the R&D Survey and the Innovation Survey, both being conducted according to Organisation for Economic Co-operation and Development (OECD) guidelines. The first Innovation Survey is scheduled to go to the field in April 2005. In addition we shall conduct other surveys designed to produce a host of indicators for specific sectors, such as Information and Communication Technology (ICT).

In addition to the survey work already mentioned, KM, again in collaboration with CSIR and outside consultants, assisted DST to develop the National Technology Transfer Strategy.

The final area, **Knowledge-intensive Research Organisations**, is now developing and we are currently scoping a **survey on measuring knowledge management practices** that could be deployed across Government in the second quarter of fiscal 2005. KM also collaborated with the HSRC's Democracy and Governance Research Programme on an externally led tender



The R&D survey completed and the conclusion: African R&D expenditure reaches 0,76% of GDP for 2001/02. From left are Mr William Blankley, Chief Research Manager, Ms Simone Esau and Mr Nkosikho Batatu, both Junior Researchers, and Professor Michael Kahn, Executive Director of KM.



for the National Treasury that sought to assemble an understanding of the Statutory Body sector. Our contribution to this was in terms of providing a schematic model of the diversity of Statutory Bodies.

We continue to participate in various knowledge management forums around the country. Furthermore KM has acquired licences for the latest version of ThinkTools® and we expect that a number of our staff will be trained on this methodology early in the new year. ThinkTools® represents a powerful resource for knowledge sharing and strategic planning.

Given the rapid increase in our staff complement, especially at junior researcher level, and given the diversity of backgrounds, we invest heavily in staff development through a variety of means. We were fortunate in enjoying British Council support to send a new staff member to a course on Science and Technology (S&T) Policy at PREST, University of Manchester, have exposed other staff to course work in Monitoring and Evaluation, and support the postgraduate studies of another two. The course led by Al Teich, as well as our externally facilitated *Iekgotla* are also part of this commitment to development.

The key users of our work are various Government departments and agencies, especially the Department of Science and Technology, Department of Education, National Treasury, the National Advisory Council on Innovation and the Presidential Commission on the Information Society and Development. We are pleased to be in a position to rapidly respond to queries that arise out of our growing knowledge of the country's R&D base.

Current and recently completed projects

Since the beginning of calendar year 2004 a steady stream of our projects have reached maturity and our list of publications has grown apace. Of particular significance is the way that the research that we have produced is finding its way into the deliberations of relevant policy-makers.

Information Society

Research Manager to the Presidential Commission on the Information Society and Development.

(Project manager: S. Moodley, Senior Research Specialist)

National System of Innovation (NSI) Studies

2001/02 National Survey of R&D Inputs for the Department of Science and Technology. This is to be followed by the "lite" 2002/03 National Survey of R&D Inputs that is currently under development. (Project manager: Professor M. Kahn, Executive Director)

National Technology Transfer Strategy for the Department of Science and Technology (Project manager: Professor M. Kahn, Executive Director)

Design and feasibility study into the National Innovation Survey for the Department of Science and Technology (Project manager: W. Blankley, Chief Research Manager)

Design and publication of *Flight of the Flamingos: A Study on the Mobility of R&D workers* (Project manager: W. Blankley, Chief Research Manager)

Future developments

We are now progressing the work of attaining OECD recognition of the 2001/02 National Survey of R&D Inputs. The ability of countries to measure their R&D performance is one of the conditions for membership of OECD. In addition we are confident that Statistics South Africa will independently confer on the Survey the status of official statistics.

Building a centre with the experience and capacity to undertake national R&D Surveys and Innovation Surveys on behalf of Government on a regular basis is a major task and will occupy a large part of our energies and activities in the coming years.

The anticipated benefits of our work assist Government in meeting its strategic imperatives such as those contained in the South African R&D Strategy to help harness the 'information society', promote effectiveness and efficiency and attain greater competitiveness and create employment opportunities.

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