



National Data Strategy (NDS)

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Table of Contents

Abbreviations	3
Definition Of Terms.....	4
Ministerial Directive.....	7
1.0 INTRODUCTION	9
1.1 Background	9
1.2 Why the National Data Strategy?	10
1.3 Challenges and Opportunities	11
1.4 Data Definitions	14
1.5 Strategic Context	15
1.6 Strategy Development Method	16
1.7 The Scope and Applicability	16
2.0 NDS ASPIRATIONS (2022 and 2030).....	18
2.6 Specific Objectives.....	20
3.0 NDS PILLARS.....	21
4.0 NDS ENABLERS AND DRIVERS	26
5.0 NDS GOVERNANCE AND ECOSYSTEM	28
5.1 NDS Governance Structure	28
5.2 NDS Ecosystem.....	30
5.3 The National Information Technology Development Agency	31
6.0 NDS IMPLEMENTATION STRATEGY	33

Abbreviations

B2B	Business to Business
B2C	Business to Citizens
DGC	Data Governance Committee
DSC	Data Steering Committee
FCCPC	Federal Competition and Consumer Protection Commission
FMoCDE	Federal Ministry of Communications and Digital Economy
G2B	Government to Business
G2C	Government to Citizens
G2G	Government to Government
GBB	Galaxy Backbone
MSMEs	Micro Small and Medium Enterprises
NBS	National Bureau of Statistics
NDEPS	National Digital Economy Policy and Strategy
NDPB	Nigeria Data Protection Bureau
NCC	Nigerian Communications Commission
NDS	National Digital Strategy
NERDC	Nigerian Educational Research and Development Council
NIMC	National Identity Management Commission
NITDA	National Information Technology Development Agency
NNBP	Nigerian National Broadband Plan
NOA	National Orientation Agency
NPC	National Population Commission
OECD	Organisation for Economic Co-operation and Development
OHCSF	Office of the Head of Civil Service of the Federation
ONSA	Office of the National Security Adviser
OSGF	Office of the Secretary to the Government of the Federation
UNCTAD	United Nations Conference on Trade and Development

Definition Of Terms

5G: refers to fifth-generation communication networks.

Artificial Intelligence (AI) means the creation of intelligent objects that work and react like humans to carry out certain tasks meant for intelligent beings without human intervention.

Broadband refers to a high-speed data link or Internet.

Cybersecurity refers to the implementation of strategies for the preservation of confidentiality, Integrity (authenticity and non-repudiation), and availability of data in cyberspace.

Data: refers to elements of information represented in the form of text, drawings, pictures, audio and video.

Data Management The careful handling and treatment of data as valuable and useful resources. It focuses on the competencies involved in working with data

Digitalisation refers to the use of digital technologies to change a business model and provide value-producing opportunities; it is the process of moving to a digitally enabled way of conducting business.

Data Literacy refers to the ability to read, understand, create, and communicate data as information.

Data Mining refers to the process of sorting through large data sets to identify patterns and relationships that can help solve business problems through data analysis.

Data Privacy means the ability of a person to determine for themselves when, how, and to what extent personal information about them is shared with or communicated to others.

Data Protection refers to the set of strategies and processes used to secure the privacy, confidentiality, availability, and integrity of data.

Data Visualization refers to the graphical representation of data such as graphs, maps and charts.

Digital Identity means representation of a person's unique attributes on a computer, databases and online platforms.

Digital Literacy refers to an individual's ability to find, evaluate, and communicate information through typing and other media on various digital platforms.

Government Data refers to the data produced or commissioned by government or government-controlled entities.

Information Security means the preservation of confidentiality, Integrity (authenticity and non-repudiation), and availability of data.

Integrated Government Digital Infrastructure (IGDI) refers to the centralised domiciliation of all government digital infrastructure for the purpose of achieving lower cost of operation, increased efficiency, improved accountability and increased productivity.

Internet of Things (IoT) refers to the combination of concepts and technologies for embedded computer systems and the internet into all the artefacts/physical things in the real world in order to automatically collect, communicate and exchange data with one another through digital platforms. Digital platforms have the ability to analyse the data and assist humans in automatic decision-making and action-taking.

Machine Learning (ML) means algorithm and programming that provides AI with the ability to detect patterns in the data presented by smart systems, so as to learn from these patterns and improve actions from experience without human intervention.

MDA means the Ministries, Departments and Agencies of the Nigerian Government.

Micro, Small and Medium Enterprises (MSMEs) refer to enterprises which have an annual turnover not exceeding Five Hundred Thousand Naira (N500,000).

National Database includes a collection of data related to the whole country that is organised and stored in a computer system.

Public Institutions (PIs) include Ministries, Departments, Extra-Ministerial Departments and Agencies of Government at the Federal, State and Area Council levels.

Security Operating Centre (SOC) refers to a centre dedicated to monitoring, preventing, detecting, investigating, and responding to cyber threats.

Ministerial Directive



President Muhammadu Buhari, GCFR, mandated the Federal Ministry of Communications and Digital Economy and all its parastatals to facilitate the use of digital technology and innovations to expand and drive every sector of the economy. This is a herculean task and must be accomplished by taking a holistic and inclusive approach.

The use of technology in business has a crucial role in shaping economic and social systems. Digitalization is yielding vast quantities of data, which offer a wealth of possibilities for businesses, citizens' well-being and the environment.

Data has become a "new factor of production" and this is reflected in how it is changing business models, industry boundaries, market structures, and economies. Government can open new possibilities for beneficial economic and social outcomes using data by adopting a granular data-driven understanding of the social and economic challenges in infrastructure, public service delivery, businesses, industry value chains, communities, individuals or complex natural ecosystems and materials.

To position Nigeria as one of the top leaders in the global data economy Nigeria and to ensure the implementation of the Presidential directive, I have directed the National Information Technology Development Agency (NITDA) to develop the National Data Strategy (NDS). The outcome of the NDS will ensure that Nigerians reap the benefits of a data-driven economy in terms of improved service delivery, job creation, improved security, reduced corruption and general advancement of the country.

I am happy that NITDA has developed a Nigerian National Data Strategy that is all-inclusive, ecosystem-driven and in line with the National Digital Economy Policy and Strategy for a digital Nigeria. The implementation of the NDS will not only allow the country to harness the potential of data for innovation but also increase the economic and social values of data for sustainable national development

I commend the Director General of NITDA and the staff of the Agency who participated in the development of this strategy. I seek the support of all relevant stakeholders in the implementation and realisation of this Strategy. I believe that its implementation will impact our digital economy and thus expand the entire Nigerian economy for the benefit of all.

Prof Isa Ali Ibrahim Pantami, FNCS, FBCS, FIIM

Honourable Minister, Federal Ministry of Communications and Digital Economy

1.0 INTRODUCTION

1.1 Background

Data management has long been a critical factor in the production of goods and services and key features of the economic and social system. Data as a critical factor of production complements labour and physical capital. Unlike capital or labour, data is non-depletable; the use of data by many does not diminish its quantity or value but rather increases its value. The genesis of value creation lies in the extraordinary amounts of detailed machine-readable information available about practically everything. This digital data arises from the digital footprints of various personal, social and business activities taking place on digital platforms that increasingly form the digital substrata of economic and social activity in virtually every sector.

