



National Communications Authority



FIVE-YEAR STRATEGIC PLAN 2024 - 2028

ABRIDGED VERSION

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2024 - 2028

ABRIDGED VERSION





— ABBREVIATIONS —

2G	Second Generation Cellular Network
3G	Third Generation Cellular Network
4G	Fourth Generation Cellular Network
5G	Fifth Generation Cellular Network
6G	Sixth Generation Cellular Network
AFUR	African Forum for Utility Regulators
AI	Artificial Intelligence
AITI-KACE	Advanced Information Technology Institute - Ghana-India Kofi Annan Centre of Excellence in ICT
ASMS	Automated Spectrum Management System
ATU	African Telecommunications Union
BCDR	Business Continuity and Disaster Recovery
CID	Criminal Investigations Department
CO ₂	Carbon Dioxide
CPESDP	The Coordinated Programme of Economic and Social Development Policies
CRM	Customer Relationship Management
CSA	Cyber Security Authority
CTO	Commonwealth Telecommunications Organisation
DAB	Digital Audio Broadcasting
DE4A	Development for Africa
DG	Director General
DNTCR	Do Not Text or Call Register
DPC	Data Protection Commission
DRP	Disaster Recovery Plan
DTT	Digital Terrestrial Transmission
DVLA	Driver and Vehicle Licensing Authority
ECOWAS	Economic Community of West African States
EMF	Electro-Magnetic Field
EPA	Environmental Protection Agency
FDA	Food and Drugs Authority
FM	Frequency Modulation

GBPS	Gigabits-per-second
GCTU	Ghana Communication Technology University
GHG	Green House Gases
GIBA	Ghana Independent Broadcasters Association
GIFEC	Ghana Investment Fund for Electronic Communications
GRA	Ghana Revenue Authority
GSMA	Groupe Special Mobile Association (Global System for Mobile Communication)
GSO	Geostationary Statellite Orbit
GSS	Ghana Statistical Service
HEVC	High-Efficiency Video Coding
HoD	Head of Division
HR	Human Resource
ICT	Information and Communication Technology
ICT4AD	ICT for Accelerated Development
IPTV	Internet Protocol Television
IoT	Internet of Things
ISMS	Information Security Management System
ISP	Internet Service Provider
ISSER	Institute of Statistical Social and Econmic Research
IT	Information Technology
ITU	International Telecommunication Union
IWCL	International Wholesale Carrier Licence
KNUST	Kwame Nkrumah University of Science and Technology
KPIs	Key Performance Indicators
KSA	Knowledge, Skill and Abilities
MBS	MultiCast Broadcasting Services
ML	Machine Learning
MMDAs	Metropolitan Municipal and District Assemblies
MNO	Mobile Network Operator
MoCD	Ministry of Communications and Digitalisation
MoF	Ministry of Finance
MTEF	Medium Term Expenditure Framework
N/A	Not Applicable
NDC	National Democratic Congress

NGSO	Non-Geostationary Satellite Orbit
NITA	National Information Technology Agency
NMC	National Media Commission
NPP	New Patriotic Party
OTT	Over the Top
PESTLE	Political, Economic, Sociological, Technological, Legal and Environmental
PMS	Performance Management System
POS	Point of Service
PSC	Public Services Commission
QoS	Quality of Service
RA	Regulatory Administration
RAN	Radio Access Network
R&D	Research and Development
RFP	Request for Proposal
RFQ	Request for Quotation
RIO	Reference Interconnect Offer
RIPS	Research, Innovation, Policy and Strategy
RM	Resource Mobilisation
SaaS	Software-as-a-Service
SDGs	Sustainable Development Goals
SIGA	State Interest and Governance Authority
SIM	Subscriber Identification Module
SMP	Significant Market Power
SMS	Spectrum Monitoring System
SPIC	Strategic Plan Implementation Committee
SWOT	Strengths, Weaknesses, Opportunities and Threats
TAL	Type Approval Laboratories
TBD	To be determined
TOR	Terms of Reference
UG	University of Ghana
UN	United Nations
UPSA	University of Professional Studies, Accra
USSD	Unstructured Supplementary Service Data
WATRA	West Africa Telecommunications Regulators Assembly



— FOREWORD —

It is with great pleasure that I write this foreword for the Strategic Plan of the National Communications Authority for a five-year period from 2024 to 2028. As a Minister, who has overseen transformational changes within the Communications Industry, it is important to note that change must be guided with a plan to ensure that there are no deviations and that set objectives, are met.

I have had the privilege of reading the NCA's new Strategic Plan 2024 - 2028. One thing that strikes me is how the NCA has ensured that their plans and actions going forth have taken cognizance of all the stakeholders, environments, resources, the need for relationship building and most importantly, stakeholder needs, Government's own Digitalisation agenda and the global direction when it comes to Communications and Digitalisation.

I can imagine that there must have been some intense reflections, introspection and awareness of the realities within this sector, both within and outside Ghana. As part of this, it pays to look back at where you have been, what your environment used to be like, what it is now and how you envisage it to be in the future. All these, merging together, will ensure that you are on the right track.

Over the years, the NCA's regulatory work has demonstrated the need and values of having a regulator for the communications industry. As NCA strides into the future and as we can all see the impact that communications services have made in our society, this perhaps is the best and opportune time for the Authority to take a step back, reflect, regroup and come out stronger than before. This will enable the Authority to consolidate among others, the strengths within the industry and identify, opportunities to drive the next phase of the operations in a seemingly dwindling global village, where communications have managed to bring us closer together, closer to services we need and also closer to some negative practices.

The Information and Communications Technology (ICT) sector continues to play an important role in supporting rapid and sustainable economic growth, equitable social development, and job creation. It is for this reason that the NCA's Five Year Strategic Plan, presents a comprehensive roadmap for our nation's communication and digitalisation landscape and revolutionary future. This plan positions the Authority to pushing the digital agenda, encouraging innovation, and providing fair access to ICT for all citizens.

As we embark on this strategic journey, I extend my heartfelt gratitude to the NCA's leadership, staff, industry partners, and stakeholders who have contributed their insights, passion, and expertise. Together, we are poised to propel our nation to new heights in the digital age.

Thank you.

***Hon. Ursula Owusu-Ekufu, Minister for Communications and Digitalisation
Ministry of Communications and Digitalisation***



– BOARD CHAIRPERSON’S MESSAGE

By failing to prepare, you are preparing to fail. - Benjamin Franklin

The electronic communications industry has seen astronomical changes in the past decade. This has been evident from the advent of smartphones to blockchain technologies, to the metaverse, and to artificial intelligence. We have witnessed the progressive journey from 2G right up to 5G, and the numerous possibilities of spectrum. The future of technology truly cannot be predicted.

It is for this reason that there is the need to plan for the future. As a Regulator, we are poised to always stay ahead of the curve to ensure we create the enabling, yet well protected, ecosystem to meet the growing demands of the industry.

In October 2021, when the Board was inaugurated, we immediately recognised the urgent need for the Authority to have a blueprint to guide its trajectory from ***a good Regulator to a Great Regulator***. We commissioned Management to commence the processes to engage a Consultant to put in place a strategic plan to steer the activities of the Authority, with a robust and practical medium to long term outlook. The process commenced with a Board-Management Retreat in November 2021, which sought to refine the goals of the Authority and set new priorities.

The Board was actively involved in the strategic planning process and ensured that all relevant stakeholders were engaged. As a Board with a difference, we also tasked the Consultant and the Research, Innovation, Policy and Strategy (RIPS) Division of the Authority, to include a roadmap of moving Ghana from G5 Advanced to G5 Leading of the International Telecommunication Union (ITU) G5 Benchmark.

The strategies, goals and objectives encompassed by the Plan are the metric of success of the Authority for the next five years. This will serve as a signpost to ensure we are more efficient and effective in carrying out our mandate.

The Board extends its profoundest gratitude to Management and Staff for the commitment demonstrated and the collaborative efforts during this process and commends Circadian Consulting and the RIPS Division for its stewardship.

It has been a long-winded journey, but we have finally arrived at the desired destination. Without a doubt, this Strategic Plan is a guiding torch to enabling an innovative, agile and proactive regulator with the ability to adapt to emerging trends in the electronic communications industry.

As a Board, we have full confidence in the 2024 - 2028 Five-Year Strategic Plan and we will provide the necessary policy guidance to ensure its realisation during our tenure. We remain committed to creating long term value for Ghana’s communications industry.

Okatakylie Ababio Boakye Danquah II
Board Chairperson



— ACKNOWLEDGEMENT —

It is my pleasure to acknowledge stakeholders, who in diverse ways contributed to the National Communications Authority's Five-Year Strategic Plan (2024 - 2028). Undoubtedly, this successful and innovative Strategic Plan, which has mapped out priority issues and areas of the Authority, will go a long way in guiding the NCA to further fulfil its mandate.

From the onset of the process, I took a decision to exclude myself from this process. My motive was to ensure that the inputs are comprehensive and reflective of the inputs from Staff and key Stakeholders. While I may not have been involved in the day to day process, I kept an eye on the procedures, guiding where necessary and today, I am proud that such decision has yielded good results.

Given the wide consultative approach, I am delighted to express our deepest appreciation and gratitude to all those who played a pivotal role in the development of the Strategic Plan. This monumental journey, which began in December 2022 and concluded in April 2023, would not have been possible without the dedicated efforts and unwavering support of numerous individuals and entities.

Firstly, we extend our sincere thanks to the Ministry of Communications and Digitalisation (MoCD) for its superb policy direction over the years as well as its participation and valuable input in this Plan.

To the NCA Board of Directors, we are thankful for your renewed drive and commitment to providing strategic direction for the development of this Strategic Plan. This will be a great legacy in the history of the NCA.

I also wish to recognise the exceptional contributions of the Director, Research, Innovation, Policy, and Strategy Division and her Team. Your invaluable support and facilitation of the involvement of key Stakeholders have been instrumental in the successful formulation of this Strategic Plan.

