

Balancing between technological progress and the

ethical and security considerations

State-owned enterprise perspective

PUBLIC ECONOMICS CONFERENCE

3-5 SEPTEMBER

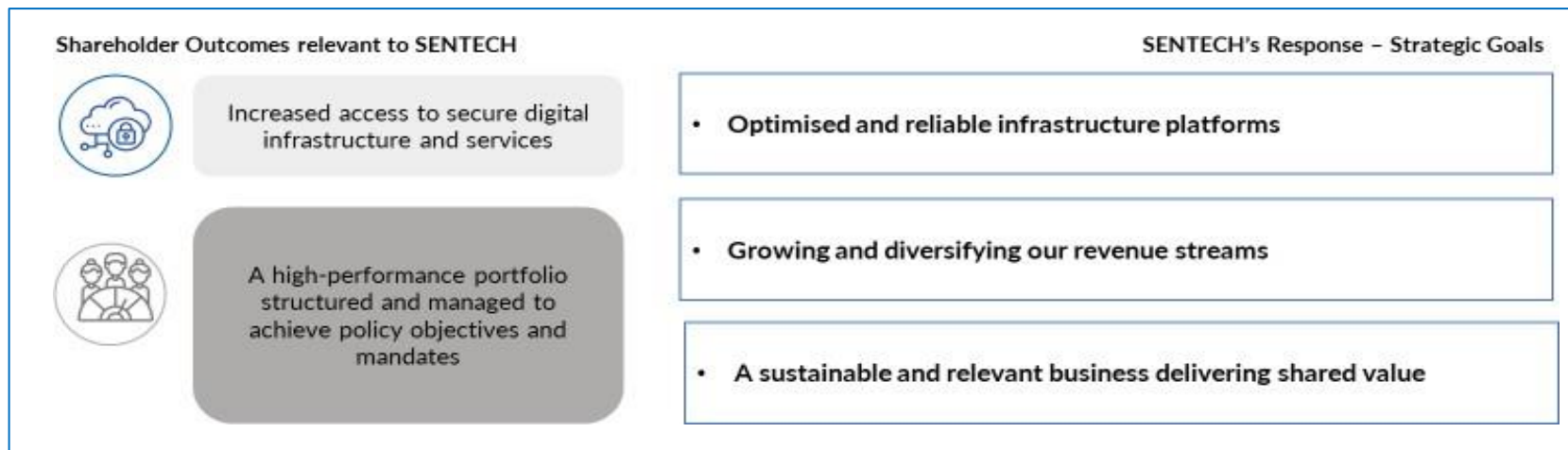
2024

TECHNOLOGY AND DATA
FOR ENHANCED GOVERNMENT SERVICE DELIVERY



Sustainability of a State Digital Infrastructure Company

- SENTECH's mandate is rooted in the SENTECH Act and the Electronic Communications Act, and aligns with the National Development Plan 2030, which emphasizes government intervention to balance growth and development through state resources.
- Included in DCDT SOC portfolio, SENTECH aims to address socio-economic issues through investments in digital infrastructure. Complying with the PFMA, the company must be self-sustaining and has historically relied on government funding for state-led projects.
- To achieve sustainability, SENTECH is shifting from signal distribution to becoming a state digital infrastructure provider, seeking to diversify revenue and optimize infrastructure. A key strategic goal is to operate at least a tier-three data center and meet the objectives of the Data and Cloud Computing Policy (2024).
- The SENTECH corporate Plan includes seven(7) strategic pillars, four (4) states herein, to ensure that the Company achieves its public service mandate objectives aligned with Shareholder's desired outcomes