In the modern digital age, value is created through the production, analysis, transmission, distribution and consumption of digital data and this is referred to as the data economy. The non-depletable property of data and its use by many may increase its value and millions can use it simultaneously. The data value chain includes data acquisition (to provide new sources of data), data storage and warehousing, data modelling and analysis/mining, data visualization, data transmission and data protection. The outcome of this value chain is “digital intelligence” that aids informed decision-making and innovation efforts. The UNCTAD 2019 digital economy report confirmed that value creation arises once the data are transformed into digital intelligence and monetized through commercial use. Therefore, productivity in the digital economy is determined largely by the appropriate application of digital intelligence in different use cases. This digital intelligence is the “digital capital” of today. The economic value of this digital capital is generated through different forms of data monetization in today’s hyper-connected society. It is obvious that data is the major source of wealth in the digital age. The data economy, as the main driver of the digital economy, is driving rapid advances in machine learning, artificial intelligence, Big Data analytics and automation. The World Economic Forum states that the global data economy is pegged at US\$3 trillion. This shows that the global data economy is growing at an exponential rate.

It can then be concluded that if the huge data generated in the public and private sectors in Nigeria can be smartly utilized through the National Data Strategy

(NDS), it has the potential of bringing a transformative effect on the country's social development and economic growth while creating new opportunities for sustainable national development and prosperity.

1.2 Why the National Data Strategy?

The world is witnessing the increasing influence of data in the data-driven economic growth model. Despite this opportunity, there are also growing concerns over data protection where participants in the data economy can face chronic trust deficits, insecurity and privacy breaches. This means that the world is confronted with two major challenges: **data utility and data protection**. While data utility spurs innovations and enables social and economic growth, data protection on the other hand ensures that personal or sensitive data is handled securely and that the privacy of citizens is protected. It is not until data is approached in this dichotomy that the benefits can be maximized.

Nigeria has made significant progress in the area of data protection and privacy with the launch of the Nigeria Data Protection Regulation (NDPR) in line with the global phenomenon of protecting the sanctity of personal data. This progress has seen the rise of a new economic sector which necessitated the creation of a dedicated Agency -the Nigeria Data Protection Bureau (NDPB) from the National Information Technology Development Agency (NITDA) by the Federal Government of Nigeria through the Ministry of Communications and Digital Economy (FMoCDE). Expanding effectiveness in data utilization, and data protection, as well as deepening the achievement recorded by Nigeria can be realized only if there is a national strategy or plan to make optimal exploitation of the opportunities the data economy presents.

Given the two dimensions of data and the need to close the gaps, NDS has been developed as an **overarching strategy** to provide an enabling environment for data protection and data utility. The Strategy provides action plans that ensure the personal data privacy of Nigerian citizens and citizens of other countries are adequately protected. The strategy also provides an enabling environment that makes data a major driver of the country's innovations, productivity and performance, digital services, job creation, global competitiveness, social development and economic prosperity. It is a strategic document that provides direction on how data will impact and shape the future of Nigeria positively as

economic activities shift to the digital space, grow the domestic data market, and significantly contribute to the country's policy formulation and implementation in socioeconomic space.

In the digital economy journey of Nigeria, NDS presents opportunities to drive the adoption and use of digital technologies especially, emerging technologies for data collection, validation, storage, analysis, transmission, protection and reporting to enhance research and innovations, digital services, digital economy, job creation, improved quality of life, social and economic growth and prosperity, global competitiveness and sustainable future development.

The NDS is positioned to drive Nigeria's transformation where every Nigerian, the Government and the Private sector could harness the power of a data-driven society for personal and sustainable national development securely and safely, given the importance of data as a new economic resource for value creation.

1.3 Challenges and Opportunities

Nigeria as a country share with the rest of the world same or similar opportunities and challenges associated with data and the data-driven economy. Significant consideration will be given to the challenges and opportunities while defining strategic aspirations, enablers, and initiatives for implementing NDS. NDS is to turn the challenges into opportunities and leverage the opportunities to optimize Nigeria's participation in the data economy while maximizing the value of data to boost the country's digital economy.

1.3.1 Challenges

NDS recognises the following as challenges limiting Nigeria from fully participating in and taking advantage of the data economy:

Culture: Culture has to do with the natural tendency of the entities in the public and private sectors to keep data to themselves and prevent it from being used and reused. It is believed that Data is a power which should not be relinquished easily. The NDS implementation will do a lot around mindset change and awareness creation about the importance of data utility and open data for increased value creation for original data owners and potential users.

Trust: There are generally trust deficits around data protection, privacy, breach, and security by consumers in the digital economy space and the general populace. To ensure that trust is built, the implementation of NDS will put in place mechanisms that would guarantee consumer protection, data privacy and security as well as reduce the promotion of monopoly and anti-competition.

The dominance of Data-haves: The Government agencies in charge of data collection, big companies in the private sector, multinationals, and development partners by their mandates and services are controlling the data space. This makes it difficult for smaller firms to effectively compete with data, allowing these data-haves to maintain or even expand their dominance in the market. NDS is aimed at building a data economy environment where smaller firms and MSMEs will also have access to data in the hands of the data haves. Strategies and actions will be orchestrated to ensure this is done in a mutually-benefiting manner for exponential value for all including the citizens.

Meeting Requirements of the Global Data Economy: The world is promoting data privacy on one hand and cross-border data flows on the other hand. There is a huge challenge in balancing the two competing requirements. The digital infrastructure and capability required in Nigeria would be strengthened to meet and balance these global requirements. NDS is aimed at building digital infrastructures such as cloud computing, edge computing, fibre optic etc. and the capability required at making Nigeria the most data protection and cross-border data flow country on the continent of Africa.

A Single Harmonized and Integrated National Database: A single and harmonized database of citizens in Nigeria and other national data is a core requirement for the successful implementation of the NDS. Harmonization is required to aid effective and efficient service delivery, humanitarian support and social development programs, and national security enhancement among other benefits. Promoting the harmonization of databases to take advantage of the data economy and digital economy at large will be one of the focuses of NDS implementation.

Data Literacy, Capabilities, Intelligence and Insights: Data literacy and capabilities are required to use tools and technologies that make data collection efficient and allow data to be converted into intelligence and insights that create

increased value is a challenge. NDS will ensure data literacy and capabilities are available to promote effective data management in areas of data collection, storage, security, protection, privacy, analysis, intelligence and insights. It is to spur capabilities in the areas of emerging technologies such as Artificial Intelligence (AI), Machine Learning (ML), Deep Learning, Advance Analytics, Big Data, and Blockchain among others.

Digital Identity: One of the fundamental infrastructures for the digital economy is digital identity. The huge potential of the data economy cannot be fully tapped if a significant section of the population is excluded. The total number of unique records as of November 2022 was about 90 million out of over 200 million Nigerians. This will hamper the growth of the data economy. The NDS is aimed at ensuring the creation of unique records of identity for all citizens by facilitating the expansion of the infrastructure needed to provide identity registration.

