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## FORWARD

Nigeria's efforts towards ensuring a sustainable social and economic development have reached a new crescendo with the Transformation Agenda of the administration of Dr. Goodluck Ebele Jonathan, GCFR, President and Commander-in-Chief, Federal Republic of Nigeria. The agenda is hinged on breaking away from practices of the past by ensuring Continuity, Consistency and Commitment to government policies and programmes as the country takes its place in the knowledge economy of the 21<sup>st</sup> Century.

The National Information Technology Development Agency (NITDA) in its bid to fulfil its mandate as the clearing house for the adoption and adaption of Information Technology for Nigeria's social and economic benefits has taken it upon itself to develop this framework. It provides an overarching guide for all stakeholders in the sector for the continuous sustainable use of Information Technology products and services across the government, private and Non-Government organizations.

It is imperative that Nigeria commits its natural and human resources towards developing appropriate technology products, solutions and services that provide critical support for its sectors. This is in addition emerge as a globally recognized contributor overall improvements in technology applications to sustainable development. The framework therefore, provides coverage for research and design initiatives that are locally driven.

Furthermore, our collective utilization of IT should not exert more economic costs than benefits we realize as a component of our national income. There is a need to keep up with global trends that cost of adoption and adaptation to new technology are on a downward trend. This will greatly help in achieving true penetration at the grassroots and thus boost overall national productivity. This cannot however be achieved unless we develop our national capacity towards finding innovative ways of applying existing technology and planning for new technology and the ones still in development phase. Our critical infrastructure will remain vulnerable as the world increasingly gets connected unless we are able to ensure that we are better than the rest of the world in managing our reliance on Information Technology.

The private sector remains the backbone of IT penetration given its commitment to invest heavily in both infrastructure and product development, not just for maximizing returns on investment but protecting its intellectual property as well. This will, under this framework, involve improved social relations with local or host communities to ensure appropriate safety nets are put in place to mitigate any predicted or sudden losses as a result of their operations.

Finally, NITDA has taken the initiative through this framework that IT penetration as a result of reasonable adoption and adaptation to social and economic activities in Nigeria is done within robust legal and regulatory frameworks. Implementation will also require funding and making available other forms of resources towards ensuring that the framework is fully put into practice. This framework therefore, represents a critical part of NITDA's regulatory compass as it seeks to ensure that individuals, organizations and public institutions take a sustainable approach to Information Technology use.

**Peter Olu Jack**  
Director-General/CEO, NITDA

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## ACKNOWLEDGEMENT

The Chairman and the members of the Joint Consultative Committee on National Framework for Building Information Technology Partner Ecosystem express their profound gratitude to the Honourable Minister, Federal Ministry of Communication Technology, Mrs. Omobola Olubusola Johnson for her vision in developing the Information Technology space in Nigeria towards achieving the Transformation Agenda of His Excellency, President Goodluck Ebele Jonathan, Ph.D., GCFR. We will like to express our thanks to the Permanent Secretary, Federal Ministry of Communication Technology, Dr. Tunji Olaopa for the support in fulfilling the Committee's mandate on this assignment.

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The Committee believes that with the strategic visioning of the Honourable Minister, the leadership and commitment of NITDA and continuous engagement by stakeholders, this framework will usher in a new era of Information Technology adoption and innovation in Nigeria for complete transformation and contribution to global development.

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## EXECUTIVE SUMMARY

The National Information Technology Development Agency (NITDA) is the clearing house for all IT projects, programmes and initiatives in the public sector. It is responsible for creating the necessary enabling environment and facilitates private sector and Foreign Direct Investment (FDI) in the IT sector in Nigeria.

The Agency is committed to the drive to bring government and its services closer to the people through IT. NITDA is entrusted with the implementation of the National IT policy, which seeks to make Nigeria an IT capable country in line with the country's vision 2020 with a vision to be the prime catalyst for transforming Nigeria into IT driven economy in line with the National Transformation Agenda.