Considering that the workshops and focus group discussions conducted during the strategy development process were vital in shaping the NCA's future direction, I would like to thank the NCA Management Team, key staff and Zonal Managers, for their active participation and contribution to the SWOT analysis and compilation of the strategic objectives.

To our consulting firm, Circadian Consulting, we appreciate your efforts for facilitating and guiding the development process to its logical and successful conclusion.

Key informant interviews played a crucial role in gathering insights and perspectives from key stakeholders. To this end, our sincere appreciation also goes to our external stakeholders, including Helios Towers, Dolphin Telecom, MainOne, MTN, AT, Ultrahnet Ghana Telecom, and others, who generously shared their expertise and insights, enriching the Strategic Plan with diverse perspectives.

This Five-Year Strategic Plan clearly reflects the collective efforts, insights, and expertise of all those involved, and we are truly grateful for the Stakeholders' unwavering commitment to the NCA's mission and vision.

As we embark on the journey outlined in this Strategic Plan, we remain confident that it will guide us towards a future of innovation, excellence, and success. Together, we will continue to advance the telecommunications landscape and fulfil our mission to serve the people of Ghana.

Thank you once again for your invaluable contributions to the development of the NCA's 2024-2028 Strategic Plan. Your dedication has laid the foundation for a brighter future, and we look forward to achieving our goals together.

Dr. Joseph Anokye
Director General



– EXECUTIVE SUMMARY –

The Ministry of Communications and Digitalisation (MoCD) has the core responsibility of initiating and developing national policies aimed at achieving cost effective information and communications infrastructure and services. These are geared towards the enhancement and promotion of economic competitiveness in line with the policy guidelines of the Coordinated Programme of Economic and Social Development Policies (2021-2025) - An Agenda for Jobs II: Creating Prosperity and Equal Opportunity for All. As part of its oversight activities, it is expected that the National Communications Authority (NCA) will develop a five-year Strategic Plan in accordance with Section 3(b) of National Communications Authority Act, 2008 (Act 769). The five-year Strategic Plan is to position the Authority as a world class regulator to stimulate growth of the telecommunication industry.

The development of the NCA's 2024-2028 Strategy began in December 2022 and ended in April 2023. The strategy was developed in consultation with the NCA Staff, Senior Management and the Board of Directors. The process adopted in the strategy development was consultative and participatory in approach. The team was ably assisted by the NCA's Research, Innovation, Policy and Strategy Division which facilitated contact with key stakeholders. There were interactions using workshops, focus group discussions, key informant interviews and external stakeholder meetings with key Industry players.

Factors and trends driving the industry

The industry trends point to the demand for the latest wireless devices and higher bandwidth as a driver in telecommunication services growth. Other drivers in the industry are Cyber Security, Cloud Computing Adoption, Artificial Intelligence (AI), 5G and 6G technologies, Internet of Things (IoT) and latest broadcasting technologies.

Situational analysis

The NCA regulates electronic communications services in Ghana. These include the Mobile and Fixed network, the Tower Infrastructure, Submarine Cable landing, radio and TV broadcasting amongst others. Currently, there are Three (3) Mobile Network Operators in the telecommunications space namely MTN, AT, and Vodafone. MTN was declared as a Significant Market Power (SMP) in mobile voice, mobile data and SMS in 2020. The Communications Infrastructure (Tower) service has Three (3) licensed companies: Helios Towers Ghana (HTG), Phoenix Towers Limited and American Tower Company (ATC). Dolphin Telecom (ACE), Glo-1, MainOne, Broadspectrum Limited, West African Cable System (WACS) and South Atlantic Telecommunications Cable No. 3 (SAT-3) are the Six (6) licensed Submarine Cable Landing Operators. The Broadcasting Services are made up of 728 authorised FM radio stations and 170 television stations.

The figure below shows the number of licensees and Authorisation holders regulated by the Authority as at the second quarter of 2023.

Number of Licensees and Authorisation Holders as at Q2 2023



The Five-Year Strategic Plan

The NCA has maintained its vision of “A world-class communications regulator that facilitates innovative, reliable, and sustainable communication solutions to meet stakeholders’ expectations”. The Authority has recast its mission statement for the next five years as: **Moving from Good to a Great Regulator: An innovative, agile, professional and proactive regulator, adaptive to emerging changes in the communication and digital eco-system, and delivering optimally to all its stakeholders.** NCA will achieve this goal by the implementation of strategic activities under four strategic pillars.

Strategic Pillar 1 - Structure and reposition research, innovation and process improvement throughout NCA to be abreast with industry development by 2028.

This strategic pillar seeks to keep the regulator ahead of the technology curve through intense research from all Divisions of NCA. A cycle of research leading to innovation and brought to life in process improvement of the NCA’s activities will be expected in all Divisions. This pillar is expected to lead to the following outcomes:

- a. **Unleash the latent research potential of NCA to drive policy options or proposals;**
- b. **Instill a culture of innovation and incubation of new ideas (regulatory, process etc.);**
- c. **The NCA is better positioned to effectively regulate new services that ride on emerging technologies;**
- d. **Improved market competition and industry growth;**
- e. **The NCA’s ranking on the ITU G5 Benchmark moved from Advanced to Leading status within the lifetime of this strategic plan; and**
- f. **Process improvement and operational efficiency is achieved through the use of technology and automation of processes.**

To achieve these outcomes, “Research” will be mainstreamed (rotating monthly presentations) in every Division. There will be linkages and partnerships with academia (KNUST, GCTU, etc.), research institutions (GSS, ISSER etc.) and Industry. There will be increased number of regulatory options, policy proposals and publications sent to MoCD. A Sandbox framework will be developed and implemented to incubate new ideas. A regulatory impact assessment framework will be developed and implemented to draw lessons from previous regulatory decisions and policies, and also ensure future regulatory options achieve the desired outcomes.

A gap analysis has been conducted and a roadmap developed to move Ghana from its current **Advanced** status to **Leading** status on the ITU G5 Benchmark. It is expected that the said roadmap will be implemented in collaboration with other relevant stakeholders in the ICT ecosystem to ensure the full achievement of this objective during the period of this strategic plan.

To its credit, the Authority has taken steps to automate its spectrum management processes to improve efficiency, accuracy and speed, enhance compliance monitoring and overall effectiveness. This has been achieved through acquisition of a new Automated Spectrum Management System (ASMS). During the lifespan of this strategic plan, the scope of the ASMS will be expanded to cover non-spectrum services and establish a unified automated platform for processing applications and licences. This is aimed at providing a consistent customer experience. The Unified Automated Platform for application processing and licensing will be integrated with the Authority’s accounting/finance system and the Spectrum Monitoring System (SMS). An online application processing component will subsequently be added to enable applicants

to submit applications and make payments online.

Strategic Pillar 2 - Build coordination and collaborative structures for enhanced engagement by 2028

From the stakeholders' feedback, it is critical that NCA intensifies the engagement with and coordination of its stakeholders in a structured and targeted manner. This will require platforms for dialogue, problem identification and resolution. Stakeholder enquiries, queries and requests will receive prompt attention. There will also be regular and timely sharing of relevant information with stakeholders. A dashboard will be instituted to monitor the Authority's responsiveness to its stakeholders.

This strategic pillar is expected to lead to the following outcomes:

- a. **Strengthened Internal and external collaboration and coordination;**
- b. **Enhanced responsiveness to stakeholder needs;**
- c. **Improved stakeholder relations; and**
- d. **Reduced stakeholder complaints.**

Strategic Pillar 3 - Develop and empower human resource by 2028

NCA in the next five years will strive to improve on providing a better work environment and individual work life balance. NCA will capitalise on the data management and automation already in existence to ensure a reduction in manual work. Capacity development will be enhanced through the establishment of a Learning Academy to serve as a Centre of Excellence to promote industry learning across the sub-region. Other staff learning and development programmes to be undertaken include participation in relevant local and international training courses and conferences, coaching and mentoring, job rotations, as well as certifications for professionals. A better work environment will be achieved through flexi work, career path programmes, job rotation, and succession planning, among others. The Authority will also ensure information symmetry across Divisions and a stepwise devolution of authority to zonal offices.

The above activities are expected to lead to the following outcomes:

- a. **Current personnel enhanced and empowered to be innovative;**
- b. **Enhanced employee skills and competence;**
- c. **Enhanced staff morale;**
- d. **Improved employee productivity;**
- e. **Reduced attrition rate; and**
- f. **Increased level of attraction as an employer.**

Strategic Pillar 4 - Optimise current resources, diversify and develop new areas of growth, including revenue:

In this strategic pillar, NCA seeks to optimise its current resources, diversify and develop new areas of growth. In line with recommended best practises of the ITU, the Authority would review its regulations to support the development of convergent services, the expansion of market and promotion of competition. The objective is to promote the provisioning of new and innovative services, reduce prices and increase efficiency as well as increase the variety of offerings for consumers. These efforts will focus on two key elements:

- i) the introduction of the principles of technology and service neutrality,
- ii) the establishment of greater flexibility in key aspects of regulatory frameworks. Competition regulation will have a central place in the scheme of regulatory

activity.

The NCA will position itself to accelerate Ghana's Digital Transformation through an efficient and effective management of the radio frequency spectrum to facilitate the roll-out of the latest generation of mobile technologies such as 5G and 6G services to promote their use by various sectors of the economy. The Authority will give due regard to the promotion of shared spectrum use for enhanced Wi-Fi (Wi-Fi 6 and Wi-Fi 6E), open RAN (Radio Access Network), etc. to expand access to communication technologies and services.

The Authority will develop an appropriate framework for the adoption of new satellite services such as those in the Geostationary Satellite Orbits (GSO) and Non-Geostationary Satellite Orbit (NGSO), giving due regard to the national interest and fair competition.

The NCA will also develop a framework for the deployment of the latest broadcasting technologies in the country such as, Digital Audio Broadcasting (DAB), 5G Multicast-Broadcast Services (MBS), High efficiency video coding (HEVC) and High Definition (HD) on terrestrial TV platforms, etc. The Broadcasting Monitoring Centre (BMC) will be expanded and upgraded with audio fingerprinting technology to enhance compliance monitoring. This will enable the Authority to support other state bodies such as the National Media Commission (NMC), Food & Drugs Authority (FDA), the Security Agencies as well as the Broadcasting Industry.

