Imo Digital Economy Agenda

(IDEA) 2022 - 2026

Technology | Opportunity | People

(TOP)

Imo State Ministry of Digital Economy and eGovernment

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ACRONYMS

4-IR	Fourth Industrial Revolution
5G	Fifth Generation Network
ACFTA	African Continental Free Trade Agreement
AI	Artificial Intelligence
API	Application Programming Interface
ATM	Automated Teller Machine
AU	African Union
B2B	Business-to-Business
B2C	Business-to-Consumer
B2G	Business-to-Government
C2B	Consumer-to-Business
C2C	Consumer-to-Consumer
CD	Compact Disk
DLT	Distributed Ledger Technology
FinTech	Financial Technology
G2B	Government-to-Business
G2C	Government-to-Citizen
G2E	Government-to-Employee
G2G	Government-to-Government
IBC	Imo State Broadcasting Corporation
ICT	Information Communications Technology
IDEA	Imo State Digital Economy Agenda
IGIA	Imo State Geographic Information Agency
IMDEEG	Imo State Ministry of Digital Economy and eGovernment
IMSUBEB	Imo State Universal Basic Education Board
IoT	Internet of Things
ISIEC	Imo State Independent Electoral Commission
ISIPA	Imo State Investment Promotion Agency
ITC	Imo State Transport Company
KPI	Key Performance Indicators
LGA	Local Government Authority
M&E	Monitoring and Evaluation
MDA	Ministry, Department and Agency of Government
ML	Machine Learning
MP3	MPEG Audio Layer 3
MSME	Micro, Small and Medium Scale Enterprises
MVP	Minimum Viable Product
NCC	Nigerian Communications Commission
NDEPS	National Digital Economy and Policy Strategy
NEPAD	New Partnership for Africa`s Development
NGO	Non-governmental Organisations
NISS	National Institute for Security Studies
OCDA	Owerri Capital Development Authority
OEM	Original Equipment Manufacturer
P2P	Peer-to-Peer

PCDE	Presidential Council on Digital Economy
PDA	Personal Digital Assistant
POS	Point of Sale
SDG	Sustainable Development Goals
SEMB	Secondary Education Management Board
SIM	Subscriber Identification Module
SMS	Short Message Service
STJ	Skills to Jobs
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
URL	Universal Resource Locator

PREAMBLE

Vision and Mission

Vision

To position Imo State as the leading Digital Economy State in Nigeria

Mission

To build smart cities and leverage digital technology to drive governance, innovation, entrepreneurship, value creation and prosperity for all

Mandate

To develop, adopt and adapt digital technology to create people-focused opportunities and economic prosperity for Imolites

Technology I Opportunity I People (TOP)

Technology

Leveraging technology to enhance public services

Opportunity

Creating and expanding prospects for employment and entrepreneurship

People

Providing the services and support required by Imolites

Foreword

The Imo Digital Economy Agenda (IDEA) 2022-2026 encapsulates the policy thrust and strategy direction of the Imo State Ministry of Digital Economy and eGovernment (IMDEEG). The policy document is developed in line with the directives I gave to the Honourable Commissioner for Digital Economy and eGovernment on the latter's assumption of office.

Digital technology has triggered a seismic shift in the way people live, work and interact with one another. Nowadays, large swathes of work activities, business transactions, learning at school, worshipping or even shopping for goods and services are done digitally. My administration therefore, is committed to take advantage of every opportunity presented by digital technology to drive the all-round development of our dear State. This we will do to ensure that poverty and insecurity are reduced and the well-being and life expectancy of Imolites are considerably enhanced.

Recall that upon my inauguration as the Executive Governor of Imo State, we engaged with digital innovators and tech developers to commence pockets of digital initiatives in Imo State. However, those engagements were not sufficient to empower the good people of Imo State with 21st-century digital skills and run an efficient Digital Government hence the decision to establish the Imo State Ministry of Digital Economy and eGovernment to oversee digital innovations and technology development.

To underscore the value placed on the acquisition of digital skills, my administration through the IDEA 2022-2026 envisages that Imolites would attain a higher level of digital literacy by the year 2026. My Government deems that the acquisition of digital literacy will empower more Imolites to benefit, participate and contribute to the rapidly evolving Digital Economy.

Imo State was recently inaugurated as a member of the Presidential Council on Digital Economy and eGovernment among only five selected States in the Federation. The Imo State Ministry for Digital Economy and eGovernment is envisioned to domesticate and implement the National Digital Economy and

Policy Strategy (NDEPS) and to diversify the State's economy using digital technology.

One of the objectives of the Ministry is to inject efficiency and transparency in Government. To that end, I have directed the Honourable Commissioner for Digital Economy and eGovernment to work with all relevant Government agencies to ensure the rapid expansion of our Digital Economy by taking advantage of regional, national and global opportunities that abound in the information communications and technology space.

The IDEA 2022-2026 will ensure that we build a robust Digital Economy and create jobs for the people of Imo State. Using digital technology as the catalyst, we will reposition Imo State to become the leading State in the national Digital Economy drive.

Digital technology stimulates cumulative interacting innovations in goods, services and processes and drives the general convergence between platforms and products. For example, an increasing number of Imolites in both urban and rural areas who were hitherto excluded from the formal economy now enjoy financial inclusion through the use of such digital technology as online banking, internet shopping and other digital platforms.

These developments augur well for Imo State's economy by enhancing financial inclusion, creating job opportunities and improving the productivity of businesses as well as inculcating transparency and efficiency in Government.

I commend the Honourable Commissioner for Digital Economy and eGovernment and all the stakeholders who participated in the development of this policy document for the level of work they have done so far. I hereby urge all public institutions and stakeholders in Imo State to key in and ensure the successful implementation of the IDEA 2022-2026.

His Excellency
Senator Hope Uzodinma
The Executive Governor of Imo State

Preface

His Excellency, Senator Hope Uzodinma, the Executive Governor of Imo State established the Imo State Ministry of Digital Economy and eGovernment (IMDEEG) in October 2022 as a one-stop shop for digital knowledge acquisition for Imo State. This is part of the Executive Governor's overall transformation agenda for Imo State. The Imo State Ministry of Digital Economy and eGovernment heralds an enabling environment to galvanize ground-breaking innovations that will address societal challenges and enhance efficient public service delivery through the intensive and extensive deployment of digital technology.

The Imo Digital Economy Agenda (IDEA) 2022-2026 is a medium-term work plan and signposts the direction of travel for the IMDEEG for the next four years to 2026.

The IDEA 2022-2026 envisions harnessing the potential of Information Communications Technology (ICT) to provide solutions to developmental challenges, foster economic growth and enhance access to information and knowledge in Imo State.

The document captures IMDEEG's strategy to take advantage of the many opportunities that digital technology provides to reposition Imo State's economy for accelerated development. The IDEA 2022-2026 aligns with the Federal Government's National Digital Economy Policy and Strategy (NDEPS) 2020-2030 which has the objective to diversify the economy using digital technology.

The IDEA 2022-2026 is in line with His Excellency, the Governor's campaign promise to broadly diversify the economy of Imo State. The IDEA 2022-2026 serves as a compass for IMDEEG to implement the framework and processes required to build smart cities in Imo State and leverage digital technology to drive governance, innovation and entrepreneurship while promoting value creation and prosperity for all.

The IDEA 2022-2026 solicits for the training and upskilling of thousands of Imolites in core 21st-century skills to enable them to become active participants in the Digital Economy.

The Imo State Ministry of Digital Economy and eGovernment shall facilitate Broadband penetration in all the nooks and crannies of Imo State so that underserved and unserved locations in the State are brought into the Digital Economy umbrella. Public and private sector partnerships will be sought for the deployment of fibre optic highways for the interconnection of districts, communities and Local Government Areas across Imo State.

The Ministry will foster strategic partnerships with the tech ecosystem, increase Digital Government activities, and improve digital inclusion and literacy levels in Imo State. The IMDEEG shall also train workers in every Ministry, Department and Agency of Government in the State on the technical skills required to run the operations of a digitalised Imo State.

The IDEA 2022-2026 is brimming with programmes designed to accommodate every demographic. There is something in it for men, women, youth, the physically challenged and children irrespective of their literacy level and regardless of where they live, work, or study in Imo State.

The full implementation of the IDEA 2022-2026 will position Imo State as the central digital skills hub in Nigeria and the highest digital talent supplier to drive Nigeria's Digital Economy. The IDEA 2022-2026 will facilitate the creation of jobs such that Imo State will become a leader in digital entrepreneurship development in Nigeria. It will enable Imo State to meet the growing demands for technology talent and render the State into an exporter of industry-ready digital workforce.

The IDEA 2022-2026 is tailored to align with the National Digital Economy and Policy Strategy (NDEPS) 2020-2030 but gives special consideration to the unique strengths and comparative advantages that Imo State has in the technology sphere. These unique strengths and comparative advantages are evidenced by the teeming number of Imolites who are technologically savvy and can navigate their way through the myriad of digital devices and applications.

Dr Chimezie Paulinus Amadi
Honourable Commissioner, Imo Ministry of Digital Economy and eGovernment

Executive Summary

In October 2020 while presenting a paper on National Security and Sustainable Development at the National Institute for Security Studies (NISS) Abuja, His Excellency, Senator Hope Uzodinma, the Executive Governor of Imo State lamented that poverty was the greatest enabler of insecurity in Nigeria going by available statistics that 51.4% or 98million Nigerians live in poverty.

During the electioneering activities that preceded his election as Governor, His Excellency had envisaged a way out of the challenges when he promised that human capital development and wealth creation would be the focal points of his administration.

Hence His Excellency wasted no time when he was declared Governor to establish the Entrepreneurship and Skills Acquisition Ministry in Imo State through which he mobilised the training of 10,000 Imolites in 21st-century skills and targeted 200,000 others for wealth generation through self-empowerment.

Now that the opportunity has surfaced to further empower the people through the Digital Economy, His Excellency, the Executive Governor has taken the initiative to establish the Imo State Ministry of Digital Economy and eGovernment (IMDEEG) charged with actualising the repositioning of Imo State as Nigeria's key tech hub.

His Excellency recognises the critical role that digital technology can play in lifting as many Imolites as possible out of poverty and in fostering transparency in governance through eGovernment. He has therefore, mandated the Imo State Ministry of Digital Economy and eGovernment to ensure that Imo State and Imolites play a leading role in the emerging Digital Economy and to align with the social intervention programmes of the Federal Government geared to lift 100 million Nigerians out of poverty within 10 years.

To make Imo State the Digital Economy champion of Nigeria is a laudable initiative and a huge task. Therefore, the Imo State Ministry of Digital Economy and eGovernment solicits the buy-in of all stakeholders to support the implementation of the IDEA 2022-2026.

The IDEA 2022-2026 comes with clearly defined and structured work streams, indication timelines, responsibilities and expected outcomes from each of the six strategic pillars. It envisions a layer within government which allows an integrated, government-wide, citizen-focused service to be presented to citizens across all channels, but at no extra cost and without having to restructure the government to do so.

As a State Policy/Strategy document, all the Ministries, Departments and Agencies (MDAs) of the Imo State Government and all the 27 Local Government Area authorities are urged to imbibe and cascade the strategies contained herein in their various jurisdictions so that all Imolites will be on the same page in the quest to position Imo State as the leading Digital Economy State in Nigeria.

The IDEA 2022-2026 recognises that digital divides and digital inequalities exist that may debar certain people from accessing the full benefits of digitisation. The document lays bare these digital gaps so that stakeholders in the eGovernment development can come to grips with the much broader and complex set of cultural and organisational changes needed for the integration of ICT to deliver significant benefits to the public.

The IDEA 2022-2026 is not unmindful of the many considerations and potential implications of designing and implementing an effective eGovernment, including for instance digital self-determination of citizens in a global internet network; impacts on economic, social, and political spheres; vulnerability to cyberattacks, and disruption to the status quo. It recognises that using new technology to deliver age-old bureaucratic practices can lead to problems of miscommunication, hence the Advocacy pillar.

An eGovernment implementation that provides government services may often not offer the potential to reach all users including those who live in remote rural areas without Internet access, or those that are homebound, have low literacy levels, and exist on low or poverty-line incomes. Homeless people, people in poverty and elderly people may not have adequate access to the Internet. For Imolites in these demographics, the IDEA 2022-2026 clearly outlines schemes to foster the inclusion of all.

The ultimate goal of the eGovernment is to offer an increased portfolio of public services to if not all Imolites, then at least as many citizens as possible in an efficient, convenient and cost-effective manner. Businesses and the

public will benefit by getting easy access to the most current information available without having to spend time, energy and money travelling to a government facility to get it.

The eGovernment would yield numerous benefits to Imolites including efficiency, improved services, better accessibility of public services, sustainable community development and more transparency and accountability in governance. Government and the MDAs will also gain the opportunity to follow citizens to monitor their satisfaction with the services they receive.

On the administrative side, files and linked information can now be stored in electronic databases versus hard copies stored in various locations. Individuals with disabilities or conditions that affect their mobility no longer have to be mobile to be active in government and can access public services in the comfort of their own homes.

The IDEA 2022-2026 will create jobs of the future where Imo State will become a leader in digital entrepreneurship development in Nigeria. Again, it will enable Imo State to meet the growing demand for technological skills. Re-skilled and up-skilled youths with Fourth Industrial Revolution (4-IR) skills where Imo State will be a net exporter of industry-ready workforce that will drive the national Digital Economy ambition.

In addition, the IDEA 2022-2026 will create opportunities for Imo Digital Status to solve local challenges as the programme will create the enabling environment that will spur ground-breaking innovative solutions leveraging emerging technology to enhance creative thinking and complex problem-solving skills in the Imo State civil service.

Other expected outcomes will include providing an enabling environment for the public sector, private sector, civil societies and development partners' participation in training thousands of Imolites in technology skills which will snowball into the creation of a digital skills database to identify digitally literate Imolites and their levels of competence.

The IDEA 2022-2026 has entry skills programmes and advanced level programmes designed to accommodate everyone including the youths, men, women and even the children irrespective of their level of literacy or whether they are ICT compliant or not. The IDEA 2022-2026 creates room for all

Imolites to learn from the grassroots to the top through simple interaction processes.

The programmes target the 27 Local Government Areas of Imo State and are aimed at capturing those in the rural areas, villages and communities because the greater number of the Imo population are domiciled in these areas.

The IDEA 2022-2026 also provides and organizes programmes for children in what is called ‘catch them young’ using learning tools that will make children feel interested. The sole objective of this is to empower the children so that by the end of the programme they will become digitally savvy and useful to themselves, the economy of the State and the world at large.

The IDEA 2022-2026 heralds a process-driven, data-dependent, and results-oriented eGovernment for Imo State. It provides a veritable platform for Imo State Government Ministries, Departments and Agencies and the private sector to pool knowledge, experience, and expertise to co-create solutions, articulate strategies, and extend public services to all Imolites wherever their location - be they in the rural areas, urban areas or the Diaspora.

The central focus of the IDEA 2022-2026 is to fashion out ways in which digital technology will be employed to transform every sector of Imo State’s economy and transition it rapidly to a fully-fledged Digital Economy.

CHAPTER ONE

1.1 Introduction

Digital technology and the skills to operate them have become vital for almost all economic activities and social interactions. They have radically transformed the economic landscape. The transformation was given a shot in the arm by the lockdown measures triggered by the Covid-19 pandemic which occasioned a seismic shift in the way people live, work and play.

When the pandemic struck in early 2020, more vital functions and key pieces of everyday life were forced online, and this emphasized the importance of getting the entire population connected and able to use new technology in meaningful ways.

The pandemic gave the Digital Economy a fillip as an increased number of people flocked online to conduct their day-to-day endeavours including schooling, worshipping, buying and selling goods and services. The pandemic presented a vivid illustration of the usefulness of having a technology-savvy population equipped with the requisite skills to deal with the contingencies and complexities associated with living in the 21st-century.

