

Province of the
EASTERN CAPE
TRANSPORT

DIGITAL TRANSFORMATION ROADMAP





Foreword

The purpose of this document is to provide Eastern Cape Department of Transport with an Digital Transformation roadmap. This document does not form part of any other document, nor does it replace. The document supersedes any reports for the EC DOT Digital Transformation Roadmap

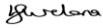
References

- a) EC DOT Strategic Plan 2025-2030
- b) Approved Organisational Structure
- c) Tasking Letter Request for SITA to develop Enterprise Architecture for EC DOT
- d) Proposal for the development of Enterprise Architecture for EC DOT
- e) EC DOT Enterprise Architecture Framework
- f) EC DOT Enterprise Architecture Vision
- g) DPSA Directive on Data Management
- h) DPSA Determination and Directive on implementation of CGICTPF Ver 2, 2022
- i) DPSA Directive on Data and Information Management in the Public Service
- j) DPSA Directive on Public Service Information Security
- k) ISO/IEC 12207
- l) Project Management Body of Knowledge as published by Project Management Institute



Approval

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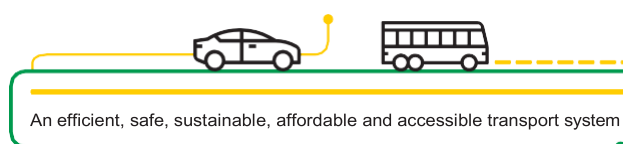
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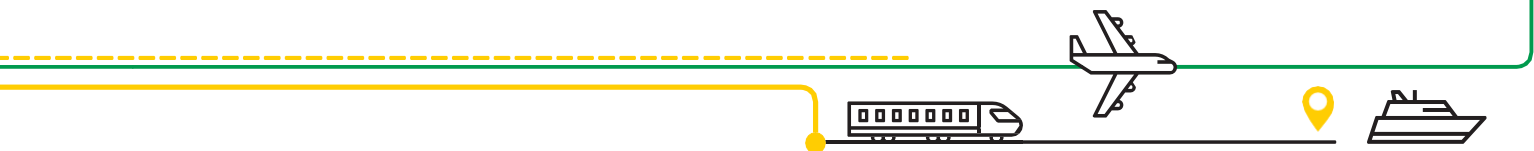
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Contents

- 1. Executive Summary 5
 - 1.1 Introduction..... 5
 - 1.2 Objectives 6
 - 1.3 Problem Statement..... 6
- 2. Strategic Context 7
 - 2.1 Vision, Mission and Values..... 7
 - 2.2 Strategic Outcomes..... 7
- 3. Digital Transformation Maturity 8
 - 3.1 Maturity Assessment Summary..... 9
 - 3.2 Summary of Results 10
- 4. ICT landscape 11
 - 4.1 ICT Governance 11
 - 4.1.1 ICT Service alignment..... 11
 - 4.1.2 ICT Challenges 11
 - 4.2 ICT Measuring Outcome..... 12
- 5. Digital Transformation Journey 12
 - 5.1 Digital strategic objectives 12
 - 5.2 Expected Digital Transformation outcomes..... 13
 - 5.3 Dependencies 13
 - 5.4 Strategic Alignment 14
- 6. Risks and Dependencies..... 16
- 7. Digital transformation enablers..... 17
 - 7.1 ICT frameworks, policies and governance..... 17
- 8. Roadmap initiatives and project..... 17
- 9. Digital Transformation Implementation Roadmap..... 18
 - 9.1 Implementation plan 19
- 10. Key Performance Indicators (KPIs)..... 22
- 11. Recommendations..... 22



Annex A: Abbreviations, Terms and Definitions.....23

A.1: Abbreviations.....23

A.2: Terms and Definitions23

Figures

Figure 1: Digital Maturity dimensions8

Figure 2: Digital Maturity ladder rating9

Figure 3: Maturity Results.....10

Figure 4: Digital Transformation Roadmap.....18

Figure 5: Digital Transformation implementation plan18

Tables

Table 1: Vision, Mission and Values.....7

Table 2: Strategic Outcomes.....7

Table 3: Digital transformation dimensions8

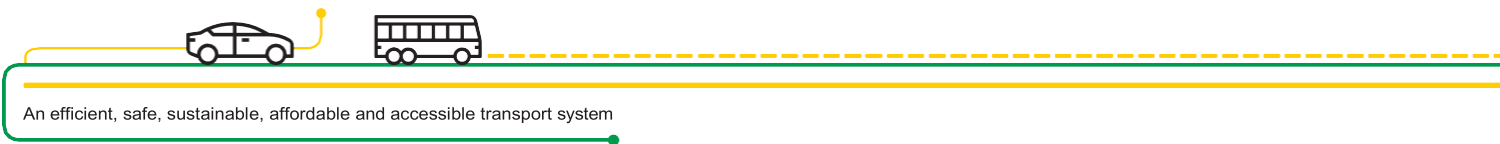
Table 4: Maturity rating10

Table 5: Strategic Alignment14

Table 6: Risks16

Table 7: Implementation plan.....19

Table 8: Key Performance Indicators22



1. Executive Summary

1.1 Introduction

The rapid evolution of emerging technologies requires the Eastern Cape Department of Transport (ECDOT) to continuously modernise its operations and adopt innovative solutions that address inefficiencies and enhance service delivery. To fully harness digital opportunities that advance strategic outcomes and strengthen engagement with stakeholders, the Department has prioritised the development of a suite of digital transformation systems.

As public services become increasingly reliant on digital platforms, data-driven decision-making, and integrated information systems, robust ICT capabilities are essential for improving operational efficiency, and strengthening compliance, and expanding public access to services. South Africa's National eGovernment Strategy and Roadmap (2017) sets the foundation for a digitally enabled public sector and an inclusive digital society aligned with Sustainable Development Goal 16. In response, ECDOT must adopt a coordinated approach to integrating digital technologies that promote universal access, modernise infrastructure, and enhance service delivery.

