

# POLICY AND SUPPORT INSTRUMENTS



WORKSHOP ON BLOCKCHAIN

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19 July 2018



science  
& technology

Department:  
Science and Technology  
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# Policy

# DST Programmes





# SA's Prioritisation of ICT RDI

- 1996 White Paper on science and technology.
- The 2002 National Research and Development Strategy identified ICT as one of key technology missions, along with biotechnology and advanced manufacturing.
- 2004 DST is established.
- 2005 the development of the ICT RDI Strategy begins and is adopted by Cabinet in 2007.
  - CSIR Meraka Institute becomes the implementing agency of the DST on ICT RDI Strategy
- 2013 adoption of the ICT RDI Roadmap



# Science, Technology and Innovation White Paper

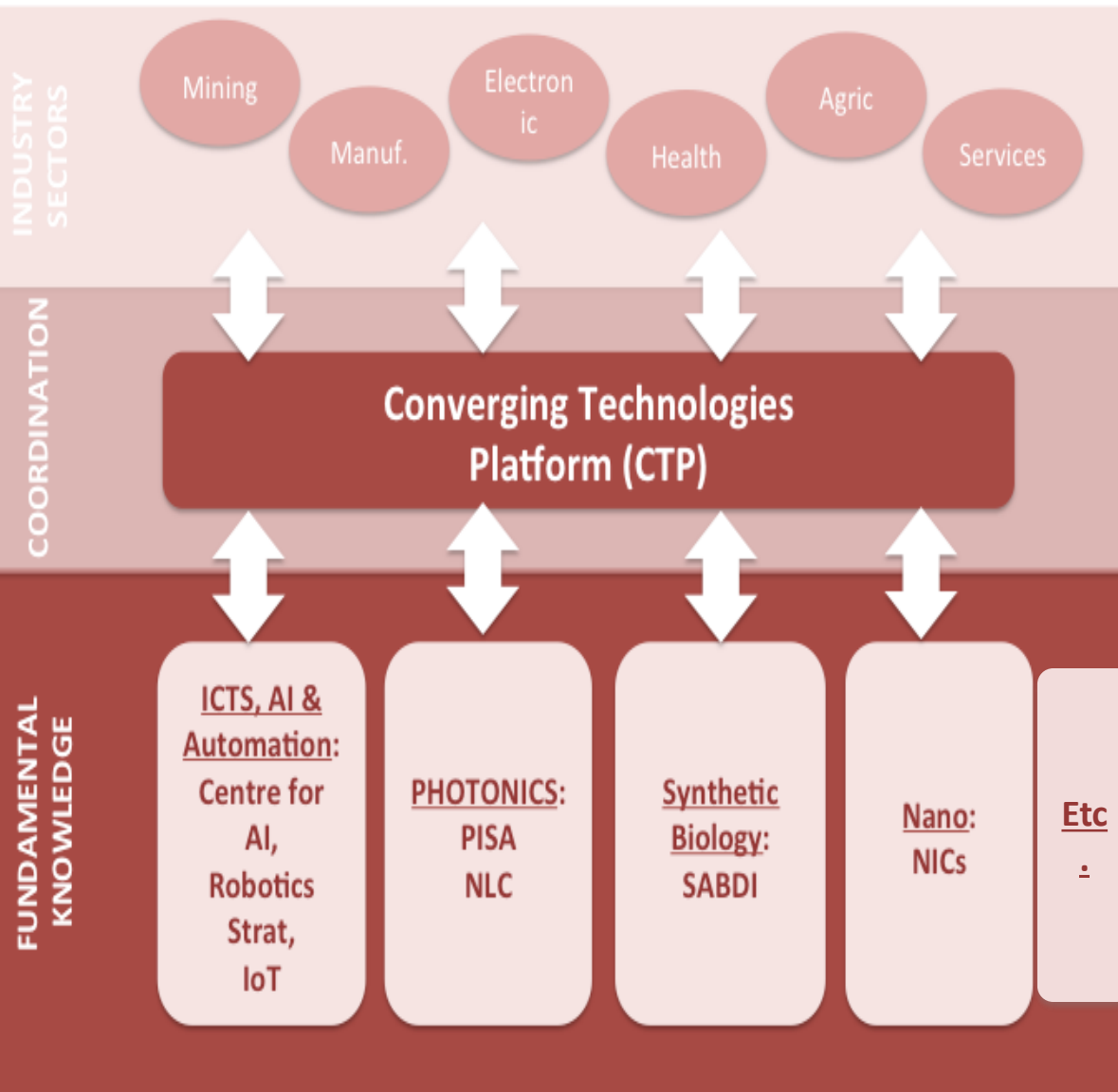
- Why a new White Paper on STI?
  - There are two reasons for South Africa renewing its STI policy.
    - First, global megatrends such as demographic shifts, technological change and environmental degradation render even the near future uncertain and require new STI policy approaches.
    - Second , recent reviews indicate that South African society has not yet fully realized the potential of STI to address the country's challenges.
- Drivers of Global Change
  - future is being shaped by powerful and complex forces and megatrends which are Social , economic, environmental and geopolitical , and are being driven by rapid technological change.



