



science
& technology

Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA



data-intensive research infrastructure for south africa

A Roadmap for South African Research Data Infrastructures

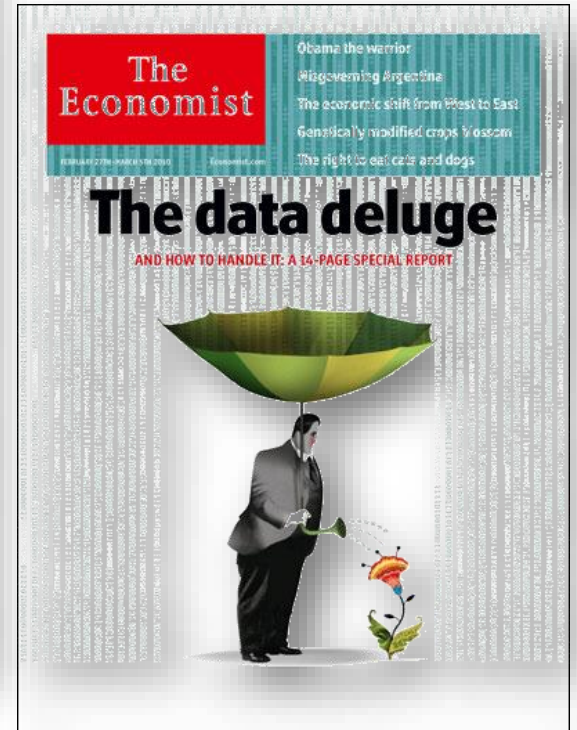
The challenge before us





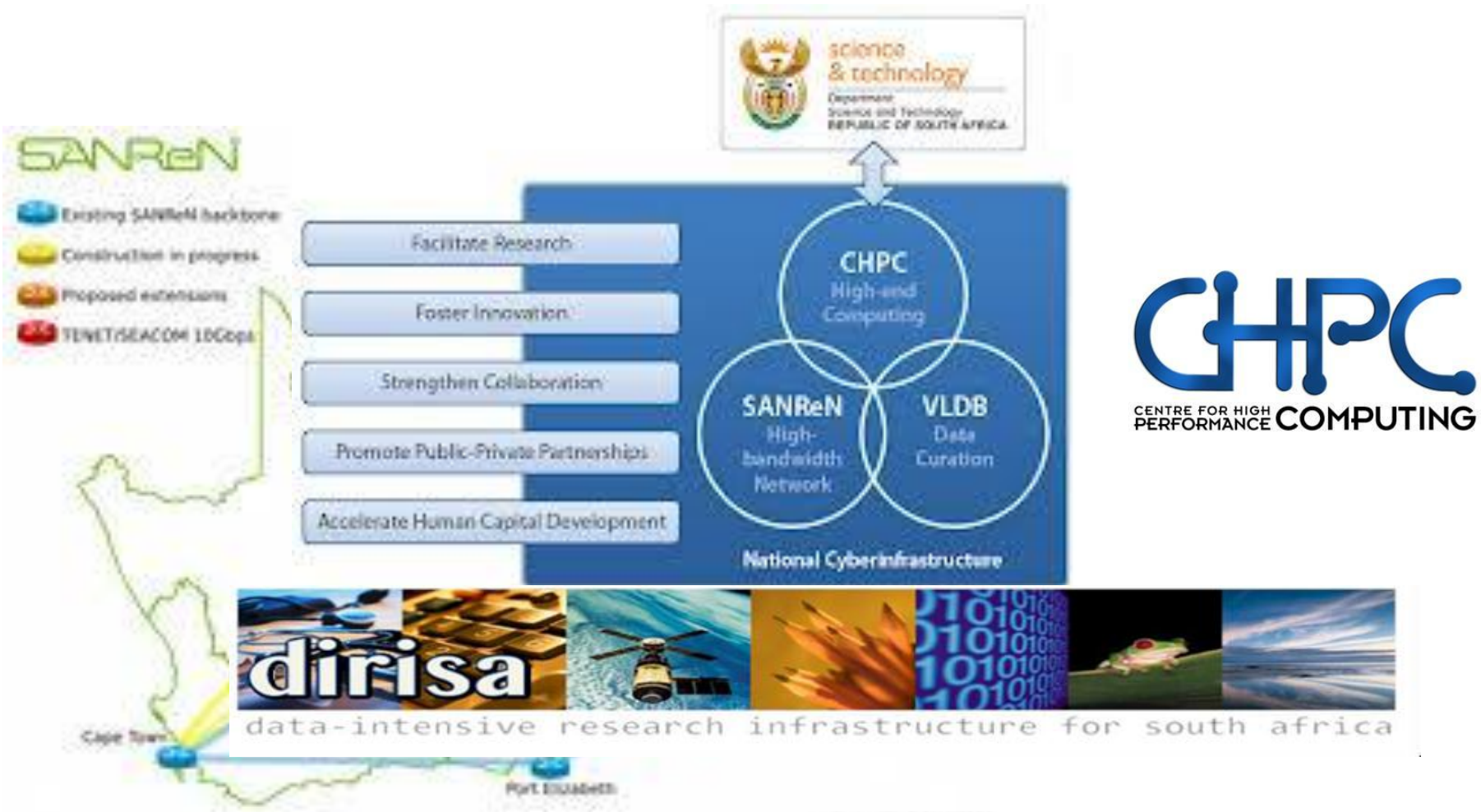
Researchers create cyber environments—secure, easy-to-use interfaces to instruments, data, computing systems, networks, applications, analysis and visualization tools, and services.