A successful implementation of activities under Pillar four is expected to lead to the outcomes outlined below:

- a. Efficient and effective use of spectrum;
- b. Unified licence regime operationalised;
- c. Improvement in the quality and efficiency of broadcasting;
- d. National broadband access expanded;
- e. Increased broadband speed to facilitate digital transformation;
- f. Promote clean energy use and sustainable operations for the Authority and Industry
- g. Type approval laboratory upgraded; and
- h. Increased NCA revenue streams.

Implementation Action Planning

The Strategic Plan implementation requires collaboration and significant leveraging of efforts and resources. In implementing the Strategic Plan, certain measures have been suggested for adoption to ensure success within the Authority. These include, establishing a Strategic Plan Implementation Committee (SPIC) chaired by a member of Management that would meet quarterly and update the Board on the status of implementation. Also, the establishment of an Implementation Monitoring Team, consisting of cross functional representatives, and the development of a performance tracking framework spearheaded by the Research Innovation Policy and Strategy Division.

Risk Management

The NCA has in place a Risk Management Strategy for dealing with risks associated with the operations within the Authority. In implementing this Strategic Plan, it is anticipated that, a number of risks would affect the execution of the programmes, projects and actions proposed. As such, mitigating measures have been laid out to address them. Key among these anticipated risks are: A clear commitment from the

NCA and MoCD to follow through with the implementation of the proposed strategies, availability of funding, appropriate capacity for implementation and the need for other institutions to partner and collaborate with the NCA.

Among the mitigation measures proposed to minimise these risks are the regular engagements with the MoCD in the development of this strategy to ensure buy-in. The Roll-out of the communication strategy stated in the Strategic plan to effectively bring on board all stakeholders to ensure a follow-through on critical actions. The continuous capacity development and utilisation of external capacity in the form of consultants and technical assistance when needed to forestall capacity challenges. These measures, coupled with a high-level launch of the Strategic Plan, would bring all the key stakeholders on board to build on existing relations and partnerships needed to create synergy.

Communication Strategy

A Communication Strategy has been provided on the selected methods for effective communications with the various stakeholders to sensitise them on the Strategic Plan. The Consumer and Corporate Affairs Division of the NCA would champion the communication strategy and be accountable and responsible for the effective dissemination of information to the external stakeholders on this plan in its implementation roll out. Whereas internally, the Research Innovation, Policy and Strategy (RIPS) Division will coordinate the distribution and implementation of the Strategic plan.

The communication matrix in the strategy will serve as a means to assess communication effectiveness in terms of consistency, participation and collaboration outputs with other regulatory agencies and government institutions.

Costing of Strategy

The implementation of this 5-year strategy will depend on the financial capacity (cash inflows) of NCA to finance its key activities. Each Division has given indicative budgets in their work plans. However, this is expected to be fine-tuned during annual work planning and implementation. Headline activities in each strategic pillar, which comprise key infrastructural and operational investments that could be considered outside the regular budgeting cycle, have been outlined.

Monitoring and Evaluation

Monitoring and Evaluating the performance of the activities of the Strategic Plan will be done on regular basis (monthly, quarterly and annually), spearheaded by the RIPS Division. These activities should be overseen by SPIC with oversight provided by the Director General. There will be a mid-term evaluation (2026) during the implementation and an impact assessment, three months after the close of the strategy period (2028). Monitoring and evaluation tools to be used by RIPS for tracking performance include:

- a. Routine progress reporting from the SPIC;
- b. Regular data collection;
- c. Submission of quarterly and annual activity reports;
- d. A Risk Log kept by the Risk Committee;
- e. A Lessons Learnt Log updated regularly; and
- f. A monitoring schedule plan shall be developed and updated to track key management actions;
- g. The implementation of annual work plans reviewed annually through an internal review by NCA and the MoCD.



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SECTION ONE

Communications and the Digital industry

“It has been said that arguing against globalisation is like arguing against the laws of gravity,” Kofi Annan.

Nowhere has the influence of globalisation been manifest than in its role in shaping the telecommunications industry. The traditional distinction between local and long-distance telephone services, as well as the demarcation between voice, and SMS services is fast disappearing. Modern communication products connect users at incredible speed and make possible the “Virtual World”. New technological advancements are creating demand for new products and services to meet consumer needs.

Indeed, telecommunications within the context of Information and Communications Technology (ICT) is undergoing a lot of change, innovation and growth. This is evidenced by the growing scale and scope of the internet, new media (including social media with new versions of the web), convergence, the internet value chain, digitalisation, virtualisation, softwarisation, value added and over-the-top services, quantum computing, computing paradigms (cloud, IoT, pervasive, distributed) amongst others. In terms of security, concepts such as information security, cybersecurity, protection of personal information, data protection and privacy amongst others have become important for individuals, companies and states.

“An efficient telecommunications network is the foundation upon which an information society is built.”

Talal Abu-Ghazaleh

The recent COVID-19 pandemic demonstrated the critical importance that telecommunications infrastructure plays in keeping businesses, governments and societies connected and running. The economic and social disruption, caused by the pandemic, made people across the globe to rely on technology for information, social distancing and working from home.

Regulating the telecommunications industry is important in setting the standards for what can and cannot be done by industry players. The regulator makes sure that industry actors operate by the same rules and protect consumers. Good regulation is conducive to business and protective of the customer. The National Communications Authority (NCA) is a regulator responsible for setting standards, licensing, and regulating communications services (wire, cable, radio, television, satellite,

“If we want our regulators to do better, we have to embrace a simple idea: regulation isn’t an obstacle to thriving free markets; it’s a vital part of them.”

James Surowiecki

and others) in Ghana. NCA has been proactively implementing forward looking policies and promoting the adoption of new technologies and services. The Authority has played a pivotal role in improving the quality of ICT and digital services in Ghana. The importance of the NCA to be effective and relevant to the provision of access to communications services cannot be overemphasised. Currently, in the communications and technology space, there is a growing trend towards deregulation. This is based on the concept that the decrease in regulations will result in the opening of new markets to new players in the industry, thus cultivating healthy competition and improving on the quality of services.

Global Trends and Drivers of the Industry

The industry trends point to the demand for the latest wireless devices and higher bandwidth as a driver in telecommunication services growth. Other drivers in the industry are:

- ◇ **Cyber Security:** Experts predict that the proliferation of 5G Networks and Internet of Things (IoT) will likely usher in a new age of security threats from hackers. Thus, understanding and mitigating these threats will be a core task in 2024 and beyond. The trend over the past few years has shown an almost continuous rise in both the number and sophistication of cyber-attacks. The digitalisation of business means a larger part of the economy is a potential target. This was accelerated by more people working from home during the COVID-19 pandemic. As of September 2021, the Cybercrime Unit of the Criminal Investigations Department (CID) of the Ghana Police Service stated that cyber frauds represented 45% of all cybercrime cases, making it the topmost.
- ◇ **Cloud Computing Adoption:** There is a growing shift to cloud-based solutions in enriching the value of networks. Most Telecommunications Companies rely on data centres for hosting their IT infrastructure. However, rather than activating more private data centers, most Telcos are expected to migrate their essential IT infrastructure to the clouds for flexibility, scalability and in responding to demand fluctuations, speed, innovations, better resilience and cost.
- ◇ **Artificial Intelligence (AI):** An emerging trend in the industry is to provide a best-in-class customer service. In this respect, AI algorithms have been employed and are used to predict customers' behavioral patterns, improve personalisation, detect fraudulent activity and respond accordingly with groundbreaking efficiency. The use of virtual customer assistants also help to provide better self-service support tools while improving on response times, reducing customer support costs and providing better services. From the tremendous amount of data being generated online, AI can identify patterns and trends to make better informed decisions with limited human or manual intervention.
- ◇ **Fifth Generation Technology (5G):** 5G has been around for several years now but has not been used in its purest form. It has been used in combination with existing 4G networks, thereby not fully optimising its potential. It is projected that some 30 new markets will launch 5G services ("stand-alone" and "non-stand alone"). Importantly, many of these will be developing markets across Africa and Asia, making 5G truly global and with the potential to enable new

types of digital services and applications.

While 5G is in the very initial stages of gaining global ascendancy, currently there is talk in academia and Research and Development (R&D) circles, touting 6G (sixth-generation mobile technology) as the future of wireless telecommunications systems.

6G is the 6th Generation mobile communications technology which is expected to support a variety of applications. It is expected to provide a platform to enhance the following usage scenarios:

- a. Immersive communication;
- b. Integrated artificial intelligence and communication;
- c. Hyper-reliable and low-latency communication;
- d. Ubiquitous connectivity; and
- e. Massive communication and integrated sensing.

Practically, 6G networks would be able to operate on higher spectrum bands to provide higher capacity with very low latency of 0.1 – 1millisecond. One of the goals of the 6G internet is to support one microsecond latency communications. This is 1,000 times faster - or 1/1000th the latency - than one millisecond throughput.

- ◇ Internet of Things (IoT): This refers to a growing and multifaceted telecoms ecosystem of devices embedded with smart sensors connected over the internet with the capability of real-time data collection. This system can be analysed quickly and used for predictive decision making. As internet speed increases with the advent of 5G, IoT would present tremendous opportunities for growth. Already, google maps are accessed in real-time mode.
- ◇ Latest Broadcasting Technologies: In the broadcasting sector, the proliferation of new technologies such as Internet Protocol Television (IPTV), Digital Video Broadcasting, and Digital Audio Broadcasting (DAB) have changed the investment dynamics and provided a viable platform for individuals to reach the public. Traditional media houses are under pressure to adapt to digitalisation with Media start-ups pioneering new forms of digital journalism. Raising the representation of rural voices in digital media requires policy and regulatory interventions just as the uptake of high user interaction offers high potential for digital participation brought about by improvements in technology.