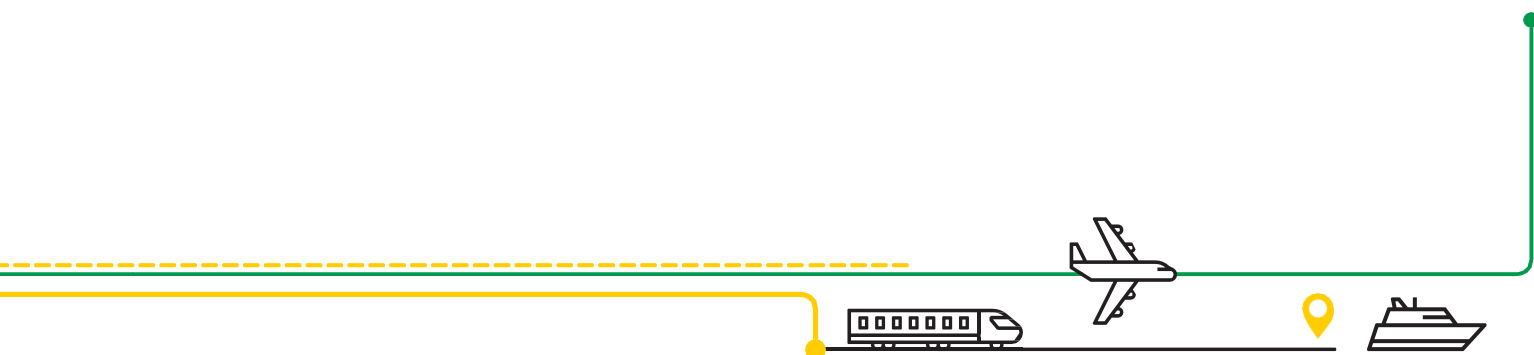
The MPSA in terms of section 3 (2) of the Public Service Act, 1994 issued a Determination and Directive on the Implementation of Digital Transformation strategy in the Public Service on 02 April 2025. The determination and directive states that the Head of Department ensures that digital services align with the guiding principles outlined in the standard and that the implementation process adheres to the digital services lifecycle. This ensures that digital services are delivered effectively, efficiently, and in accordance with established best practices.

The Roadmap for the Digital Transformation of the South African Government (2025) further outlines the national direction for digital modernisation. In alignment with these prescripts, the Department has embedded digital transformation within its Departmental Strategic Plan and undertaken a comprehensive review of its Enterprise Architecture to ensure tighter alignment between strategic priorities, ICT investments, and organisational modernisation initiatives.

The Digital Transformation Strategy and Roadmap represent a portfolio of strategic initiatives enabled by digital technologies, designed to modernise business processes, strengthen organisational culture and digital skills, and realign operating models to improve efficiency and public value.

The purpose of ECDOT's Digital Transformation Strategy is to leverage technology to accelerate service delivery to citizens while providing a measurable, actionable roadmap (2026/27–2029/30) that directly supports the Department's strategic objectives.

This digital roadmap is anchored in the Department's vision: "An accessible, efficient, affordable, safe and sustainable transport system".



1.2 Objectives

The purpose of Digital Transformation for the Eastern Cape Department of Transport is to modernise and optimise transport services by leveraging digital technologies to improve operational efficiency, strengthen governance, enhance service delivery, and support integrated, safe, and reliable transport systems across the province.

This purpose includes:

- a) Improving service delivery efficiency through digitised processes, streamlined workflows, and automation aligned with the Department's commitment to strengthening its service delivery model.
- b) Enhancing operational accountability and transparency through digital platforms that support governance, risk management, and performance monitoring.
- c) Supporting transport infrastructure planning and management, enabling more accurate, data-driven decisions aligned with the Department's mandate to develop and maintain transport infrastructure.
- d) Improving citizen access to transport-related services, including licensing, public transport information, and transport operations supporting a safe, reliable and integrated transport system.
- e) Building internal capability and resilience by adopting modern technologies that enable effective, future-ready operations.

1.3 Problem Statement

The Eastern Cape Department of Transport faces persistent operational, service-delivery and governance challenges that are exacerbated by outdated, fragmented, and largely manual processes. Core business functions including transport infrastructure management, scholar transport operations, fleet oversight, permissions and compliance, and public-facing services are supported by disparate systems that do not integrate or enable timely information sharing. This fragmentation leads to delays in service delivery, inefficiencies in administrative processes, limited visibility into operational performance, and weakened decision-making capability.

In addition, the Department lacks a cohesive digital ecosystem that enables real-time data analysis, accurate reporting, and proactive monitoring of transport infrastructure, safety interventions, and operational programmes. The current ICT environment is constrained by minimal automation, inconsistent data-management practices, and insufficient digital skills within the workforce. These constraints hinder the Department's ability to modernise its services, enhance accountability, strengthen governance, and meet growing expectations for efficient, transparent, and citizen-centred transport services.

To address these challenges, the Department requires a coordinated and well-governed digital transformation approach that modernises systems, strengthens data management, improves ICT service delivery, and enables integrated, technology-enabled transport operations across the province.

The organisational culture and digital maturity levels remain low to moderate, with limited adoption of digital tools, inconsistent digital skills across business units, and insufficient readiness to embrace transformative technologies.

The department needs to strengthen digital foundation, agility, and enterprise-wide value realization by prioritizing the development of talent and culture that is conducive to sustaining transformation



2. Strategic Context

The strategic context indicates the overall boundaries within which the ECDOT operates. The mandate and core business of the ECDOT is underpinned by the constitution and all other relevant legislation and policies applicable to government institutions.

2.1 Vision, Mission and Values

The following table includes vision, mission, values and legislative mandate of the Eastern Cape Department of Transport as indicated in the Strategic Plan 2025/26 - 2029/30 document.

Table 1 – Vision, Mission and Values

Strategic Area	Context		
Vision	An accessible, efficient, affordable, safe and sustainable transport system.		
Mission	Provide, facilitate, develop, regulate, and enhance a safe, affordable and reliable multi-modal transport systems which is integrated with land uses to ensure improving levels of accessibility and optimal mobility of people and goods in support of socio-economic growth and development in the Province of the Eastern Cape.		
Values	The values of the Department rest on the pillars of:		
	Commitment/Agile	Accountability	Teamwork
	Good Governance	Honesty / Integrity	Ethical leadership

2.2 Strategic Outcomes

The target business performance model for ECDOT is based on the strategic outcomes and planned performance over five years as stated in the Departmental Strategic Plan for 2025-2030 .

Table 2 – Strategic Outcomes

Outcomes	Descriptions	
Outcome 1		Improved public transport system
Outcome 2		Improved transport infrastructure
Outcome 3		Improved transport safety
Outcome 4		Improved Public Private Sector Participation
Outcome 5		An effective and efficient public service



3. Digital Transformation Maturity

The Digital Maturity Assessment is a high-level diagnostic survey that provides an internal perspective on current digital adoption and transformational infrastructure across four dimensions. To determine the baseline understanding of ECDOT digital maturity landscape, the survey was designed to assess the maturity level of the departments based on the focus area as reflected on the figure below and illustrated in table below it.