### **Transformation Agenda of Nigeria**

Nigeria's development efforts have over the years been characterized by lack of continuity, consistency and commitment (3Cs) to agreed policies, programmes and projects as well as an absence of a long-term perspective. The culminating effect has been growth and development of the Nigerian Economy without a concomitant improvement in the overall welfare of Nigerian citizens. Disregard of these 3Cs has resulted in rising unemployment, inequality and poverty. The need for a holistic transformation of the Nigerian State has necessitated a strategy that gives cognizance to these 3Cs hence the birth of this Strategic Transformation Agenda, which covers the period 2011 – 2015.

The Transformation Agenda of the Federal Government which is based on and draws its inspiration from the NV 20:2020 and the 1<sup>st</sup> National Implementation Plan (NIP), aims to deepen the effects and provide a sense of direction over the next four years. The agenda is based on a set of priority policies and programs which when implemented will transform the Nigerian Economy to meet the future needs of the Nigerian people.

The Nigerian Transformation Agenda on ICT has a proposed investment of N22.2 billion over the four-year period. During this period, the FGN seeks to:

1. Ensure the development of a national knowledge Based Economy (KBE) 10-year Strategic Plan;
2. Sustained human capacity development in ICT;
3. Creation of a favourable and friendly investment and enterprise environment;
4. Development of infrastructure, particularly global connectivity as a prerequisite to leveraging the benefits of the global economy, improving domestic productivity and attracting foreign investments.

One of the main strategies for ensuring the above is by creating appropriate policies- legal, regulatory and institutional frameworks.

Hence, NITDA, whose mission and vision is to develop and regulate IT for sustainable National Development whilst being the prime catalyst for transforming Nigeria into an IT driven economy, identified the need for a National IT Partner Ecosystem.

This framework for building a National IT Partner Ecosystem would drive the use of technology to build robust economy for Nigeria. The objectives of this framework include:

Need for comprehensive ICT infrastructure inventory by NITDA

Strengthen relationship between NITDA and the key stakeholders

Encourage Nigerian content initiatives in ICT development and deployment especially in software

Create ICT knowledge and infrastructure hubs in collaboration with States.

IT companies operating in Nigeria should be encouraged to register their business outfit with CPN.



## ANALYSING NITDA'S FRAMEWORK FOR NATIONAL IT PARTNER ECOSYSTEM

The NITDA ecosystem consists of an interaction of a community of partners with their environment. The ecosystems would be controlled by both external and internal factors. The external factors typically would control the overall structure of the ecosystem and the way partners work within it.

It will involve a harmonious interconnectivity and interdependency of partners and have a complex set of relationships between them. The ecosystem has partners of equal influence and outcomes that are not fixed in advance are collaborative and invite innovation. In this ecosystem, governance structures appropriate to the ecosystem goals will provide a foundation to move forward.

The success of the IT ecosystem being catalysed by NITDA would require a deeper, more complex level of partnership. In order that the ecosystem is successful, it will have the following features

1. High commitment at the senior level
2. Leadership teams, social entrepreneurs & intermediaries
3. Open communication and governance
4. A balance of responsibility and influence between partners
5. An understanding of organizational culture
6. Promotion of a learning environment
7. Clear shared vision and goals
8. Development of trust and respect
9. Agreed achievable outcomes
10. Regular evaluation/ or adaptive iteration
11. Accurate and complete analysis of all stakeholders
12. Commitment and buy-in from all stakeholders
13. Transparency and accurate reporting
14. Encouragement of change and constant evolution
15. Timely identification of technological trends (both national, regional and international)
16. Collaborations and partnerships

**COMMITMENT AT THE SENIOR LEVEL:** is essential for the ecosystem to realize its potential. Due to this, the NITDA ecosystem shall ensure that partner organizations participate rather than being pulled along. It shall have high-level backing which would in- turn make negotiating a formal agreement easier, resulting in less reliance on individual personalities. This senior level support would orient collaborative leadership and is outward looking rather than service or product focused. Through this, industry leaders will provide credibility, extend networks and diversify the ecosystem partners resulting in a greater opportunity for innovation to occur. Since industry leaders are well connected to various networks and activities, their involvement will create interest in the ecosystem.

