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South African Department of Communications and Digital Technologies Artificial Intelligence Policy Framework

Key Points

As Artificial Intelligence gains significant traction globally, both from a technological and regulatory perspective, the Department of Communications and Digital Technologies in South Africa have followed up its Artificial Intelligence Planning discussion document of October 2023, with an Artificial Intelligence Policy Framework released in August 2024. Here is an extract of the key points from the policy framework.

The National Artificial Intelligence (AI) Policy Framework for South Africa is the first step in developing a National AI Policy which aims to promote the integration of AI technologies to drive economic growth, enhance societal well-being, and position South Africa as a leader in AI innovation. The policy framework's primary objective is to strategically foster a robust AI ecosystem through coordinated efforts in research and development, talent cultivation, and infrastructure enhancement.

A cornerstone of the framework is the commitment to ethical AI development and use. It integrates comprehensive guidelines to ensure AI systems are transparent, accountable, and designed to promote fairness while mitigating biases. This includes the establishment of robust data governance frameworks to protect privacy and enhance data security, alongside setting standards for AI transparency and explainability to foster trust among users and stakeholders.

The policy framework emphasizes the importance of human-centred AI, ensuring that AI applications augment human decision-making rather than replace it. By safeguarding professional responsibility and promoting human values, the framework ensures that AI development aligns with societal and ethical considerations. It also includes measures to enhance cybersecurity and protect AI systems from malicious threats.
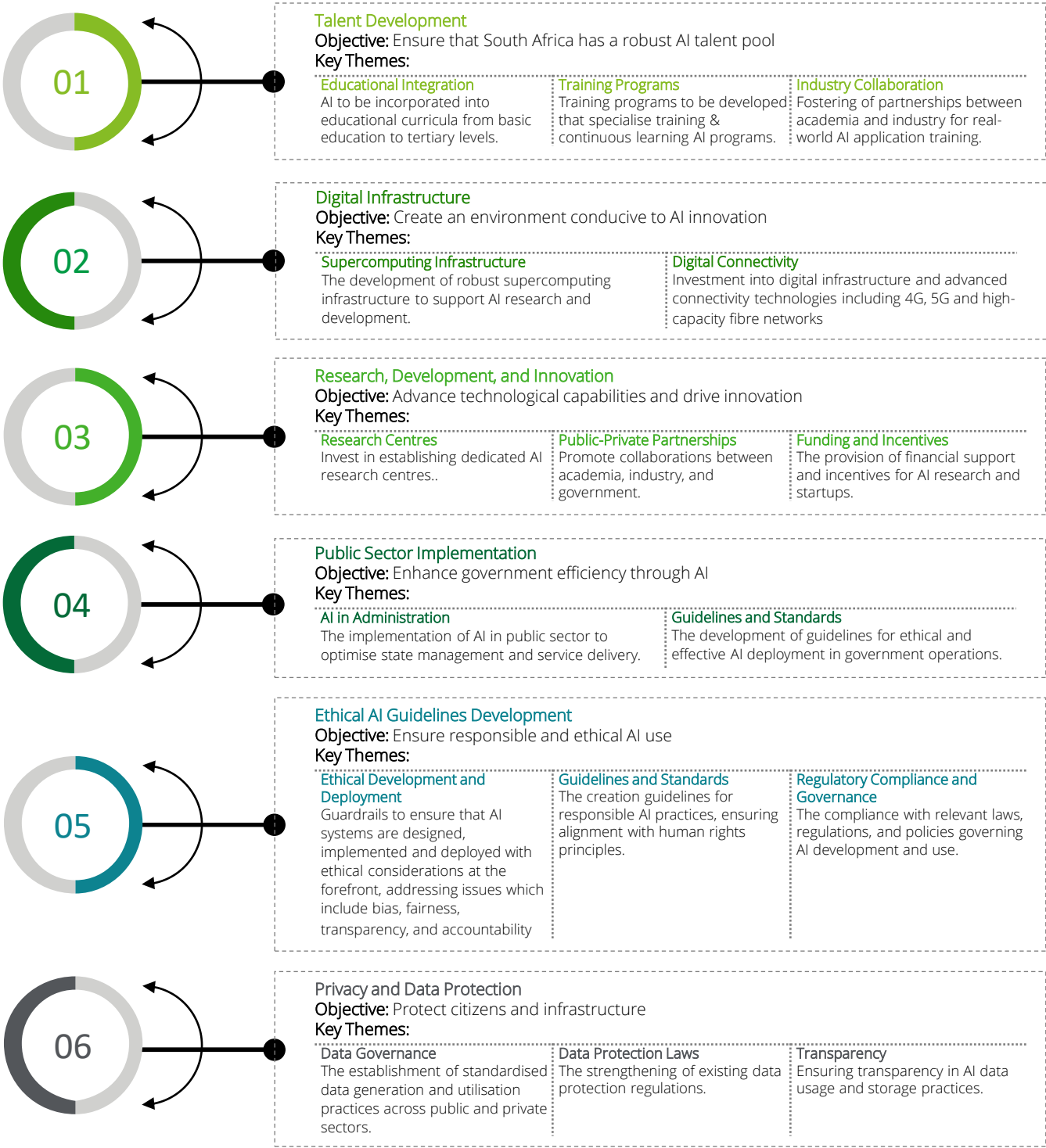
As AI technologies rapidly advance, they offer unprecedented opportunities for economic growth, improved public services, and enhanced quality of life. However, without a coherent and comprehensive policy position, these benefits could be overshadowed by potential risks such as job displacement, privacy concerns, and ethical dilemmas. The National AI Policy will provide clear guidelines and a structured approach to harnessing AI's potential while mitigating its risks, ensuring that AI technologies are developed in a manner that aligns with South Africa's socioeconomic goals and values.
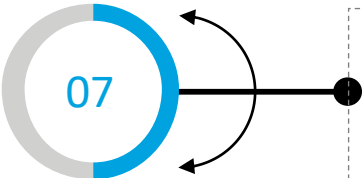
> The National AI Policy will serve as the foundational basis for creating AI regulations and potentially an AI Act in South Africa.