Figure 1 – Digital Maturity dimensions

Table 3 Digital transformation dimensions

Focus area	Dimension	Subdimension	Purpose of assessment
Digital strategy	a) Strategy and governance	• Vision alignment • Governance • Investment and funding	This section is designed to evaluate ECDOT's current state across key digital strategy areas: Vision, Outcomes, Investments, and External View.
Organization and Operating model	a) Customer and Partner ecosystem	• Customer experience • Partners ecosystem • Co-innovation	This section evaluates how well ECDOT's infrastructure, processes, and operating model align with and support digital business outcomes. In addition, it is to identify strengths, gaps, and opportunities for improvement in areas such as transformation infrastructure, KPIs, roles and responsibilities, agility, operational efficiency, and digital readiness.
Competency	a) Technology foundation b) Data and analytics c) Artificial Intelligence (AI)	• Digital core • Emerging tech adoption • Data governance • Data-driven decisions • AI Applications	This section focuses on ECDOT's Competencies in Data-Driven Decisions, Talent, Technology Adoption, and Opportunities. It helps to assess digital capabilities and readiness for transformation.



Focus area	Dimension	Subdimension	Purpose of assessment
Culture	a) Operational agility and innovation b) People and culture	- Processes - Performance monitoring - Agility & flexibility - Leadership mindset - Innovation culture - Digital talent - Agile ways of working	This section evaluates ECDOT's culture in Innovation, Collaboration, Performance, and Values. Your responses will guide improvements and future strategies.

3.1 Maturity Assessment Summary

The assessment used a five-point rating scale across four dimensions to derive the digital maturity level for ECDOT's. The five-point rating ranges from very low maturity (1) to very high maturity (5) and is used to summarize the results for each question across four dimensions.

A Digital Transformation Maturity Ladder is a framework that describes the stages an organisation passes through as it develops its digital capabilities. It helps departments understand their current digital maturity, identify gaps, and plan improvements in a structured, progressive manner. The figure below depicts the maturity ladder with table 4 illustrating the maturity levels.

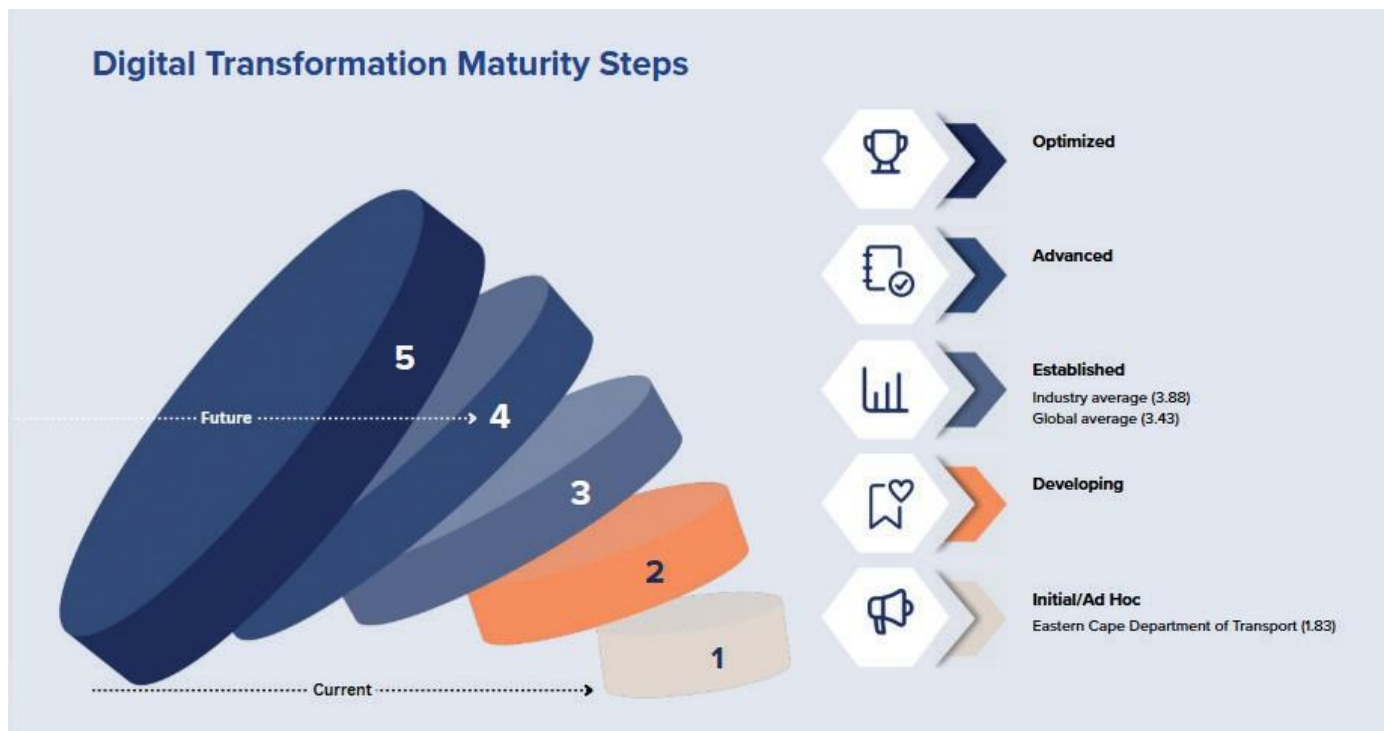


Figure 2 – Digital Maturity ladder rating



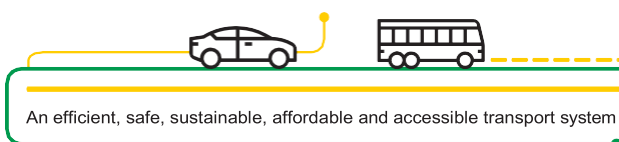
Table 4 Maturity rating

Level	Rating name	Rating description
1	Initial/Ad Hoc	ECDOT is typically in the earliest days of its digital transformation journey or just getting started. Digital capabilities may be minimal and scattered. Technology decisions are viewed as reactive, and little, if any, alignment exists between digital transformation initiatives and overall business strategy.
2	Developing	ECDOT experiments with digital tools, often in isolated pilots or ad hoc departmental projects. There's early momentum, but efforts are not scaled or fully coordinated, leading to inconsistent digital execution and adoption across teams. Leaders and decision makers recognize and understand the need for cross-team collaboration, data-sharing, and a coherent digital transformation strategy.
3	Established	Teams have implemented digital tools across the organization. Most core systems are integrated, reducing data silos and breakdowns, and processes are standardized enterprise-wide for consistency. In many organizations, at this stage, digital transformation is linked to business objectives, with governance and measurable goals in place..
4	Advanced	ECDOT makes decisions based on data and predictive analytics, with emerging technologies such as artificial intelligence (AI) and the Internet of Things (IoT) embedded in its operations. At this level, the workforce may include specialized talent to support digital initiatives, reiterating the narrative that digital transformation is a valued and ongoing process.
5	Optimized	At the highest stage of the maturity model, digital transformation is part of ECDOT's DNA, and an organization is considered digitally mature. The business model continuously adopts emerging technologies, has a robust digital transformation strategy, and fosters an environment where <u>organizational agility</u> is a core competency. Continuous improvement and innovation are embedded into processes, culture, and digital technology implementations.