Although digital technology have gained broader acceptance and have become a key contributor to Imo State's economy and the Nigerian national economy in general, there are still considerable numbers of Imolites who are yet to get familiar with the concept. Despite being widely embraced by the younger Imolites, digital technology and the proficiencies to use them are still far from being ubiquitous across the generality of the Imo State population.

On the other hand, the data systems and ICT infrastructures such as colocation Data Centres and direct access to cloud computing facilities that enable interoperability and allow information to flow seamlessly among Ministries, Departments and Agencies (MDAs) of Imo State Government and across to the majority of Imolites are incomplete.

Even in the State MDAs where nascent ICT systems exist, the lack of requisite technical capacity holds back their effective implementation. In response, the IDEA 2022–2026 furnishes the framework for thinking through the issues, opportunities and trade-offs around ICT use for eGovernment in Imo State.

Bridging the digital divide and unlocking the potential of digital technology across all demographics in both rural and urban areas of Imo State are the core drivers and focus of the Imo State Ministry of Digital Economy and eGovernment anchored on the IDEA 2022–2026.

The universal availability and affordability of Broadband access are key enablers of the Digital Economy and important factors for economic growth. To this end, the IDEA 2022–2026 will leverage the programmes of the Nigerian Communications Commission (NCC) to entice incumbent telecommunications service providers and new market players to invest in the unserved and underserved areas of Imo State. This will help drive the acceleration of telecommunications infrastructural development and ensure that Broadband Internet is accessible to all segments of society anywhere and everywhere in Imo State.

The outcome of IMDEEG's strategic partnerships and engagements with stakeholders in the Information Communications and Technology industry will trigger initiatives and interventions to connect Federal, State and Local Government Authority (LGA) sites, schools, health institutions, and Micro, Small and Medium Scale Enterprises (MSMEs) to the Broadband infrastructure.

The IDEA 2022–2026 galvanises and engages the public, private and third sectors and lays down mechanisms for these entities to take part in the development of the Digital Economy in Imo State.

Furthermore, IDEA 2022–2026 supports the development of local language Application Programming Interfaces (APIs) to enable Government websites to offer content in both English and Igbo languages to aid the delivery of public services and the creation of citizen engagement platforms across all literacy divides in Imo State.

In moving towards a knowledge-based economy, equipping Imolites with the ability to use Broadband services and applications becomes essential. By providing capacity-building and information outreach programs, the IDEA 2022-2026 enables Imolites to become aware of the nuances of the Digital Economy and the central role that digital technology plays in the enhancement of work, rest and play.

The IDEA 2022-2026 provides both context and a more nuanced understanding of the role of digital technology in the economic and social development of Imo State.

To bridge the gaps in digitalisation, the IDEA 2022-2026 spotlights the need for a structured eGovernment framework that enables the use of ICTs to create economic and social value, promote equitable opportunities, and foster the trust that businesses and people will benefit from digital technology.

A well-functioning eGovernment framework will ensure that economic policies, laws, infrastructure and institutions work together to support the use of ICTs in a way that aligns with the State Government's development objectives.

It will require the strengthening of State ICT systems and the engagement of all stakeholders at both the State and LGA levels. The IDEA 2022-2026 is intentional in driving a whole-of-government, multi-stakeholder approach in the construction of the Imo State eGovernment.

To promote economic and social development and realise the full value of digital technology will entail deploying and repurposing ICT in creative ways. The challenge is to develop an environment that engenders trust in the use of digital technology for eGovernment. A strong eGovernment framework composed of appropriate policies, strategies, laws, regulations and schemes will ensure that the full value of ICT is realized and the benefits are equitably shared by all Imolites.

When Government MDAs, the private sector, civil society, academia, and the general population embrace the use of digital technology, the potential impact on the economic development of the State will expand.

The expansion of the economic development will bring to bold relief some of the anticipated benefits of eGovernment including improved efficiency; increased transparency and accountability in the execution of government functions; convenient and faster access to government services; improved democracy and lowering of the cost of administrative services.

An effective eGovernment will engender a culture of ICT use in which people demand transparency and accountability which in turn will help foster and stimulate the demand for data-driven decision-making. With a functional eGovernment in place, the majority of Imolites will be able to accurately track public finances or monitor government's appropriations.

With such a culture in place, the ability increases to hold the civil service and civil servants accountable for the services they are engaged to provide. It would also help citizens to engage with and track developmental progress.

The many benefits of a functional eGovernment will emerge in various ways including the following:

Access

Imolites get connected to the government more easily using electronic means of communication. Equal opportunity is given to all citizens to access information irrespective of the person's physical location or disability. This eliminates the bureaucracy experienced in government offices and results in better efficiency in public service delivery through faster dissemination of government information to a larger and wider audience.

Transparency

Accountability and transparency are increased in the delivery of public services. This derives from the limited physical contact between service users and government service providers.

Cost Savings

The interdepartmental exchange of information between Government MDAs and the merger of related services will bring about a tremendous reduction in transaction costs, time, space and manpower.

Service Modernisation

Public service administration procedures and service delivery will be brought into the modern digital era entailing a vastly improved flow of information from citizens to Government, Government to citizens, and within the Government itself.

1.2 Background Information

Governments all over the world are changing the way they interact with citizens and businesses and the ways they provide services to them. Hitherto, it is not uncommon for government services to include drawn-out forms, long waiting periods, slow processing times, physical presence, and other bureaucratic issues that make services cumbersome for citizens to receive.

Today, governments at all levels find themselves armed with more digital tools to serve their citizens better than at any other time in history. The disruptive intrusion of technology into every facet of life has changed how people live, how they work, how companies do business and how governments serve their constituents.

The momentum for new service delivery models is building throughout Government and the result is the emergence of Digital Government. Applications and emergent technology being applied to the needs of citizens, service users, public servants and political leaders at all levels and in all branches of Government have tremendously enhanced service delivery and saved costs.

Web portals, social media handles, technical and organisational networks, blogs, the Internet of Things, sensors, data analytics and more are embedded in the working environment of government. Collectively, this set of developments constitutes the Digital Government - a concept that has broadened in scope from an early focus on the use of ICT for government administration to the more recent notion that information and technology influence administration, management and governance.

The importance and relevance of the Digital Government received reinforcement in the year 2020 with the Covid-19 pandemic. While information and communications technology have been used in government as early as in other sectors of society, their uses and roles in public administration acquired more significance as the pandemic-induced lockdown pushed services online.

The evolution and integration of modern technology herald the classification of governments into five main archetypes viz: Traditional Government; Online Government; eGovernment; Digital Government; and, Immersive Government.

1.2.1 The Different Models of Government

1.2.1.1 Traditional Government

The Traditional (or in colloquial terms, analogue) Government is the oldest archetype. In it, both customers (citizens or businesses) and government workers need to be physically present at a building or location at a specific department for a service request to be submitted and fulfilled. Ofttimes, fulfilment of government service requests involves long drawn-out bureaucratic processes. This archetype lacks in platform, integration with other entities, data repository, infrastructure, and security. No technology adoption is seen in this model.

1.2.1.2 Online Government

Although still requiring a physical location, the Online Government archetype initiates the uptake of technology through a single information platform. Government-related procedures and statements can be accessed through an online portal that displays the needed information. There is still no level of integration within governmental and public departments, with limited data repository, infrastructure, and security systems that most likely run on legacy systems that were in use before the creation of the Internet.

1.2.1.3 eGovernment

The uptake of technology and the improvement of broadband Internet connections have made the eGovernment archetype the most common in various countries around the world. Service requests and delivery have evolved from requiring physical presence to applying a citizen-centric online approach to increase accessibility and convenience. To do so, multiple platforms exist to display different yet specific government information but also to provide the added advantage of submitting service request applications, attending to tax claims, processing legal paperwork, and so forth, online.

A key feature of this model of government is the integration level across public service units. Data transmission and sharing are reciprocated across MDAs, with minimal levels of human intervention. Sharing such a large amount of data specific to citizens and enterprises requires a core aggregated data repository for storage and easy access. The means to establish a strong connection between citizens, data, and the public sector requires a government-wide, capable infrastructure across

all MDAs. This reduces confusion and duplication. Finally, a robust security system protocol is needed to prevent any breach of information.

1.2.1.4 Digital Government

The next level of development for government archetypes focuses on the digitisation of services from the citizens' or businesses' experience perspective, where citizens or businesses expect the government to act proactively by initiating appropriate government services themselves. Citizens or businesses can also seek out information and data on a single unified platform — a one-stop-shop that combines all government information, requests, and services. This is enabled by government-wide integration across all government organisations and a multiple sectoral data repository system. The Digital Government archetype thrives on a government-wide infrastructure and a full security system spanning physical and cybersecurity measures.

1.2.1.5 Immersive Government

The ultimate government archetype focuses on a citizen-centric online predictive service delivery model that transcends a one-stop shop platform to a no-stop shop. It is one that requires no action or form to be filled out by either a citizen or a business to receive government services.

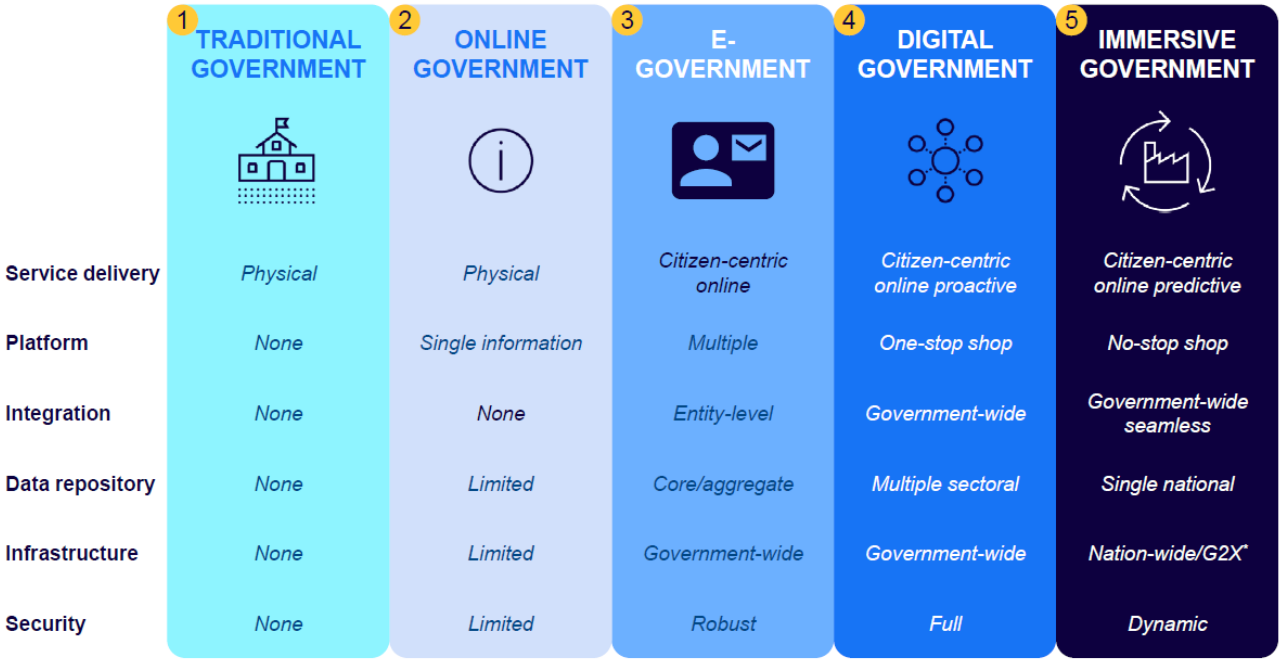
Artificial Intelligence (AI) and Machine Learning (ML) technology are highly leveraged in this archetype. Data storage is integrated seamlessly across all government organisations with a single central data repository built with high interoperability in mind. This archetype is complemented by a robust telecommunications infrastructure and a dynamic, always-current, security system for data privacy, management, and authentication.

By applying information communications technology to all aspects of a government's business and the continuous optimization of service delivery, constituency participation and governance; and, by transforming internal and external relationships through technology, the Internet and new media, the IDEA 2022-2026 envisages that the Imo State Government will transition from Online Government to Immersive (or Smart) Government by 2026.

The IDEA 2022-2026 envisions the use of digital technology, as an integrated component of Imo State Government's modernisation strategies to create an eGovernment ecosystem comprising the Government, Non-governmental Organisations (NGOs), businesses, citizens' associations and individuals.

Such convergence will offer citizens and businesses the opportunity to interact and conduct business with the aim of improving information and service delivery. It will encourage wider and broader citizen participation in the decision-making process and make the Government more accountable, transparent and effective.

1.2.1.6 The Characteristics of Government Archetypes



Source: Arthur D. Little analysis

On the trajectory from Traditional Government to Immersive Government, Imo State Government is currently at Rung #2 i.e. Online Government.

The State maintains an online presence through its official portal located at https://imostate.gov.ng/. The State's online presence extends to a page on Facebook, a Twitter handle and one Instagram account. The URL to the Facebook page is: https://web.facebook.com/govtofimostate/about

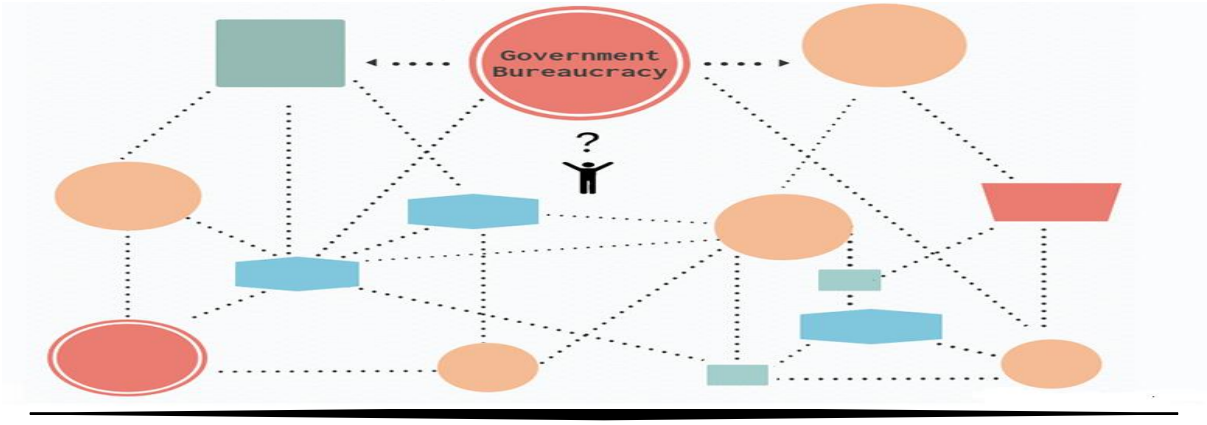
Visitors to the official portal can avail themselves of online services and information delivered through the vehicle of the Imo State Data Management Center Services.

The portal avails visitors of the following rich bouquet of information and services.

The core thrust of IDEA 2022-2026 is to navigate the digitalisation agenda of the Imo State Government through all the requisite processes and procedures and mature it from Online Government to Immersive Government by the year 2026.

To make that transition as quickly and transparently as possible, the IDEA 2022-2026 considers what technology and skillsets are needed to tool up and upskill both the workforce and the generality of Imolites for the new experience and the exciting odyssey to Immersive Government.

The IDEA 2022-2026 begins by looking at the current challenges; exploring new ways of enabling services for employees and citizens using the latest technology; and, looking for opportunities to leverage new technology to engender cultural change in public service delivery.



1.3 Situation Analysis

Although the potential for digital technology to bolster the creation of new products and services and accelerate innovation is unparalleled, the value of digital technology for the socioeconomic, sociopolitical and sociocultural development of Imo State is largely untapped. The use of digital technology is still nascent across the State's Ministries, Departments and Agencies.

