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To: All HSRC Office's
CC:
Subject: Izwi 2nd Qurater 2004 - What's happening to R&D?

Dear All

Attached is an article by Dr Michael Kahn that appeared in Izwi.

Kind regards
Marise

WHAT'S HAPPENING TO R&D?

MICHAEL KAHN

Universities play a key role in the national system of innovation. They are the producers of highly skilled people who will make things happen in the emerging information society and an important site of research and experimental development (R&D). Along with government and business they constitute what is being termed a 'triple helix' that drives innovation.

Earlier this year the Department of Science and Technology published the first results of the 2001/02 Survey of Inputs into Research and Experimental Development'. The Knowledge Management group of the HSRC performed the Survey according to OECD guidelines that are embodied in the Frascati Manual'.

The Survey seeks to capture financial and human resource information as well as information on the fields where R&D is conducted. It covered higher education, government, science councils, business and not-for-profit organizations. The work involved development of a methodology, questionnaires, identification of respondents and the associated fieldwork.

Why does the R&D Survey matter? From a knowledge management perspective countries and their innovating organisations need to know how much R&D is being done, the extent of innovation, and the way that knowledge management practices contribute to these. Our competitiveness rankings also depend on the extent to which we are able to generate believable indicators, inputs to R&D being one of these.

Such Surveys are not new to South Africa. They have been conducted since the 70s. After 1999 the respon-

sibility for performing the Survey shifted across a number of organizations, and between 1999 and 2002 no survey was conducted. The result of these changes and gaps is that the data time series has been interrupted and institutional memory to perform the survey has been weakened. The 2001/02 Survey therefore required the establishment of methodologies and information systems from scratch. It is now intended that the Survey will be conducted annually with full and short questionnaires being used in alternate years.

In the full survey of 2001/02 a census of higher education, government and science councils was effected; for business and the not-for-profits a purposive sampling technique was employed.

So much for background. What did the Survey find? The most important indicator is the Gross Expenditure on R&D (GERD) expressed as a percentage of GDP, which came out at 0.76%. This represents a modest increase on the 0.69% that was measured in 1997/98, is way below the 1.04% of 1991/92 and falls short of the target of 1% set in the National R&D Strategy of 2002. Maybe the small increase suggests we have started to move upward.

GERD is measured at R7 468 millions, a not inconsiderable sum. Of this amount Higher Education accounts for 25.3%. This represents an increased share in relation to 1991/92. Business has also grown its share to 54.7%. Obviously the decrease has to be located on the side of government and the science councils, which is now down from 32% to 20.0% of the total. It is tempting to ask what the ideal proportions across the three players should be. The answer is that there is no clear answer.

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