3.2 Summary of Results



Figure 3 – Maturity Results



The Eastern Cape Department of Transport's digital maturity assessment indicates an overall score of 1.89, placing the Department at an Initial/Ad Hoc level of digital capability. While the Department shows promising progress in areas such as investment and funding, vision alignment, governance, and coinnovation, significant gaps remain in customer experience domain which are essential for delivering modern, efficient, citizen-centred services.

Nationally, digital transformation in the public sector is more advanced, with South Africa achieving a maturity score of 3.88 (Established), compared to the global benchmark of 3.43 (Established). This contrast highlights the need for accelerated and coordinated digital transformation efforts within the Department.

To move toward its desired digital maturity, the Department must strengthen its foundational digital capabilities, improve organisational agility, and ensure that digital value is realised across the enterprise. A deliberate focus on developing digital skills, fostering a supportive organisational culture, and modernising core systems will be essential to sustaining transformation and improving service delivery outcomes.

4. ICT landscape

The ICT Directorate (GITO) is responsible for ensuring that technology investments, ICT infrastructure, systems development and governance frameworks are effectively aligned with the Department's strategic priorities and to drive the adoption of digital technologies, innovation, and emerging technologies to enhance operational capability, stakeholder engagement, and environmental management outcomes.

4.1 ICT Governance

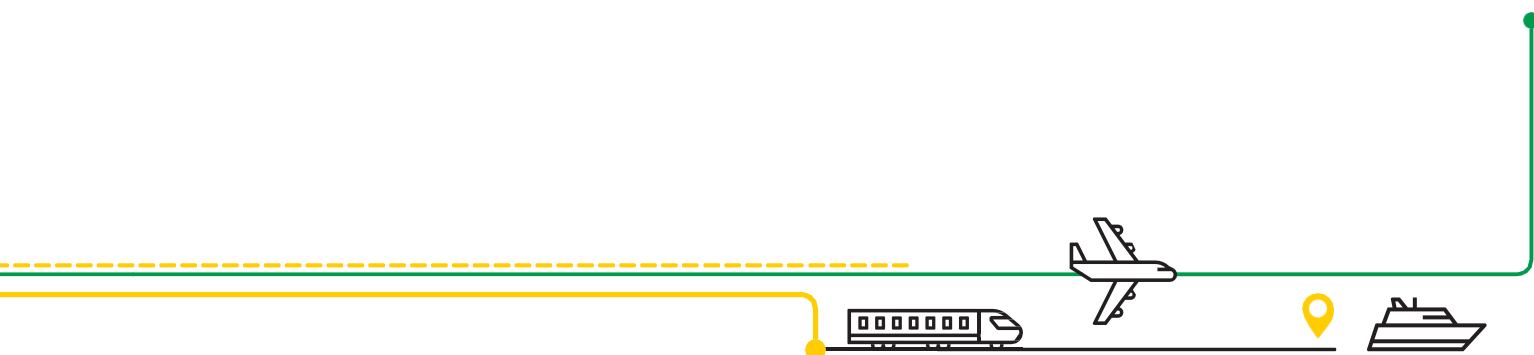
The Department aligns its practices with the Department of Public Service and Administration's determination and directive on implementing the Corporate Governance of ICT Policy Framework. In support of this implementation, the Department has established functional ICT governance structures to guide and coordinate ICT initiatives. These measures strengthen ICT governance, ensure the development of necessary ICT policies, and enable the realisation of benefits outlined in the ICT business cases, including improved oversight of ICT investments and enhanced monitoring of ICT performance.

4.1.1 ICT Service alignment

The GITO Office aligns departmental processes with ITIL bestpractice frameworks to enhance service quality. This process ensures that ICT planning and service enhancements are informed by actual user needs, strengthens alignment between ICT services and business requirements, and supports continuous improvement in service delivery and stakeholder satisfaction.

4.1.2 ICT Challenges

The Department continues to face constraints due to limited availability of critical skilled ICT personnel, which affects the implementation, maintenance, and optimisation of key digital systems and transformation initiatives and poses risk to the Department's longterm technological readiness.



4.2 ICT Measuring Outcome

The current ICT performance outputs measured against its intended goals and objectives are as follows:

- a) Corporate governance of ICT culture adopted, practiced and embraced.
- b) Approved government frameworks are implemented, monitored and reported periodically to the relevant governance structure.
- c) Improved ICT human capital capacity, demonstrated by increased digital competencies, and greater organisational readiness to support digital transformation.
- d) Improved departmental data governance and utilisation, demonstrated by consistent application of data-management prescripts, strengthened data quality, and increased use of validated data to support decision-making and reporting across the Department
- e) Enhanced integration, and performance of core and support business applications.
- f) Standardize ICT Service Management

5. Digital Transformation Journey

The Department's ability to deliver responsive, effective and modernised services is directly supported by the maturity and alignment of its ICT landscape. ICT enables the Department to:

- a) Modernise business processes through automation of functions.
- b) Support real-time data collection, analysis and reporting.
- c) Enhance publicfacing digital services and citizen engagement platforms.
- d) Strengthen internal governance, transparency and accountability through secure information systems.
- e) Facilitate integration across transport operations and regulatory functions.

These capabilities are foundational to achieving the Department's strategic priorities over the planning cycle.

5.1 Digital strategic objectives

The ICT Directorate (GITO) plays a central role in ensuring that technology investments, ICT infrastructure, systems development and governance frameworks are directly aligned with departmental priorities. ICT cannot be implemented in isolation; effective digital enablement depends on close collaboration with business units to ensure that:

- a) ICT initiatives respond to actual operational and service delivery needs.
- b) Systems and technologies support the Department's legislative mandates.
- c) Investments are prioritised based on strategic impact and value for money.
- d) ICT risks are managed through strong governance and compliance mechanisms.
- e) Business processes are modernised in parallel with technology upgrades.