1.3.2 Opportunities

There are quite a few opportunities that Nigeria could leverage to accelerate its participation in the data economy optimally. These opportunities will be key incentives to drive the implementation of NDS.

Population: Nigeria is the most populous country in Africa and the sixth most populous country in the World. The United Nations on its Worldometer confirmed that Nigeria's population is about Two Hundred and Eighteen Million (~218,073,724) as of Friday, November 4, 2022. With the figures from the Nigeria Bureau of Statistics (NBS) and Nigerian Population Commission (NPC), about half of the population is youth. This is a key driver of social and economic activities in the digital age. The need to provide services for the teeming population is driving and will drive more data activities by the Government, private sector, civil society, and development partners.

Increase in mobile and broadband penetration: The increase in the number of mobile phones and smartphone users (198 million GSM active lines as of 2020) is driving broadband penetration (which is at 44.5% in July 2022 by Nigeria Communications Commission -NCC) in the country and creating huge digital content and footprints within and outside Nigeria. This drives the creation of a

massive amount of digital data every second. These footprints and content present opportunities for a viable data economy in Nigeria.

Increase in digital platforms and services: New platforms are coming up within the country to provide different services in the digital space. This provides opportunities to capture value from data utility on the one hand and data protection on the other.

Digitalisation and Digital Transformation Wave: The increased digitization of data is promoting the digitalisation of different sectors and industries. The more data is digitized the more value will be created. This is driven by the global and national digital transformation wave.

1.4 Data Definitions

NDS adopts the definition of data from the Information Science Literature. Data is described as part of a hierarchy linked to information and knowledge.

NDS defines data to include the following:

1. unfiltered symbols or signals that are generated from all things (living or non-living) that belong to Nigeria;
2. collected either through a physical or digital method from the activities of the Nigerian Government, private businesses, development partners, multinationals and/or individuals within or outside of Nigerian territory;
3. converted to digital formats and transformed into information through computing activities;
4. the information is used to support people's experiences, skills, thinking models, and decision-making processes which can lead to products and services among others; and
5. contributes to a body of knowledge in research and innovation that can be used and reused by humans for governance and business performance, improvement of social and economic activities and sustainable development.

The NDS broadly classifies data, either at rest, in motion or in use, as follows:

1. personal or non-personal data;
2. private and public data;

3. data for commercial purposes, governmental and development purposes in different sectors and industries;
4. real-time data collected from sensing technologies;
5. data used by companies, including corporate data, human resources data, technical data and merchant data;
6. non-structured and structured data;
7. instant and historic data;
8. volunteered, observed and inferred data;
9. sensitive and non-sensitive data about the country; and
10. business to business (B2B), Business to Consumer (B2C), Government to Consumer (G2C) or Consumer-to-Consumer (C2C) data;

1.5 Strategic Context

The NDS defines clearly why Nigeria should participate in the data economy, and the challenges limiting Nigeria from maximizing the opportunities in the data economy to create values that contribute positively to innovations, sustainable economic growth and social development. The NDS has taken the following into consideration among others:

1. National Digital Economy Policy and Strategy (NDEPS) 2020 – 2030
2. Nigerian National Broadband Plan (NNBP) 2020 - 2025
3. National Development Plan (NDP) 2021 – 2025
4. Nigerian Data Protection Regulation
5. National Cloud Computing Policy
6. Nigeria e-Government Interoperability Framework (Ne-GIF)
7. Nigeria Open Data Policy (NODP)
8. Nigeria Mobile Big Data Policy (NMBDP)
9. Nigeria Digital Economy Ecosystem Development Strategy (N-DEEDS)
10. Digital Economy Report 2019- Value Creation and Capture: Implication for Developing Countries
11. Digital Economy Report 2021- Cross-Border Data Flows and Development: From Whom the Data Flow
12. World Development Report 2021: Data for Better Lives
13. African Union Data Policy Framework
14. Sustainable Development Goals 2030

1.6 Strategy Development Method

The Strategy is developed through review and analysis of relevant documents, benchmarking on Africa and global trends, Nigerian context, and priorities. It also went through experts' and stakeholders' reviews, consultation and co-creation, public engagement, and workshops.

1.7 The Scope and Applicability

The NDS will focus on building and harnessing data as a national resource for value creation and global competitiveness. It will also ensure the data protection and privacy of data subjects. The Scope of the NDS will include data from the public (government) and the private (business & individual). Although public and private sectors generate, collect, store, and use data for different purposes, there is similarity and consistency in the data applications.

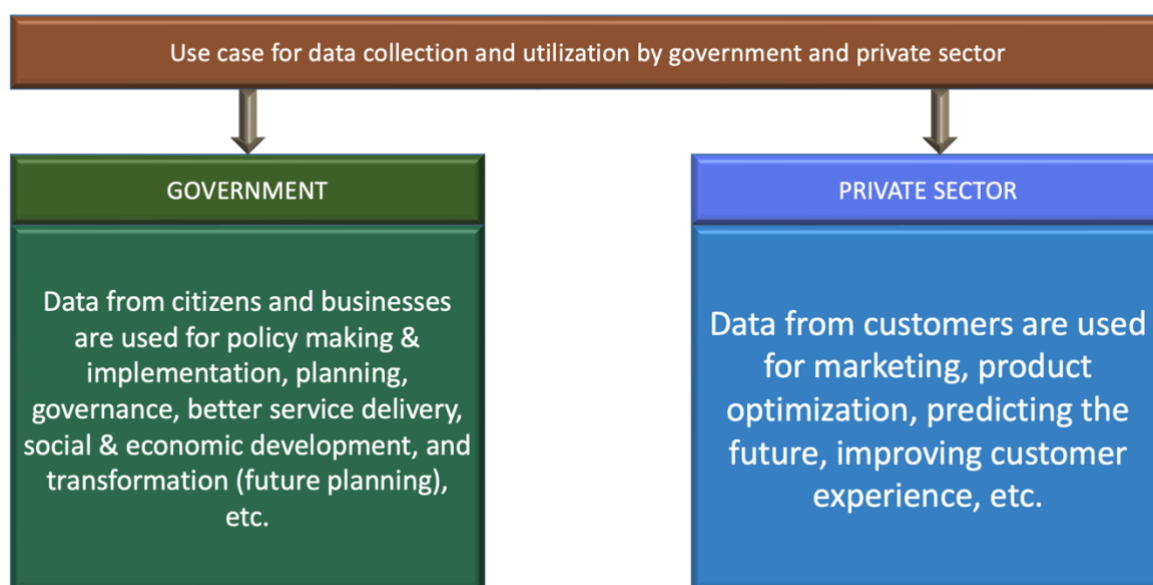


Figure 1.0: Example of Public and Private Sectors Data Use Case

The scope of action for the public and private sectors' data sharing shall be cross-sector in nature. The data sharing between public and private organizations shall be organized into five categories that reflect the core structure of data sharing and partnerships between the critical stakeholders. The categories are:

- i. Government-to-Government
- ii. Government-to-Business
- iii. Business-to-Business
- iv. Government-to-Citizens

v. Business-to-Citizens

Government-to-Government Model: The purpose of G2G data sharing is to facilitate data sharing between MDAs, where relevant and appropriate, with proper protections to enable effective and optimal use of data for service delivery and informed decision-making. MDAs must assess and proactively address the procedural, regulatory, legal, and cultural barriers to sharing data within government entities and with external partners.