National Science Foundation. (2007). Cyberinfrastructure Vision for 21st Century Discovery, p.2



Data Tidal Wave

National Integrated Cyber-Infrastructure (NICI) Project



DIRISA Sector Working Group

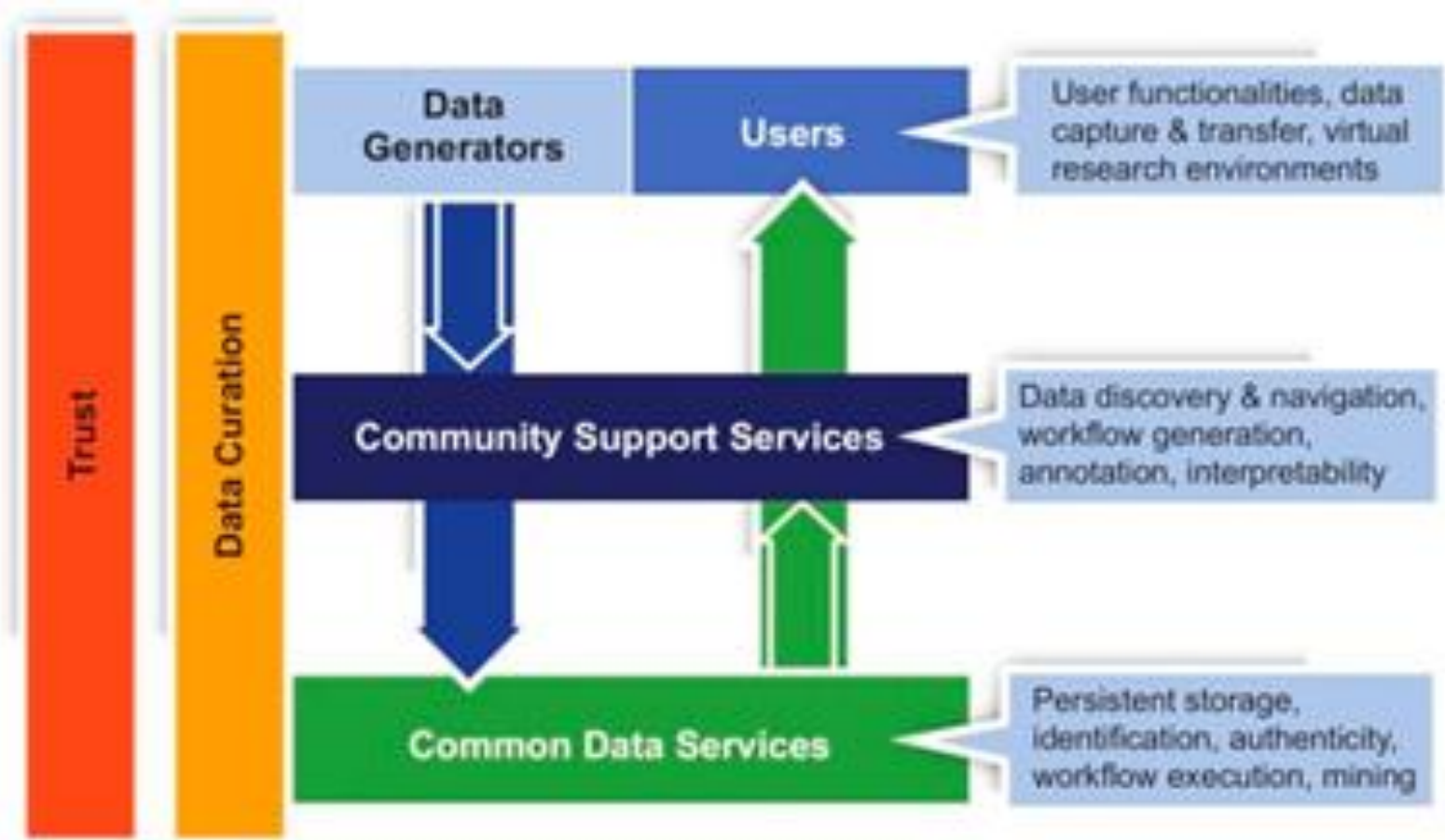
- Mr Wim Hugo (SAEON)
- Prof Ekow Ottoo (WITS)
- Dr Dale Peters (UCT) (convenor)
- Dr Happy Sihole (CHPC)
- Dr Martie van Deventer (CSIR)
- Prof Colin Wright (CSIR/Meraka)



Vision

DIRISA is the data infrastructure layer providing services and support for the curation, preservation, exchange and interoperability of research data generated within the national cyber infrastructure.





EUDAT Service Hosting Framework Model

Mission

- virtual network of distributed nodes
- national policy on data deposit and exchange
- data deposit mandates
- open science – open data
- data curation
 - collation, preservation publication
- human capacity development



Roadmap

Strategy

Policy

Technology

Governance



Strategy



- Define responsibility for data infrastructure
 - funding, support, management
- Maximise ROI on research infrastructure
- Dashboard overview
- Human capacity development
- Advocacy



Policy

- Open Data
- Research funding
- Support frameworks



Technology



- Virtual network
- Human capacity development
- Preservation management

Governance

- Data asset management
- Inclusive governance model
- International collaboration



Conclusions

- New element of national cyber infrastructure
 - Funding
- Major drivers
 - Bandwidth, disciplinary collaboration
- Major challenges
 - Resource intensive
 - Human capital development