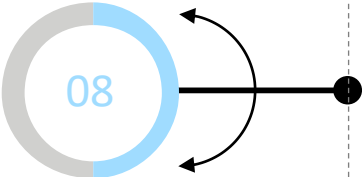# Strategic Pillars for the South African AI Policy

Strategic pillars of this AI Policy are the fundamental components or key areas of focus that will support and drive the implementation of the policy's goals and objectives. They serve as the core framework around which the policy is structured, providing clear guidance and direction for its development. It will also guide the development of robust regulatory mechanisms that ensure AI applications are safe, ethical, and aligned with the public interest.

The strategic pillars are structured first to define the objective of the pillar and then set out some of the key themes and activities that will support the achievement of the objective.

01 Talent Development
Objective: Ensure that South Africa has a robust AI talent pool
Key Themes:

Educational Integration	Training Programs	Industry Collaboration
AI to be incorporated into educational curricula from basic education to tertiary levels.	Training programs to be developed that specialise training & continuous learning AI programs.	Fostering of partnerships between academia and industry for real-world AI application training.

02 Digital Infrastructure
Objective: Create an environment conducive to AI innovation
Key Themes:

Supercomputing Infrastructure	Digital Connectivity
The development of robust supercomputing infrastructure to support AI research and development.	Investment into digital infrastructure and advanced connectivity technologies including 4G, 5G and high-capacity fibre networks

03 Research, Development, and Innovation
Objective: Advance technological capabilities and drive innovation
Key Themes:

Research Centres	Public-Private Partnerships	Funding and Incentives
Invest in establishing dedicated AI research centres..	Promote collaborations between academia, industry, and government.	The provision of financial support and incentives for AI research and startups.

04 Public Sector Implementation
Objective: Enhance government efficiency through AI
Key Themes:

AI in Administration	Guidelines and Standards
The implementation of AI in public sector to optimise state management and service delivery.	The development of guidelines for ethical and effective AI deployment in government operations.