The IDEA 2022-2026 envisions an eGovernment implementation that has the potential to:

- Radically reduce the amount of time, money and effort that businesses and citizens spend to comply with rules and regulations by making transactions such as paying fees and obtaining permits easier;
- Provide information in one easy-to-access location that makes it possible for Imolites, businesses, other levels of Government and Government employees to easily find information and get service from the Government and MDAs;
- Simplify delivery of services to Imolites by improving interactions among Government MDAs and with businesses, industry and all stakeholders;
- Improve productivity and efficiency of MDAs by simplifying and streamlining reporting requirements and increasing service levels by reducing time spent in bureaucracy; and
- Create the potential for new services to emerge, which would contribute to improved quality of public services in Imo State.

1.3.1 Brief Bio of Imo State

On the 3rd of February, 1976, Imo State was promulgated into existence by the military regime of General Murtala Muhammed. The territory had previously been part of the post-civil war East-Central State which itself was part of the post-independence Eastern Region.

Imo State is named after the Imo River and is bordered to the east by Abia State, to the south by Rivers State and to the north by Anambra State. In addition to Owerri the State capital other notable towns in Imo State include Awo-Omamma, Mbaise, Mgbidi, Nkwerre, Obowo, Oguta, Ohaji/Egbema, Okigwe and Orlu.

Imo State has several natural resources including crude oil, natural gas, lead, calcium carbonate, zinc, solar and wind power. Profitable flora such as iroko, mahogany, obeche, bamboo, rubber tree and oil palm abound in the State. Additionally white clay, fine sand and limestone are also in abundance in the State.

For education, there are several institutions of higher learning including both State and Federal Government-owned institutions. Education is taken very seriously by both the State Government and the people of Imo State.

There are over 160 oil wells at different locations in Imo State with oil giants Addax Petroleum, Chevron, Shell and Agip actively engaged in the State.

Imo State is the fourteenth most populous State and the sixth highest on the Human Development Index in Nigeria. The State has a population of 5.4 million as of 2016.[1]

Imo State's economy is highly dependent on agriculture, especially the production of palm oil, which is the main staple for cooking for the majority of Imolites. Another key industry in Imo State is the extraction of crude oil and natural gas.

However, having an economy based on crude oil, natural gas and palm oil production alone is not enough for the total development of the State. Industrial parks and processing zones to harness the huge agricultural produce and minerals would give a major boost to the State's economic growth and industrialization. This is where a digitally empowered population comes in.

Surplus investment opportunities exist in the State in oil and gas exploration, chemical plants, brewery plants, hydroelectric plants, gas-fired power plants, grain mills, starch production, cashews, fruit and vegetable juice concentrate production, integrated multi-oil seed processing plants, ceramics, inland waterway transport, and palm produce industry etcetera.

Most Imolites are literate and enterprising, but largely unemployed. Many of those that are employed are actually under-employed – caught up in menial jobs in the informal economy. Imolites are people willing to channel their budding energies to positive ventures if properly guided.

[1] Demographic Statistics Bulletin - https://nigerianstat.gov.ng

There is currently no detailed data on the state of digital literacy in Imo State, but data on technology adoption, financial inclusion and broadband penetration in rural areas suggest that the level of digital literacy is relatively low.

The Government of Imo State is broad-based with all facets of life and all sectors of the economy under the purview of a Ministry, Department or Agency of Government as outlined in the tables below.

Table 1: List of Imo State Government Ministries

Ministry of Health	Ministry of Environment	Ministry of Education
Ministry of Special Duties	Ministry of Tourism & Creative Arts	
Ministry of Entrepreneurship & Skills Acquisition	Ministry of Budget and Economic Planning	Ministry of Agriculture & Natural Resources
Ministry of Livestock Development	Ministry of Gender and Vulnerable Group	Ministry of Special Projects
Ministry of Commerce & Industry	Ministry of Information & Strategy	Ministry of Lands
Ministry of Transport	Ministry of Works	Ministry of Foreign/International Affairs
Ministry of Public Utilities	Ministry of Technology Development	Ministry of Social Welfare and Sanitation
Ministry of Housing	Ministry of Justice	Ministry of Digital Economy and eGovernment

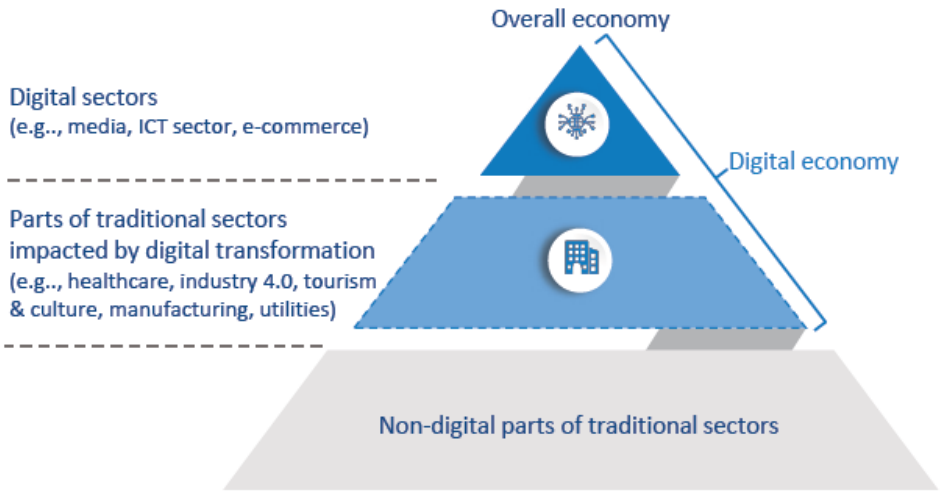
Table 2: List of Departments and Agencies

Imo State Marketing Board	Imo State Board of Internal Revenue	Imo State Agricultural Development Project
Imo State Library Board	Imo State Government Press	Bureau for Poverty Alleviation
Sustainable Development Goals (SDG)	Imo State Local Government Service Commission	Imo State Geographic Information Agency (IGIA)
Secondary Education Management Board (SEMB)	Imo State Planning and Development Commission	New Partnership for Africa`s Development (NEPAD)
Imo State Independent Electoral Commission (ISIEC)	Imo State Universal Basic Education Board (IMSUBEB)	Imo State Environmental Transformation Commission
Imo State Songhai Farms	Imo Rubber Estates	Imo State Sports Council
Imo State Housing Corporation	Imo State Tourism Board	Nekede Zoological Garden
Health Management Board	Imo State Transport Company (ITC)	Imo State Orientation Agency
State Directorate for Employment	Imo State Broadcasting Corporation (IBC)	Owerri Capital Development Authority (OCDA)
Imo State Investment Promotion Agency (ISIPA)	Imo State Judicial Service Commission	Imo State Liaison Office Abuja

1.4 The Digital Economy

The Digital Economy runs on the fuel of information communication technology such as the Internet, World Wide Web, Blockchain and the smartphone. The National Digital Economy Policy and Strategy 2020-2030 (NDEPS) describes the Digital Economy as those aspects of the economy that are based on or driven by digital technology as illustrated below.

Figure 1: Digital Technology Segment



The Digital Economy is also defined as the catch-all term to describe the panoply of economic activities and professional interactions that are enabled by or based on digital technology.[2]

In other words, Digital Economy encapsulates the economic outcomes from billions of everyday online connections among people, businesses, devices, data and processes.[3]

The two major forms of the Digital Economy are digital industrialization and industrial digitisation. Digital industrialization describes the development of ICT industries, including electronic information manufacturing, telecommunications, software and information technology services, and the Internet industry.[4] Industrial digitisation deeply integrates advanced digital technology with traditional industries. This accelerates the transformation and upgrading of traditional industries and improves their production efficiency.[5]

[2] Don Tapscott: The Digital Economy: Promise and Peril in the Age of Networked Intelligence, 1995
[3] Organization for Economic Co-operation and Development (OECD) 2012
[4] Borisov Et Al., The Digital Divide in Romania–A Statistical Analysis
[5] Kim TY Et Al.,: The Faster-Accelerating Digital Economy

The Digital Economy utilises information and communications technology to rework conventional exchanges and enable new ones and has become a substantial component of the global economy to the extent that an estimated 70% of new value created in the economy over the next decade will be based on digitally enabled business models.[6]

The Digital Economy has created and continues to create new types of value chains, partnerships and ecosystems.[7] Digital innovators and companies in these new value chains are making inroads into the socioeconomic fabric of Nigeria and winning a lion's share of the market.

These innovators and companies win because the Digital Economy creates value differently and dents conventional notions about how businesses are structured; how firms interact; and, most importantly how consumers obtain services, information and goods.

Four fundamental shifts in the economy are altering the service delivery paradigms. These are:

- A move away from products to an emphasis on customer experience;
- Less importance on assets and more on data;
- Shared access instead of ownership; and,
- Partnering instead of building or buying.

Internetworking is a key characteristic of the Digital Economy requiring businesses to partner, collaborate and cooperate to deliver products and services to their customers without any party in the value chain exercising sole ownership of the entire process.

These modern businesses anchored on Internetworking create digital connections that provide data that reach farther into the customers' world and make possible innovative relationships between them and the customers. These relationships spawn a new level of familiarity that allows the companies to personalize service and product offerings.

Take for instance Bolt and Uber, unarguably two of Nigeria's largest taxi operators. The duo, between them, owns no vehicles despite the large

[6] According to the World Economic Forum (WEF)
[7] Harvard Business Review - Creating Value in a Digital Economy

numbers of drivers gainfully engaged on their platforms. Even Jumia and Jiji, two well-known large retailers, between them hold no stock of their own despite their dominance of Nigeria's online marketplace.

Also known as the new economy, the Digital Economy consists of all sectors that make extensive use of digital technology (i.e. their existence depends on digital technology), as opposed to those sectors that make intensive use of digital technology (i.e. simply employing digital technology to increase productivity).[8]

The Digital Economy is stratified into three nested tiers comprising:

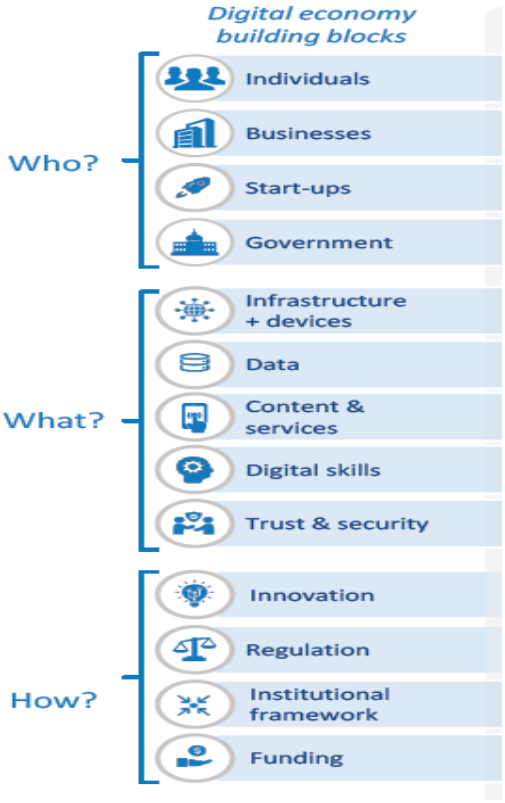
- The digital sector and associated core technology;
- The digital services and the platform-based economy; and,
- The digitalized sectors such as e-Business, e-Commerce, and the gig economy.[9]

The Digital Economy is underpinned by three crosscutting building blocks consisting of:

- The Stakeholders (who?);
- The Pillars and Elements (what?); and,
- The Enablers (how?).[10]

[8] Bukht, Rumana; Heeks, Richard (2017): "Defining, Conceptualising and Measuring the Digital Economy"
[9] Gig work is labour that consists of temporary and flexible jobs usually done over delivery apps
[10] Authur D Little – Digital KSA – Assessment and Way Forward for the Digital Economy

1.4.1 The Digital Economy Stakeholders



Four main groups are identified as the stakeholders (Who) of the Digital Economy.

All four are producers and consumers (prosumers) of digital tools and content alike.

They are:

- Individuals
- Businesses
- Start-ups
- Government

i. Individuals

Individuals play a key role on both the demand and supply sides as they generate and consume Data and pay for products and services.

ii. Businesses

Enterprises are rapidly adapting to remain competitive as technology continues to redefine business models and transform entire industries.

iii. Startups

Startups are the main drivers of change in the Digital Economy, as they develop and commercialize innovative solutions leveraging technology.

iv. Government

Governments at all levels - Federal, State, and LGA - play a key role in Nigeria's Digital Economy, leveraging digital technology to interact with citizens, improve services and promote ICT across all demographics.

1.4.2 Prevailing Digital Economy Challenges

Full Digital Government implementation in Imo State will provide more connected robust, efficient, proactive, and frictionless public services delivery. However, there are challenges to scale first.

The IDEA 2022-2026 identifies the challenges which must be addressed to build momentum toward a truly digitalised government services delivery. The challenges include:

a. **Inadequate Cybersecurity Measures**
   With constant and evolving cybersecurity threats, eGovernment portals need to constantly review and enhance cybersecurity measures to protect digital infrastructure, data, and platforms.

b. **Underdeveloped Data Protection Laws**
   Data protection laws are still nascent and need either to be developed and enacted or reviewed and improved to ensure proper and legitimate use of personal data and, in turn, support trust-building with citizens.

c. **Outdated Organisational Structures**
   With new disruptive digital business models becoming more prevalent, existing organisational structures must be reviewed and updated to empower agile and user-friendly operating models.

d. **Scarcity of Resources and Dated Skillsets**
   With prosperity in the private sector, the public services sector need to reconsider their employment value proposition and foster capabilities development to support digital technology–enabled transformation.

e. **Poorly Articulated Strategies**
   To be effective and realize the full value potential, digital transformation strategies must be built on measurable objectives, allowing Government to properly gauge digital services delivery and, in turn, performance maturity.

Fortuitously the challenges are not insurmountable. To mitigate these drawbacks, the IDEA 2022-2026 presents bold strategies with clear objectives. If stewarded by strong leadership, these strategies hold the promise of heralding innovative ways of working with a new generation of public servants who have the right skillsets.

The eGovernment harbingers transformative service delivery models with the proper enablers and an agile working environment. When the IDEA 2022-2026 is imbibed by all relevant stakeholders, Imo State Government will truly advance and become a future-proof smart Government.

The IDEA 2022-2026 posits that the way in which the Government interacts and offers services to citizens and businesses can be progressed in a transformative manner from a one-stop shop archetype to a no-stop shop delivery model.

1.4.3 The Pillars and Elements of the Digital Economy

The following components have to be available to stakeholders to create the Digital Economy:

i. Infrastructure and Devices

Information Communication and Technology services and solutions are required in a Digital Economy. These services range from mobile and fixed infrastructure and networks to Data Centres and gadgets such as smartphones and IoT sensors.

ii. Data

Data is the fuel of a Digital Economy, and consolidation of Open Data platforms to ensure standardization and quality are the keys to leveraging technology such as Artificial Intelligence and extracting key insights.

iii. Content and Services

Content and services available, including software and applications, digital platforms and the latest technology such as Artificial Intelligence (AI), 5G, Machine Learning (ML), and Distributed Ledger Technology (DLT) are vital to reaping all the benefits of the Digital Economy.

iv. Skills

The Digital Economy requires tech-savvy users in all demographic segments and a skilled workforce across sectors that can keep pace with the rapidly changing labour environment.

v. Trust and Security

Stakeholder perception of privacy and safety from digital cybercrimes and online security threats need to be effectively addressed to engender trust in the digital ecosystem.