These drivers of the telecommunications and broadcasting products and services sector will be influential factors in determining the growth and shape of the industry.



NCA Situational Analysis

This section provides a summarised state of the NCA currently. It presents a snapshot of the “As Is” situation with a SWOT Analysis of the Authority and the industry which details the eco-system within which the NCA works and a stakeholder analysis.

As a regulator, the NCA plays a key role in the setting and monitoring of standards, enforcing compliance and acting as a fair arbiter that protects the consumer and promotes competition to ensure the industry remains dynamic. The NCA is also tasked with managing the allocation, providing rules of utilisation and transfer of spectrum. In this function, the NCA utilises the tools and authority granted to it by legislation. These are implemented by a current workforce of 353 permanent employees. NCA employees operate from the Head Office in Accra and eight (8) Zonal offices covering all the sixteen (16) Regions in Ghana. The gender ratio is 1:0.73 with 200 male and 153 female employees. The demographic segmentation in relation to gender has the Finance and Consumer and Corporate Affairs Divisions dominated by females, whereas the Engineering and Regulatory Administration Divisions skewed towards males.



Figure 1: SWOT Analysis

Key success factors

The NCA seeks to capitalise on its strengths and mitigate or totally eliminate its weaknesses. It will also endeavour to avail itself of the opportunities and position itself to resist the threats envisioned. From the SWOT analysis undertaken, it is evident that the keys to success for the Authority in the next five years, among others, will include its ability to:

- ◇ Leverage on research and international best practices to promote innovation in the industry;
- ◇ Narrow the gap between advances in the industry and regulatory supervision and control;
- ◇ Inject frameworks that will improve dynamism and promote greater competition;
- ◇ Engage the MoCD with policy analysis, options and proposals;
- ◇ Sustain and improve on the existing good work environment;
- ◇ Leverage on automation of business processes to build accountability and transparency;
- ◇ Create an enabling environment that will promote investment and remove barriers to competitions;
- ◇ Sustain and expand capacity development with a focus on in-house specialisations and
- ◇ Improve performance-based incentives and conditions of work.

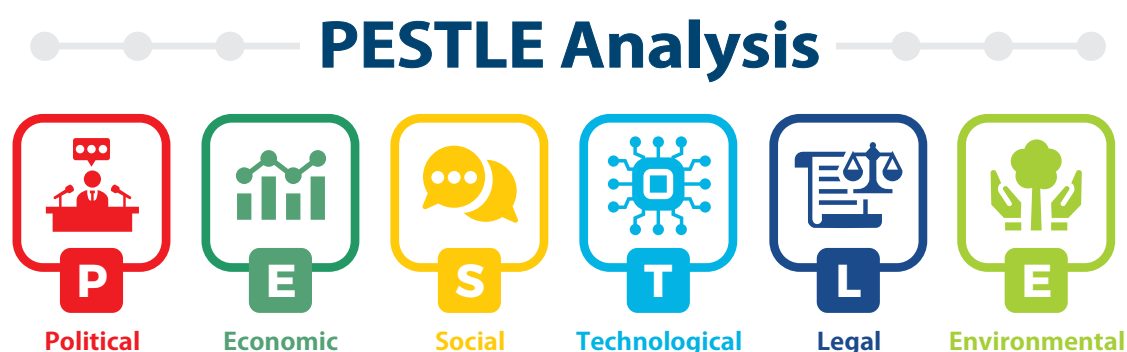


Figure 2: PESTLE Analysis

This environmental scan consists of a review and analysis of the current socio-political, economic and the context of external ecosystem within which the NCA works, in order to determine key trends that informed the vision, mission and the strategic choices made by NCA for the next five years.

Stakeholder Analysis

The National Communications Authority (NCA) serves a wide range of internal and external stakeholders operating in the telecommunications and digitalisation space. These stakeholders have different and varied expectations and with commensurate levels of importance and interests, which dictate what is required of the NCA. The stakeholder analysis presents two major scenarios to the NCA in the context of implementing this Strategic Plan: it offers the Authority the opportunity to be aware of and categorise the people/institutions, who may possess a leverage to influence its work; Additionally, it offers pertinent guide and inputs into prioritising these stakeholders. Some of the guiding insights refer to questions such as:

- ◇ Which stakeholders have the most influence?
- ◇ Which stakeholders benefit the most?

- ◇ Where are resources plentiful?
- ◇ Which operational plan or strategy should the NCA develop to leverage optimum benefits?

Table 1 below summarises the major NCA stakeholders, expectations, relative importance and expected NCA performance within the context of implementing this five-year plan.

Table 1: Stakeholder Matrix

Broad stakeholders	Sector	Specific stakeholders	Expectations	Relative Importance	NCA Expected Performance
Internal	NCA: <ul style="list-style-type: none"> Board of Directors Management Staff 		Good corporate governance Achievement of Vision, Mission and five-year goals	High Importance	Deliver on mandate as telecommunications and broadcasting regulator, Achieve corporate deliverables i.e. the KPIs
	Government Institutions	MoCD, MoF, SIGA, Ghana Police Service, NSB, GIFEC, Data Protection Commission, National Information Technology Agency, AITI-KACE, MMDAs, other Government Ministries, Ghana Meteorological Agency	<ul style="list-style-type: none"> Strategic direction Collaboration Provision of funding Legal support 	High Importance	Periodic engagement
Partners/ Collaborators	Regulators	<ul style="list-style-type: none"> Ghana Maritime Authority National Media Commission Environmental Protection Agency Bank of Ghana Ghana Civil Aviation Authority Ghana Standards Authority Cyber Security Authority 	<ul style="list-style-type: none"> Information sharing Developments in the telecommunications space Effective service delivery 	High Importance	<ul style="list-style-type: none"> Periodic briefing Dissemination of information
	Industry Associations	GIBA; Chamber of Telecommunications, Ghana Internet Services Providers' Association, Mobile Money Agents Association of Ghana	<ul style="list-style-type: none"> Collaboration Technical support 	High Importance	<ul style="list-style-type: none"> Periodic consultation and updating
	Academia/ Research Institutions	Ghana Communication Technology University, GSS, ISSER KNUST, All Nations University, UG, UPSA	Collaboration	High Importance	Engagement to review collaborative work/ initiatives
	International organisations	WATRA, ITU, ATU, ECOWAS, GSMA, AFUR, CTO, World DAB	<ul style="list-style-type: none"> Collaboration Provision of funding Strategic direction Technical support 	High Importance	<ul style="list-style-type: none"> Engagements and Updates. Review of collaborative initiatives.

Broad stakeholders	Sector	Specific stakeholders	Expectations	Relative Importance	NCA Expected Performance
Service Providers	Manufacturers, Network Operators, Licence/Authorisation holders, International Wholesale Carriers.	Radio/Television Broadcasting and DTT Conformance, Licence Issuance, Mobile Virtual Network Operations, Telephony Numbering Resources, Submarine Cable Landing, UMTS-900, VAS, Dealership.	<ul style="list-style-type: none"> • Effective service delivery • Developments in the telecommunications space • Accountability 	High Importance	Periodic engagements
General Public/Media	The Population	Consumers and all citizens (some citizens may have health & safety concerns)	<ul style="list-style-type: none"> • Cordial relationship • Social responsibility • Employment opportunities 	Medium - High Importance	Periodic briefing Regular updates



SECTION THREE

Strategic Plan Development Process

This section explains the process adopted in developing the strategy, the values, principles and parameters underpinning the strategy and provides the strategic framework for the NCA.

THE STRATEGY DEVELOPMENT PROCESS

The development of the National Communications Authority's 2024-2028 Strategy Plan began in December 2022 and ended in April 2023. The strategy was developed in consultation with the NCA Staff, Senior Management and the Board of Directors. The process adopted in the strategy development was consultative and participatory in approach. The team was ably assisted by the NCA's Research, Innovation, Policy and Strategy Division, which facilitated contacts with key stakeholders. Activities undertaken in developing the strategy included:

