

The NACI Study on Utilization of Research Findings:

Main Findings and Recommendations

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Objectives of the NACI study

To formulate strategy and policy for the promotion of the utilization of research findings – based on information on the extent and dynamics of utilization in South Africa – and thereby to raise the return on investment in R & D

Approach to strategy and policy development

- Three independent research teams used
 - AMI – Market and stakeholder analysis and workshop to consider findings and develop a set of strategic objectives
 - Da Vinci – A Delphi-type process using empirical findings of the study, interviews with key stakeholders, and the expert panels own inputs.
 - CKS – Formulation of a computer based systems model of the innovation process to use and interpret the empirical findings of the study

Findings of Strategy Teams

- 44 individual strategy proposals
- Some duplication but generally aligned and complementary
- Strategies have been clustered into nine categories
 - Funding
 - Research management
 - Research reward systems
 - Innovation and commercialization policies
 - Venture capital
 - Fostering of utilization culture at project level
 - Stimulation of user needs
 - Collaboration within knowledge creation
 - Collaboration between producers and users

Instruments for implementation

- The challenge of implementing the findings of this study
- Selected implementation instruments
 - R&D Utilization Charter
 - Guidelines to support the Charter
 - Policy directives on funding and incentives
 - Guidelines on creating sectoral innovation networks
 - Maintenance of a national knowledge map
 - Operation of a knowledge repository
 - Creation of a utilization barometer
- The importance of the present conference

NACI R&D Utilization Charter

- Essence of findings to be reflected as a set of principles for implementation by management
- Principles to allow flexibility in the way they are implemented in different organizations
- Promotion of widespread voluntary adoption of the Charter
- Adoption of the Charter as a possible requirement for organizations receiving public funds for research

Examples of findings relevant to the proposed Charter

- ❑ Create incentives in projects for utilization
- ❑ Link placement of research to quality of project leaders
- ❑ Recognize and retain entrepreneurial and successful researchers
- ❑ Give priority to large collaborative projects
- ❑ Promote international collaboration
- ❑ Promote dialogue between research users & producers
- ❑ Provide training for research managers
- ❑ Require proven management skill in managers of large projects
- ❑ Require market research in defining projects
- ❑ Publicize and promote research being undertaken and success achieved



Guidelines to support the Charter

- ❑ Many ways of implementing the principles of the Charter
- ❑ Non-prescriptive guidelines may be most useful to some
- ❑ Initial draft of guidelines to be based on present findings
- ❑ Experts from key organizations to be consulted for input

Government policy directives on research funding

- Some strategies need Government implementation
- Department of Science and Technology to liaise with other Government Departments to develop proposed policy directives
- Examples of such strategies include
 - Implementation of a tax break scheme for approved research
 - Strengthening of the Thrift and Innovation Funds
 - Improved availability of and access to venture capital and seed funding
 - Building of utilization incentives into funding arrangements

Guidelines for creating sectoral networks of innovation

- ❑ Collaborative networks emerged as a key to improved utilization and innovation
- ❑ Networks to span organizations and sectors and range across research providers, manufacturers and end-users
- ❑ Guidelines and criteria for creating such networks to be formulated either by DST or NACI
- ❑ Existing collaborative network models to be considered in developing the envisaged guidelines
- ❑ A few networks to be developed and piloted, to refine the guidelines and establish the feasibility of more widespread implementation



Creation of a national knowledge map

- ❑ The national knowledge map to identify gaps and opportunities
- ❑ Map to build on the work of the Technology Foresight Initiative
- ❑ Sector-wide consultation and liaison on technology priorities, gaps and opportunities to be re-invigorated
- ❑ Knowledge maps to be regularly updated, promoted and readily accessible
- ❑ DST to address this challenge

Creation of a knowledge repository

- ❑ The aim would be to encourage and facilitate knowledge sharing between researchers and users of research
- ❑ A culture of knowledge sharing to be fostered
- ❑ Repository to integrate disparate knowledge structures and to facilitate interaction
- ❑ Concept to be tested using one or two domain specific repositories in strategically important areas
- ❑ To be housed in DST

Creation of a knowledge utilization barometer

- ❑ An instrument is needed to monitor the extent of knowledge utilization in South Africa
- ❑ It needs to be well-founded and reliable
- ❑ It needs to be applied regularly
- ❑ To be developed in a future NACI project

Conclusion

- ❑ Implementation of the proposed instruments could impact strongly on the National System of Innovation
- ❑ The present conference is an opportunity to suggest how the impact might be improved, and to draw attention to possible unintended negative consequences

Enhanced utilization of research findings and a vibrant National System of Innovation are fundamental to our future success