1.4.4 Enablers of the Digital Economy

Certain elements are crucial in providing the enabling environment for a thriving digital ecosystem.

They include:

i. Regulation

Impactful regulation capable of keeping pace with the constant evolution of technology plays a major role in digital transformation, balancing economic and social benefits and limiting potential externalities.

ii. Innovation

Innovation brings competitiveness and dynamism to the Digital Economy, consisting of the promotion of initiatives to research and develop or adapt new digital solutions to changing needs across sectors.

iii. Institutional Frameworks

A wide range of institutions needs to work together to promote digital transformation in Nigeria generally and Imo State particularly. The rebranding of the Federal Ministry of Communications and the Digital Economy underscores the Federal Government of Nigeria's commitment to putting the digitalisation of the economy at the centre of its strategy thrust.

The establishment of the IMDEEG attests to the commitment of the Imo State Government to position Imo State as the centre of the Digital Economy in Nigeria.

iv. Funding

Investment of funds such as bank loans, private equity, venture capital, or seed capital to support and incentivize Startups and Micro, Small, and Medium-scale Enterprises is a critical component of the Digital Economy.

1.4.5 The Components of the Digital Economy

There are three main components of the Digital Economy,[11] namely:

1. **E-business:** – this is any process that a business organisation conducts over a computer-mediated network. Business organisations include any for-profit or not-for-profit entity. Examples of major electronic business process categories include online purchasing, selling, production management, logistics as well as internal communication and support services.[12]

2. **E-business Infrastructure:** - this describes the share of total economic infrastructure used to support electronic business processes and conduct electronic commerce. It includes hardware, software, telecommunication networks, support services, and human capital used in electronic business and commerce.[13]

3. **E-commerce:** – which denotes the value of goods and services sold over computer-mediated networks. An e-commerce transaction is completed when an agreement is reached between the buyer and seller online to transfer the ownership or rights to use goods or services. This online agreement is the trigger for determining an e-commerce transaction, not the payment.

   In broader terms, e-commerce describes the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, primarily the Internet.

   E-commerce operates under many segments including Business-to-Business (B2B); Business-to-Consumer (B2C); Consumer-to-Consumer (C2C) or Consumer-to-Business (C2B).[14]

   There are also Business-to-Government (B2G) and Peer-to-Peer (P2P) types of transactions occurring in this component of the Digital Economy.

[11] **Thomas Mesenburg** - Measuring the Digital Economy (2001)
[12] Ibid
[13] Ibid
[14] **Consumer-to-Business** – a business model where consumers deliver value to a business rather than vice-versa

The Digital Economy involves intensive and extensive use of information and communications technology, codification of knowledge, digitalisation of information, the transformation of data into commodities or assets and the organisation of work and production in innovative ways. It de-emphasises the need for workers to assemble in any specific physical office or location for work as people are now empowered to work from different locations, be it their homes, local restaurants or indeed from anywhere they may be in the world, so long as they have an Internet-enabled device.

The Covid-19 pandemic further helped to push remote working and online activities to the forefront, thereby propelling the use of information and communications technology as the prerequisite of the Digital Economy.

While workers can do their work from anywhere, they still expect to have the same level of connectivity experienced in the physical office - which is where digital technologies come into their element. Thus the backbone of the Digital Economy is hyperconnectivity - the growing interconnectedness of people, organisations, and machines that result from the Internet, mobile technology and the Internet of Things (IoT).[15]

At the heart of the new economy are twelve essential characteristics that differentiate the Digital Economy from the conventional economy. These characteristics are Knowledge, Digitisation, Virtualization, Molecularization, Internetworking, Disintermediation, Convergence, Innovation, Prosumption, Immediacy, Globalization, and Discordance.[16]

- **Knowledge** – While in the conventional economy, land, buildings, labour and money are important factors of production, in the Digital Economy knowledge is the most important resource for an organisation. Here, knowledge is everything.

- **Digitalization –** digital, not analogue, email not post office, electronic commerce not brick and mortar – is the mantra of the Digital Economy. Electronic publishing, virtual book store, Internet banking, and telemedicine are examples of a variety of products and services that can be offered on the Internet, digitalised.

[15] **Deloitte** - What is Digital Economy?
[16] **Don Tapscott -** The Twelve Themes of the New Economy (1996)

- **Virtualization -** Physical things are virtualised – such as virtual money, virtual wallet, virtual ballot boxes, and virtual offices and virtual jobs etcetera.

- **Molecularization** - The old corporation is being disaggregated, replaced by dynamic molecules and clusters of individuals and entities that form the basis of economic activity where traditional large inert structures give way to more adaptive and dynamic clusters such as Startups.[17]

- **Internetworking** – collaborations, colocations, partnerships - technology vendors, content partners, merchants, suppliers and so forth - any business insisting to control its business processes from conception to consumer does not belong in the Digital Economy.

- **Disintermediation** – where the middle functions between consumers and producers are eliminated through digital networks.

- **Convergence** - created by converging and integrating computing, communication and content to conduct business transactions.

- **Innovation** – On the maxim that if a company doesn't do it first, its competitors will. The Digital Economy is open 24 hours unlike the 8 hours in the conventional economy. In the Digital Economy, competitive advantage is difficult to sustain hence rapid innovation is constantly required.

- **Prosumption** - boundaries between producers and consumers become blurred through customization combining production and consumption - almost all consumers of information technology can easily become producers (prosumers).

- **Immediacy** – just-in-time is the truism in the Digital Economy - given that the switching cost on the Internet is very easy and inexpensive, customers will continue to look for companies that must provide the highest benefit to them and quickly too.

[17] **Nirmala Krishnan**: E-Business in The New Economy

- **Globalization** - the collapse of the boundaries of space and time with transnational systems – the Digital Economy is not hampered by either geographic boundaries or time zones.

- **Discordance** - unprecedented social and cultural changes in society as a logical consequence of the impact of the changes in several paradigms related to everyday life. For example, access to other cultures can be had by anyone, anywhere, in the wake of a few clicks on the keyboard.

1.5 The eGovernment

The World Bank defines eGovernment as the government-owned or operated systems of information and communications technology that transform relations with the citizens, the private sector and other government agencies so as to promote citizens' empowerment, improve service delivery, strengthen accountability, increase transparency, and/or improve government efficiency.

Information communication technologies such as the Internet and the smartphone have become vital for almost all economic and social activities and have radically transformed the economic landscape. Nowhere is this transformation more impactful than in the eCommerce sector which has assumed a pivotal position almost as crucial to Nigeria's economy as crude oil.

The transformation was accentuated by the Covid-19 pandemic which triggered a seismic shift in the way people live, work and interact with one another. The pandemic presented a vivid illustration of the usefulness of digital technology in dealing with the contingencies and complexities associated with life in the 21st century.

Not only has digital technology changed the way people work and play it has also introduced a raft of new words into the lexicon. Words such as blog, podcast, google, meme, and ping did not exist only a few years ago. But more interesting than the new words are the old words that have acquired new meanings such as cloud, tablet, word, windows, apple, app, note, tweet, viral, text etcetera.

Some new-fangled word combinations have become commonplace too such as smartphones, hashtags, cybercrime, sandbox, and FinTech while a

glossary of acronyms has entered everyday use including SMS, SIM, MP3, POS, ATM etcetera. All of these denote the dawn of a new information age in which ICTs have become part and parcel of people's everyday lives.

Post-pandemic, digital technology has continued to gain wider acceptance and have become a key contributor to Nigeria's national economy. For example, financial technology (FinTech), a subset of digital technology, has become a major driver of financial inclusion through mobile banking and mobile money. Financial technology bolsters the creation of new products and services and accelerates innovation in various areas.

Digital technology continues to stimulate cumulative interacting innovations in goods, services and processes and drive a general convergence between platforms and products. These convergences augur well for the economy by enhancing financial inclusion, creating job opportunities and improving the productivity of businesses.

However, despite its prevalence among younger consumers and in urban areas, digital technology are still far from being the norm as there are considerable proportions of Imolites who are yet to get familiar with the concept. The benefits of digital technology need to be unlocked across all demographics from rural to peri-urban and urban areas of Imo State.

Although digital technology have improved the lives of many people in Nigeria and facilitated access to economic opportunities that were previously inaccessible to many, it is yet to achieve universal availability and affordability. The IDEA 2022-2026 identifies sketchy Broadband penetration as the cause of the slow adoption of digital technology, particularly, in rural areas.

To entice incumbent telecom service providers and new market players to invest in unserved and underserved areas, IMDEEG has designed programmes and initiatives to help the State Government embark on accelerated infrastructural development in the unserved and underserved areas to ensure that Broadband Internet service is accessible to all segments of the society, anytime, anywhere. The outcome will trigger interventions to connect State and Local Government sites, schools, health institutions, and MSMEs among others to the Broadband infrastructure.

The Partnership and Collaboration Pillar of IDEA 2022-2026 heralds activities to mobilise and engage the public, private and third sectors and establish strategic partnerships and engagements that will lay down mechanisms for

these entities to take part in the development of the Imo State Digital Economy through investments in information and communications technology in the State.

In moving towards a knowledge-based economy, the IDEA 2022-2026 posits that equipping Imolites with the ability to use digital services and applications is essential. By providing capacity-building and information outreach programs, IDEA 2022-2026 would enable Imolites to become aware of the nuances of the Digital Economy and the central role that digital technology plays in it from the provision of education to putting up online businesses and innovation activities.

The IDEA 2022-2026 pushes for the establishment of ICT training initiatives across all 27 LGAs to enhance and support the development and adoption of the use cases for emerging technology in Imo State. This will yield outcomes that produce local talents as well as nurture valuable local businesses that can contribute toward inclusive State and national Digital Economy development.

To narrow the digital divide, the IDEA 2022-2026 shall run schemes to stimulate Broadband use, especially in rural areas. This shall be integrated into existing programs and initiatives of the government, particularly with programs dealing with women, youth, and the physically challenged in Imo State.

The statistical capacity to produce and effectively use core economic and social data shall be improved. At the State level, the ICT systems and infrastructures such as Colocation Data Centres and direct access to cloud computing facilities that enable interoperability and allow data to flow seamlessly among Ministries, Departments and Agencies of the State Government shall be established.

1.5.1 The Fundamentals of eGovernment

The eGovernment is based on the utilisation of information and communications technology and other web-based telecommunication technology to improve or enhance the efficiency and effectiveness of service delivery in the public sector. EGovernment promotes multi-stakeholder contributions to State and community development, as well as deepens the governance process. It enables Government MDAs to align their efforts as needed to improve services and reduce operating costs.

The primary benefit of eGovernment is to serve the citizen and facilitate citizen interaction with the Government by making public information more accessible through the use of websites, as well as reducing the time and cost to conduct a transaction.

The eGovernment is not about building award-winning design, nor is it just about using state-of-the-art computers or technology in providing services to the public. On the contrary, eGovernment is a way for the Imo State Government to achieve service delivery objectives to better serve the people, including the poorest and most vulnerable, and for Imolites to be involved in the design and use of public services to ensure the well-being of all.

1.5.2 Objectives of the Imo State eGovernment

- Build a more transparent, honest, and clean Government;
- Achieve higher effectiveness, efficiency, and productivity;
- Provide better services to businesses and citizens; and
- Establish new forms of partnerships with citizens.

1.5.3 Scope of the Imo State eGovernment

The Imo State eGovernment implementation extends the scope of Government by including the engagement and participation of Imolites in governance. The scope of the Imo State eGovernment includes:

- The use of information and communications technology as a tool in all facets of the operations of all Imo State Government MDAs to achieve better governance and improved public services delivery;

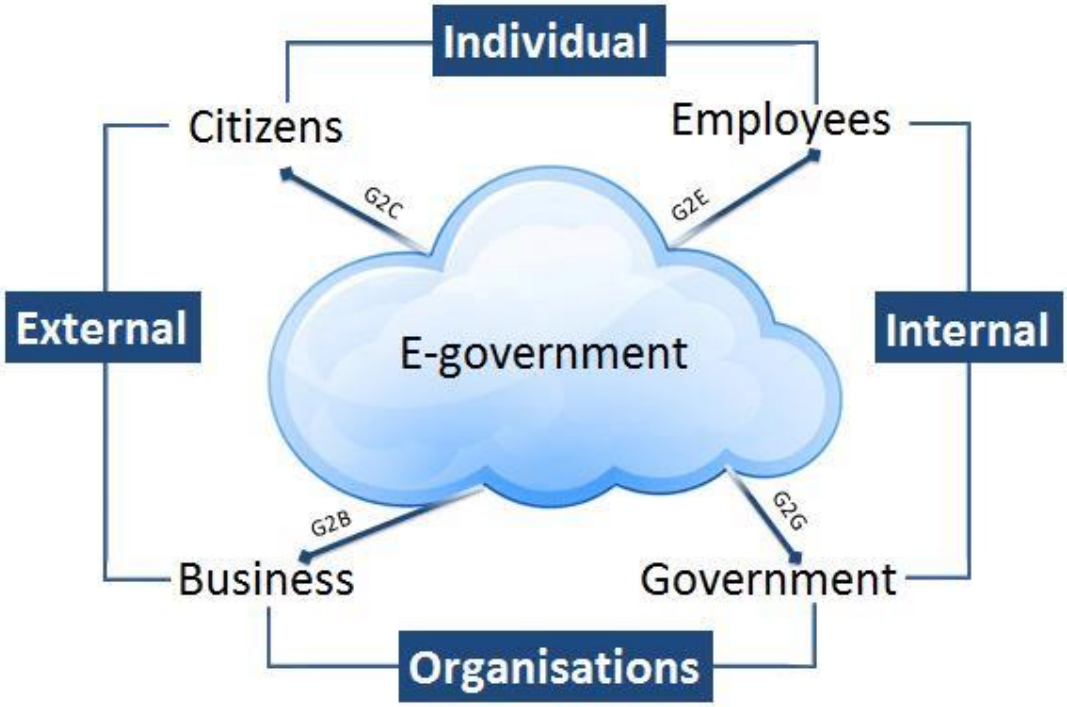
- The continuous optimization of service delivery, citizens' participation, and enhancement of governance by transforming internal and external relationships through technology, the Internet and new media;

- Interactions, where the Imo State Government interrelates with Imolites online, and Ministries, Departments and Agencies of Government interact with one another, digitally to improve public services;
- Transactions, where such things as paying local taxes, fines, levies or licenses are carried out online with a whole-of-government approach, which engenders cross-department collaboration and provide a no-stop shop convenience in the delivery of services to citizens; and

- Transformations, which involve a reinvention of government functions and how they operate with aspirations of reducing corruption, and with attempts to increase the involvement of the private and voluntary sectors in Imo State Government activities.

1.5.4 Classifications of eGovernment

The eGovernment functions are classified into four main categories.



1.5.4.1 Government-to-Citizen (G2C)

In applying the idea of G2C, Imolites will have instant and convenient access to government information and services from everywhere anytime, via the use of multiple electronic channels. In addition to making certain transactions, such as certifications, paying governmental fees, and applying for benefits, G2C would enable Imolites to overcome possible time and geographic barriers and would connect citizens who may not otherwise come into contact with one another. It would in turn facilitate and increase Imolites' participation in the governance of their State.

1.5.4.2 Government-to-Business (G2B)

G2B includes various services exchanged between the Government and the business sectors, including the distribution of policies, memos, rules and regulations. Business services offered include obtaining current business information, new regulations, downloading application forms, lodging taxes, renewing licenses, registering businesses, obtaining permits, and many more. The services offered through G2B transactions will play a significant role in business development, specifically the development of Micro, Small and Medium Scale Enterprises in Imo State.

G2B applications will actively drive e-transaction initiatives such as e-procurement and the development of an electronic marketplace for government purchases. It would underpin Imo State Government's procurement tenders through electronic means for the exchange of information and goods enhancing the efficiency and quality of communication and transactions with the business. G2B increases the equality and transparency of Imo State Government contracting and projects.