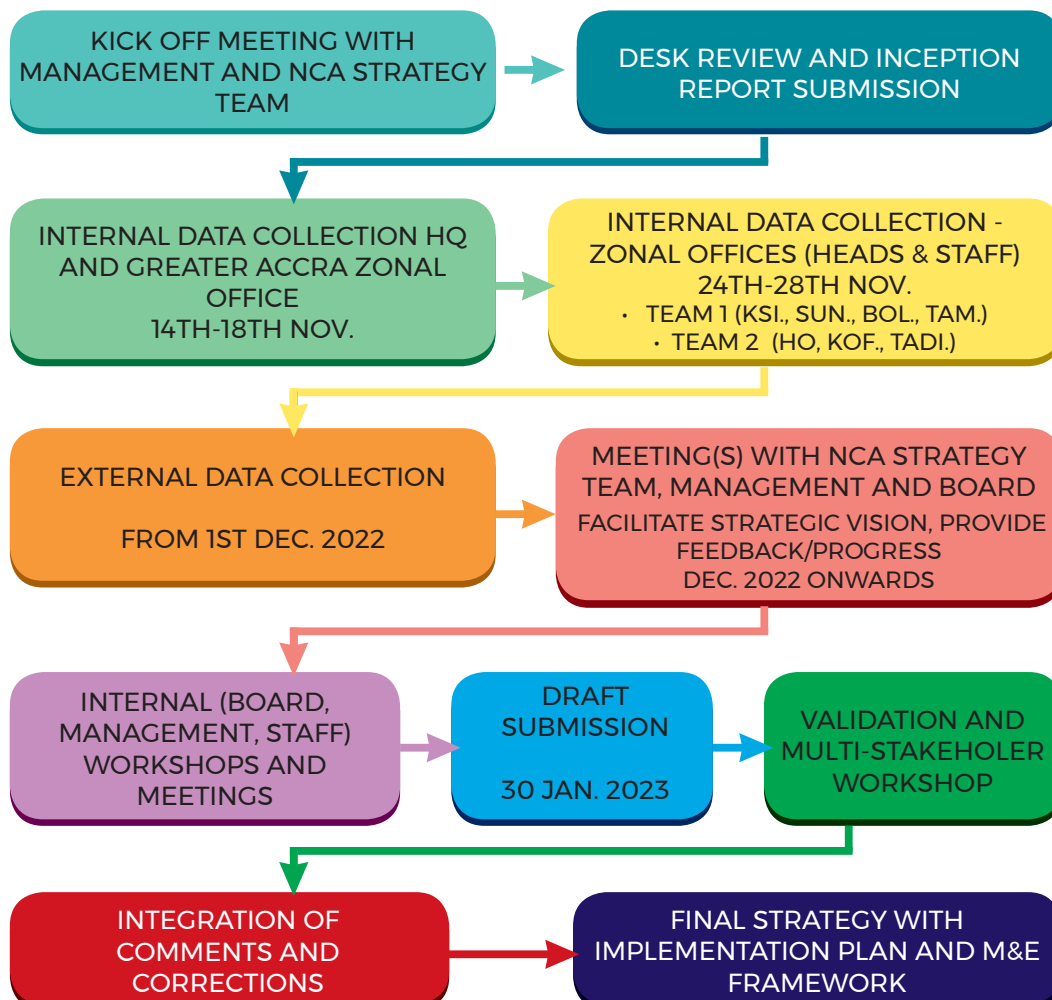


Figure 3: Strategic Plan Development Process



SECTION FOUR

The Five-Year Strategic Plan

This section details the trends and factors underpinning the strategy to ensure that it aligns with global, regional and national policy frameworks and the issues informing the choice of strategic pillars.

Underpinning trends and factors

The NCA strategic plan development took inspiration from the key deliverables of the current Board Strategy to:

1. Create an enabling environment to ensure a successful SIM registration process;
2. Implement and report on SMP remedies;
3. Undertake an HR audit and salary benchmarking; and
4. Complete the establishment of a Board Secretariat.

It also took into consideration prescriptions and strategies of the national, regional and international development agenda. At the national level, this Strategic Plan ensured that it is in sync with Ghana’s Development Plan namely:

(i) The Coordinated Programme of Economic and Social Development Policies 2021-2025 (CPESDP):

(ii) The National Digital Economy Policy:

Table 2: NCA Strategic Pillars aligned to Tenets of the National Digital Economy

NCA Strategic Pillars	Research, Innovation & Process improvement	Stakeholder Coordination & engagement	Human Resource Strengthening	Resource Management
Digital Economy Pillars	Data-driven Innovation and Entrepreneurship Digital Government Data and Emerging technologies		Digital literacy and skills	Universal Access and Connectivity Infrastructure Sharing Unified Licensing Revised Spectrum Allocation

(iii) The Digital Economy for Africa (DE4A)

Table 3: NCA Pillars aligned to Principles of ATU Digital Economy for Africa

NCA Strategic Pillars	Research, Innovation & Process Improvement	Stakeholder Coordination and engagement	Human Resource Strengthening	Resource Management
African Telecommunications Union	Transformative	Inclusive, Collaborative	Home-grown	Comprehensive

- (iv) At the international level, the NCA’s Strategic Plan also aligns with the mission of the International Telecommunications Union (ITU), which seeks to promote, facilitate and foster affordable and universal access to telecommunications/information technology networks, services and applications and their use for social, economic and environmentally sustainable growth and development.

The ITU’s Strategic Plan for 2024-2028 focuses on the following twin goals:

Universal Connectivity - Enable and foster universal access to affordable, high-quality and secured telecommunications/ICTs.

Sustainable Digital Transformation - Foster equitable and inclusive use of telecommunications/ICTs to empower people and societies for sustainable development⁹.

As a regulator of the communications industry and a key institution designated by the MoCD to represent Ghana at the ITU, the NCA has taken necessary steps to ensure that its five-year Strategic Plan (2024-2028) supports the ideals and objectives of the ITU.

The NCA will also continue to support Ghana’s re-election bids to the ITU Council and other positions within the ITU. Further to this, the NCA will contribute to studies and other ITU initiatives by supporting the participation of its employees with the relevant expertise.

(v) **The United Nations Sustainable Development Goals (SDGs):**

The United Nations Sustainable Development Goals (SDGs): The role of the ICT regulator has never been more important in its contribution to development. “ICTs are at the heart of efforts to attain the 17 UN Sustainable Development Goals, and accessible, affordable ICT infrastructure is the pre-condition of every nation’s ongoing socio-economic development”.

The telecommunication industry plays a critical role in achieving the Sustainable Development Goals, acting as a key enabler for many solutions to be successful. Also, mobile network technologies starting with 3G, 4G and now 5G, have a role to play in enabling access to technologies and applications across the world.

NCA's Strategic Plan will contribute to the achievement of all the 17 Sustainable Development Goals (SDGs), directly or indirectly through the effective regulation of connectivity deployment and development of ICT applications. More specifically, the Authority's Strategic Plan will impact on the following SDG goals:

SDG 7. Affordable and clean energy - Rising technology use contributes to emissions of carbon dioxide and other greenhouse gases. At the same time, cutting-edge technology will be essential to cut global emissions, build smart grids and cities, electrify transport, and build sustainable economies and societies. Telecommunication regulation will assist in providing more stringent energy efficiency and emission control standards for ICTs and outline how smart grids can help to build more controllable and efficient energy systems and reduce carbon emissions.

SDG 9. Improved Infrastructure - The Authority will work directly to improve the extent and quality of ICT infrastructure of radio communication and backbone networks and to extend networks into underserved remote and rural areas. By setting and enforcing standards in accordance with ITU, the NCA will work to improve the efficiency and performance of ICT networks, in backhaul, wireless and radio communication networks.

SDG 12. Responsible consumption and production. E-Waste, including waste created by ICTs, is increasing all over the world. Ghana is no exception importing about 150,000 tons of second-hand electronics a year, according to a 2011 study coordinated under the Basel Convention. The NCA's voice needs to be active to address the global challenge of waste from electrical and electronic equipment to proffer guidelines for the sustainable management of e-waste.

More specific programmes and initiatives are contained in the Divisional implementation plans in this strategic plan to address various aspects of the SDGs outlined above.

Also, a more detailed description of how telecommunication and ICT contributes to the achievement of all seventeen (17) SDGs can be found in annex seven of this document.¹¹

NCA-A Good Regulator

As per the Medium-Term Expenditure Framework (MTEF) for 2022 - 2025, the MoCD has committed the NCA to a number of actions that the strategic plan must capture in its implementation activities. Some of these activities are already in the process of implementation with others having been completed. Other activities on track or yet to be commenced are:

- ◇ The continued digitalisation of its internal processes;
- ◇ Implementation of the remaining modules of the Customer Relationship Management (CRM) systems to achieve the paperless processing of Type Approval, Value Added Services and other non-spectrum licensing requests;
- ◇ Systems to secure collaborative work and remote access (MS Teams and SharePoint, among others);
- ◇ Acquisition of mobile and fixed spectrum monitoring systems to enhance and expand the tools for compliance verification, detection of illegal transmissions and resolution of interferences to maintain the integrity of the frequency

management process;

- ◇ Enforcement of Conditions of Licences and Authorisations;
- ◇ Sanitising the FM and TV authorisation environment to ensure conclusive processing of all new and renewal applications and enforcement of violations/breaches to terms and conditions of authorisations;
- ◇ Assessing the 2G, 3G and 4G coverage for the population and landmass to measure the coverage of mobile network in Ghana, assess compliance to coverage obligations and to identify areas that need attention;
- ◇ Renew all expired licences such as 2G (AirtelTigo and GLO), 3G (All MNOs), Broadband Wireless Access, Towers and Submarine (Vodafone, Undersea Cable Licensing etc.);
- ◇ License new spectrum for 5G services to provide industry with spectrum to rollout high speed data services to support new services and applications;
- ◇ Develop modalities to enhance more efficient use of spectrum including spectrum sharing and technology neutrality development;
- ◇ Develop an online “DO NOT TEXT OR CALL REGISTER (DNTCR)” to enable consumers register their telephone numbers to avoid receiving unwanted sales and marketing calls and text messages to mitigate the rampant abuse of Unsolicited Electronic Communications;
- ◇ Fraud Management, Revenue Assurance, Mobile Money Monitoring & Traffic Monitoring to mitigate fraud and monitor revenues due Government from the mobile communications sector in collaboration with the Ghana Revenue Authority (GRA);
- ◇ Effective use of the Type Approval Labs (TAL) to ensure that only approved and standardized ICT equipment are assembled and imported into the country; and
- ◇ Conduct Field, Network and Billing verification to provide full visibility of the MNOs with emphasis on 2G, 3G, 4G and future 5G mobile networks performance. It is expected that the Parliament of Ghana will pass the Quality-of-Service Regulations Bill into law.

Making NCA A Great Regulator

Five-Year Goal (MISSION): Moving from Good to A Great Regulator: An innovative, agile, professional and proactive regulator, adaptive to emerging changes in the communication and digital eco-system, and delivering optimally to all its stakeholders.

The NCA will achieve the above goal by the implementation of strategic activities under the four strategic pillars namely:

Strategic Pillar 1 - Structure and reposition research, innovation, and process improvement throughout the NCA to be abreast with industry development by 2028.

Strategic Pillar 2 - Build coordination and collaborative structures for enhanced engagement by 2028

Strategic Pillar 3 - Human resource capacity developed and empowered throughout the Authority by 2028

Strategic Pillar 4 - Optimise current resources, diversify, and develop new areas of growth including revenue.

Efficiency will be a cross-cutting issue for all the strategic pillars. This will make NCA a

high performing institution and reduce unnecessary cost.