This alignment is essential to ensure that ICT initiatives translate into tangible service delivery improvements.



5.2 Expected Digital Transformation outcomes

Implementation of the Digital Transformation Strategy, supported by strong enterprise architecture and aligned ICT planning, is expected to result in:

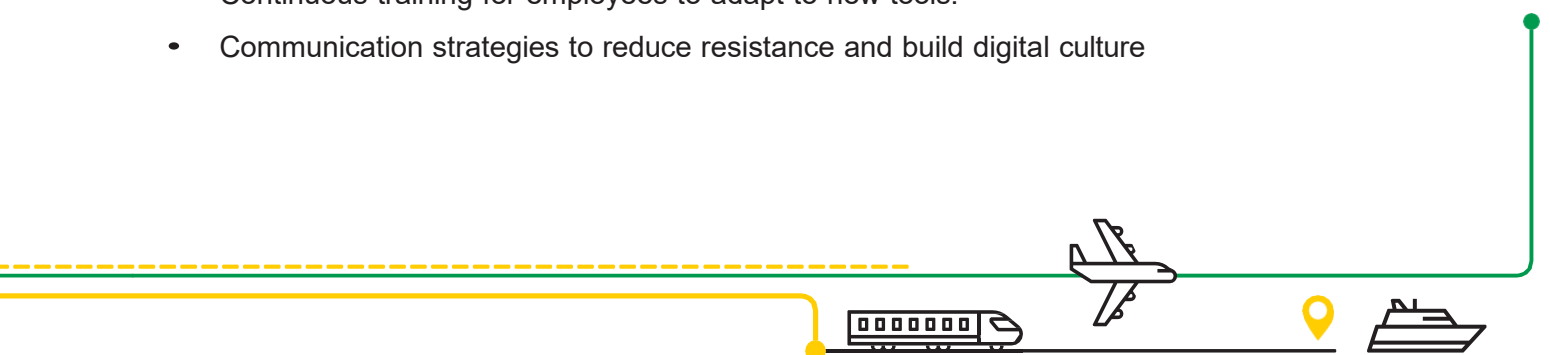
- a) Improved service delivery through modernised digital platforms.
- b) More efficient and transparent internal operations.
- c) Enhanced transport monitoring and reporting capabilities.
- d) Stronger collaboration across departmental branches through integrated systems.
- e) Increased digital maturity and readiness across the Department.

This strategy will provide a comprehensive roadmap for digital enablement and ensure that ICT efforts are guided by a coherent, future-oriented framework.

5.3 Dependencies

The following are identified dependencies that should be put in place for the success of the digital transformation within ECDOT:

- a) **Leadership Commitment**
 - Strong support from EXCO and ICT Strategic Committees is essential.
 - Clear governance structures (CGICTPF v2 alignment).
- b) **Funding & Resources**
 - Adequate budget allocation for ICT modernization.
 - Skilled workforce and training programs.
- c) **Technology Infrastructure**
 - Reliable connectivity, cloud platforms, and secure data centres.
 - Integration with existing legacy systems (e.g., Persal, BAS, Logis).
- d) **Policy & Regulatory Frameworks**
 - Compliance with DPSA ICT governance, POPIA, and Auditor-General requirements.
 - Alignment with national digital economy priorities.
- e) **Vendor & Partner Ecosystem**
 - Dependence on ICT vendors for cloud, Applications, and cybersecurity solutions.
 - Collaboration with training institutions for digital skills.
- f) **Change Management & Skills Development**
 - Continuous training for employees to adapt to new tools.
 - Communication strategies to reduce resistance and build digital culture



5.4 Strategic Alignment

Below table outlines how each outcome can be strengthened through digital transformation

Table 5 – Strategic Alignment

Strategic Outcome	Digital Transformation	ICT Initiatives
Improved Public Transport System	- Smart, Integrated Mobility - Use digital platforms for realtime fleet tracking, passenger analytics, schedule optimization, and route performance monitoring. - Passenger Information Systems - Provide real-time bus/taxi arrival times, route changes, and disruptions via mobile apps and SMS.	- Bus Monitoring System and integrate with GPS tracking to monitor routes - To monitor bus locations, routes, and schedules using GPS and IoT sensors. It will provide alerts for delays, breakdowns, and route deviations - Scholar Transport solution - Manage route planning, vehicle allocation, and scheduling for scholar transport - Transport Management System
Improved Transport Safety	- Intelligent Road Safety Systems - AI-Enabled Road Accident Analytics - Identify hotspots and high-risk behaviours using historical data, weather conditions, and traffic patterns.	- Administrative Adjudication of Road Traffic Offences (AARTO) System - Enable Integration between eNATIS and G2G file system. - NLTIS (National Transport Licensing Information System)
Improved transport Infrastructure	Digital Asset Management Systems to track the lifecycle of roads, bridges, signage, and facilities.	- Struman Webb - Monitoring, maintaining, and assessing structural assets - EasyRAMS - Managing Road Asset Management Systems (RAMS), providing tools for planning, monitoring, and maintaining road infrastructure. - AMD System - Tracks and manages transport infrastructure assets. - QGIS - Creating, editing, visualizing, and analysing geospatial data.
Improved Public Private Sector Participation.	- Digital Platforms for Partnerships & SMME - Data-Sharing Platforms for Logistics & Freight - Facilitate collaboration between the Department and private operators.	- Infrastructure Reporting Model (IRM) - Enables compliance and reporting for infrastructure projects - Enable Integration between eNATIS and G2G file system. - Customer Care Management System - GFMS Customer Relations Management System

Strategic Outcome	Digital Transformation	ICT Initiatives
An effective and efficient public service	- Integrated Digital Service Management Platform - Unified digital environment where internal operations, citizen services, workflows, and data are all streamlined and automated. - Streamlines internal processes and improves efficiency - Enables data-driven decision-making	- Review of business processes - Implementation of Consequence Management policy - Review of ICT organisation structure - Implementation of digital skills programme - SharePoint as a centralised digital platform for managing, tracking, and resolving service-related request - Collaboration and central document sharing platform. - Khawule'zubhatale - Automated departmental calendar - Signflow - To digitally sign documents and automate approval workflows. - To enhance the existing Signflow with process workflow aligning with submission deadlines for strategic management and planning - Automation of workflow process for communication management services - Enhance the existing Signflow with organisational development process workflows and timelines - Automate workflow process for change management request - Case Management System - To capture, manage, track, and resolve cases in a structured, secure, and auditable manner - GFMS – Fleet Management System - To serve as a centralized platform for managing all vehicles and transport assets within the unit, ensuring proper tracking, compliance and maintenance - Development of data management framework and strategy
All	- Cloud Adoption & Modern IT Infrastructure - Secure, scalable systems that support data sharing and analytics. - Cybersecurity Framework - Protect citizen data, payment systems, and operational technologies. - Data Governance & Analytics Capability - Build a central data warehouse for transport performance, road conditions, and commuter behaviour. - Change Management & Skills Development - Upskill and reskill staff to operate digitally enabled systems.	- Technology Infrastructure refresh - Implementation and standardisation of data governance as a practise within the organisation - Development of data management framework and strategy - Enhancement of data management policies - Establishment of data governance structures - Implementation of central repository (data warehouse and data lakes/ Lakehouse) - Implementation of Business Intelligence - Strengthen change management enforcement to ensure adoption of ICT Initiatives.