# Fourth Industrial Revolution

- DST, DTPS and DTI are driving a process to look at the readiness of South Africa for the Fourth Industrial Revolution.
  - The DST has put together the drafting team for the more detailed country strategy and action plan and includes experts from the CSIR, HSRC, NACI, and TIA.
- STI White Paper gives recognition to the importance of facilitating sustained and improved competitiveness, particularly in the context of the Fourth Industrial Revolution, the ability to incubate, support and mature emerging industries supported by the ICTs.

# Converging Technologies Platform



- The CTP will perform a coordinating role, to connect two streams of STI-based technology development activities, namely the:
  - Generation of fundamental knowledge across disciplines. This includes basic research, human capital development (HCD), and infrastructure, where appropriate; as well as;
  - Promotion of mission based response to FIR, and related developments, to enable the uptake / utilisation of technologies in partnership with relevant industry partners and sectors.



# Support Instruments and Interventions





# ICT IIP Fund – Objectives and Intent

## ICT-IIP Fund Objectives and Intent

- **Rationale** Foster R&D and Innovation (RDI) partnerships with private sector
- **Aim** Improve competitiveness of key sectors of SA economy, including the ICT sector
- **Approach** Create an enabling environment and facilitate investment in, and uptake of, ICT RDI
- **Outcome** The ICT sector serves domestic needs (uptake & use) to a greater degree and enables increased exports. More specifically:
  - » Private sector (co-)investment secured
  - » Revenues from licensed technologies commercialised
  - » Technology balance of payments
  - » Increased company turnover
  - » Improved productivity in SME's

SIF as part of its Industry Innovation Partnership initiative under the government's Economic Competitive Support Package.

**DST criteria:**

- Increased private sector investment in Research, Development and Innovation.
- Increased general level of Research and Development in South Africa forest sector.
- Increase the competitiveness of the forest sector (nationally and internationally).
- Develop human capital.
- Generate knowledge.
- Contribute to the intellectual property portfolio of the forest sector.
- Work towards transformation through the development of opportunities for emerging new role players



# Support for R&D Enabling Infrastructure

DST adopted a research, development and innovation (RDI) infrastructure framework with five categories being identified, i.e.

- Scientific Equipment: well-founded laboratory equipment, large equipment, and advanced equipment;
- Specialised Facilities: Advanced Specialised Laboratories, Technology Development Platforms for the Health and Biological Sciences, and National Research Facilities of the NRF;
- Global Infrastructure: inbound and outbound international and global infrastructure; and
- Cyberinfrastructure: communication networks, high performance computing, and data storage and management systems.
- **High-end infrastructure: small, large and mega projects;**



# R&D Tax Incentive Scheme

- Government offers R&D tax incentive under section 11D of the Income Tax Act (Act No. 58 of 1962) in order to promote private sector R&D investment in the country.
- The incentive allows any company undertaking scientific and or technological R&D in the country to deduct 150% of its R&D spending when determining the taxable income.
- The incentive is available to businesses of all sizes and in all sectors of the economy.



