# South Africa in the global knowledge arena: implications for academic libraries

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# Structure of presentation

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- The global knowledge arena
- Challenges and Implications for SA academic libraries
- Conclusion

# Introduction

- The South African Government has set itself the objective of transforming the country into a knowledge society that competes effectively in a global economy
  - Share of the markets – in terms of “selling ideas” and products
  - Improvement of lives of its people
  - Contribution to improvement of lives of neighbours and continent

# Introduction cont'd

- This implies that South Africa has to operate in the global rather than a national research landscape and be measured against international benchmarks e.g.  OECD country review
- The country's competitiveness will be determined by its ability to produce knowledge that is internationally competitive on the global scene while taking cognizance of the local context and challenges

# Introduction

- Policies and strategies to support national growth & international competitiveness, e.g.:
  - *White paper on science and technology* (1996)
  - *National R&D Strategy* (2002)
  - *White paper on education* (1997)
  - *National Biotechnology Strategy* (2001)
  - *Accelerated and shared growth initiative for South Africa (ASGISA)* (2006)
  - *Advanced Manufacturing Technology Strategy* (2002)
  - *Indigenous knowledge systems policy* (2005)
  - *Nanotechnology Strategy* (2005)
  - *Towards a Framework for the monitoring and evaluation of South African Higher Education Qualification* (2004)
  - *Framework for intellectual property protection* (2006)

# The global knowledge arena

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- The complexity of the world and national problems have increasingly demanded new directions in [*scientific?*] research and knowledge production, different types of data and the integration or combination of existing data into new kinds of data sets;

- There is growing involvement of scientists [*peers only?]* in many countries and across borders in joint research projects, together with increased scientific and policy interest in global scale and comparative research activities further contributing to the changing environment for scientific data and information

- Evolution of the legal concept of intellectual property

(*Scientific data and information: Report of the [ICSU] CSPR Panel*, 2004)

# The global knowledge arena cont'd

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- Rapidly changing technological capabilities for creating, manipulating, disseminating and using digital and scientific (S&T) data are producing many opportunities not only in traditionally data intensive research and applications, in integration of diverse data for new results, and in vast amounts of factual information available for a broad spectrum of users & in support of all types of decision making

(Uhlir: *Scientific data for decision making towards sustainable development,* 2003)

# Challenges and Implications for academic libraries

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- HEI Libraries' awareness and understanding of international indicators for measuring competitiveness - their translation local needs:
  - Research output measures; impact studies; scientometric/ bibliometric studies
  - Getting on agenda of international system eg ISI??
  - Local development and promotion of own systems and benchmarck (*SA Knowledge base)* -
- HEI Libraries' awareness and understanding key national policies and strategies aimed at promoting country's competitiveness
- Closer working relationships with Universities' research offices

# Challenges and Implications SA academic libraries

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- Effective management of the S&T data resources for optimal access and use, and for developing rational rules and structures for that process
  - What does Effective management of Data imply/entail:
    - Data security;
    - Data integrity;
    - Routine technological update and “curation”;
    - Interoperability;
    - Adequate documentation using metadata based on open and common standards (Committee on Data for Science and Technology – CODATA);
    - Data archiving and curation (National Data and Curation Centre?)
    - Repositories – data and information (BioInformatics databanks; Astronomical data – SALT; Electronic Theses and Dissertation)

# Challenges and Implications SA academic libraries

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- Professional Data and information management
- Data management problems common to different disciplines and to data used outside of the field in which they are generated
- Imparting skills in data management [data management literacy??] at appropriate level to end users;
- Provide better understanding of scientific information communication for example different measures of impact of research outputs in different fields – “One size does not fit all” - ISI syndrome
- Data and information needs assessments of different fields, and appropriate models and modes of communication

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Thank you

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