Government-to-Business Model: The purpose of G2B data sharing is to ensure collaboration in which public institutions make their data available to private businesses and vice versa for the design and use of innovative services for the benefit of the public and their interest. An agreeable business model may be designed for the purpose. Parties must adhere to legal, and regulatory provisions in ensuring a secure collaboration and use of shared data.

Business-to-Business: The B2B data sharing ensures that businesses share or trade more of their data with other businesses. This is to provide value-added services and create new values based on agreed business models. Parties must adhere to legal, and regulatory provisions in ensuring a secure collaboration.

Government-to-Citizens: G2C data sharing ensures that Government institutions can open public data for individuals/citizens who need the data for social and economic purposes. Parties must follow and adhere to the relevant legal and regulatory provisions for such engagement.

Business-to-Citizens: B2C data sharing ensures that businesses and private bodies can open private data for individuals/citizens who need the data for social and economic purposes. Parties must follow and adhere to the relevant legal and regulatory provisions for such engagement.

2.0 NDS ASPIRATIONS (2022 and 2030)

NDS aspirations are founded and built on the following:

Mission

The mission of NDS is: To harness the economic and social values of data for the advancement of Nigeria.

Vision

The vision for NDS is: To make Nigeria one of the top leaders in the global data economy translating into prosperity for all Nigerians.

Goal

“The goal of the NDS: To make data as accessible, shareable, and actionable as possible for all categories of stakeholders who need it for economic and social gains.”

Strategic statement

This NDS's strategic statement goes thus: *Data is our next valuable national resource.*

Value Proposition

NDS will afford data owners, government stakeholders, businesses and individuals the following:

1. **Ownership:** Data subjects own their data and will have the absolute right to it, except in cases where national interest is involved.
2. **Security and Privacy:** Security and privacy of citizens' data is number one in any data usage for developmental or innovation purposes.
3. **Public good:** Everybody will have access to data and its use for the public good.
4. **Shared value:** There will be equitable distribution of value generated from data use. No single entity or platform will dominate the use of data.
5. **Job creation:** There will be an enabling environment to make data a major source of employment.

6. **Global competitiveness:** Nigeria will harness the economic and social value of both local and foreign data to compete in the global economy. The NDS will encourage the proliferation of data-driven and data-mining organizations in the country.

Guiding Principles

The following are NDS's guiding principles;

1. security;
2. accessibility;
3. decision-making;
4. use and Reuse; and
5. value creation.

Strategic Objectives

1. Increase awareness of the importance of data as a national resource for new value creation.
2. Mobilize and form a data economy ecosystem as a major part of the Nigerian Digital Economy Ecosystem Groups.
3. Ensure a single and consistent source of national data for improved government service delivery.
4. Ensure consistency in data governance in all organizations in Nigeria.
5. Infuse data literacy and skills as part of digital literacy and skills in the Nigerian educational system.
6. Develop, adopt and adapt data security strategies, standards, programmes and activities to increase data security in Government and businesses.
7. Develop and deploy new mechanisms for ensuring adherence and compliance with laws, rules and regulations governing the use of data in Nigeria.
8. Improve compliance with extant legal and regulatory frameworks on data protection laws.
9. Develop open data strategies, guidelines, programmes and activities to increase open data in Government and businesses for improved transparency and innovations.
10. Facilitate an enabling environment for increased investment and capabilities in data infrastructure.

11. Develop strategies and programmes for the rapid use of data for research and development, innovation, and social and economic activities.
12. Orchestrate activities that increase Nigeria's competitive advantage and contribution to the data economy at the continental and global stages.

2.6 Specific Objectives

1. Increase publicity and change mindset around the importance of data for sustainable social and economic growth to --- number of Nigerians/by --%
2. Increase data literacy and skills by 40%
3. Improve data security in Government and businesses by 50%
4. Improve data privacy of citizens by 30%
5. Increase open data in government and private sectors by 50%
6. Improve investment and capabilities in data infrastructure by 20%
7. Increase the use of data for research and development, innovation, and social and economic activities by 40%
8. Increase Nigeria's data economy contribution to the global indices by 40%
9. Increase Nigeria's competitiveness in the global digital economy by 20%

3.0 NDS PILLARS

Seven pillars were identified in pursuit of the mission to address the challenges and take advantage of the opportunities identified in the NDS as well as stand as focal structures for accelerating the achievement of the NDS aspirations.

Each pillar will be strengthened by different implementation strategies. The pillars are:

1. Data Literacy and Skills.
2. Data Security
3. Data Sovereignty.
4. Open Data.
5. Data Infrastructure/Technology.
6. Data Harmonization.
7. Data usability.



Figure 2.0: NDS Pillars

Pillar #1: Data Literacy and skills

The objective of this pillar is to ensure that citizens, government and private organizations acquire the relevant knowledge and skills to effectively use data as a resource for development.

Data literacy and skills refer to the possession of the knowledge and skills to effectively use and manage data. It includes the ability to read, collect, validate, store, analyses, securely transmit, protect and derive knowledge and intelligence from data. There is a national need to educate all citizens, and private, and government organizations on the importance of data and how to effectively use and manage data. This should also include the infusion of data literacy and skills as a subject in all tiers of the Nigerian educational system. This action will ensure that data is recognized and treated as a useful resource for advancement. It will also ensure that the citizenry is ready for data-related job opportunities in the global digital market.

Pillar #2: Data Security

The objective of this pillar is to address information security and cybersecurity risks involved in data management in Nigeria.

For the effective realization of the goals and benefits of data, it is imperative the implementation of an effective data security strategy. Data security refers to the preservation of confidentiality, integrity (authenticity and non-repudiation), and availability of data. Additionally, data security also extends to the protection of the privacy of data owners. It ensures that data is not processed or divulged without the consent of the data owner. Data security strategies must be implemented in all government and private organizations in Nigeria to ensure data and its owners are protected from information security and cybersecurity risks. Due care shall be exercised by the government and private organizations to ensure that the implementation of data security does not create unnecessary barriers to data use.

Pillar #3: Data Sovereignty

The objective of this pillar is to address data ownership, classification, control and access as related to residency and data localization according to the national laws

and regulations of Nigeria. This implies that data collected in Nigeria and from Nigerians within or outside the country is subject to all relevant laws, rules and regulations governing the use of data in Nigeria.

Data Sovereignty ensures that any data generated is subjected to the laws and governance of the geographic location in which the data is collected and processed. Data Sovereignty is a key aspect of international data privacy that enables a country or any entity to regulate entities that can access sensitive data. Data Sovereignty is an important requirement that supports and strengthens data residency and compliance with national laws and regulations.