Strategic Pillars



Digital Infrastructure



Creativity & Innovation



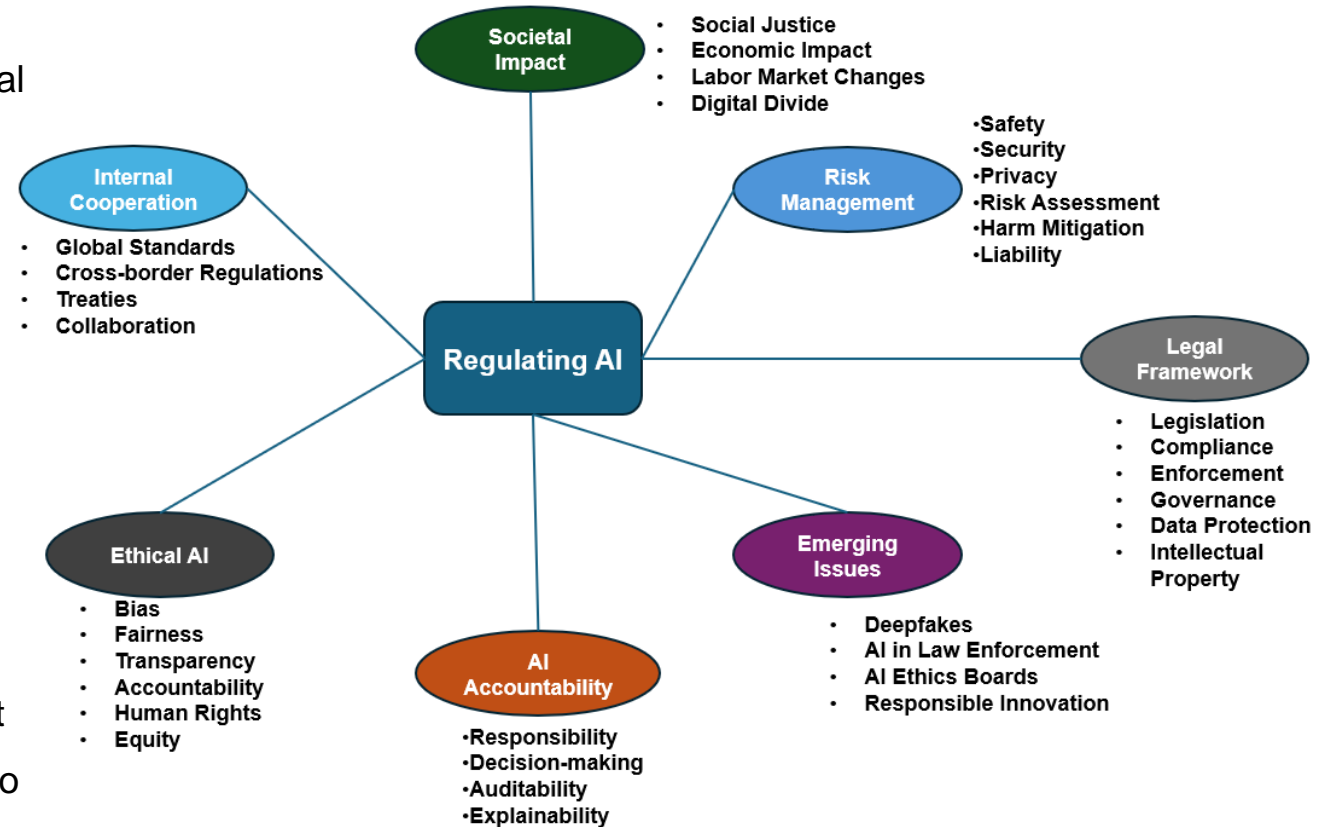
Environmental, Social and Governance



Financial Sustainability

Regulating AI

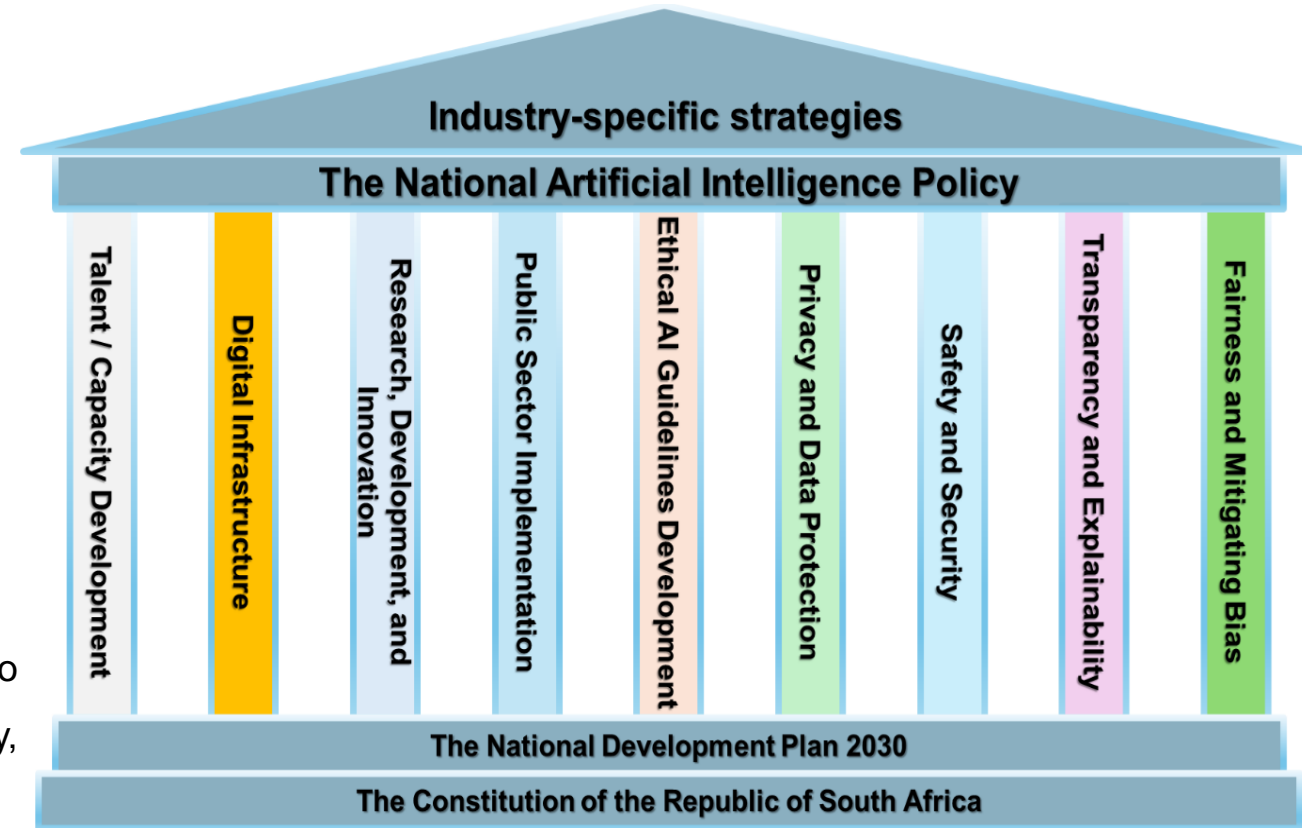
- Balancing technological advancements with ethical and AI security concerns underscores the need for AI regulation to ensure responsible development.
- South Africa is crafting a National AI Policy to establish a foundational basis for AI regulations and potentially an AI Act, aiming to set rules and standards aligned with national priorities.
- Without specific AI regulations, existing frameworks might be used incrementally.
- There is an urgent need for robust governance to address the inequitable harms caused by AI.
- Geopolitical strategies also drive the call for AI regulation, with the impact of AI on global power dynamics and politics. This is important to South Africa due to intention to lead in innovation while adhering to the National Development Plan objectives.