The presence of Leadership teams/social entrepreneurs/ intermediaries within the NITDA ecosystem would help steer and keep momentum going during the life of the ecosystem. These teams shall be champions for the ecosystem's vision. They shall be responsible to motivate partners and keep communication open. Leadership teams will have the responsibility of taking up facilitative duties and would be independent rather than filtering ideas or having hidden agendas. The more individuals



who can take on this role, the less likely the partnership will be vulnerable to personal relationship breakdowns. This will eventually lay the foundation for shared goals.

**OPEN & ONGOING DIALOGUE:** The ecosystem has open communication and governance in order to create opportunities for growth and diversity. This shall include:

1. Keeping membership open, exposing the ecosystem to new ideas and opportunities.
2. Ensuring open communication develops shared understanding and a sense of connection between members in the ecosystem.
3. Communicating ideas and information that allows members to add value creating greater opportunities.
4. Face to face communication resulting in strong relationships and partners feeling valued by the time invested in them.

**COLLABORATION:** Thus, the underlying principle of this ecosystem would be the balance of responsibility and influence between partners ensuring organizational leadership. Trust is a key ingredient that the ecosystem would drive to foster collaboration and independent intermediaries without personal agendas. Another feature the NITDA ecosystem would have is an understanding of organizational culture. These Potential partners would have the chance to identify cultural matches, organizational values and ethics needed for the success of the partnership. The cultural awareness of the partners' external influences, customs, drivers, and customs would provide opportunities for greater capacity building in the ecosystem.

This ecosystem shall promote a great learning environment. This enables a return on culture rather than return on investment. By promoting a learning environment, it adds value to information by sharing it with different people and produces trust, openness and cooperation. The sharing of information amongst partners in the ecosystem will generate new ideas and distil possibilities for innovation which eventually makes the IT Partnership Ecosystem successful.

**VISION & GOAL:** The IT ecosystem fostered by NITDA would have a clear-shared vision and goals to ensure each of the partners committed to a common vision and purpose, which is understood and accepted as important throughout each partner organization. In order to meet the supply and demand sides of the ecosystem, a future-oriented thinking process is adapted to promote strategies to think about innovative solutions. These shared goals eventually would create ownership and motivate confidence in partners to act individually and collectively, the goals of course needs to be SMART – i.e. specific, measurable, achievable, relevant and time-based.

Development of mutual trust and respect. Without trust, this partnership ecosystem would only be a network of interested colleagues or community members looking to see what they can get out of the network. Trust as a key ingredient of this partnership will allow partners to fully explore ideas.

The IT Partnership Ecosystem shall have stated achievable outcomes. The ecosystem shall build in smaller, more manageable tasks, allowing the partnership achieve early successes. This shall comprise setting realistic outcomes, building trust and minimising disappointment. By achieving and celebrating incremental or small successes in the ecosystem, maintaining motivation and creating synergy, NITDA would motivate others more inclined to get involved within the ecosystem. This should include the development of a holistic implementation work-plan, (including manageable tasks, timelines, responsible parties, etc.) which will guide the execution of these stated achievable outcomes.

Regular evaluation/ or adaptive iteration.



To ensure regular evaluation, each step or stage responds to the sequence of steps that have gone before it. The ongoing process of reflection would be facilitated through normal partnership activities and meetings.

It allows NITDA to play its regulatory role, thereby ensuring and nurturing healthy competition whilst keeping all players in check.

To generate statements that can be shared among partners, and help foster trust and mutual respect both of which is key to sustainability of the ecosystem.