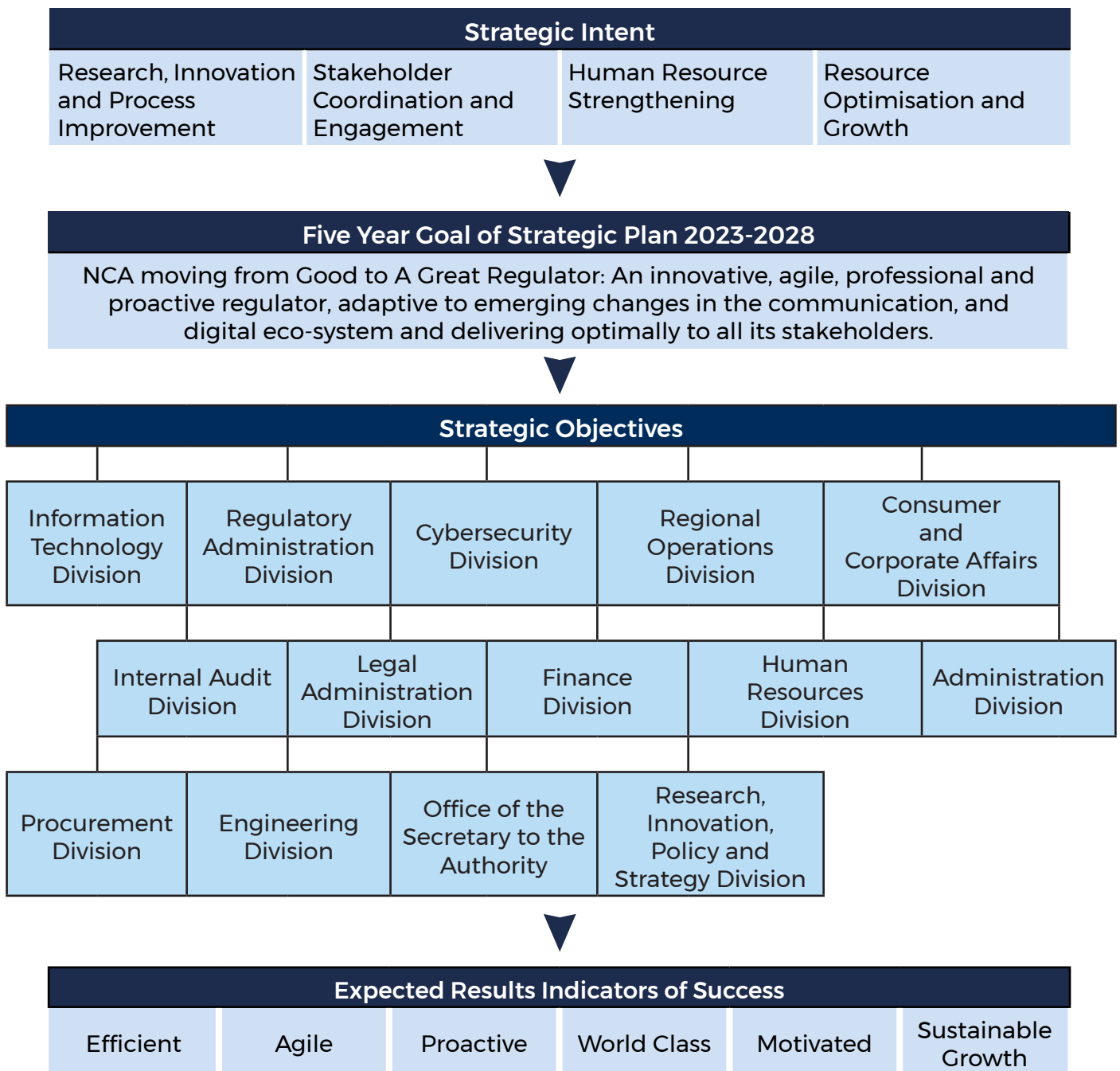


Figure 4: Strategic Intent

STRATEGIC PILLARS

1. Research, Innovation and Process Improvement

Strategic Pillar 1 - Structure and reposition research, innovation, and process improvement throughout NCA to be abreast with industry development.

Outputs

- a. Research mainstreamed (rotating monthly presentations) in every Division;
- b. Linkages and partnership with academia (GTUC, KNUST etc.) and research institutions (GSS, ISSER);

- c. Number of publications, regulatory options, and policy proposals;
- d. Industry collaboration;
- e. Regulatory Sandbox framework developed and implemented to incubate innovative ideas;
- f. A gap analysis on G5 Advance to Leading conducted and identified gaps addressed;
- g. Regulatory Impact Analysis framework developed implemented; and
- h. Initiate actions to achieve Sustainable Production and Consumption.

Outcomes

- a. Unleashed research potential of the NCA to drive policy options or proposals;
- b. Instilled a culture of innovation and incubation of new ideas (regulatory, process etc.);
- c. The NCA is better positioned to effectively regulate new services that ride on emerging technologies;
- d. Improved market competition and industry growth;
- e. The NCA's ranking on the ITU G5 Benchmark moved from Advanced to Leading status within the lifetime of this Strategic Plan; and
- f. Process improvement and operational efficiency is achieved through the use of technology and automation of processes.

2. Stakeholder Coordination and Engagement

Strategic Pillar 2 - Build coordination and collaborative structures for enhanced engagement and feedback.

Outputs

- a. Establishment of effective coordination structures;
- b. Regular external stakeholder dialogue platforms formed;
- c. Timely response to stakeholder enquiries, queries, requests;
- d. Regular and timely sharing of relevant information with stakeholders; and
- e. A dashboard instituted to measure responsiveness to stakeholders.

Outcomes

- a. Strengthened internal and external collaboration and coordination;
- b. Enhanced responsiveness to stakeholder needs;
- c. Improved stakeholder relations; and
- d. Reduced stakeholder complaints.

3. Human Resource Strengthening

Strategic pillar 3 - Human resource capacity developed and empowered throughout the Authority.

Outputs

- a. Current personnel enhanced and empowered to be innovative;
- b. Stepwise devolution of authority to zonal offices;
- c. Better work environment: flexi work, career path, job rotation, succession planning, among others;
- d. Information symmetry across Divisions; and
- e. Establishment of a Learning Academy to position the NCA as a Centre of Excellence in the sub-region.

Outcomes

- a. Enhanced employee skills and competence;
- b. Enhanced staff morale;
- c. Improved employee productivity;
- d. Reduced attrition rate;
- e. Increased level of attraction as an employer; and
- f. Increased creative ideas.

4. Resource Management

Strategic pillar 4 - Optimise current resources, diversify and develop new areas of growth including revenue.

Outputs

- a. Develop Policy and Guidelines for spectrum sharing among service providers;
- b. Develop a framework for spectrum valuation and assignment;
- c. Operationalise unified licensing regime;
- d. Facilitate the expansion of broadband access and adoption;
- e. Implement Digital Audio Broadcasting;
- f. Assign spectrum for 5G deployment;
- g. Commercialise Type Approval laboratories; and
- h. Lease or rent all vacant office spaces.

Outcomes

- a. Improve quality and efficiency of broadcasting;
- b. Efficient and effective use of spectrum;
- c. Availability of safe electronic devices;
- d. Increased broadband access and speed to facilitate the digital economy;
- e. Increased NCA revenue streams; and
- f. Promote clean energy use and sustainable operations for the Authority and industry.



— SECTION FIVE —

ACTION PLANNING FOR IMPLEMENTATION

This section details the action planning for Implementation, the risk and mitigating measures.

Steps and Suggestions: Within the context of implementing a strategic plan, some suggestions are made during the development process, which require addressing to ensure success. Additionally, certain steps are taken and these include instituting an implementation monitoring team and the development of a performance tracking framework. Strategic plan implementation requires the Authority-wide collaboration and significant leveraging of efforts and resources. In some instances, cross functional teams and committees are formed during implementation to achieve common goals/objectives.

Implementation Team: The establishment of a Strategic Plan Implementation Committee (SPIC), which will be chaired by a Management member, would be well placed to ensure that activities and planned targets are achieved. In implementing the NCA five-year plan, the implementing team would develop a tracking framework to periodically monitor activities. Activities, developed for achieving the five-year goal, would be implemented by responsible Divisions. The Divisions would be doing this in addition to assigned operational routine activities as per job descriptions and annual work programmes.

Sensitisation: Periodic internal and external sensitisation on progress of implementation is key as per the communication plan developed to disseminate information on the implementation roll out. Management, led by the Director General, will take steps in undertaking these sensitisation engagements.

Action Plan and Performance Tracking Framework: The strategic objectives, strategies and activities will be implemented in line with the action plan.

ACTION PLANNING - MOVING FROM G5 ADVANCED TO G5 LEADING PER THE ITU G5 BENCHMARK

The G5 Benchmark is a tool developed by the ITU to assess how member countries are progressing towards the attainment of digital transformation. It asserts on the importance of more flexible and cross-collaborative regulatory frameworks as key ingredients for a digital economy. Ratings are based on the extent to which member countries are classified into one of four levels, based on their readiness for digital transformation or the maturity of their national policies. The four levels of ratings range from **Limited** to **Transitioning** and **Advanced** to **Leading**.

Ghana's current rating is Advanced, where its ICT sector policy and governance are handled holistically and not as separate sectors. Part of the objectives of this Strategic plan is to support the country to move from its current **Advanced** status to the **Leading** status, where there is complete coherence and harmonization of ICT, digital policy framework, and a more streamlined governance.

To attain the **Leading** status, a gap analysis was conducted based on which an action plan was developed to bridge the identified gaps.

These action plans have been placed under the related Pillars of the Authority's Strategic Plan and are expected to be performed during the lifetime of the Strategic Plan. The NCA will collaborate with relevant Agencies and Ministries to ensure the achievement of these goals for Ghana.

DISASTER AND STRATEGY IMPLEMENTATION RISK

Disaster Risk Management

The NCA is not immune to the vagaries of nature, and natural or unnatural forces that may threaten its infrastructure and personnel in the performance of its mandate. As a critical national institution, the NCA, under the guidance of its board committee for Risk Management (RISKCOM), has in accordance with the requirement of the Business Continuity Management Policy and Framework (BCMPF), put in place a plan that will guide the Authority to recover from a disaster with the potential to disrupt its operations. This Disaster Recovery Plan (DRP) is an actionable document which describes the ability of the NCA to recover from a disaster as well as the processes and procedures to be seamlessly implemented in the event of a disaster.