6. Risks and Dependencies

Although digital transformation brings opportunities for the department, there are associated risks that need to be managed dependencies as well that should be acknowledged. The following table indicates the potential risks and mitigation plans that can be put in place:

Table 6 – Risks

Phases	Initiative	Outcome	Risk	Risk Mitigation
Phase 1	Assess current digital maturity and align digital goals with business strategy	- Digital vision and goals document - Transformation governance team established	Lack of cooperation from stakeholders	Early Engagement & Communication - Involve stakeholders from the planning stage to create a sense of ownership. - Implement Change management program
Phase 2	Foundation building and process capabilities	- Modernized IT infrastructure - Secure and compliant data environment - Workforce digital readiness plan in place	- Risk of losing critical data during system upgrades or migration - Legacy systems may not integrate smoothly with modern platform	Comprehensive system assessment - Conduct a detailed audit of legacy systems before integration. - Identify compatibility issues early and plan accordingly.
Phase 3	Digital enablement in core functions	- Increased process efficiency - Enhanced customer and employee experiences - Actionable insights from data analytics	- Resistance to change by both employees and consumers - Skills gap	Implement Change management program that align with client facing initiatives
Phase 4	Innovation and differentiation	Predictive and prescriptive decision-making capabilities New digital revenue streams	- Operational Disruption - Resistance to change	Implement Change management program that align with client facing initiatives
Phase 5	Optimization and scaling	- Scalable, agile digital enterprise - Culture of innovation and experimentation - Sustained competitive advantage	- Performance Bottlenecks as systems may not handle increased load effectively - Skills gap	Capacity Planning - Forecast future demand and plan infrastructure accordingly. - Use load testing tools to simulate peak usage scenarios before scaling. Scalable Architecture - Design systems with elasticity (e.g., cloud-based solutions that auto-scale). Performance Monitoring - Deploy real-time monitoring tools

7. Digital transformation enablers

Digital Transformation enablers are the critical factors, resources, and conditions that make it possible for the department to successfully adopt and implement digital transformation. They are the “building blocks” that support change, innovation, and sustainability. The key enablers are the stakeholders that oversee the execution of the digital transformation strategy as well the governing documents thereof:

- a) Executive Leadership - define the vision, allocate budget and champion culture change.
- b) Middle Management & Business Unit Leaders – translate strategy into operational goals
- c) ICT Teams – Provide infrastructure, cybersecurity and technical expertise.

7.1 ICT frameworks, policies and governance

- a) Digital Government Policy Framework (2024 Draft) – Sets out the vision for egovernment, digital service delivery, and integration across departments
- b) CGICTPF v2 (Corporate Governance of ICT Policy Framework) – DPSA’s mandatory governance framework ensuring ICT investments align with departmental strategies, compliance, and service delivery.
- c) National Data and Cloud Policy (2024) – Provides guidance on data sovereignty, cloud adoption, and secure digital infrastructure
- d) POPIA (Protection of Personal Information Act) – Ensures citizen data privacy and compliance in digital systems.
- e) King IV & COBIT 2019 – Governance frameworks applied to ICT for accountability, risk management, and ethical leadership

8. Roadmap initiatives and project

Roadmaps provide a comprehensive plan that outlines the dimensions and factors necessary for digital transformation, in an organized manner. Moreover, they guide decision-making, helps organizations to anticipate future technologies and strategies, and they include recommendations to facilitate the digital transformation process. According to Mick et al. (2024), a number of essential factors should be considered when preparing a digital transformation roadmap:

- a) assess the organisation’s current digital maturity;
- b) clearly define strategic objectives; and
- c) implement digital transformation through incremental improvements

In efforts to align the Department’s digital transformation with South Africa’s national “Digital Mzansi” roadmap (2025-2030), ECDOT’s aim is modernizing service delivery, increasing operational efficiency, and enhancing transport operations and monitoring. The Department plans to move towards an automated and integrated transport operations, this will eliminate manual process and ensure data is secured, consistent and easy to find, provide a central hub replacing systems that are in silos.