# Accelerated Capacity Building

# Mobile Laboratory Southern Africa (mLab)



The graphic features the mLab Southern Africa logo at the top. Below it, four program areas are listed with corresponding icons on a smartphone screen: 'LEARN TO CODE WITH THE CODETRIBE ACADEMY' (orange building), 'GET A BOOST WITH THE MLAB TECH STARTUP ACCELERATOR' (green building), 'LEARN TO INNOVATE WITH OUR CO-CREATION PROGRAMMES' (red building), and 'CREATE TO HEAL WITH THE REHEALTH AFRICA PROGRAMME' (blue building with a cross). The website [www.mlab.co.za/apply](http://www.mlab.co.za/apply) is at the bottom.

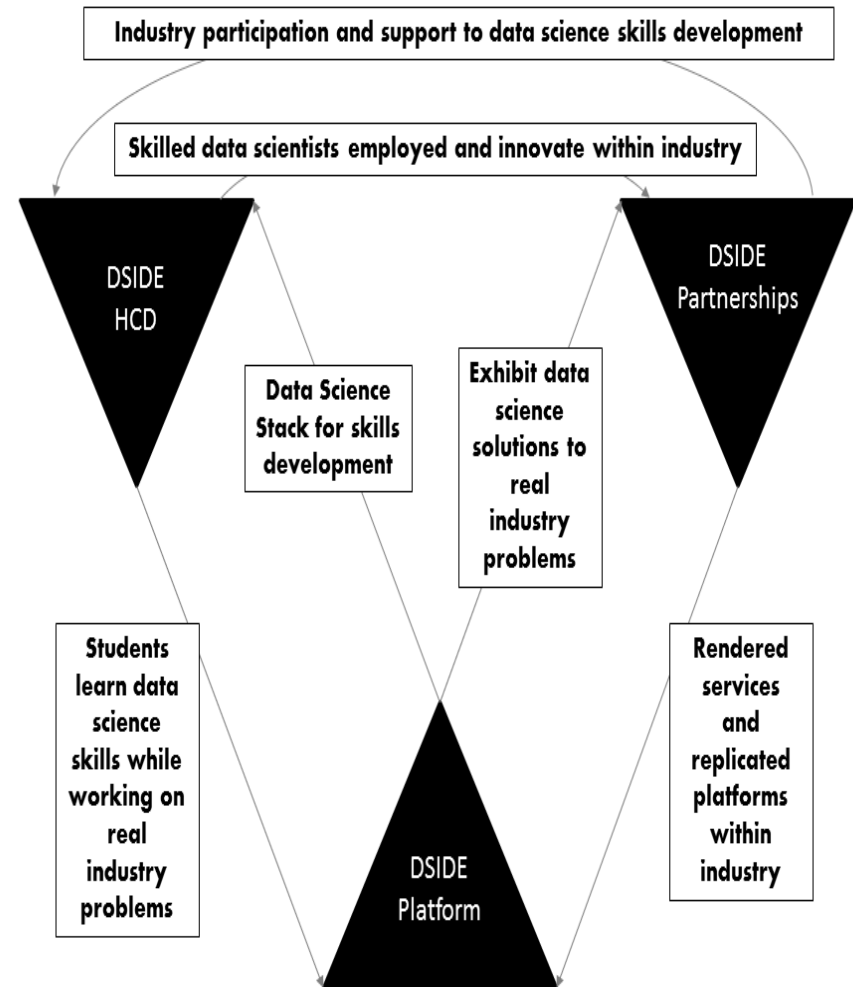
- Start-up incubator.
- Skills development academies in townships
- Expansion of the mLab outside of Gauteng and Western Cape to Limpopo, Northern Cape and Mpumalanga.
- Target to train 60/year/province for 3 years.

Some of the mLab startup graduates: **GoMetro, AftaRobot, Afroes and Tour2.0**



# Accelerated Capacity Building in Data Science (DSIDE)

- Since 2014 > 149 trainees
- 88% black, 31% female
- 40+ employed at financial, ICT and energy companies.
- Targets for 2018/19 and 2019/20 are 60 and 70 trainees respectively.





# EU Framework Programme on Research and Innovation



The 2018/20 Work Programme main priorities are:

- The digitisation of Europe industry and services;
- The European Data Infrastructure (EDI): HPC, Big Data and Cloud technologies
- The 5G action plan and connected and automated mobility,
- The Next Generation Internet (NGI), including the Internet of Things and artificial intelligence;
- Cybersecurity



# Thank you

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