1.5.4.3 Government-to-Government (G2G)

G2G refers to the online communications between Government Ministries, Departments and Agencies based on a super-government database. The efficiency and efficacy of processes are enhanced by the use of online communication and cooperation which allows for the sharing of databases and resources and the fusion of skills and capabilities. The vital aim of G2G development is to enhance and improve intergovernmental organisational processes by streamlining cooperation and coordination.

The use of information technology by different MDAs to share or centralize information, or to automate and streamline intergovernmental business processes such as regulatory compliance, would yield benefits of time and cost savings and service enhancements to the Imo State Government and Imolites alike.

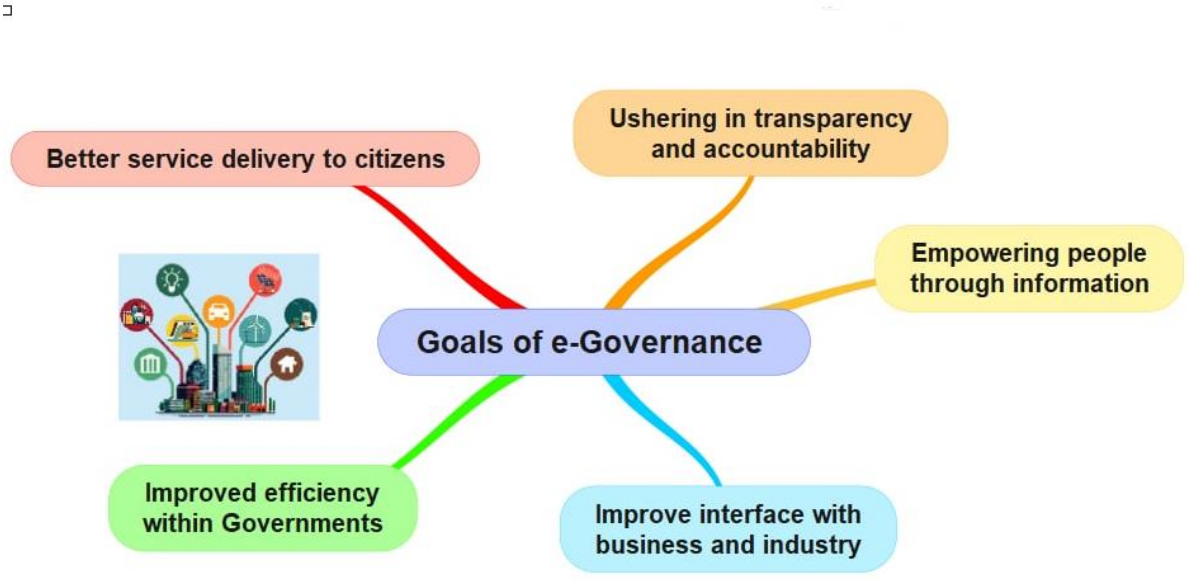
1.5.4.4 Government-to-Employee (G2E)

G2E refers to the relationship between the Government and the civil servants. The purpose of this relationship is to serve the government workers and offer some online services such as applying online for their annual leave, checking the balance of approved leave, and reviewing salary payment records, among other things.

Government-to-Employee is a combination of information and services offered by Government institutions to their employees to interact with each other and their management. G2E is a successful way to provide e-learning, bring employees together and encourage knowledge sharing among them. It gives government workers the possibility of accessing relevant information regarding compensation and benefit policies, training and learning opportunities, and allowing them access to manage their benefits online with an easy and fast communication model.

G2E also includes strategic and tactical mechanisms for encouraging the implementation of Imo State Government's goals and programs as well as human resource management, budgeting and dealing with all other internal civil service issues.

Figure 2: The Goals of eGovernance

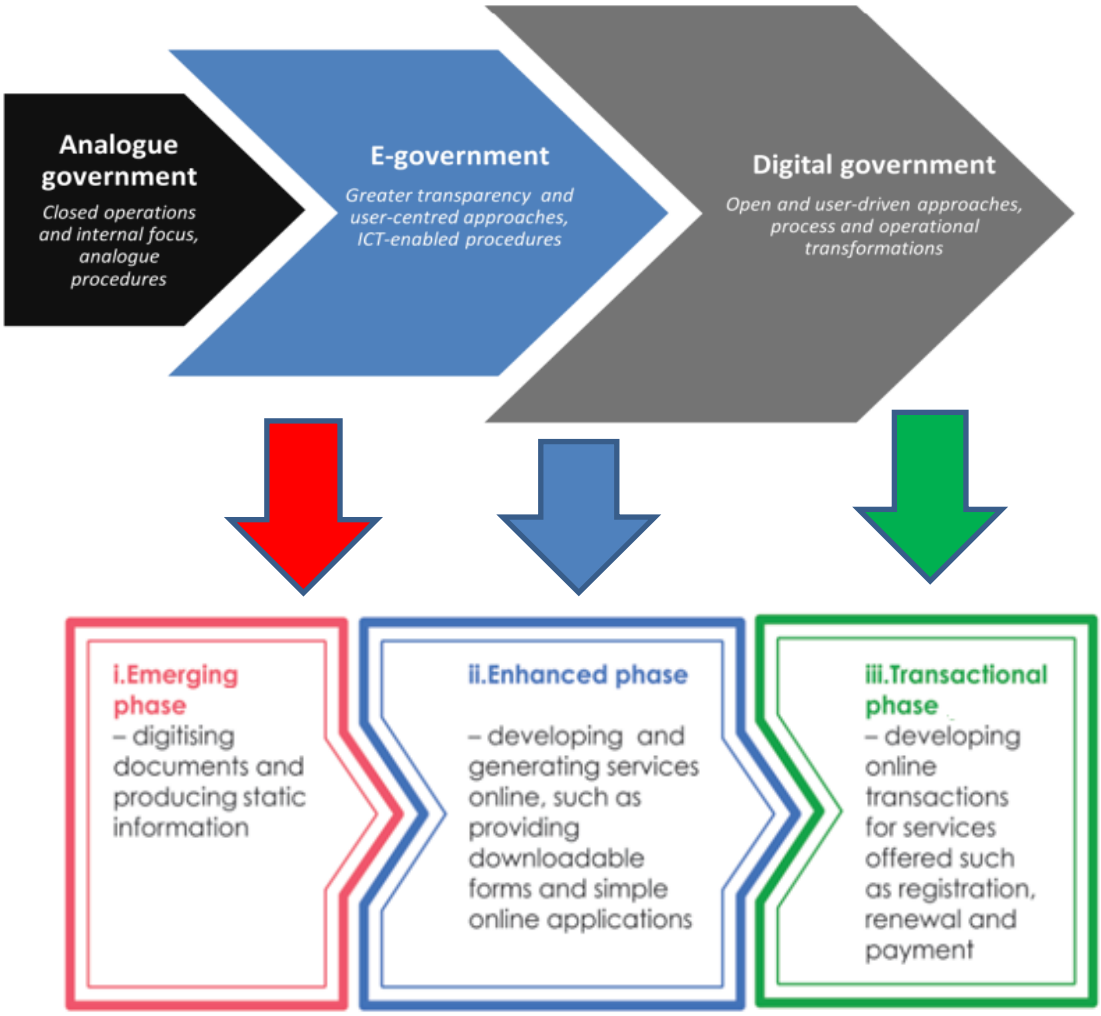


1.5.5 The Evolution of Government

The progression of government from analogue to digital started in the 1990s when the term digitisation referred to a process from preparation and conversion to presentation and archiving of analogue hardcopy documents into digital media such as floppy disks, CD ROM, and hard drives. In parallel, all kinds of new documents are produced in digital form and the era of analogue processing and documentation is visibly drawing to an end.

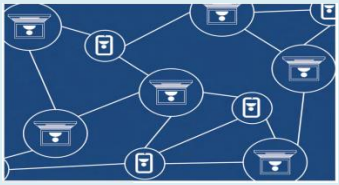
Digitalisation is the increasing reliance and functioning on digital data, structures and processes. Digitisation is the preliminary process of digitalisation.

Figure 3: Progression towards the Digital Transformation of Government



1.6 Key Factors Necessary to Develop Imo State eGovernment

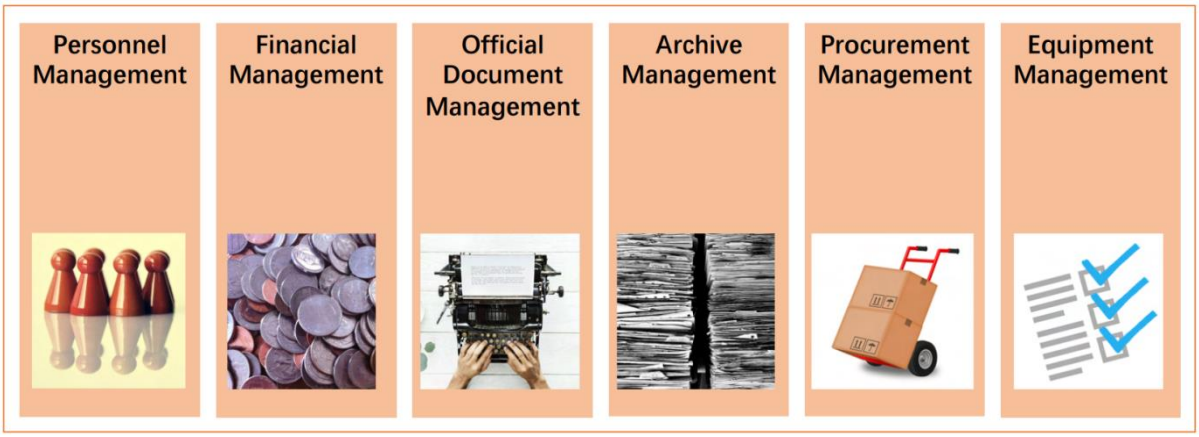
Table 3: Key Factors to Develop the Imo State eGovernment

Key Factors	Characteristics
Political Conditions 	▪ Awareness of the political value of eGovernment ▪ Commitment to eGovernment and good governance ▪ Leadership skills ▪ Legislative framework ▪ Citizens' participation in government affairs
Organisational Conditions 	▪ Administrative structures and legacies ▪ Public administration reforms ▪ Civil service reforms ▪ Central coordination and support unit ▪ Policy coordination of inter-governmental relations
Cultural & Human Resources 	▪ Culture of information and knowledge sharing ▪ Prevailing organisational culture ▪ Attitude and adaptability to change, especially in public administration ▪ Managerial skills in the public sector ▪ Service orientation towards citizens
Financial Conditions 	▪ Available financial resources ▪ Access to alternative financing mechanisms ▪ Partnerships with private sector and other role players ▪ Access to capital markets ▪ Mechanisms for venture investment
Communication Environment 	▪ Citizens' awareness and understanding of ICT and eGovernment initiatives ▪ Communications culture and channels ▪ Information and knowledge sharing
Technological Infrastructure 	▪ Telecommunications infrastructure ▪ Penetration rates of telecommunication ▪ Urban versus rural: demographic/geographic bias ▪ Software and hardware (legacy systems) ▪ ICT standards
Data & Information Systems 	▪ Available and accessible data and information ▪ Data collection procedures and information standardization ▪ Data quality and security ▪ Capacity to analyze data and utilize information ▪ Capacity to direct the flow of information as part of the decision making process

1.7 Horizontal Model of eGovernment

The common operational activities of government and the MDAs that the eGovernment will enhance include the following.

Table 4: Horizontal Integration of eGovernment



In developing an effective eGovernment implementation for Imo State, several key enabling factors have been considered.

The factors include:

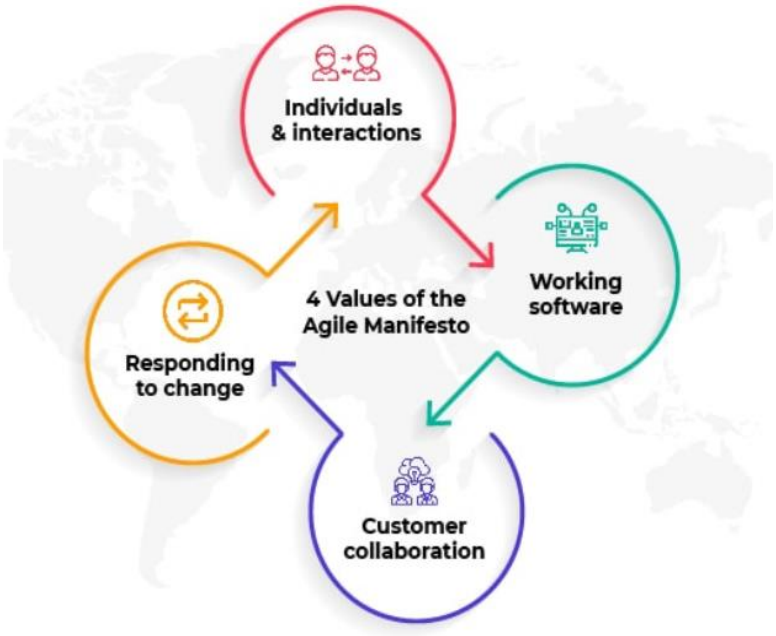
- Educational levels among Imolites;
- ICT literacy skills and the number of online users;
- ICT education facilities and programs – extant and proposed;
- Culture, tradition, and societal norms; and
- Legacy of data processing, management information, and decision support systems

Sound policymaking and collaboration among institutions at all levels of the Imo State Government will be the silver bullet that gels all the factors together in the direction of achieving positive outcomes.

Collaboration with the private sector, non-governmental organisations, and third-sector organisations would bring value to the eGovernment implementation by addressing problems of common interest.

The IDEA 2022-2026 leans on the Agile Manifesto which proclaims the following four values:

Figure 4: The Agile Manifesto



Individuals and interactions over processes and tools

Working software over comprehensive documentation

Customer collaboration over contract negotiation

Responding to change over sticking to a static path

Table 5: Description of the Agile Manifesto

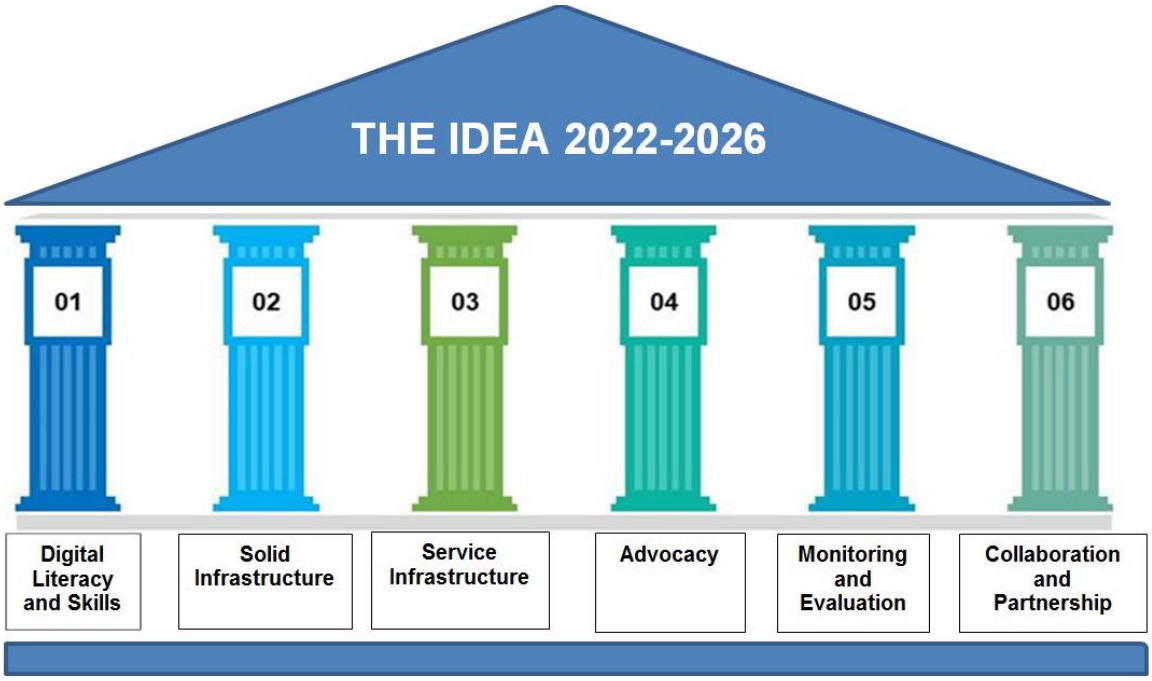
Individuals and interactions	While having the best possible tools or processes is important, the people behind the processes are even more so. Having the right individuals is vital to success. The best possible tools in the wrong hands are worthless. Perhaps even more important is how these individuals interact with each other which is what would help them to collaborate and solve any problems that may arise.
Working software	The IDEA 2022-2026 places a higher premium on having eGovernment software that works. And while comprehensive paperwork isn't a bad thing, there comes a point when the focus must be on providing users with working software and not exhaustive paperwork.
Customer collaboration	The focus is on continuous development and building a feedback loop with users to ensure that the eGovernment works for them as desired.
Responding to change	Because people's needs and requirements differ, and are always shifting, with priorities that are always changing, the IDEA 2022-2026 is platformed on a flexible roadmap with the ability to respond to change in a timely manner.