### THE PARTNERSHIP ECOSYSTEM PERSPECTIVES

**BUSINESS PERSPECTIVE:** From the business perspective, the NITDA ecosystem comprises all organizations involved in the achievement of the goal or service delivery within the framework. While each organization has its own objectives and processes, through competition or cooperation, each one impacts the effectiveness of the others, creating constantly evolving relationships that cross traditional boundaries between verticals, types and size. The approach taken by NITDA informs the pace and direction of all partners and stakeholders. The resulting environment of this enhanced cooperation allows the ecosystem as a whole to make progress toward shared goals, by capitalizing on opportunities for collaboration and partnerships that cross traditional lines. Major global businesses like Cisco, HP, RIM, Toyota and Walmart have demonstrated the utility of the ecosystem model, taking advantage of its breadth and scalability to achieve dynamic growth. By leveraging the power of partnerships these organizations were able to adapt and expand, even through periods of economic downturn. By maintaining focus on internal competencies, these organizations had ignored the dependency of long-term success on external awareness and relationships. The application of the framework for National I.T Partner Ecosystem will engage regional organizations to focus on building successful and sustainable partnerships and begin applying the ecosystem model to the work of delivering higher growth, more and better jobs and more wealth.

**SOCIAL PERSPECTIVE:** In the NITDA partnership framework, each organization is a fully participating agent who both influences and is influenced by the social ecosystem made up of all related businesses, consumers, and suppliers, as well as economic, cultural, and legal institutions.”

NITDA'S Ecosystem has one important phenomenon within a social ecosystem, which is co-evolution and the fact that it cannot happen in isolation. This strategic NITDA Ecosystem framework is not just linked but truly interconnected and co-evolving across spatial and temporal scales.

**CULTURAL PERSPECTIVE:** The cultural perspective of this partnership framework encompasses the individuals or different organizational cultural orientations working in the same or related community being geographical or virtual to harness the full potential of the framework.

**DIGITAL BUSINESS PERSPECTIVE:** The Digital ecosystem in reference to the NITDA framework is the combination of all relevant digital touch points (a point of contact when an entity provides a targeted audience with information/content via a digital media channel for consumption on a digital device such as a television, computer screen, tablet, smartphone or other smart device), the people that interact with them, and the business processes and technology environment that support both.

**SUPPLY SIDE (LOCAL CONTENT) PERSPECTIVE:** The NITDA ecosystem will seek to stimulate the supply side through enforcement of policies, guidelines, practices and standards that ensure output from the larger IT ecosystem comply with global quality standards, enough to stimulate and generate demand. Not institutionalizing this perspective at the entrepreneurial unit and production level up to the consolidated sectoral level, would limit the growth of the ecosystem and ability of the local IT companies to compete and own its own in the marketplace.



## Touch Points:

**CONTROLLED TOUCH-POINTS:** The digital experiences designed and controlled by the ecosystem include websites, desktop and mobile (smart phone) applications. These elements involve the most time and investment, and are of primary importance

**SOCIAL PUBLISHING TOUCH-POINTS:** Facebook, Twitter, YouTube, are examples of social publishing “touchpoints” that the framework sets up and then publishes content to them. However, they are not completely within NITDA’s control, since the experience design is fixed by the platform, and because user-generated content is a significant part of the experience.

**THIRD-PARTY TOUCH-POINTS:** Search engines and social review services are examples of touchpoints out of a NITDA’s control, but that can influence the Ecosystem’s behavior. People: The second key element of the framework’s digital ecosystem is people. After all, the ultimate purpose of these systems is to serve their needs. Both External and internal audiences are considered.

**BUSINESS PROCESSES:** Management of touch-points is chaotic and inefficient if there are not some supporting business processes. Content management and the associated work-flows is one obvious area for the creation of a little process. Community management and the response to audience feedback (both positive and negative) are other examples of processes that are used to enhance the IT ecosystem.