Pillar #4: Open Data

The objective of this pillar is to provide an enabling environment for the seamless use of data collected by the government, businesses, and individuals for developmental and innovative purposes without compromising data security and privacy. This also includes encouraging the use of open data to engender economic value such as increasing transparency, stimulating new business applications, building trust between citizens and organizations, and improving the lives of citizens through improved service delivery.

To harness the economic potential of data for Nigeria, reduce corruption and increase transparency and trust, government and private organisations must improve the openness of data to the public. An open data policy will ensure that the public can easily access, use, and share national data. Easy access to national data will help spur innovative development in the country and increase interaction between the public and government which may lead to improvement in public service delivery.

Government and private organizations can improve the openness of data by making data available on online platforms; for example, government budget and procurement information should be published online so that the public can monitor and evaluate the expenditure of the government budget. The following principles shall be considered for an open data strategy: (a) Open data by default, (b) Definition of accessible and usable data, (c) Data for citizen engagement, (d) Data for national development and innovation, (e) Digital technology-enabled open data.

Pillar #5: Data Infrastructure

The objective of this pillar is to create an enabling environment for increased investments and deployment of technologies and infrastructure that accelerate the rapid use of data for developmental and innovative purposes.

Efficient and effective data management requires investment in electricity and modern digital technologies. This involves investments in technologies such as data centres, security operating centres, data transmission links (satellite, fibre optics cable, 5G, microwave, Internet), databases, the Internet of Things (IoT), big data analytic platforms, web applications, Artificial Intelligence (AI), machine learning (ML), and deep learning and among others. While many of these technologies are available in the country, there is a need to ensure the local production of some of these technologies to reduce the cost of deployment and increase national security.

Additionally, there is a need to ensure that all back-end related government digital infrastructure is integrated as an Integrated Government Digital Infrastructure (IGDI); this action will help reduce the wastage of government funds and also increase the efficiency and effectiveness of government service delivery. Furthermore, a minimum standard for data infrastructure shall be made available to government and private organizations for reference.

Pillar #6: Data Harmonisation

The objective of this pillar is to harmonise all national data in disparate locations for the purpose of effective management, improved public service delivery, and the creation of new business models and services.

One of the greatest problems preventing Nigeria from realizing the full economic benefits of its national data is the lack of harmonisation of data. National data such as citizens' personal data, demographic data, national resources, national security, national indices and many more are fragmented and replicated in different government and private organizations. Data harmonization in this context refers to an iterative process of capturing, defining, analysing and reconciling national and government data from disparate sources with the aim of eliminating replication of data and providing a single and consistent source of data for government use. Different software applications owned by the government can

use this single source of data to provide services to the citizens and businesses in Nigeria.

The current data fragmentation in the country encourages the wastage of resources and poor service delivery in the country. Therefore, NDS shall strengthen the current efforts on the national data harmonisation drive to ensure that all national data are harmonised. This will include developing a national harmonisation strategy, and the creation of an IGDI which will serve as a backend for the harmonisation of all national data, including analysis, security and identity management. A model that enables government and private organizations to connect their front-end applications to the IGDI shall be adopted to continuously leverage the harmonised national data to offer services to the public.

Pillar #7: Data Usability:

The objective of this pillar is to provide resources, capacity, and an enabling environment for the developmental and innovative use of data as a national resource for new value creation, social and economic growth and prosperity.

Data usability will ensure the establishment of data as a usable and useful national resource for value creation to support social and economic development. For Nigeria to enjoy the economic benefits of data, strategies shall be implemented to unlock the value of data and ensure the best use of data for economic gains by different sectors of the economy. The unlocking of data through the implementation of the NDS will lead to the proliferation of data-driven and data analytic-based organizations. It will also enable access to both local and foreign data (data belonging to other countries) by the government and the business sector to harness for economic gains. The long-term result would be having a system that promotes the creation of more organizations with the capability to create digital platforms to collect, mine and generate useful intelligence from both local and foreign data for economic benefits and global competitiveness.

There shall be mass advocacy within the country on the value and importance of data and different use cases for data in areas such as research and development, national planning, population management, health, national security, national indices, banking and finance, science and technology, global competitiveness and many more.

4.0 NDS ENABLERS AND DRIVERS

This section defines the NDS enablers and drivers

4.1 NDS Enablers

The outcomes of NDS will depend on the following enablers:

Leadership: It is recognised that leadership is key to driving the implementation of NDS in the public and private sectors. The top management in government and private organisations needs to recognise that data is a new valuable resource to drive the digital economy. Leadership must be ready to enable the right capabilities, an enabling environment, and effective governance for NDS to achieve its aspirations. Therefore, NDS recommends full leadership support and commitment at all levels for its implementation.

Enabling Environment: An enabling environment in terms of law, policies, regulations, guidelines, processes and measures will be required to ensure compliance and full implementation of NDS.

Governance: Effective implementation of NDS requires governance to facilitate responsibilities and ensure accountability in making the right decisions at all levels of compliance and implementation. A section is dedicated to the Governance approach that needed to be adopted for full implementation of the NDS.

4.2 Drivers

The NDS is motivated by the following key drivers:

Analytics: The need to analyse humongous data that would be generated in the course of digitisation and digitalisation of various economic sectors will require huge analytics capabilities. The more data is digitized the more analytics will be required to make informed decisions and the more value will be created. Advanced analytics requires the use of digital technologies such as machine learning (ML), deep learning (DL), and artificial intelligence (AI) among others. Therefore, effective data analytics will drive NDS aspirations and outcomes. Analytics will drive NDS and NDS will drive the digital economy and ultimately, the digital economy will drive the main economy.

Innovation: Nigeria, as a developing nation that aspires to develop every aspect of its society must be driven by innovation. Most of the world's innovations in the

digital age are driven by data. The OECD confirms that data-driven innovation forms a key pillar in 21st-century sources of growth. Big data sets are becoming a core asset in the economy, fostering new industries, processes and products and creating significant competitive advantages. The quest for innovations that will provide solutions to most of the country's challenges, and change the narrative of being a consuming nation to a producing nation while putting the country at a highly competitive edge is needed now more than ever before.

Digital Services: Digital services come with convenience, reduce the cost of operations, and expand the coverage of public service delivery among other benefits. Because of these benefits, seamless access to digital services will drive inclusive growth and sustainable development. At the core of digital service delivery are quality data and digital intelligence. The quest for digital end-to-end services will drive NDS implementation and grow the digital economy.

5.0 NDS GOVERNANCE AND ECOSYSTEM

The NDS governance is to provide adequate leadership and coordination to ensure responsibility and accountability for the successful implementation of the strategy. The NDS Data ecosystem on the other hand comprises stakeholders, systems, facilitation, and an enabling environment that collectively empower people, businesses, public sector, among others to use data in pursuit of social and economic opportunities safely and securely in line with applicable standards, guidelines, regulations and laws.