CHAPTER TWO

2.1 The Six Pillars of the IDEA 2022-2026

The Imo Digital Economy Agenda 2022-2026 is anchored on Six (6) Strategic Pillars. The six pillars align with the 3R objectives set by His Excellency, the Executive Governor to pave the way for shared prosperity in Imo State to wit: Reconstruction, Rehabilitation and Recovery.

Figure 5: The Six Pillars of IDEA 2022-2026



- **Pillar #1** - Digital Literacy and Skills;
- **Pillar #2** - Solid Infrastructure;
- **Pillar #3** - Service Infrastructure;
- **Pillar #4** - Advocacy;
- **Pillar #5** - Monitoring and Evaluation (M&E); and
- **Pillar #6** - Collaboration and Partnership.

2.1.1 Pillar #1 - Digital Literacy and Skills

Digital literacy is the bedrock of an effective eGovernment hence Digital Literacy and Skills development is Pillar#1 of the IDEA 2022-2026. The efficacy of the eGovernment rests on people's capacity to capably engage with digital technology. Therefore, the IDEA 2022-2026 strategy submits a holistic approach to digital capacity-building for Imolites.

The comprehensive digital capacity development agenda proffered in the Digital Literacy and Skills Pillar will ensure the delivery of accessible, reliable, fast, personalized, secure, and inclusive digital services and the engagement of Imolites in decision-making processes and service design and delivery.

The Imo State eGovernment requires human capacities that include technological, commercial and management skills. The technical skills are necessary for the implementation, maintenance, designing and installation of ICT infrastructure; commercial skills for using and managing online processes; management skills to harness the full economic benefits of the ICT implementation.

To address human capital development gaps in the State, knowledge management initiatives will focus on digital skills training to create and develop the digital know-how required for eGovernment. Continual access to training is envisaged by the IDEA 2022-2026 as a fundamental prerequisite as the rate of change increases and new technology, practices and competitive models emerge.

The IDEA 2022-2026 will push a culture of digital technology use in which Imolites have high digital literacy levels. This heightened digital literacy level will dovetail to a citizenry that demands transparency and accountability in public service. It will foster a high-quality supply of information to stimulate the demand for data-informed decision-making.

The Imo Digital Economy Agenda envisions a scenario where the majority of Imolites are able to accurately track public finances or monitor the Government’s appropriations due to their elevated relevant digital literacy skills. Without such skills, the ability to hold the Government accountable and track progress shrinks.

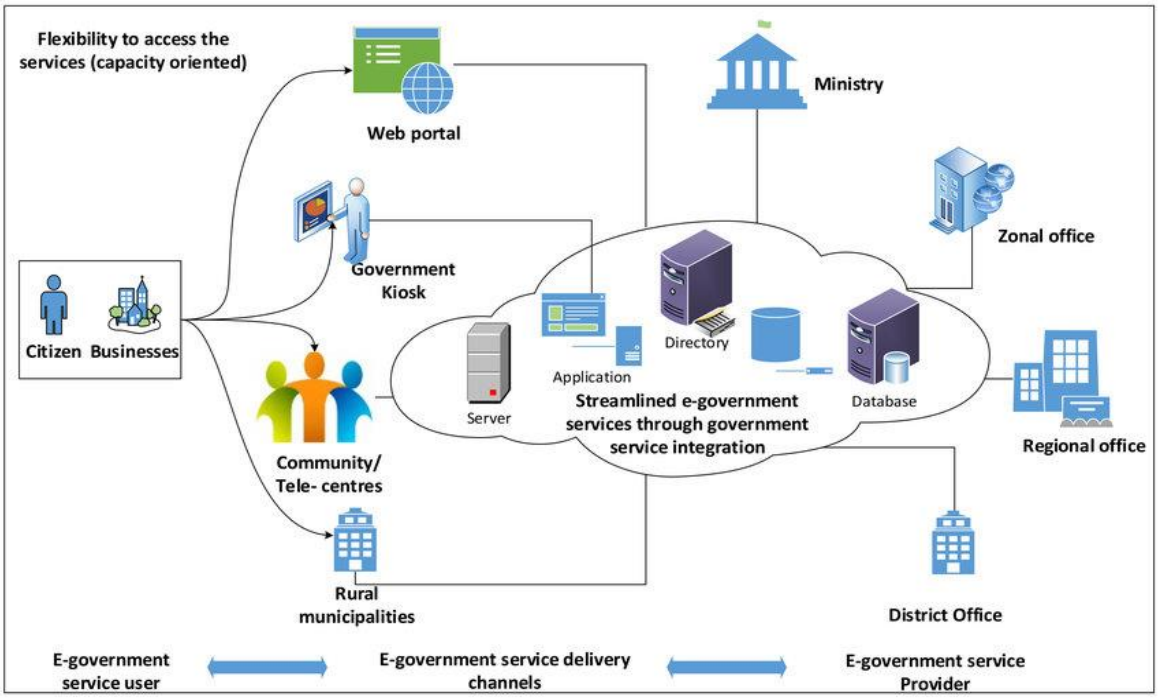
When all the Imo State Government Ministries, Departments and Agencies, civil society, academia, and the private sector take part in the State eGovernment, the potential uses of digital technology will expand and so will its potential impact on socioeconomic development.

The ability of as many Imolites as possible to use computers and the Internet will be a crucial success factor for a successful eGovernment implementation. The IDEA 2022-2026 recognises that not all Imolites have equal access to computers and the Internet, whether due to a lack of financial resources, necessary skills, or other reasons.

To ameliorate the gaps, the IDEA 2022-2026 visualises that the Government shall train as many Imolites as possible in the basic skills of using the computer and Internet. The overarching purpose is to empower the majority of Imolites so that they can participate effectively in the Digital Economy.

The Digital Literacy Skills Pillar will build the capacities of Imolites and empower them to inter alia:

- Use the Internet in a responsible manner;
- Consolidate positive digital values and behaviours; and
- Use positive content and protect them from the risks of dealing with suspicious parties.



2.1.1.1 Key Elements of Digital Literacy and Skills

The Digital Literacy Skills Pillar is aligned with global standards and comes with a well-defined framework poised to yield results in measurable outcomes that will have a positive rippling effect on Imo State's economy.

The Digital Literacy Skills Pillar will produce results in the following dimensions:

- Accelerate the creation and use of digital tools and content to improve productivity across all sectors of the Imo State economy;
- Encourage indigenous Original Equipment Manufacturers (OEMs) to situate their facilities in Imo State to avail themselves of the abundant local talent;
- Stimulate Imolites to obtain ICT certifications that will enhance their digital-readiness and job mobility across the world;
- Create a vibrant local industry of content creators and publishers;
- Create a value chain that will facilitate digital entrepreneurship development encompassing digital skills training centres, ICT assessment centres; technology hubs etc.;
- Enhance the Imo State civil service by improving efficiency, productivity, and increasing service-delivery orientation; and
- Increase demand for ICT and broadband, thus helping the proliferation of Broadband across all the nooks and crannies of Imo State.
- Promote the development of local language Application Programming Interfaces (APIs) and plugins that call on government websites to offer content in both English and Igbo languages. This will aid the delivery of public services and the creation of citizen engagement platforms across all literacy levels in the State.

2.1.2 Pillar #2 - Solid Infrastructure

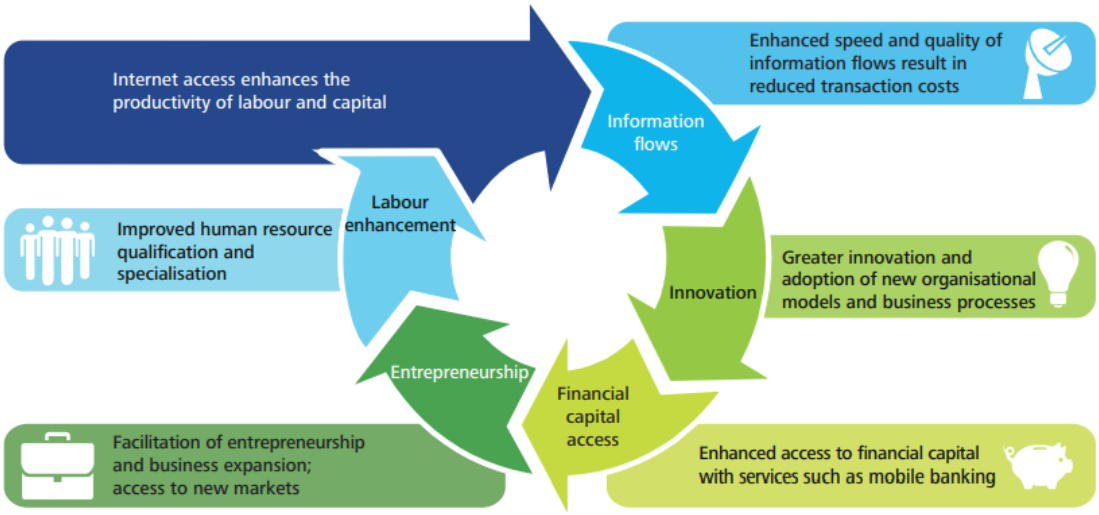
Implementation of the eGovernment framework requires a strong technology infrastructure platformed on an effective telecommunications infrastructure. A successful eGovernment implementation would depend upon how the capacities of various infrastructures are structured and how they are capitalized with an integrated focus.

The objective of the Solid Infrastructure strategy is to ensure that the users, citizens as well as Government staff, have access to digitally-enabled services. Access does not mean merely the availability of the Internet but a much broader concept. The IDEA 2022-2026 sees access as meaningful universal connectivity encompassing Broadband adoption that is not just available, accessible, relevant, and affordable, but is also safe, trusted, and empowering.

Solid Broadband Internet infrastructure would support the growth of SMEs and Startups in many ways, by broadening potential customer bases, reducing costs and saving time.

2.1.2.1 Key Elements of Solid Infrastructure

- Telecommunications infrastructure;
- Penetration rates of telecommunications;
- Urban versus rural: demographic/geographic bias;
- Software and hardware (legacy systems); and
- ICT standards.



2.1.3 Pillar #3 - Service Infrastructure

As is the case with actual physical Government offices, access must be guaranteed to the eGovernment for everyone. It is central to the success of the rollout therefore, that the eGovernment does not worsen the digital divide. To ensure this, multi-platform access to electronic public services shall be developed.

Similarly, training programmes which provide the basic skills required for using information communication technology shall be developed and made available to as many Imolites as possible.

Because the Imo State Government has a key role to play in digitalisation, the IDEA 2022-2026 bespeaks a structured eGovernance framework that enables the use of digital technology in all facets of governance in the State to create economic and social value, promote equitable opportunities, and foster the trust that businesses and Imolites will benefit from the emerging technology.

The eGovernance framework will ensure that economic policies, laws, infrastructure and institutions work together to support the use of digital technology in a way that aligns with the State's and LGAs' socioeconomic development objectives while protecting individuals' rights to government services.

The framework defines the rules and associated compliance mechanisms for how digital technology can be safely used by all stakeholders. It calls for the strengthening of the State's ICT systems and the engagement of all stakeholders at both the State and LGA levels. In doing this, the IMDEEG shall be intentional in deploying a whole-of-government, multi-stakeholder approach in the rollout of the eGovernment platforms.

The whole-of-government approach allows greater communication and coordination in policy areas among State MDAs at all levels, in a way that the eGovernment can be delivered "as one" in pursuit of all-inclusive access to services to the benefit of all stakeholders.

Thus the whole-of-government approach is, therefore, not an end but a means to achieve eGovernment values of inclusion, transparency, and accountability.

2.1.3.1 Key Elements of Service Infrastructure

The Service Infrastructure Pillar aims to:

- Enhance the Imo State Government's approach to providing digital services;
- Improve user experience in getting eGovernment services;
- Raise Imo State Government's efficiency in providing services;
- Enable integration and connection of Imo State Government digital systems with those of Federal Government entities;
- Raise trust in eGovernment services;
- Raise citizens' awareness and understanding of ICT and eGovernment initiatives;
- Create clear communication and information dissemination channels; and
- Provide information and knowledge sharing methods among all service users and stakeholders alike.

The Service Infrastructure Pillar aims to provide all government services from one unified platform, employing eGovernment enablers to integrate and connect digital systems of the State Government and raising efficiency in providing public services.

Frameworks shall be designed to enable:

- A digital-by-default or digitally native mindset;
- Government as a platform that allows collaboration between various Ministries, Departments, and Agencies of the Imo State Government; and
- A one-time data entry principle, meaning citizens and businesses have to provide their data only once for all government dealings.

2.1.4 Pillar #4 - Advocacy

The Advocacy Pillar of the IDEA 2022-2026 is a vision based on the recognition of the different ways that people interact with the Government. It places citizens at the centre of public service.

The Advocacy Pillar recognises that some barriers to the implementation of eGovernment may not only be technical but the cultural implications of new technology. Cultural norms and individual behaviour patterns play a role in how citizens and policymakers embrace technology. Because culture plays a significant role in people's outlook, many people resist change and adopt new technology slowly and with great deliberation.

Therefore, strategies and objectives alone will not be enough. There will be the need to identify and promote new digital-age government leaders who can understand the value of eGovernment and educate internal stakeholders as well as the general public on its benefits. This approach would result in timely buy-in from both the government workers and the citizens requiring services.

The projected expectations of eGovernment ought to be a good representation of reality and should factor in the plurality of perspectives. It is crucial to note that technology is socially shaped and carries with it the values and biases of those designing it. For this reason, the IDEA 2022-2026 adopts a socio-technical view of digital technology to ensure that all perspectives are considered to achieve sustainable and desirable impacts with the eGovernment design.

Several factors such as social structure, language, education, economic philosophy and political philosophy may pose barriers to the implementation of the eGovernment. Besides structural changes, technical enhancements will also inculcate cultural changes.

These cultural changes, though not as easily tangible, have been factored into the IDEA 2022-2026 so that technical change is successfully implemented factoring in sociocultural and sociotechnical considerations.

The IDEA 2022-2026 identifies that improving working relationships between State MDAs and adopting a corporate approach will be key to a successful eGovernment implementation. To achieve this, organisational development is included in the eGovernment implementation processes so that internal cultural changes are accommodated.