National Artificial Intelligence Policy Framework: Strategic Pillars for the South Africa AI Policy

South Africa's National AI Policy Framework: 1) Risk-based and Principle-based (Balance between risks and ethical principles for AI deployment); and 2) Sectoral-based and Collaborative Governance (Emphasises the need for sector-specific guidelines and multi-stakeholder involvement).

- The Framework outlines nine (9) strategic pillars AI policy formulation must incorporate to ensure that “AI serves as a catalyst for a digital society, digital economy, and digital inclusion, benefitting all South Africans”.
- The Framework
 - Is grounded on the Constitution of the Republic and the National Development Plan 2030.
 - Informs the scope of the Policy on how technology will be used to address the country's socioeconomic triple threat namely poverty, employment, and economic growth.
- The pillars are key considerations for a human-centric, ethical development and use of general-purpose AI.



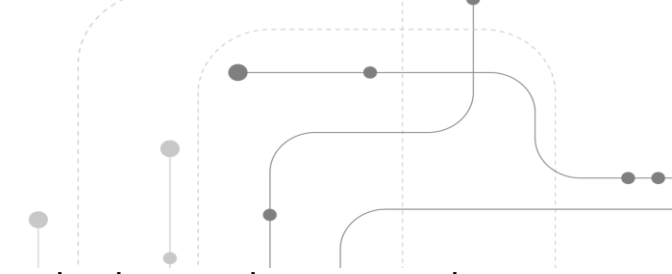
Existing Legislation and Policy

1. The **Protection of Personal Information Act (POPIA)** mandates that AI systems processing personal data adhere to principles of data privacy, transparency, and lawful processing.
2. The **Critical Infrastructure Protection Act** focuses on the protection of critical infrastructure, which includes both physical and cybersecurity measures. It mandates the identification, assessment, and protection of critical infrastructure assets.
3. The **Cybercrimes Act** requires AI developers to ensure their systems do not facilitate or commit cybercrimes, such as hacking or unlawful interception.
4. The **Intellectual Property Laws Amendment Act** addresses the ownership and patenting of AI-generated innovations, including issues related to copyright, patents, and trademarks.
5. The **Consumer Protection Act** mandates that AI systems interacting with consumers, such as chatbots and recommendation engines, must protect consumer rights and ensure product safety and fairness.
6. The **National Health Act**, along with POPIA, governs AI systems in healthcare, ensuring compliance with patient privacy and data protection standards.