5.1 NDS Governance Structure

The governance structure will take a federated-sector-specific approach to ensure decentralization, ease of management and ownership. Therefore, each sector will have its governance structure and ecosystem to provide dedicated sector-specific leadership and coordination and be responsible and accountable for all decision-making and implementation. Under each sectoral governance structure and ecosystem, all the state actors are expected to develop their organisation-specific data strategy following the national data governance model defined in the NDS. The governance structure should be made up of a data steering committee (DSC) or data governance committee (DGC), data stewards, data custodians, and data users. These entities will work together to enforce standards, policies, principles, practices, and processes for the effective management and use of data. A data governance reporting mechanism shall be institutionalised to aid the effective implementation of the NDS at the organisational level.

5.1.2 Composition of NDS Sector Governance Structure

The membership of each sector data governance structure will comprise representatives from the public and private sectors. The composition of the representative shall be as follows:

1. **Public Sector:** The public sector shall have representatives from the following organizations/entities:
 - a. The sector Ministry or any public institution with the responsibility;
 - b. The sector/industry regulator(s);
 - c. The sector/industry development agency (if any);
 - d. The Sector/Industry research institutes;

- e. Judiciary; and
- f. Tertiary institutions (Member must be the sector/industry specialist)

NOTE: The sector/industry Ministry or any responsible or equivalent public institution for the sector shall determine representatives from each organisation/entity while ensuring that all the above organisations are represented. In the failure of the Ministry to determine the representation or responsible or equivalent public institution, the Federal Ministry of Communications and Digital Economy or National Information Technology Development Agency shall do so.

2. Private Sector: The private sector shall have representatives from the following organizations/entities:

- a. Umbrella body for the ICT sector;
- b. The sector/industry accredited associations/consortia/interest groups;
- c. Non-Governmental Organizations/Civil Society Organizations promoting the peculiar sector/industry;
- d. Innovation support Network or start-up ecosystem;
- e. Private Tertiary Institutions (Member must be the sector/industry specialist)

NOTE: The Umbrella body for the digital economy/ICT sector shall determine representatives from each organization/entity while ensuring that all the above organizations are represented. In the failure of the umbrella body for the digital economy/ICT sector to determine the representation, the Federal Ministry of Communications and Digital Economy or National Information Technology Development Agency shall determine the representation.

5.1.3 The Function of Governance Structure for NDS

The functions of each governance structure are to:

1. provide strategic direction and coordinate implementation of the sector/industry's operational activities;
2. Facilitate the establishment of the sector's integrated data platform;

3. develop business models and implementation plans for the sector data access and use as captured in the NDS;
4. promote and ensure adequate investments in digital infrastructure that powers the sector/industry's data economy;
5. provide NITDA with the sector's activities report and datasets for the operation of the National open data platform;
6. Determine and coordinate the development of relevant data policies, guidelines, frameworks, standards, plans etc. in the sector of the economy; and
7. Any other functions as determined by NITDA or relevant related organizations as part of the data governance structure

5.2 NDS Ecosystem

To encourage dialogue and feedback among the community of data beneficiaries and data-driven value-creating entities, the NDS proposes a multi-stakeholder ecosystem group comprising the following:

1. Data owners or subjects;
2. Data users (users of data-driven services) including ordinary citizens;
3. Data controllers and processors
4. Data-driven service providers and start-ups;
5. Data policy makers, planners and practitioners;
6. International organizations, development partners, and foreign collectors and users of Nigerian data
7. Industry players and academia working on how data can drive the Nigerian economy; and
8. Members of the NDS data governance structure.

NOTE: Each sector will be required to have its sector NDS ecosystem and leadership. Also, there will be an overall or converged NDS ecosystem.

5.2.1 The Responsibilities of the Sector NDS Ecosystem

NDS ecosystem will:

1. provide feedback on the implementation of the sector NDS;
2. contribute to the development and implementation of relevant data policies, guidelines, frameworks, standards, plans etc. of the sector; and

3. Any other functions as determined by the sector's public and private NDS governance leadership.

5.2.2 The Responsibilities of the Overall or Converged NDS Ecosystem

NDS ecosystem will:

1. provide feedback on the implementation of NDS based on NDS sector ecosystem activities;
2. contribute to the development and implementation of relevant data policies, guidelines, frameworks, standards, plans etc. required for NDS implementation; and
3. Any other functions as determined by NITDA or relevant related organisations as part of the data governance structure.

5.3 The National Information Technology Development Agency

In line with its functions as provided in section 6 of the NITDA Act 2007 and as directed by the Federal Ministry of Communications and Digital Economy, NITDA in collaboration with relevant institutions and stakeholders, will provide overall coordination of the NDS implementation and as well as carry out the following functions:

1. Facilitate an appropriate enabling environment through relevant policies, strategies, regulations, standards, guidelines, frameworks, models, and plans related to data utility and protection;
2. Institutionalize a data governance reporting mechanism to aid the effective implementation of the NDS at the organizational and sector levels;
3. Facilitate appropriate foreign direct and private sector-led investments in national data infrastructure;
4. Coordinate the overall data governance of various sector-specific governance structures;
5. Facilitate the development of strategy and business model for each sector;
6. Facilitate the development of an online platform for the operation and coordination of the NDS ecosystem; and
7. Provide a mechanism for monitoring and evaluation of the NDS implementation strategy.