The IDEA 2022-2026 is attentive to following the ever-changing landscape of emerging technology to provide the stakeholders with a framework for thinking through all the issues, opportunities and trade-offs around new digital technology. The IDEA 2022-2026 provides both context and a more nuanced understanding of the role of digital technology in the development of the Digital Economy in Imo State.

Thus the Imo State eGovernment is not primarily about the automation of existing procedures, but about changing the way in which the State Government conducts governance and delivers public services. The Imo State eGovernment will greatly improve how the State Government operates both internally and externally and how it serves the citizens of Imo State. The migration to eGovernment will be much more than a tool for improving cost-quality ratios in public services. It can become an instrument of reform and a tool to transform governance and citizens' participation in it.

Because reliable statistics can expose poor policy decisions and performance and increase public scrutiny and pressure on civil servants, vested interests can be expected to intervene to distort decisions about the collection, reuse and sharing of information which are essential hallmarks of a successful eGovernment implementation.

As virtually all human endeavours ranging from political, sociological, economical, commercial, medical, security, military, and banking to general purposes such as transportation, religion, education, shopping, dating, entertainment, governance etcetera can be accomplished in the digital space, the Internet has become mainstream for human interactions. This has made digital citizenship a sin qua non for life to be enjoyable and underlines the basicity of the Advocacy Pillar.

By establishing the eGovernment, the Imo State Government recognises that access to the digital world has become a basic human right. The Advocacy Pillar will position Imolites as savvy digital citizens who are able to use the digital space responsibly and conscientiously.

The IDEA 2022-2026 recognises that participation in the digital space requires access to the Internet through any of the available internet-enabled terminals such as computer, tablet, smartphone, cell phone, personal digital assistant (PDAs), networked gadget, electronic device, and/or any other artificial intelligent facility.

Pillar #4: Advocacy affirms that all Imolites should enjoy unencumbered access to the digital world and echoes the African Union's affirmation which emphasises that the Internet is particularly relevant to social, economic and human development in Africa and that in order to fully benefit from its development potential, the Internet must be accessible, available and affordable for all persons in Africa. It affirmed further that the Internet is a vital tool for the realisation of the right of all people to participate freely in the governance of their country and to enjoy equal access to public services.[18]

Right of Access to Information

Anchored on UNESCO's acclamation that: 'the principle of freedom of expression and human rights must apply not only to traditional media but also to the Internet and all types of emerging media platforms, which will contribute to development, democracy and dialogue'[19] the Advocacy Pillar underpins the right of access to information that all Imolites must have and enjoy.

Right to Acquire and Own Digital Property

This is the economic aspect of Internet freedom, which links the importance of free and open networks with economic growth, trade and favourable business environments. The prospects of developing the intellectual property with digital characters are growing with the advent and proliferation of new digital technology. Imolites have the right to be part of these growths by owning intellectual properties, software materials and digital content in different digital spaces.

Right to Digital Life

The right to digital life or to be a digital citizen derives from the right to access the Internet. The right to access the Internet or freedom to connect is the view that all Imolites must be able to access the Internet in order to exercise and enjoy their rights to freedom of expression and opinion and other fundamental human rights. This right is highly connected with international affirmation that governments have a responsibility to ensure that Internet access is broadly available and that a Government may not unreasonably restrict an individual's access to the Internet

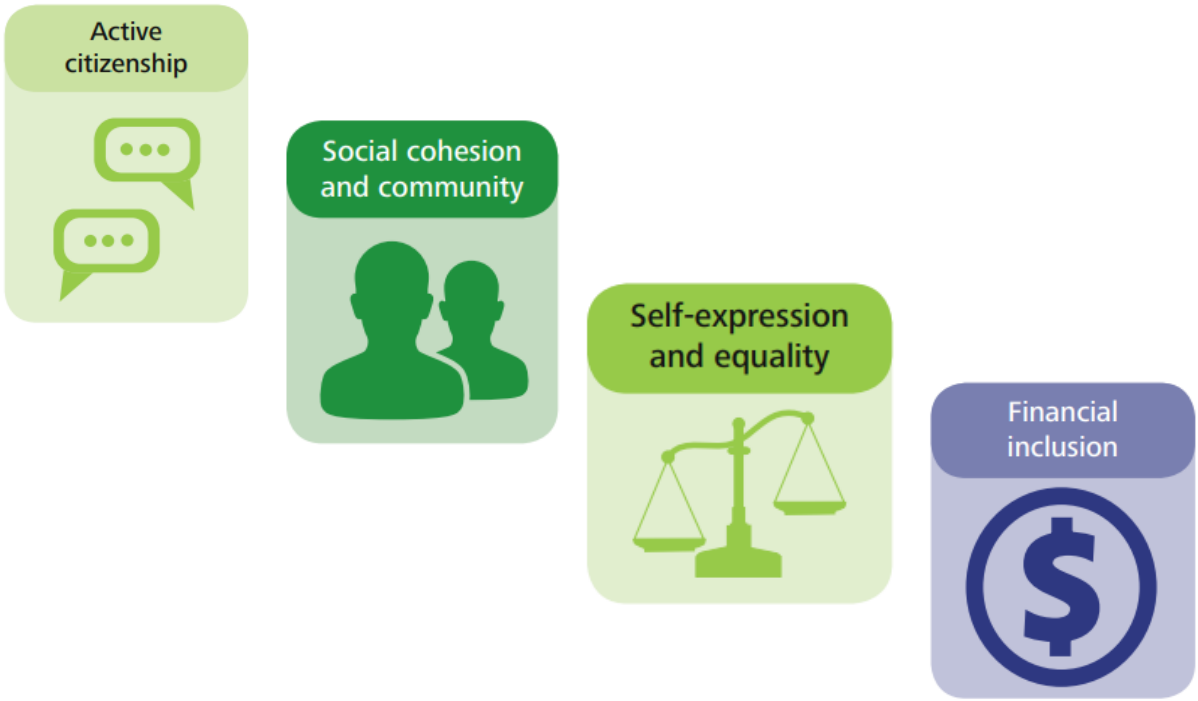
[18] See the Preamble to African Declaration on Internet Rights and Freedoms, 2014.
[19] https://en.unesco.org/themes/freedom-expression-internet

2.1.4.1 Key Elements of Advocacy

The Advocacy Pillar is premised on the maxim that the digital divide cannot be closed by just pipes and wires alone. The human side of the equation has to be addressed in pari passu.

Expected Outcomes

- Digital Equity - There will be a sustained push for public and private investment in digital inclusion and digital equity to include funding specifically to help those in need of devices, as well as money for trusted community partners to do outreach in support of their digital inclusion work;
- Broadband as Utility - Advocate to treat high-speed Internet access as a utility rather than a luxury;
- Imo State Digital Equity Plan - Codify all state-wide digital divide bridging and Broadband Internet penetration efforts;
- Advocate against unequal access to the Internet, unequal digital skills, and unequal protections on the Internet; and
- Remove all constraints to free flow of information and knowledge.



2.1.5 Pillar #5 - Monitoring and Evaluation (M&E)

Because eGovernment is a journey and not a final destination, the continuous monitoring and evaluation of the digital services requested and provided by the system will be essential. Efficient monitoring and evaluation of the eGovernment implementation would require the capacity-building of agencies that are institutionally distinct from the implementation agencies.

While numerous performance indicators might have to be assessed, the monitoring and evaluation shall be grounded in the governance value principles of effectiveness, accountability, and inclusiveness.

Performance indicators will include variables such as user uptake, user satisfaction, the share of automated public services generated by the eGovernment application, as well as the number of grievances and complaints received.

The extent to which the eGovernment project may impact the respective MDAs and their various public service offerings shall be meticulously monitored and evaluated. This would essentially involve collecting data not only from the users but also from the potential non-users where applicable.

Monitoring and evaluation would yield many benefits which include to:

- Ensure strategic target compliance with the national eGovernment strategy as outlined in the NDEPS 2020-2030;
- Align State Government MDAs around standards and best practices;
- Ensure transparency and accountability;
- Measure effectiveness and efficiency of implemented services and projects;
- Ensure alignment with the strategic goals and objectives from which the project was derived;
- Promote knowledge sharing and usage of reusable components;
- Identify potential development and enhancement projects;
- Monitor overall progress against targets; and
- Take corrective actions.

2.1.6 Pillar #6 - Collaboration and Partnership

Although eGovernment has chalked significant gains in matured economies, this is yet to be fully realized in emerging economies. One of the major reasons why eGovernment projects have not been so successful in emerging economies has been due to the lack of collaboration and partnership among the multi-stakeholders required to actualise efficient eGovernment.

Collaboration and cooperation at Federal, regional and State levels, as well as between public and private sectors, are important elements in the eGovernment development process.

Collaboration between the private and public sectors is particularly important to provide resources, skills and capabilities that the Government may lack.

The IDEA 2022-2026 envisages an eGovernment model that focuses on the partnership among stakeholders in the knowledge-based development program. The IMDEEG would play the role of facilitator and encourage the private sector to participate in the eGovernment development and implementation.

The IDEA 2022-2026 recognises that the role of political leadership in setting the larger vision for all the programs in the eGovernment implementation cannot be understated. It is crucial to ensure collaboration among various Ministries, Departments and Agencies of the State Government and provide the impetus for a radical review of existing processes and systems, and build capabilities.

The vision should be concrete and set ambitious targets backed by senior leadership. This would provide the necessary support to cut through complexities that have crept into Government through the years and to cater to various stakeholders for political and administrative considerations.

The various stakeholders in the eGovernment rollout include the Government, private sector, non-governmental organisations, academia, the third sector, community associations, citizens and residents in Imo State.

Such a multi-stakeholder partnership would have its complexities which may appear impossible to cut through even when the advantages of collaboration are glaring.

Implementation Partners

CHAPTER THREE

3.1 Work Streams, Responsibilities, Timelines and Expected Outcomes

S/N	Work Stream	Description	Responsibility	Timeline	Expected Outcome
1.	Training & Capacity Building of 100,000 Imolites on Digital Literacy and Skills Entry Level of Digital Skills - required to make basic use of digital devices and online applications - widely considered as a critical component of the new set of literacy skills in the digital era Advanced Spectrum of Digital Skills - that allow users make use of digital technology in empowering and transforming ways such as professions in ICT.	Skills to Job Programme Talent Bridge Programme- Re-skill & Up-skill Digital Entrepreneurship Programme – Be Your Boss Challenge-driven Hackathons and Code Camps Skill-up Imo Programme Build capacities on emerging technology	IMDEEG	Q4, 2023 to Q4, 2024	Improve digital inclusion; Improved push-pull effects of digital skills and competence, ICT enabled social economic growth & development. 60% of the graduands linked to high paying jobs 40% of the graduands become their own bosses. Increased number of innovative products and services from Imo state. Increased inflow of Venture Capital (VC) funding to digital SMEs (Startups) in Imo state

2.	Upgrade and Consolidate all Government Soft Infrastructures	Design, Development and Management of Single Window Portal for G2G, G2B, G2E and G2C systems for enhanced Digital Government services. Training and capacity building of MDAs staff to promote the use and adoption of the Single Window Portal	IMDEEG	Q4, 2024	Deployed and adopted Single Window Portal in Imo State. Skilled workforce across MDA on the use and administration of the Single Window Portal. Digitized and Automated MDAs and improved public service delivery, IGR, FDI inflow.
3.	Facilitate Broadband Penetration across LGAs in Imo State	Crowd source Broadband penetration coverage & efficiency across all villages, towns in Imo State to establish and address coverage gaps	IMDEEG	Q4, 2023-Q1, 2026	Database on unserved and under-served communities in Imo State. Database on Broadband access gap in Imo State.
4.	Facilitation and Deployment of a State-owned Fiber highway	Strategic deployment of a fiber network to interconnect communities, business districts and LGAs	IMDEEG and Subsidiary Agency.	Q3,2023-Q4-2025	Improved Broadband penetration and coverage. Increased adoption of e-Government platforms Improved digital and literacy levels in Imo State.
5.	Advocacy, Awareness and Publicity Campaigns	Publication of progress reports and awareness campaigns on projects and programmes via traditional, electronic and social media	IMDEEG and Partners.	Continuous	Increased citizen awareness level on Government's digital programmes and projects.

6.	Monitoring and Evaluation	Develop M&E Framework and KPIs for projects and programmes	IMDEEG and Partners	Continuous	Quality project delivery and sustainable Digital Economy and eGovernment services in Imo state.
7.	Collaboration and Partnership	Improve collaboration with local development partners Improve collaboration with international development partners improve operational efficiency and build trust collaboration across MDAs Establishment of co-working spaces and other enabling facilities for Imo tech Startups Organize high-level mentorship and acceleration programmes for tech Startups	IMDEEG and Partners	Continuous	Sustainable strategic partnership with innovation digital enterprises, digital SMEs and technology hubs. Strategic partnership with international tech companies, MDAs and development partners. Reduced operational overlap, increased synergy between MDAs Prompt implementation & alignment with Federal and State Executive Orders. Reduced early stage StartUp development challenges

3.2 Programmes and Initiatives

The development of the Imo Digital Economy will create new technological platforms and industries on one hand, while enhancing the efficiency and productivity of existing industries on the other. Given the global adoption of digital technology, it has become clear that every State stands to benefit from it. States that have adopted digitisation tend to have the best rewards.

It is important to note, though that Imo State needs to adapt these digital technology to match the State's specific context in order to maximize the benefits. The successful and sustainable adaptation of technology requires that Imo State plays to her strengths and mitigate the associated risks.

Worldwide, the youth are usually the enablers of any digital revolution. Therefore, with a population having an average age of 18 years and with 60% of the State represented by youth, it indicates that Imo State is ready to be the foundation of Nigeria's Digital Economy. With Imo State being one of the five States of the Federation inaugurated as members of the Presidential Council on Digital Economy (PCDE), the State is favourably positioned to reap the rewards of the Internet economy.

The huge budding literate youth population has the potential to make Imo State the Digital Economy capital of Nigeria and can propel the nation to a position of digital leadership on the continent. Leveraging that, Nigeria can pilot the continent-wide Digital Economy drive under the African Continental Free Trade Agreement (ACFTA).

Fittingly, the unveiling of IDEA and its commencement coincide with the Digital Nigeria Day period. In step with the United Nations Resolution A/RES/65/141 designating 24 October as World Development Information Day, Digital Nigeria Day has been designated for the same day annually. Every State is expected to mark Digital Nigeria Day to underscore the value placed by the Federal Government on information and communications technology as key to unlocking the potential of the Digital Economy in Nigeria.

Digital Nigeria Day provides an opportunity to identify and promote success stories and leading lights in the expansion of Nigeria's Digital Economy. It focuses on all strata of society including young innovators, elderly people and the physically challenged.

3.2.1 SkillUp Imo

The SkillUp Imo Project is the premier human capacity development programme of IDEA 2022-2026 which is focused on empowering Imolites with cutting-edge digital skills that would keep them gainfully engaged and relevant in the 21st century.

By combining hard technical skills with soft employability skills, SkillUp Imo will groom well-rounded professionals who can ply their trade at any level in the local and global digital economy.

The scheme has the target to train 300,000 Imolites over the next three years to drive ICT-enabled social economic growth and development in the State.

They will be trained in entry and advanced level digital skills in diverse technology-rich areas including, but certainly not limited to:

- Computer Appreciation
- Device Repairs and Maintenance
- Content Creation
- Web Design and Development
- Internet of Things (IoT)
- Machine Learning (ML)
- Artificial Intelligence (AI)
- Big Data Analytics
- Cybersecurity, among others

Expected Outcomes

- Train 300,000 Imolites over 5 years, with 100,000 trained in the first year;
- Connect 60% of the graduands to high-paying jobs;
- Empower 40% of the graduands to be their own bosses, becoming tech entrepreneurs and launching their own companies;
- With the growth of tech Startups, attract and increase the inflow of Venture Capital (VC) funding to digital SMEs (Startups) in Imo state;
- Drive ICT-enabled social economic growth and development; and
- Increase the number of innovative products and services from Imo state.