**TECHNICAL ENVIRONMENT:** A lot of technology sits behind the digital ecosystem of the NITDA partnership ecosystem framework: the internet, hosts, servers, applications infrastructure, cloud, services (for storage), and networks (wired & wireless).

**INTERCONNECTIONS:** Information flows: Every interconnection in this digital ecosystem is a flow of information, designed to support the function of the partnership framework. Examples of information flows include:

### Requests for content

1. Contributions of content to social platforms,
2. Transactions and even communications between internal and external audiences.

## FRAMEWORK FOR NATIONAL IT PARTNER ECOSYSTEM

The creation of this framework was informed by the need for the ICT sector to contribute its quota to the Transformation Agenda of the Federal Government as stated in Section 6, subsection 6.2 of the agenda.

This would serve as a blueprint for the effectual engagement of IT stakeholders on how to use technology to build a robust economy for Nigeria with a view of taking the citizens of Nigeria out of poverty as it is in other countries.

The proposed Framework for National IT Partner Ecosystem addresses two main issues:

1. The need for inventory of various IT interventions by the government and other corporate organizations.
2. Identifying the building blocks for National IT Partner Ecosystem

## INVENTORY OF VARIOUS IT INTERVENTIONS BY GOVERNMENT AND CORPORATE BODIES

We divide inventory of projects into three broad categories: Basic, Value and Innovation. In the Basic, we are simply using the existing technology and spreading its scope of adoption. Here we are powerless in controlling it. When the world changes, we simply spend new money and upgrade.

Under Value Projects, we are adding our own local value to the technology in question. At Innovation stage, we are actually developing our own technology for direct applicability to home use and sale to the world. We may also have results that may be patented. We are therefore able to properly see if these interventions are actually leading the way we want the country to move. We are also forced to develop metrics that can guide future interventions.

**Who:** NITDA has to own this initiative

**What:** Inventory must be taken of the various projects (pilots, completed, on hold, under construction)

**When:** Inventory should be done prior to the rolling out of any projects within the IT ecosystem

**Where:** Inventory must be taken nationwide. It should be done state- by- state and then collated

**Why:** Help assess the current situation before rolling out other proposed projects and strategy of partnership, Avoid replication and Encourage synergy.

**How:** Funding for this must be secured from many sources like World Bank, non-profit fund, NGOs and other funding. Collaboration with a consulting company is inevitable.

**Initial:** All existing ICT projects from the various states and stakeholders should be requested. NITDA shall develop a template on the information they require. The status of these projects at the time of submission is absolutely necessary. The information received must be verified over time. Information security must be secured.

**NITDA will also have its list of projects it has approved or about to approve**

**MOVING FORWARD** An online monitoring tool/ platform should be used in registering and monitoring all projects approved by NITDA. This platform shall become the database of all projects and shall generate a report on these projects at each phase until completion. Parameters on the status of projects shall be defined by NITDA and the Stakeholders involved. Workflow and process must be identified better using a paperless way for security and efficiency.

## **BUILDING BLOCKS FOR THE NATIONAL IT PARTNER ECOSYSTEM**

### **SUSTAINABLE RESEARCH & DESIGN INITIATIVES**

**Who:** NITDA and associated research partners especially IT universities or NITDA builds one itself.

**What:** Research & design initiatives that would encourage strategic and sustainable partnerships

### **COST EFFECTIVE MEASURES**

1. How to monitor actual effectiveness of the interventions and their progress
2. Baseline data collected to be compared with Potential impact on productivity

**When:** This should be done prior to approving any intervention

**Where:** At the partnership level

**Why:** To ensure that the relevant interventions are carried out to avoid duplication of projects

**How:** Identifying key initiatives in data monitoring systems



1. Reviewing identified initiatives with respect to their degree of achievement in meeting the set criteria
2. All initiatives should be evaluated with respect to their conceptual framework