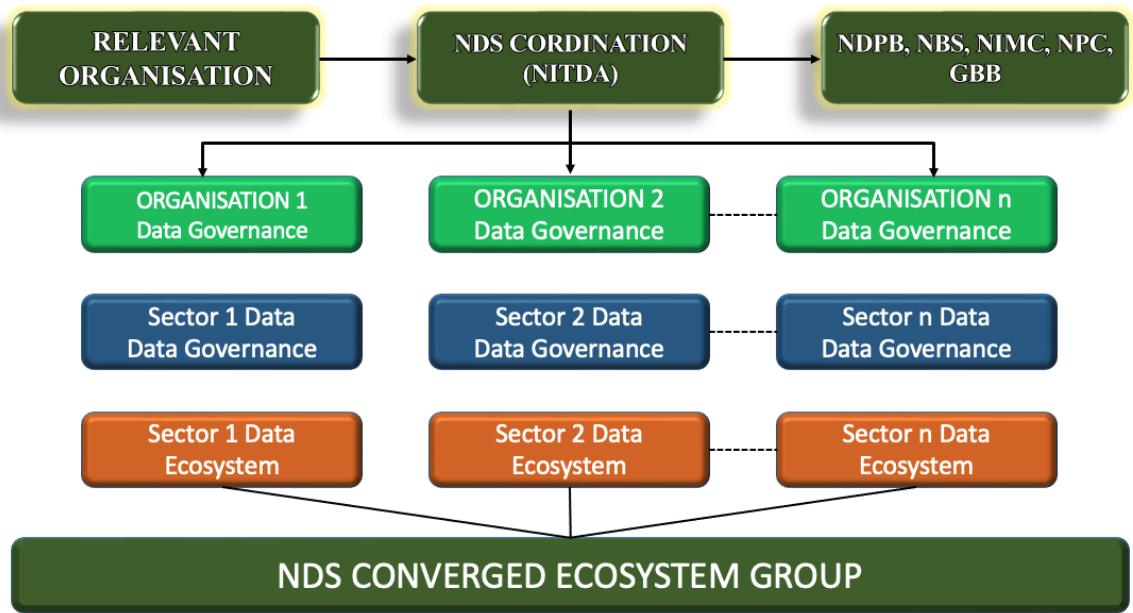


Figure 3.0: the NDS Governance

6.0 NDS IMPLEMENTATION STRATEGY

PRELIMINARIES AND CORSS-CUTTING INITIATIVES					
S/N	Initiative	Initiative Objective	Responsibility	Timeline	KPIs
1.	Establish the NDS Governance Structure	To provide leadership, coordination, responsibility and accountability for the implementation of NNDS	Members in the Governance structure	24/11/2022	Level of achievement of NDS goal and strategic objectives
2.	Establish a NDS National Data Governance Model (NDGM)	Establish a national data governance model that can be referenced by all organizations in Nigeria	NITDA, NDPB, NIMC, NCC, NPC and other relevant stakeholders	01/12/2022 – 01/03/2023	Timeline for the delivery of the NDGM. Acceptance level of the NDGM by stakeholders.
3.	Conduct baseline Study on the pillars (Data literacy & Skills, Data Security, Data Sovereignty, Open Data, Data Infrastructure, Data Harmonization, Data Useability)	Establish a baseline for the NDS pillars.	FMoCDE, NITDA	01/12/2022 – 01/03/2023	Timeline for the delivery of the baseline report. Sample population scope of baseline survey.
4.	Constitution of NDS Implementation Committee	Establish a committee for the effective implementation of the NDS	FMoCDE, NITDA	01/12/2022	Timeline for the constitution of the NDS committee.
5	Facilitate the establishment of NDS sector-specific governance as defined by NDS governance NDS sector governance structure composition	o facilitate implementation of NDS across critical sectors	FMoCDE, NITDA, NIMC, NDPB	01/01/2023 - 01/05/2023	Number of sector-specific NDS governance established

6	Stakeholders' engagement and adoption of the DGM	Improve the quality of the DGM and ensure nationwide adoption	FMoCDE, NITDA, NDPB, Private organisations, DGC	03/02/2023 – 01/03/2023	Number of stakeholders present Improvement level of the NDS
7	Develop a platform for coordinating the responsibilities and functions of the overall NDS ecosystem	To coordinate the overall data governance of various sector-specific and converged NDS ecosystems)	NITDA	02/02/2023 – 30/12/2024	Number of sectors using the NDS ecosystem platform Rate of use of NDS ecosystem platform

NDS PILLAR					
	Strategic Pillar	Data Literacy & Skills			
	NDS Strategic Objectives	Infuse data literacy and skills as part of digital literacy and skills in the Nigerian educational system.			
	Pillar Objective	Ensure that citizens, government and private organizations acquire the relevant knowledge and skills to effectively use data as a resource for advancement.			
S/N	Initiative	Initiative Objective	Responsibility	Timeline	KPIs
1.	Inclusion of data management subjects in the		FMoCDE, NITDA, FMoE, NERDC	01/02/2023 – 01/03/2023	Inclusion of data management

	curriculum of primary, secondary and tertiary schools in Nigeria.	Ensure that data literacy and skills are acquired by citizens early enough at the academic institutions.			subjects in the curriculum of primary, secondary and tertiary schools in Nigeria.
2.	Facilitate data literacy and skills courses in the public service	Ensure that data literacy and skills are acquired by public and civil servants.	FMoCDE, NITDA, OSGF, OHCSF.	01/02/2023 – 01/03/2023	Number of public/civil servants that have acquired digital literacy and skills.
3.	Facilitate train-the-trainer data literacy and online content courses for 5 million Nigerians	Ensure that data literacy and skills are acquired by 5 million Nigerians.	FMoCDE, NITDA, Online training organizations.	01/02/2023 – 01/03/2023	Number of Nigerians that have acquired data literacy and skills.
4.	Facilitate massive advanced data skills acquisition programmes	To build skills of 1 million Nigerians in Data Science, Big Data Analytics, AI, Machine Learning, Deep Learning etc.	FMoCDE, NITDA, Online training organizations.	01/02/2023 – 01/03/2023	Number of Nigerians that have acquired advance data literacy and skills.
5.	Awareness and sensitization on data management on social media and traditional media	Ensure that the awareness on data management increases in Nigeria.	FMoCDE, NITDA	01/02/2023 – 01/03/2023	Level of National awareness on data management.
6.	Establishment of a monitoring and evaluation mechanism on data literacy and skills penetration in the country	Ensure effective evaluation of the data literacy and skills pillar implementation strategies against set objectives and NDS goals.	FMoCDE, NITDA	01/04/2022	Level of National literacy and skills on data management.

NDS PILLAR					
	Strategic Pillar	Data Security			
	NDS Strategic Objectives	Develop, adopt and adapt data security strategies, standards, programmes and activities to increase data security in Government and businesses. Improve compliance with extant legal and regulatory frameworks on data protection laws.			
	Pillar Objective	The objective of this pillar is to address information security and cybersecurity risks involved in data management in Nigeria.			
NDS					
S/N	Initiative	Initiative Objective	Responsibility	Timeline	KPIs
1.	Review of existing laws related to data security and privacy.	Ensure the relevance and effectiveness of existing	FMoCDE, NITDA, NDPB, Private organisations	01/12/2022 – 01/01/2023	Timeline for review and

		laws related to data security.			submission of report.
2.	Promotion of information security and data privacy in all organizations in Nigeria.	Ensure that information security and data privacy become a culture in all organisations in Nigeria.	NITDA, NDPB, ONSA, Private organisations	02/01/2023 – 01/02/2023	Level of adoption of information security in all organisations in Nigeria

NDS PILLAR					
Strategic Pillar		Data Sovereignty			
NDS Strategic Objectives		Develop and deploy new mechanisms for ensuring adherence and compliance with laws, rules and regulations governing the use of data in Nigeria			
Pillar Objective		The objective of this pillar is to address data ownership, classification, control and access as related to residency and data localization according to the national laws and regulations of Nigeria			
NDS					
S/N	Initiative	Initiative Objective	Responsibility	Timeline	KPIs
1.	Develop guidelines to monitor cross-border data flows and ensure the protection of Nigerian data while in motion, in use and at rest	Ensure a there is guidelines for ensuring compliance with relevant laws, rules and regulations governing the use of data in Nigeria	FMoCDE, NITDA, NDPB, ONSA	01/03/2023 – 01/07/2023	Timeline for the completion of the document.
2.	Monitor compliance with the guidelines on cross-border	Ensure relevant laws, rules and regulations governing	NITDA, NDPB, ONSA, Private organisations	01/03/2023 – 01/01/2030	Level of compliance with

	data flows and relevant laws, rules and regulations governing the use of data in Nigeria	the use of data in Nigeria are complied with and enforced			relevant laws, rules and regulations governing the use of data in Nigeria
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NDS PILLAR					
Strategic Pillar		Open Data			
NDS Strategic Objectives		Develop open data strategies, guidelines, programmes and activities to increase open data in Government and businesses for improved transparency and innovations.			
Pillar Objective		The objective of this pillar is to provide an enabling environment for the seamless use of data collected by the government, businesses and individuals for developmental and innovative purposes without compromising data security and privacy.			
S/N	Initiative	Initiative Objective	Responsibility	Timeline	KPIs
1	Constitution of an open data governance committee	Create a governance structure that will drive open data practice in Nigeria	FMoCDE, NITDA, NDPB NOA, Private organisations	01/01/2023	Number and quality of members of the committee
2	Develop National Open Data Guidelines and strategy (Government and Private Sector)	Ensure that government and private organisations are adequately guided in the	NITDA, NBS, NPC, NIMC, GBB	03/01/2023-01/03/2023	Timeline for the completion of the document.