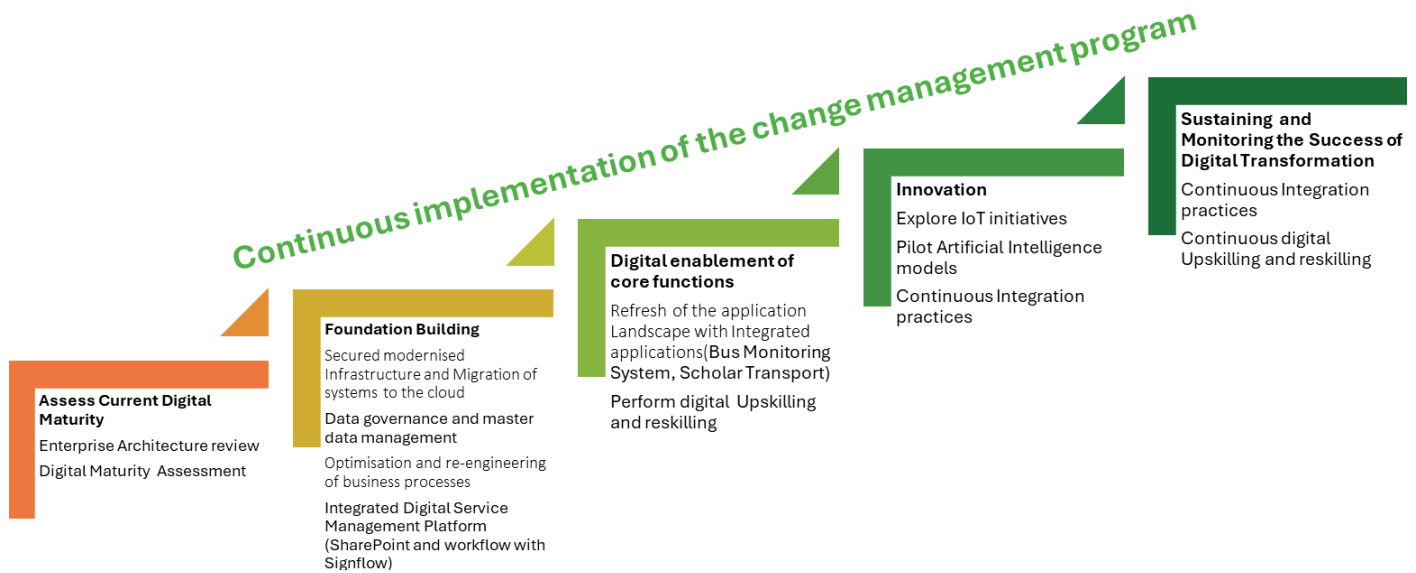


Figure 4: Digital Transformation Roadmap

9. Digital Transformation Implementation Roadmap

Digital transformation implementation plan is a strategic and operational guide for moving the business from its current state to a more digital, datadriven, and efficient future.

The figure below models the Department's implementation sequence as per Digital Transformation components, and the table below and presents each.

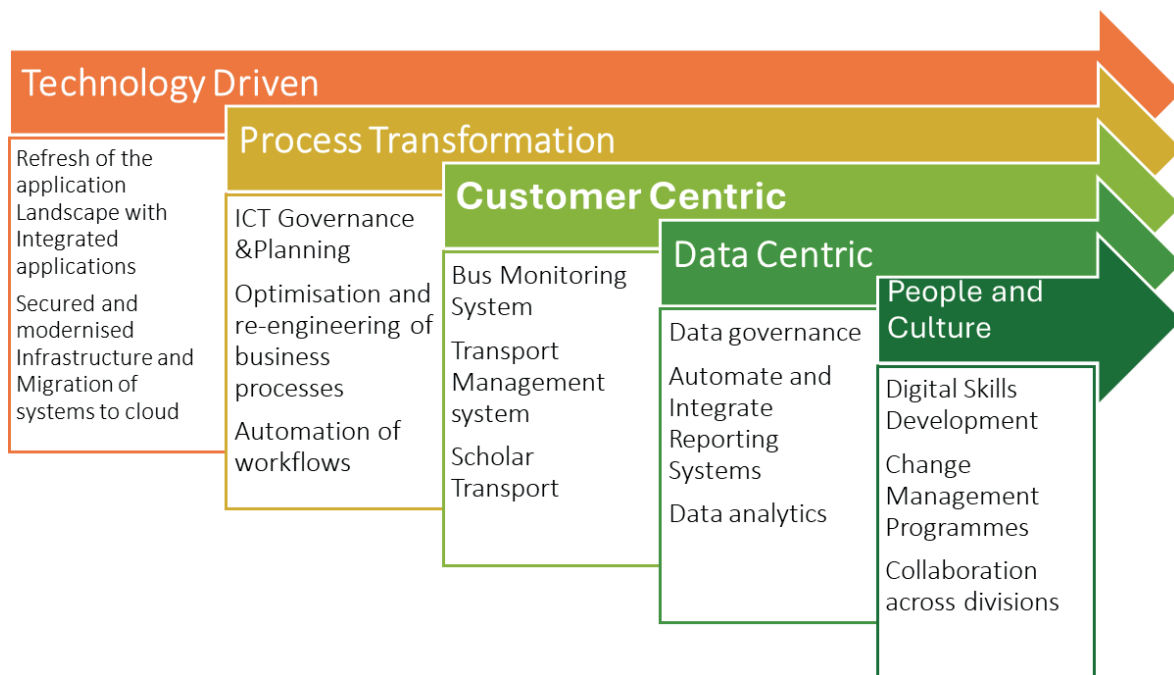


Figure 5: Digital Transformation implementation plan



9.1 Implementation plan

Digital Transformation implementation plan outlines how an organisation will shift from traditional processes to digital, automated, data driven, and client centric ways of working.

Table 7 : Implementation plan

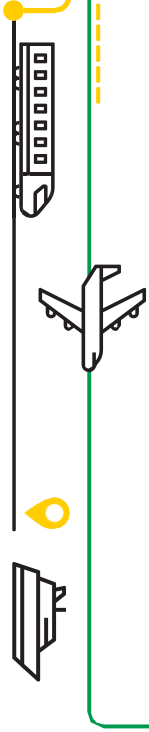
PROJECTS			Responsible Unit
Phase	Project Name	Description	
Assess Current Digital Maturity	Enterprise Architecture Review	Detailed analysis of departmental functions, applications utilised to automate business functions, the data that flows in as well as the technology infrastructure.	GITO
	Digital Maturity Assessment	A high-level diagnostic survey that provides an internal perspective on current digital adoption. Assess current digital maturity and align digital goals with business strategy. - Digital vision and goals document - Transformation governance team established	GITO and Strategy planning Unit
Foundation building and process capabilities	Review of business processes	Conduct a comprehensive assessment and mapping of current business processes to identify inefficiencies, duplication and bottlenecks.	Organisational Development
	Modernized IT infrastructure	The upgraded, optimised, and future-ready technology foundation an organisation uses to run its systems, applications, data, and operations. It replaces outdated, rigid, manual, or siloed IT environments with cloud-based, scalable, secure, and automated technologies that support digital transformation.	GITO
	Secure and compliant data environment	Data Security Controls that ensure data is protected against internal and external threats. Data Governance Framework Defines how data is handled in the organisation and Regulatory compliance	GITO
	Review of ICT organisation structure	Realign the ICT organisational structure to ensure appropriate skills distribution, role clarity, and alignment with strategic objectives	Human Resource Development
	Workforce digital readiness plan in place	Structured plan that prepares employees with the skills, tools, behaviours, and mindset needed to successfully adopt and use new digital systems, processes, and technologies within an organisation. It ensures that when digital transformation happens, the workforce is capable, confident, and willing to operate in a digital-first environment.	Human Resource Development
	Implementation of Consequence Management policy	Develop and enforce a structured consequence management framework to address non-compliance, poor performance, and governance violations within the department	Human Resource Development
	Implement Change management program that aligns with client facing initiatives	Establish a formal change management program to enforce digital transformation initiatives for both employee and external stakeholders	Change Management