3.2.2 Challenge-Driven Hackathons

Developing local solutions for social and business problems requires creativity, skills, finesse and a deep understanding of the issues. The challenge-driven hackathons are designed to foster innovation, entrepreneurship and the StartUp economy. It will bring together some of the brightest young minds to brainstorm and create tech solutions to known problems over a short period of time.

The hackathons will promote camaraderie and creativity geared to midwife Startups and businesses that will provide sustainable solutions to targeted problem areas. The hackathons will contribute to the Digital Economy by providing a means of translating the knowledge, skills and creativity of young Imolites into valuable processes, products and services.

Tech enthusiasts and other stakeholders with novel ideas and tech solutions to industry and societal challenges will showcase their creative innovations using the hackathons. This will stimulate product development from ideation to minimum viable product (MVP).

Expected Outcomes

- Create indigenous innovative products addressing domain-specific challenges;
- Provide jobs and tackle the high rates of unemployment, especially amongst the youth;
- Generate revenue for all stakeholders, including the people and the government; and
- Create a platform for interaction between Startups and Venture Capitalists, helping create access to funding and encouraging continued innovation amongst the Techpreneurs

3.2.3 Skills to Jobs (STJ) Programme

As the Internet opens up immense social, economic, cultural and political opportunities, it is important to ensure that these opportunities are equally available to Imolites. The Skills to Job program is a comprehensive pipeline for connecting trained Imolites to jobs commensurate with their skills.

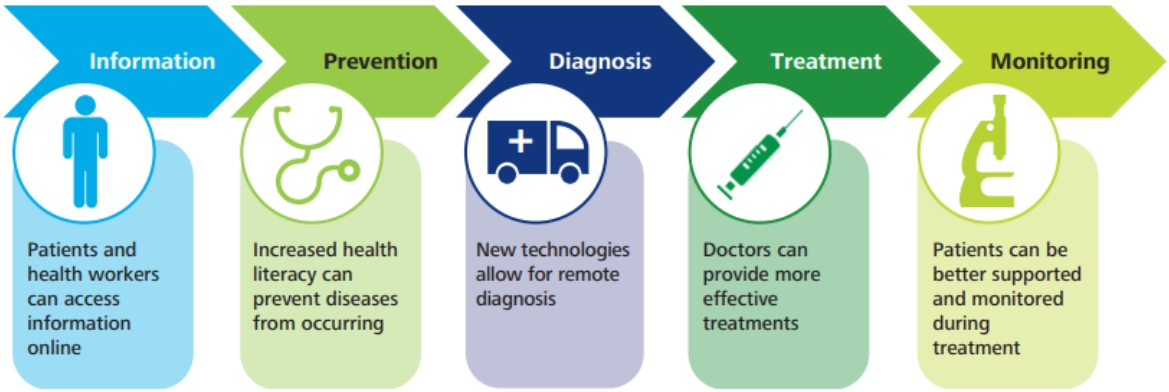
The STJ Programme complements the SkillUp Imo project by empowering Imolites with outstanding skillsets to become well-rounded job-ready professionals.

Leveraging a world-class training curriculum, delivered by professionals and vetted experts in the industry, the STJ program will equip graduands with the relevant resources and career support to get in-demand, high-paying jobs.

Expected Outcomes

- Enhanced employment opportunities with local private companies and government institutions;
- Linkage to remote outsourced jobs;
- Umbrage to launching Startups and MSMEs

Figure 6: Use Cases of Digital Technology - Medical



3.2.4 Digital Entrepreneurship

The Digital Entrepreneurship program has a singular focus of empowering Imolites with the skills and mindset to launch and manage innovation-driven Startups.

The program will enhance the ability of these Startups to leverage technology to gain competitive advantage, disrupt traditional industries, reach new markets, target a specific niche market and broaden their horizons and scale massively.

Expected Outcomes

- Establish a State platform for innovation, communication and learning;
- Encourage Imolites to imbibe the spirit of entrepreneurship platformed on emerging technology;
- Foster digital technology breakthroughs that focus on the welfare of the people;
- Collaborate with leading institutions and companies specialised in the field of technology innovation;
- Create smart livable and resilient cities in Imo State to achieve full ICT enablement of critical infrastructures and resources to boost efficiency, availability, and resilience;
- Engender competitive economy in Imo State powered by disruptive technology - leveraging ICT innovations as means to digitally transform strategic economic sectors and pioneer new sectors of economic development and engagement;
- Build an interconnected society with easily accessible social services - embracing technology to streamline social, cultural, education, and healthcare experiences in Imo State and facilitate inclusive and effective participation of stakeholders in governance;
- Pioneer smart innovative mobility solutions for a seamless and safe transportation experience in and around Imo State;
- Nurture a clean environment enabled by cutting-edge ICT innovations - to digitally transform utilities, manufacturing, transportation, and waste treatment sectors to reduce the State's carbon footprint for a cleaner, healthier environment; and
- Promote a digital, lean connected Imo Government - to be a Government that provides all eligible public services through digital channels.

3.2.5 Talent Bridge Programme

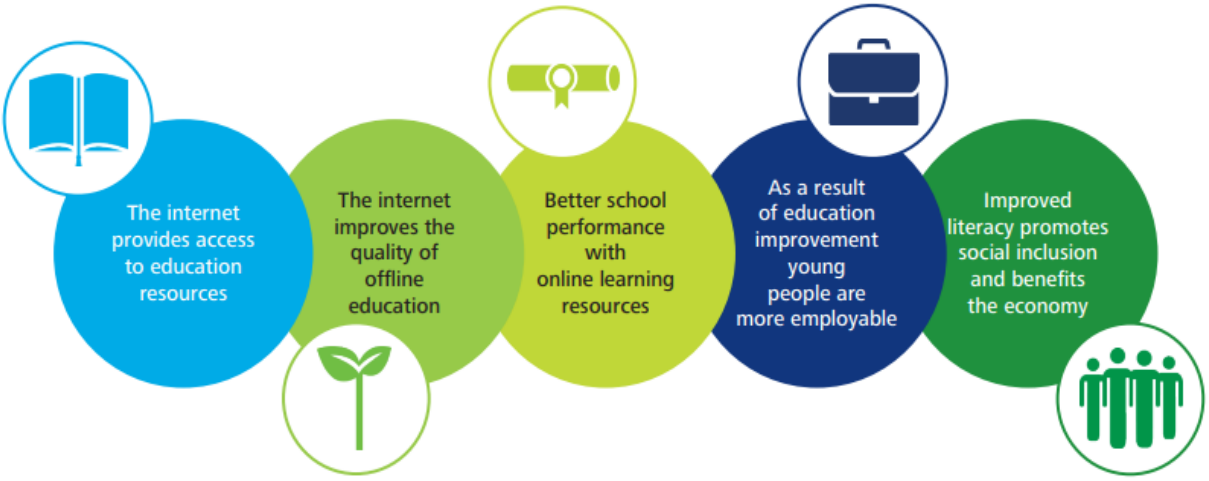
The backbone of the government is a functional civil service. It is therefore expedient that civil servants acquire skills which are relevant in the ever-changing digital landscape of the 21st century.

The Talent Bridge Programme will prepare talented individuals to join the digital workforce and provide immediate value to employers thereby narrowing the gap between employers and talent. This unique platform will match candidates' qualifications with the needs of employers simplifying the hiring and job search process.

Expected Outcomes

- Reskill trainees through the teaching of new sets of tech skills;
- Upskill workers by empowering them with additional skills to be better equipped with modern skills which will enhance their sense of self-worth;
- Improve workers' efficiency and amplify their contributions to the civil service; and
- Provide employability skills for Imolites especially soft skills such as collaboration, teamwork, job search, interview etiquette and resume preparation.

Figure 7: Use Case of Digital Technology - Education



3.2.6 Facilitation of Broadband Penetration across LGAs in Imo State

Broadband Internet is the bedrock of the Digital Economy. Broadband technology has revolutionized the way services are provided and businesses are conducted. By improving communication and the flow of information, Broadband enhances efficiency, thus, enabling significant advances in the ability of Imolites to compete in the global economy.

This facilitates job creation, decreases healthcare costs, reduces miles driven and fossil fuels consumed, expands consumer choice, and improves competition. As the technology supporting broadband connectivity continues to grow, so do the benefits of getting connected. The IDEA 2022-2026 will push for Broadband penetration across all the LGAs in Imo State

Underserved and unserved locations in Imo State will receive special focus via private sector partnerships and deployment of state-owned fibre highways.

Expected Outcomes

- Improve broadband penetration and coverage;
- Improve remote working opportunities enabling Imolites to live and work in locations of their own choosing;
- Boost local entrepreneurship;
- Facilitate access to more and better online education; and
- Connect the unconnected Imolites that live in remote, rural areas.

3.2.7 Mentorship & Incubation Programmes

Many early-stage Startups may have limited knowledge in crucial areas which could prevent them from growing their business, refining their value propositions, and finding opportunities for collaboration, market access and funding. The Mentorship Programmes would provide an avenue for building genuine relationships to help entrepreneurs grow their Startups into prosperous businesses. The mentors will be able to guide, advise, coach, and advocate throughout the entire process of mentorship.

Not every entrepreneur has the skills to turn their inventions into a business, that's where the Incubation programmes come into their element. The Incubation component would provide the tools, guidance, support, and feedback that the Startups need to germinate and thrive.

To ensure business continuity and sustainability, required support in the form of prizes and grants may be provided to participating MSMEs and Startups.

Expected Outcomes

- Provide guidance, identify needs and grow connections to help entrepreneurs and organisations expand;
- Encourage the development of new businesses and foster local development;
- Support Startups to hone and enhance their management skills;
- Help entrepreneurs create new businesses from innovative concepts and technology, and in the process create new jobs and opportunities;
- Provide a nurturing environment that facilitates the development of a business from ideation to commercialization of a product or service and, ultimately, to market success;
- Provide Startups with access and exposure to industry leaders, networking opportunities, and access to funding;
- Provide MSMEs with the necessary resources and skills needed for fast and effective growth;
- Engender peer-to-peer learning among Startups in a structured environment; and
- Connect with entrepreneurs with aligned investors who will support their entrepreneurial journey.

3.2.8 Facilitation and Development of a State-owned Fibre Highway

The state-owned fibre highway will be an effective solution for delivering high-speed public broadband services in areas with limited Broadband coverage. The facilitation is aimed at encouraging participation from service providers – potential and incumbent - incentivising them to invest in the subsector.

Even though building and managing a fibre network independently can be very challenging, the benefits are numerous. This will give a fillip to the infrastructural revolution being executed by the Distinguished Senator Hope Uzodinma's administration.

The state-owned fibre highway would create a level playing field for subscribers and provide a competitive marketplace in which consumers have a choice over who provides their Broadband services. As a result, Imolites will have access to high-speed Broadband Internet at a lower cost than they would otherwise; thus further bridge the digital divide as more households gain access to Broadband Internet.

Expected Outcomes

- Will help promote state-wide economic development;
- Will give widespread access to fast internet enabling businesses everywhere in Imo State to participate in the Digital Economy;
- Will improve the ability to closely benchmark the services provided by participating ISPs; and
- Will improve Broadband penetration and coverage thereby enhance digital inclusion.

3.4 Key Performance Indicators (KPIs)

The IDEA 2022-2026 aims to provide 95 per cent of the public services through a single digital platform, design 95 per cent proactive digital services, design 100 per cent services in partnership with all sectors of the community and ensure that by 2026 all Imo State Government services will be accessible digitally from anywhere and at any time with 100 per cent public, business and employee satisfaction.

Table 6: Key Performance Indicators and Targets

Main Indicator	Sub indicator	Target by 2026
Public Satisfaction	Citizens' satisfaction towards eGovernment Services	100%
	Businesses' satisfaction towards eGovernment services	100%
Job Satisfaction	The extent to which workers are happy or content to use digital tools in the discharge of their functions	100%
Complete Digital Transformation	Percentage of services listed on the unified eGovernment platform	95%
	Percentage of services digitised (end-to-end)	95%
	Services that require personal verification offer a digital option	90%
	Services that require a manual signature offer a digital option	90%
Digital Capabilities	Number of workforce in the Imo State Government service trained on eGovernment capabilities and standards	80%
	Number of Imo State Government workforce that has basic digital knowledge	80%
	The number of workforce in Imo State trained in modern technology (such as Blockchain, Artificial Intelligence, Machine Learning, etc.)	75%
Digital Adoption	Percentage of transactions completed digitally end to end	80%

3.4.1 Key Implementation Enablers

The IDEA 2022-2026 advances the vision that the delivery of government services should no longer rely on physical offices and thousands of employees, but on advanced systems and innovative minds. The rate of smart transformation will increase dramatically in the delivery of Imo State eGovernment services with the following enablers in place.

Table 7: Key Performance Enablers

Enabler	Definition
Leadership	Leaders of the MDAs are the stewards of the digital transformation efforts. They must engage, motivate, build commitment, and mobilise resources for the successful implementation of a digital Imo.
Strategy	Strategic plans help to execute the transformation agenda. IDEA 2022-2026 beams the torchlight on the strategic actions to be taken to pursue the digital transformation goals.
Governance	The organisational capacity, decision-making rules and managerial actions developed to overcome potential barriers in implementing the digital strategy across MDAs. Good governance must be aligned with strategic goals and the eGovernment framework.
Legal Framework	The legislation, administrative regulations, guidelines and standards that the MDAs must comply with in transitioning to digital services.
Technology	Emerging technology that directly and indirectly contributes to the delivery of programs and services through eGovernment platforms.
Cybersecurity	Cybersecurity is crucial for secure eGovernment. With more services made available online, there is a need to increase security mechanisms to ensure the protection of sensitive information, including private citizens' data.
MDA-specific	These are items specific to each MDA and they reflect some primary functions as well as the most important information and services provided digitally by the specific MDAs.

CHAPTER FOUR

4.1 Conclusion

In a world that on a daily basis is changing so rapidly, the Imo State Government of the future ought not to be an end state but rather a continuously changing ecosystem that must evolve with the needs of Imolites.

Businesses, residents and citizens of Imo State will not want reactive and repetitive public services in which most services are initiated by them oft times requiring entering data for each application. They will want proactive and dynamic public service delivery.

Through bold strategies, strong leadership, new ways of working and changes in the way services are delivered, the Imo State Government has started to lay a solid foundation for that future. On this journey, there are significant challenges that must be overcome.

Data integration is one of the challenges, as the alignment of different data models and legacy systems into new architectures requires tremendous leadership effort and investment in infrastructure.

The challenge of information hoarding which manifests in the reluctance observable in the different arms of the public service to share information with one another or with service consumers often results in strategies that deny access to information and the creation of government ministries' websites that contain insufficient content or information of little or no value.

There is also the almost perennial issue of digital and infrastructure divide in the form of low information technology literacy and uneven distribution of Internet facilities, high cost of connection and in some places low penetration of high-speed Broadband Internet. The digital gulf between the urban rich and the urban poor; the rural and urban citizens; and, the IT literate and the illiterate which is exacerbated by the language in which website content is delivered is also a challenge which the eGovernment must address.

Advancing toward an agile eGovernment delivery platform requires developing a trusted relationship between Imolites and the Government built on transparency, data security, and privacy management.

Despite these challenges and considering the benefits of a functional eGovernment, the future potential of a fully immersive Government, and the risks of maintaining the status quo, inaction is not an option in the digital age.

Imolites have the potential to benefit from the eGovernment as new and promising service delivery trends, private sector–involved operating models, and enabling digital technology to emerge.

Implicit in these benefits is the ability of the State Government to focus on the core responsibilities of strategizing, setting policy, and developing measured regulations.

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