		implementation of open data.			Adoption rate of the document.
4	Develop National Open Data Portal	Ensure that adequate, accurate and reliable information about the implementation of open data is available to all organisations in Nigeria.	NITDA, NBS, NPC, NIMC, GBB	03/01/2023-01/03/2023	Timeline for the completion of the portal. Relevance of the information on the portal. Usefulness of the information on the portal.
5	Increase of the range of organisations (open data providers) actively engaged in the Open Data Initiatives	Increase the number of organisations in Nigeria that practice open data	FMoCDE, NITDA, NDPB NOA, Private organisations	01/02/2023 – 01/06/2028	Number of open data friendly organisations in Nigeria.
6	Increase of the scope, quality and quantity of open data and associated metadata to be published by organisations	Increase the variety, quality and quantity of published open data	FMoCDE, NITDA, NDPB NOA, Private organisations	01/02/2023 – 01/06/2028	Variety, quantity and quality of available open data in Nigeria
7	Promote open data-driven innovations	Expand the number of open data-driven innovations	NITDA, NCC, private organisations	01/02/2023 – 01/06/2030	Number of open-driven innovations by the private

					sector and startups
8	Continuous engagement of Stakeholders on the adoption of Open Data	Ensure that open data practice becomes a culture in all organisations in Nigeria	FMoCDE, NITDA, NDPB NOA, Private organisations	01/02/2023 – 01/12/2028	Level of adoption of open data in Nigeria.

NDS PILLAR					
Strategic Pillar		Data Infrastructure/Technology			
NDS Strategic Objectives		Facilitate an enabling environment for increased investment and capabilities in data infrastructure			
Pillar Objective		The objective of this pillar is to create an enabling environment for increased investments and deployment of technologies and infrastructure that accelerate the rapid use of data for developmental and innovative purposes.			
S/N	Initiative	Initiative Objective	Responsibility	Timeline	KPIs
1.	Development of a National Data Infrastructure Reference Model (NDIRM) for organisations in Nigeria	Create a model that can guide organisations regarding the required infrastructure for data management. This will also contain minimum standards for data infrastructure.	FMoCDE, NITDA, NDPB, NCC, GBB, Private organisations	01/02/2023 – 01/11/2023	Timeline for the completion of the reference model.

2.	Encourage the adoption of a cloud-first approach for data infrastructure	Ensure that the cost deployment and maintenance of data infrastructure is reduced through the adoption of cloud computing.	FMoCDE, NITDA, NDPB, NCC, GBB, Private organisations	01/03/2023 – 01/06/2028	Level of adoption of cloud computing for data management in the country
3	Deployment of an Integrated Government Digital Infrastructure (IGDI) to harmonise all national data	Ensure that all national data infrastructure owned by government organisations scattered within the country are harmonised for improved security, privacy and service delivery.	FMoCDE, NITDA, NDPB, NCC, GBB, Private organisations	01/04/2023 – 01/04/2025	Degree of harmonisation of national data infrastructure
4	Leverage existing laws on local content to facilitate local production of digital infrastructure	Increase local production of digital technologies for data management	FMoCDE, NITDA, NDPB, NCC, GBB, Private organisations	01/06/2029	Number of locally produced digital infrastructure

NDS PILLAR	
Strategic Pillar	Data Harmonisation
NDS Strategic Objectives	Ensure a single and consistent source of national data for improved government service delivery.

	Pillar Objective	The objective of this pillar is to harmonise all national data in disparate locations for the purpose of effective management, improved public service delivery, and the creation of new business models and services.			
S/N	Initiative	Initiative Objective	Responsibility	Timeline	KPIs
1.	Identification and analysis of fragmented national data.	Ensure that all fragmented national data and their sources are identified and analysed.	FMoCDE, NITDA, NDPB, Private organisations	01/06/2023 – 01/01/2024	Timeliness in identifying and analysing fragmented national data
2.	Harmonisation of national data and hosting on the IGDI	Ensure that analysed and cleaned national data are migrated to the IGDI	FMoCDE, NITDA, NIMC, NDPB, GBB, Private organisations	02/01/2024 – 02/01/2025	Timeliness in harmonisation and migration of national data to the IGDI.
3	Connection of government software applications to the harmonised data	Ensure that government software applications can use data from the IGDI to provide services to the citizens and businesses.	FMoCDE, NITDA, NIMC, NDPB, GBB, Private organisations	02/01/2025 – 22/12/2025	Number of government software applications connected.

NDS PILLAR					
Strategic Pillar		Data Useability			
NDS Goals		Increase awareness of the importance of data as a national resource for new value creation. Orchestrate activities that increase Nigeria’s competitive advantage and contribution to the data economy at the Continental and global stages			
Pillar Objective		The objective of this pillar is to provide resources, capacity and an enabling environment for the developmental and innovative use of data as a national resource for new value creation, social and economic growth and prosperity.			
S/N	Initiative	Initiative Objective	Responsibility	Timeline	KPIs
1.	Mass advocacy on the value of data as an economic and social resource.	Establish data as an economic and social resource.	FMoCDE, NITDA, NDPB NOA, Private organisations	01/07/2023 – 01/07/2024	National awareness level on data as an economic and social resource
2.	Encouragement of the proliferation of data analytics and mining organisations in Nigeria	Establish dominance in the global data analytics and mining industry	FMoCDE, NITDA, NDPB NOA, Private organisations	01/08/2023 – 01/08/2028	Number of data analytics and mining organisations in Nigeria.

3	Promote Big data and Mobile Big Data Analytics	Ensure there is enabling environment and resources for the use of abundant big data and mobile big data	FMoCDE, NCC, NITDA, Mobile Network Operators, and other relevant organisations	01/08/2023 – 01/08/2028	Rate of use and number of services created through big data and mobile big data
4	Facilitate innovative data use	Encourage data-driven innovations, R&D, and digital services	FMoCDE, NITDA, NDPB NOA, FCCPC, Private organisations	01/08/2023 – 01/08/2028	Number of data-driven innovations in Nigeria.
5	Develop programmes to promote competition and protect customers from data misuse	To build trust of customers participating in the digital economy space	FCCPC, NDPB, NITDA, NIMC and other relevant organisations	01/08/2023 – 01/08/2028	Reduction in the number of Nigerian customers complaint