Existing Legislation and Policy...continued

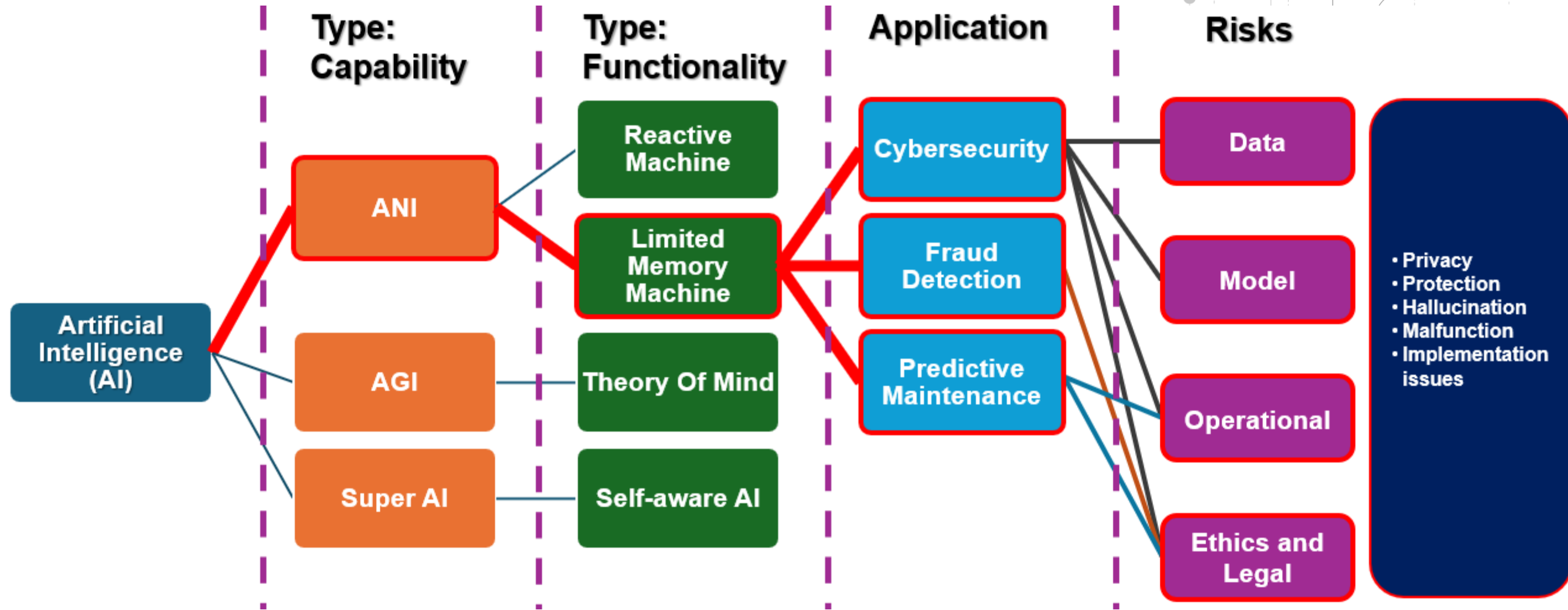
7. The **Electronic Communications and Transactions Act (ECTA)** impacts AI technologies involved in electronic transactions, digital signatures, and cryptography, requiring compliance with the Act.
8. The **National Infrastructure Plan 2025** outlines priorities for infrastructure development, including digital infrastructure, to stimulate economic growth, create jobs, and improve quality of life in South Africa
9. The **Promotion of Administrative Justice Act (PAJA)** ensures that AI-driven administrative decisions by public bodies are lawful, reasonable, procedurally fair, and open to review.
10. The **Electronic Communications Act** governs AI technologies relying on electronic communications networks, overseeing spectrum allocation, network regulation, and digital infrastructure.
11. The **National Data and Cloud Policy** establishes a strategic framework for managing and regulating data and cloud services, promoting data sovereignty, economic growth, and digital transformation in South Africa.
12. The **National Infrastructure Plan 2025** outlines priorities for infrastructure development, including digital infrastructure, to stimulate economic growth, create jobs, and improve quality of life in South Africa

Risk, Ethics, and Ethical AI



- **Risk** refers to the inherent potential for danger in a situation or activity, where the likelihood of a future event causing loss or damage can be anticipated to some degree. This potential outcome does not solely depend on the actions or control of the parties involved.
- Ubuntu **ethics** speaks to a holistic approach to ethical decision-making that emphasizes the interconnectedness of all people, compassion, and collective well-being. It challenges individualistic perspectives by promoting a sense of shared humanity and responsibility, for fostering inclusive, compassionate, and just societies. The core principle of ubuntu ethics, concerning interconnectedness, the well-being of the entire ecosystem (environment/universe) is considered alongside human flourishing.
 - Eight *Batho Pele* principles to kickstart the transformation of service delivery: 1) consultation; 2) service standards; 3) access; 4) courtesy; 5) information; 6) openness and transparency; 7) redress; and value for money.
- **Ethical AI:** Emphasises respect for human dignity and rights while promoting social, cultural, economic, and environmental sustainability. The applications must ensure benefits are shared and risks managed, through transparency, accountability, and fairness, supported by robust data governance. GPAI must be human-centred AI, enhancing decision-making while safeguarding professional responsibility and societal values.

AI types, applications and associated risks



THANK YOU