The main goals of this DRP include:

- a. Preventing the loss of the Authority's resources such as hardware, data, and physical IT assets;
- b. Minimising downtime related to IT infrastructure;
- c. Keeping the business running in the event of a disaster;
- d. Limiting the severity and the impact of disruptions on IT systems; and
- e. Re-establishing normal business operations within a reasonable timeframe depending on the criticality of the disruption.

Strategy Implementation Risk

Invariably, in the implementation of the five-year strategy, there will be a number of risks to the effective implementation of the programmes, projects and actions planned. Some of the risks have been anticipated while mitigating measures have been developed.

Table 4: Divisional Strategic Direction

	DIVISION	STRATEGIC OBJECTIVE
1	Administration Division	To manage the Authority's landed property, physical assets and utilities in an environment that enhances the effective and efficient use of resources.
2	Consumer and Corporate Affairs Division	To provide safeguards, mechanisms and improve services for consumers and programmes to enhance the image of the Authority to the public.
3	Cybersecurity Division	To ensure cyber security within the Authority and the telecommunications sector.
4	Engineering Division	To ensure the effective and efficient management of the Radio Frequency Spectrum for all services. To promote technological advancement and develop specifications and standards for radio communication services.
5	Finance Division	To provide financial advice and manage funds as well as safeguard assets and resources of the Authority.
6	Human Resources Division	To support the attainment of the Authority's corporate objectives through the efficient management of its human resources.
7	Information Technology Division	To create an environment to enable/enhance data-driven decision-making by building capacity for Business Intelligence
8	Internal Audit Division	To support and facilitate strategic change while simultaneously identifying the potential for risks associated with change and to propose effective controls for those risks.
9	Legal Division	To provide legal advice and representation to the Authority in court inter alia in order to avoid legal liabilities
10	Office of the Secretary to the Authority	To facilitate the efficient operation of the Authority's formal decision making and reporting processes, provide secretarial functions to the Board and co-ordinate meetings and activities of the Governing Board (S. 18 of NCA Act, 2008).
11	Procurement Division	To support and facilitate the Authority's procurement activities through effective and efficient procurement processes to achieve value for money.
12	Regional Operations Division	To ensure effective and efficient Zonal Office operations
13	Regulatory Administration Division	To regulate the electronic communications space in a proactive manner to foster investor and consumer confidence.
14	Research, Innovation, Policy and Strategy Division	To conduct industry research, regulatory impact analysis, and drive new growth opportunities through innovations to inform policies. It also leads the overall Strategic Planning process to support the effective delivery on the Authority's regulatory mandate



Communication Strategy

Communication Strategy and Implementation; Measuring effectiveness of Initial Communication; Communications Strategy and Implementation Plan Guidelines

CREATING AWARENESS FOR THE NCA STRATEGIC PLAN

Stakeholders of National Communications Authority

The target audience for the National Communications Authority Communication Strategy is categorised into two, namely internal and external.

The internal stakeholders comprise: The Board, Management and Staff of NCA

The external stakeholders are further sub-categorised into the under-listed:

- ◇ Broad stakeholders;
- ◇ Specific stakeholders; and
- ◇ Specific industry players.

Communication Matrix

The **Communication Matrix** below, provides information on selected methods for effective communication with the various stakeholders. Other considerations would include the following:

- ◇ The entire Management will be responsible for the roll out and implementation of the Strategic Plan. The Consumer and Corporate Affairs Division of the NCA would champion the strategy and be accountable and responsible for the effective dissemination of information on this plan to the Authority's external stakeholders.
- ◇ The Research, Innovation, Policy and Strategy Division will be responsible for the internal coordination and monitoring of the Strategic Plan.
- ◇ A clear commitment from identified key internal and external target audiences in supporting the strategy.
- ◇ Resources to support the development and deployment of the Communications Strategy (i.e., people, budget and time).
- ◇ Soliciting and acting on feedback from stakeholders for improvements.
- ◇ Keeping the messages short and simple so they can be easily comprehended.
- ◇ Developing a matrix to measure effectiveness of communications to stakeholders periodically.
- ◇ Participating and collaborating with other regulatory agencies and government institutions.

Table 5: Communication Matrix

Communication Matrix					
Target Audience	Objectives of Communication	Key Message(s)	Communication Channel(s)	Frequency	Responsibility
<p>Internal Governing Board; Management Team; Staff</p>	<p>To:</p> <ul style="list-style-type: none"> Provide regular update on Divisions' and Departments' performance, challenges, successes in the implementation of operations Emphasise the role of NCA management and staff in ensuring achievement of organisational goals Coordinate with relevant stakeholders 	<ul style="list-style-type: none"> Awareness and buy-in in Objectives, goals New/emerging developments 	<ul style="list-style-type: none"> Internal communication channels – Circulars, Durbars, Emails, Annual Reports; Meetings; Workshops & seminars 	Regularly	Management Team; Human Resource Research, Innovation, Policy and Strategy Divisions
<p>Partners. Collaborators Government Institutions; Regulators; Industry Associations; Academia/Research Institutions; International Organisations</p>	<p>To:</p> <ul style="list-style-type: none"> Obtain political support during implementation Inform, seek inputs – financial and non-financial resources, legislative and other legal backing Inform and update on activities Exchange information 	<ul style="list-style-type: none"> Work of NCA in telecommunications and digitalization integral to all economic activities Dialogue on partnerships and collaborative work and programmes Capacity and capability of NCA as foremost telecommunications and digitalisation institution Information brief 	<ul style="list-style-type: none"> Meetings Ministerial & Parliamentary briefing Letters Workshops and conferences Project proposals 	Regularly As and when required	Governing Board; Director-General; Consumer and Corporate Affairs

Target Audience	Objectives of Communication	Key Message(s)	Communication Channel(s)	Frequency	Responsibility
<p>Service Recipients Radio/Television Broadcasting; Licence Issuance; Mobile Virtual Network Operations; Telephony Numbering Resources; Submarine Cable Landing, DTT Conformance Certification; UMTS-900; VAS; Dealership.</p>	<p>To:</p> <ul style="list-style-type: none"> Provide updates on NCA services; new developments; other regulatory and legislative changes Seek feedback on service provision 	<ul style="list-style-type: none"> Customer service as integral to telecommunications and digitalisation services Consumer protection and service satisfaction 	<ul style="list-style-type: none"> Focus group engagement Durbars Publications Workshops, & conferences Letters and Memos 	<p>Semi-annually As and when required</p>	<p>Director-General Management Team Consumer and Corporate Affairs Regulatory Administration Engineering</p>
<p>Competitors Other regulators operating in the telecommunications and digitalisation space.</p> <ul style="list-style-type: none"> 	<p>To:</p> <ul style="list-style-type: none"> Share information Discuss developments in the telecommunications and digitalisation space Engage on service offerings Deliberate on critical issues and proffer mitigating measures 	<ul style="list-style-type: none"> Compliance and conformity Telecommunications and digitalisation as integral to economic growth and development Sharing of national and international emerging best practices 	<ul style="list-style-type: none"> Focus group engagement Newsletters and other publications Memos and typical internal communication tools Advertisement 	<p>Semi-annually As and when required Regularly</p>	<p>Director-General DDGs Consumer and Corporate Affairs</p>
<p>General Public Citizens and general population.</p>	<p>To:</p> <ul style="list-style-type: none"> Inform, provide details of upcoming changes to telecommunications and digitalisation services. Elicit inputs and feedback Discuss and compile complaints on service provision and delivery. 	<ul style="list-style-type: none"> Importance of regular interaction Sustained awareness on engagement Programmes and activities update 	<ul style="list-style-type: none"> Press Releases Updates on website and information portals Radio/talk shows Brochures, Magazines, Flyers, Toll. Free Numbers 	<p>Periodically Regularly As and when required</p>	<p>Board of Directors; Director-General; Management Team; Consumer and Corporate Affairs</p>



– SECTION SEVEN

Costing of Strategy

This section states the assumptions used to determine the cost of projects and programmes outlined in the implementation plans.

The implementation of this 5-year strategy will depend on the financial capacity (both technical and cash inflows) of the NCA to finance key activities. Resource requirements in the Divisional Implementation Plans are **indicative** and will need to be fine-tuned during the regular annual work planning and implementation.

ASSUMPTIONS

Certain assumptions in the development of the costing of the NCA Strategy, include:

1. The costing of the matrix is done having in mind that the procurement process of the Government of Ghana will be utilised for all procurements.
2. Inbuilt into the costing are the processes for procurement such as developing TOR, RFP, RFQs, cost of evaluating proposals, and quotations i.e. consultant to draft terms of reference, the cost of advertisement in the dailies, the cost of accommodation and honorariums for technical experts and others needed for an evaluation, etc.
3. Cognizance that some activities will require greater expenditure on, for example, year one and two with the subsequent years being much less, a “straight line” costing has been adopted for activities that span the full period of the action plan.
4. The cost of advocacy in terms of publicity where public sensitisation and education is envisaged using public media (Radio, TV, internet and print) can be predominantly done using the government media agency (Information Services Department) which therefore have subsidised rates.



– SECTION EIGHT –

Monitoring, Evaluation and Reporting

This section describes the processes for monitoring and evaluation of the implementation of the strategic plan as well as timeline for reporting on performance.

Monitoring and Evaluation

At a minimum, on an annual basis, the following monitoring activities will be carried out. These activities should be overseen by the Strategic Plan Implementation Committee (SPIC) with oversight supervision provided by the DG. There will be an external mid-term evaluation half way through implementation (2026) and an outcome evaluation three months after the close of the strategy period (2028). In the Annual Work Plans that will be developed by the Divisions, output indicators will be detailed and the monitoring and evaluation process will use quantitative and/or qualitative indicators against each of the outputs. Monitoring and evaluation tools include:

- a. Routine progress reporting from the SPIC;
- b. Regular data collection by Research, Innovation, Policy and Strategy (RIPS);
- c. Divisions submit quarterly and annual activity reports;
- d. A Risk Log kept by the Risk Committee to regularly review the external environment that may affect implementation of the Strategy;
- e. A Lessons Learning Log updated regularly to track on-going learning and adaptation within the telecoms sector. Lessons and best practices should be widely disseminated among stakeholders;
- f. A monitoring schedule plan shall be developed and updated to track key management actions/events; and
- g. The implementation of annual work plans reviewed annually through an internal review by NCA and the Ministry of Communications and Digitalisation.