05 Ethical AI Guidelines Development
Objective: Ensure responsible and ethical AI use
Key Themes:

Ethical Development and Deployment	Guidelines and Standards	Regulatory Compliance and Governance
Guardrails to ensure that AI systems are designed, implemented and deployed with ethical considerations at the forefront, addressing issues which include bias, fairness, transparency, and accountability	The creation guidelines for responsible AI practices, ensuring alignment with human rights principles.	The compliance with relevant laws, regulations, and policies governing AI development and use.

06 Privacy and Data Protection
Objective: Protect citizens and infrastructure
Key Themes:

Data Governance	Data Protection Laws	Transparency
The establishment of standardised data generation and utilisation practices across public and private sectors.	The strengthening of existing data protection regulations.	Ensuring transparency in AI data usage and storage practices.

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Safety and Security
Objective: Protect citizens and infrastructure
Key Themes:

Cybersecurity Measures
The implementation of robust cybersecurity protocols to safeguard AI systems.

Risk Management
The development of frameworks to identify and mitigate risks associated with AI.

08

Transparency and Explainability
Objective: Build public trust in AI
Key Themes:

Explainable AI
The development of AI systems that provide clear, understandable outputs (The ability to understand and interpret how AI systems arrive at their decisions or conclusions)

Trust and Acceptance
Users and stakeholders are more likely to trust and accept AI systems if they can understand how decisions are made.

Accountability
Explainability enables developers and organizations to be accountable for the actions and outcomes of AI systems.

Bias Detection and Mitigation
Understanding how AI algorithms make decisions allows for the detection and mitigation of biases. Biases can unintentionally be amplified in AI systems due to skewed training data or inherent biases in algorithms..

Insight and Improvement
Explainable AI provides insights into how models behave in different scenarios, which can lead to improvements in model performance, efficiency, and usability.

Transparency
The clear and open operation of AI systems, ensuring that their processes, decision making criteria, and outcomes are understandable and accessible to users and stakeholders including insights into model functionality, data usage, decision logic, and potential impacts..

Public Awareness Campaigns
Educate the public on AI technologies and their implications.

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Fairness and Mitigating Bias
Objective: Ensure equitable AI deployment
Key Themes:

Bias Mitigation
The development of methods to identify and mitigate biases in AI systems.

Inclusive Data Sets
Ensure AI systems are trained on diverse data sets representing all demographics.

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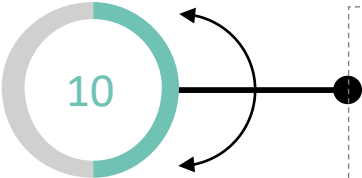
Human Control of Technology (Human-Centred Approach in AI Systems)
Objective: Maintain human oversight over AI
Key Themes:

Human-in-the-Loop Systems
Ensure critical AI decisions involve human oversight (especially in Generative AI).

Decision-Making Frameworks
The development of frameworks for AI decision-making that prioritise human judgment.

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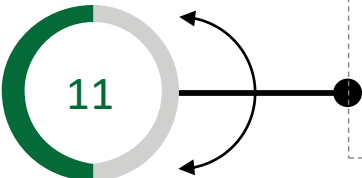
Professional Responsibility
Objective: Foster responsible AI development and use
Key Themes:

Code of Conduct
The creation of a code of conduct for AI professionals.

Ethics Training
The integration of ethical training into AI education and professional development.

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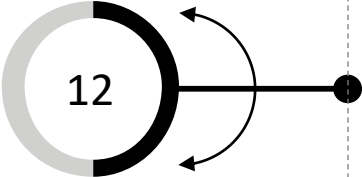
Promotion of Cultural and Human Values
Objective: Align AI development with societal values
Key Themes:

Value-Based AI
The development of AI systems that promote human well-being, equality, and environmental sustainability.

Stakeholder Engagement
The involvement of diverse stakeholders in the AI policy-making process to ensure alignment with societal values.

Contacts

Samresh Ramjith
Risk Advisory Africa | Cyber Risk Leader
sramjith@deloitte.co.za
+27 11 517 4047

Leishen Pillay
Risk Advisory Africa | Cyber Security Privacy Director
lpillay@deloitte.co.za
+27 11 209 6418

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