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PROJECTS			Responsible Unit
Phase	Project Name	Description	
Digital enablement in core functions	Refresh Application landscape priorities core	- Bus Monitoring System and integrate with GPS tracking to monitor routes - To monitor bus locations, routes, and schedules using GPS and IoT sensors. It will provide alerts for delays, breakdowns, and route deviations - Scholar Transport solution - Manage route planning, vehicle allocation, and scheduling for scholar transport - Administrative Adjudication of Road Traffic Offences (AARTO) System - Managing and enforcing road traffic laws in compliance with the AARTO Act - Struman Webb - Monitoring, maintaining, and assessing structural assets. - Transport Management System - ArcGIS To capture, store, analyze, and present geospatial information for decision-making and operational planning. - ArcGIS - QGIS - EasyRAMS	GITO
	Enhanced customer and employee experiences	- Enable Integration between eNATIS and G2G file system. - Customer Care Management System - GFMS Customer Relations Management System - SharePoint enhancement with: - Service desk capabilities - Central repository - Workflow - Automated departmental calendar - Case management system	GITO
	Actionable insights from data analytics	- Implementation and standardisation of data governance as practice within the organisation - Implement a dashboard for reporting on SharePoint - Implementation of central data repository - Business Intelligence Infrastructure Project	GITO
	Implement Change management program that align with client facing initiatives	Establish a formal change management program to enforce digital transformation initiatives for both employee and external stakeholders	Change Management

PROJECTS			Responsible Unit
Phase	Project Name	Description	
Innovation and differentiation	• Pilot Artificial Intelligence and IoT models	• Pilot Artificial Intelligence and IoT models ○ Predictive and prescriptive decision-making capabilities	GITO
	• Continuous Integration	• Continuous Integration practices	GITO
	• Provision of digital skills	• Continuous digital upskilling and reskilling	Human Resource Development
Sustaining and monitoring the success of digital Transformation	• Provision of digital skills	• Continuous digital upskilling and reskilling • Continuous implementation of Chang Management programs	Human Resource Development
	• Continuous Integration	• Continuous Integration	GITO



10. Key Performance Indicators (KPIs)

Key Performance Indicators (KPIs) are quantifiable measures that are used to evaluate the effectiveness the department is achieving its goals. They provide a way to track progress, ensure accountability, and also guide decision-making. The following are some of the ECDOT that can used to measure progress of digital transformation within ECDOT:

Table 8 – Key Performance Indicators

Evaluation Area	Key Performance Indicator (KPI)
Employee-centric	• Employee digital literacy score • Employee satisfaction score • Employee engagement score • Training completion rates • Cross-functional collaboration
Citizen-Centric	• Citizen satisfaction • Citizen service access and usage • Processing times
Organization/Department	• Digital Platform Traffic and Resolution rates • Employee productivity • Data governance and quality
Infrastructure	• % applications migrated to cloud • Integration of Digital Public Infrastructure (DPI) • Operational resilience (Mean Time Before Failure (MTBF) and Mean Time to Resolve (MTTR) • Cybersecurity posture (number of systems with known vulnerabilities, and data quality, covering completeness, accuracy, and timeliness • Legacy systems to modern transition
Process	• Number of Digital Workflows Implemented (manual process vs digital process)

11. Recommendations

This Digital Transformation Strategy establishes the foundation for a modern, citizen-focused Department that leverages digital technologies to enhance service delivery, strengthen governance, and improve operational efficiency. By aligning with CGICTPF v2 and national digital transformation priorities, the Strategy reinforces compliance, accountability, and institutional resilience.

Its successful implementation will rely on committed leadership, sufficient resource allocation, and a culture that embraces innovation and continuous improvement. Through the ongoing monitoring of key performance indicators and proactive management of risks, the Strategy will guide ECDOT's transition toward a digitally enabled, future-ready public institution. Digital transformation extends beyond technology, encompassing organisational culture, operational processes, and strategic intent as integral components of sustainable change.



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Annex A: Abbreviations, terms and definitions

A.1: Abbreviations

Abbreviation	Description	Abbreviation	Description
ADM	Architecture Development Method	GWEA	Government Wide Enterprise Architecture
AGSA	Auditor General South Africa	ICT	Information and Communication Technology
APP	Annual Performance Plan	IT	Information Technology
CGICTF	Corporate Governance of ICT Framework	SITA	State Information Technology Agency
DPME	Department of Performance, Monitoring and Evaluation	SLA	Service Level Agreement
DPSA	Department of Public Service and Administration	SP	Strategic Plan
EA	Enterprise Architecture	RSA	Republic of South Africa
EXCO	Executive Committee	TOGAF	The Open Group Architecture Framework
EC DOT	Eastern Cape Department of Transport		

A.2: Terms and definitions

Term	Definition
Architecture Framework	A classification scheme that defines the principles, method and deliverables by which to develop architecture for different stakeholders within an organisation. [Adapted TOGAF]
Application	The software product that enables one or more functions or services of an organisation. [Adapted TOGAF].
Application Architecture	The architecture of the application (or software) that are needed to process the data and enable one or more functions or services of an organisation. [TOGAF].
Baseline Architecture	The existing or as-is architecture that is used as a basis for transformation or change [Adapted TOGAF].
Business Architecture	The architecture of the business strategy, organization structure, functions/services, key business processes and information requirements, as well as the relationships between these concepts. [Adapted TOGAF]
Business Service	The output of a capability.
Data architecture	Data architecture is composed of models, policies, rules or standards that govern which data is collected, and how it is stored, arranged, integrated, and put to use in data systems and in organizations.
Deliverable	A work product (output) of a particular step in an architecture development method. [Adapted TOGAF]
Enterprise Architecture	The Business, Data, Application and Technology Architectures required enabling and supporting the Enterprise missions over time; including baseline architecture, target architecture, and an implementation plan. [Derived TOGAF]
Target Architecture	The future state (to-be) architecture for an organisation or system. [Adapted TOGAF]
Technology Architecture	The foundation software, hardware and telecommunications capabilities that are required to enable processing and deployment of business, data, and application services, which includes application processing infrastructure services, naming and directory services, middleware, database management infrastructure, telecommunication network infrastructure, computer hardware, storage and peripherals, security infrastructure, system management infrastructure and interoperability standards. [adapted from TOGAF]
TOGAF	The Open Group Architecture Framework. TOGAF is an architecture framework that defines the methods and tools for assisting in the acceptance, production, use, and maintenance of enterprise architecture. It is based on an iterative process model supported by best practices and a re-usable set of existing architecture assets. [TOGAF]

[illegible]

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