NCA



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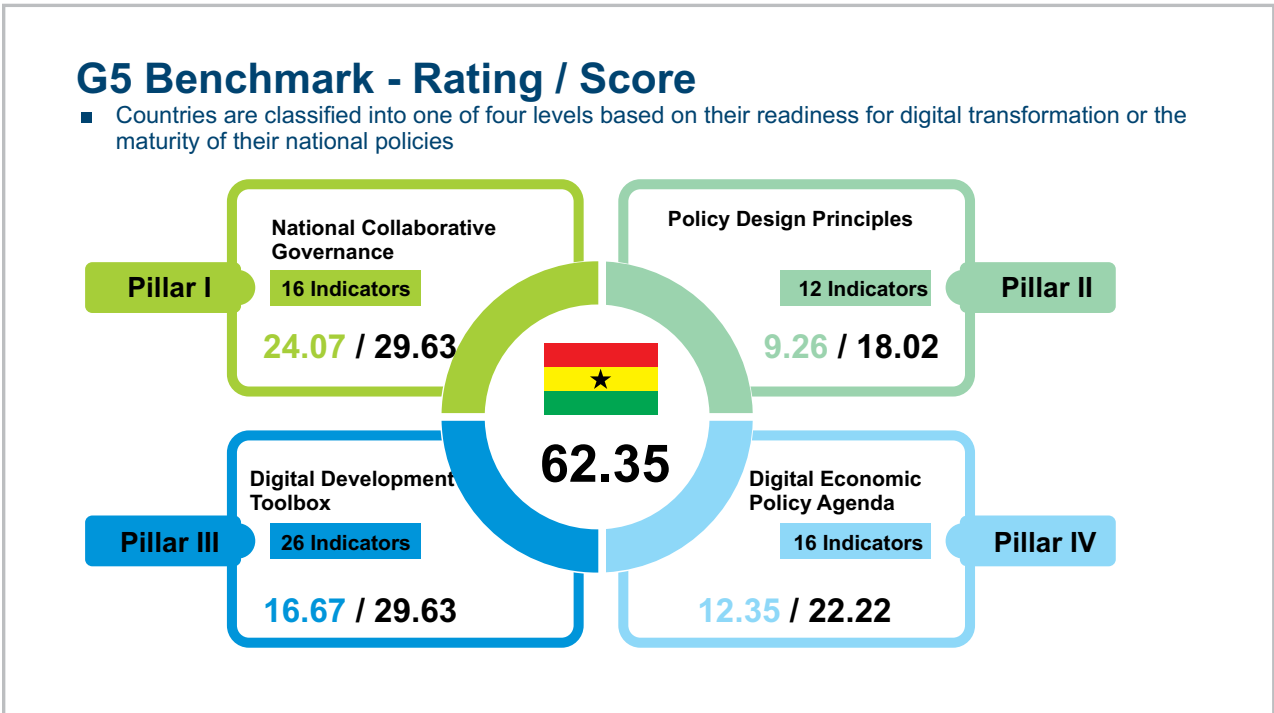
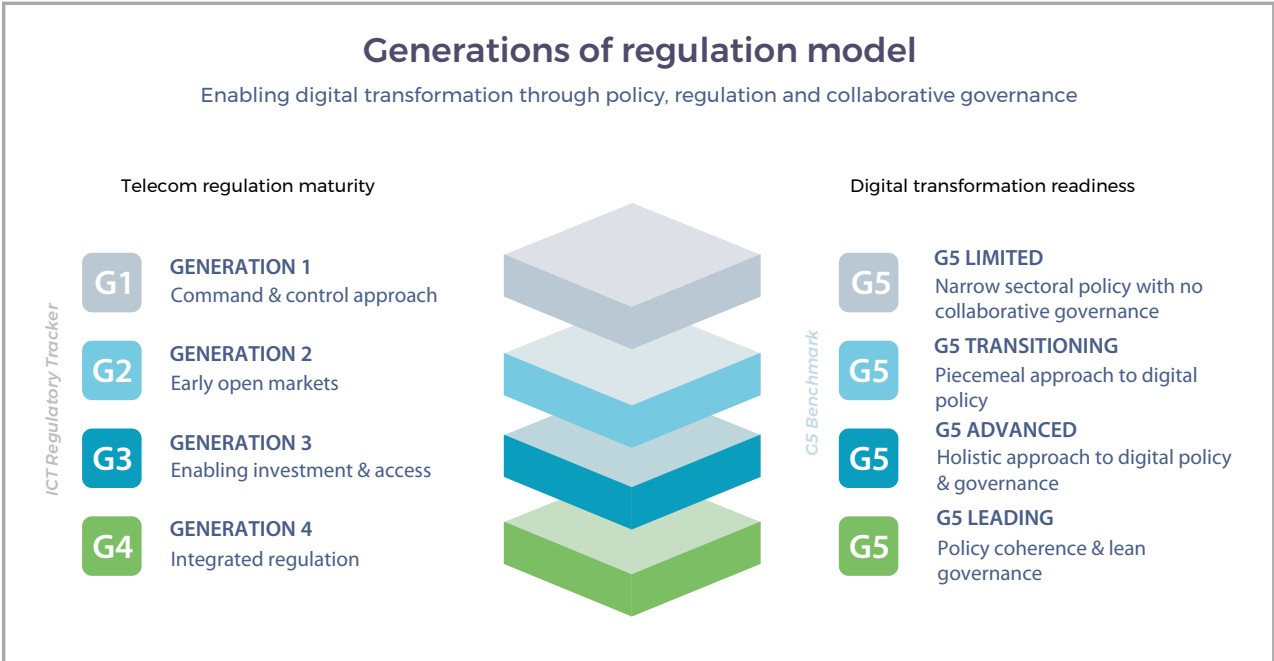
ANNEXURE 1: STRATEGIC FRAMEWORK FOR A GREAT REGULATOR

THE STRATEGIC FRAMEWORK, FROM WHICH NCA DEFINES ITS STRATEGIC PILLARS ARE DERIVED FROM CURRENT AND ANTICIPATED ISSUES/CHALLENGES AND PROPOSING ACTIONS THAT ARE RESPONSIVE TO ITS STAKEHOLDERS AND ACHIEVED ASPIRATIONS FOR THE FUTURE.

ISSUE/PROBLEM/CHALLENGE	STRATEGIC PILLARS	FOCUS
Need to streamline data management in NCA; Research needed in all Divisions to be at Cutting edge; Sandboxing of new practices needed. Demand from industry players for NCA to be more responsive to innovation. Automation needed of a myriad of processes e.g contract renewal, fleet management, facility management processes. Need for NCA to adopt the ITIL framework i.e., 1803500 standards.	<u>RESEARCH, INNOVATION AND PROCESS IMPROVEMENT</u> -Structure and reposition research, Innovation and process improvement throughout NCA to be abreast with industry development by 2028.	Research in all Division functions aimed at creating efficiencies and Innovation Process improvement
More synergy needed in Divisions. Demand for more devolution of functions and authority at Regional/Zonal offices. Improve and systemise internal engagement sessions/fora for the Authority. NCA expected to be more “supply-sided” by MoCD on policy initiation. Work needed to enhance regulator- entity relationship. Feedback delays and non-responsiveness to issues/complaints/challenges from stakeholders. Awareness creation and education campaigns have waned; need for a systematic and conscious engagement to address stakeholders’ issues i.e.: approvals; numbering; authorisations. Length of “no anchoring zone” – need for expansion. Need to improve NCA collaboration with auxiliary agencies – GMA, GPHA, Ghana Navy, Department of Urban Roads, GAEC. Awareness is needed to avoid objections to siting of towers.	<u>STAKEHOLDER COORDINATION AND ENGAGEMENT</u> Build coordination and collaborative structures for enhanced engagement and feedback by 2028	Establish coordination structures Collaboration (internal and external) Responsiveness Feedback Stakeholder engagement platforms Turnaround time Active web portal to enable access to online application/ functionality by consumers

ISSUE/PROBLEM/CHALLENGE	STRATEGIC PILLARS	FOCUS
<p>Limited capacity (people, equipment, processes) for NCA to meet changes in technology. Personnel who can innovate needed. Create capacity within NCA to absorb functions given to third party vendors. Change of work culture. Training for HoD as people managers. Increase in staff turnover rate.</p>	<p><u>STRENGTHEN OUR HUMAN RESOURCE</u> Human resource capacity developed and empowered throughout the Authority by 2028</p>	<p>Capacity development Empowerment 360-degree feedback Job rotation, work-life balance flexi work Improved work culture</p>
<p>NCA limitations on funding other agencies. Optimise tenancy revenue through proper management of NCA buildings. The Type Approval can be up-scaled and commercialised as an SBU (as in Tunisia). Seeking to optimise resources: Numbers; Spectrum; and Technology. NCA should align with the global formula for Spectrum Pricing, which is affordable. Need to establish measures to enhance spectrum usage, National roaming Issues, and measures to address 'Telcos versus Big Techs' e.g. policy governing 'excluded players: big-techs, OTT, IPTB, licensing issues.</p>	<p><u>RESOURCE MANAGEMENT</u> Optimise current resources, diversify and develop new areas of growth including revenue</p>	<p>Optimise assets</p> <ul style="list-style-type: none"> • Spectrum • Vacant office Spaces • Human Resources • Commercialisation of laboratories • Diversify services- explore regulation of OTT, Fintech, IPTV

ANNEXURE 3 : ITU GENERATIONS OF REGULATION MODEL AND GHANA'S CURRENT RANKING





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