### **NIGERIAN CONTENT DEVELOPMENT**

- Who:** This should be done by all relevant stakeholders, including multi-national's role.
- What:** Content relevant to an intervention or partnership framework or the Partner Ecosystem as a whole
- When:** From Research level to Development stages of an intervention
- Where:** At the partnership levels as a build – up to the National level
- Why:** In order to understand the needs of the target market and defining the ecosystem ability to meet them.
1. Setting content goals to address the target market's need
  2. To ensure content integrity.
  3. To foster sector development in Nigeria
- How:** Conducting a content audit to determine the usability of the content. Identifying relevant Nigerian organizations, based on the needs of the intervention. Fostering appropriate models for mutual business development (e.g. a PPP model)

### **CAPACITY BUILDING**

Capacity building must increase the level of challenge given to the formal education sector. This will include policy drives that compel a competitive project development and research with the view of ringing trained professionals into the mainstream of IT development. For example, turn-key software procurements should include a tax or surcharge for promoting competitive home-based challenges.

- Who:** The Private sector, the public sector, Non-profit sector
- What:** Identify skills gaps needed by the industry and encourage relevant institutions to meet these gaps as a way of ensuring employability and development
- When:** At all times deemed necessary
- Where:** Within both the Partnership Ecosystem, Government, all stakeholders, and the target group of the intervention
- Why:** Encourages high performance, is in consonance with global market trends, makes Nigerian industries more competitive and innovative. Makes Nigeria relevant in the global outsourcing community
- How:** Attend local or international IT-related conference, share ideas with IT industry leaders, share online courses, share relevant information, hold workshops, and hold forums.

### **CORPORATE RESPONSIBILITY**

- Who:** Private sector, public sector, non-profits
- What:** Local Community – based development projects (e.g. Education, health, etc)
- When:** At all times



**Where:** Within the community

**Why:**

1. It paints a warmer and better image of any partner / organization when a consumer sees that a company's very existence is also about giving back it builds a positive workplace environment.
2. It enhances government relations. Corporations that place an emphasis on CSR typically have an easier experience when dealing with politicians and government regulators
3. It enhances corporate media visibility of the partners.

**How:** Liaison between the ICT industry, local community organizations and training institutions

1. By implementing interventions that are relevant to communities within the industries of partners.
2. By identifying and getting involved in projects of non- profits towards achieving the goals of the Transformation agenda.

### **FUNDING & RESOURCING**

**Who:** Public & Private Partnerships

**What:**

1. Government
2. Private sector
3. Community Contribution
4. NGOs
5. Non-profit fund organizations.
6. Corporate CSR or donation.

**When:** From Research to Development to Implementation to Sustainability

**Where:**

1. Government
2. Private sector
3. Community Contribution

**Why:**

1. All interventions have financial component that must be met to ensure effective implementation'
2. Interventions can only be achieved when funding is provided

**How:** Creating a pool of funds

1. Sourcing for funds
2. Crowd funding
3. Transparent disbursement and management of funds

## MANAGEMENT

**Who:** NITDA

**What:**

1. Partners
2. Partnerships
3. Interventions

**When:** At all times to ensure the success of the ecosystem

**Where:** Through the online management platform

**Why:** In order to ensure that interventions are successfully executed. The success or failure of projects is often not related to its complexity or strengths and weaknesses. It is more determined by how partners handle project challenges and often unfamiliar terrain. To maintain effective, productive and harmonious relationships with and within partners.

**How:**

1. **Maximize diversity.** Draw partners from a diverse mix of entities that may include NGOs, local community members, aid agencies, donors, government agencies, and corporations, foreign companies. Consider partners that multiply your resources, capacity and effectiveness in various ways and are not just sources of revenue.
2. **Minimize Transaction Costs.** Engaging partners and stakeholders often increases the time it takes to plan or carry out work – in developing a common vision and goals, keeping everyone organized, on task and delivering results toward your common vision and goals. Successful implementation requires finding the right balance of good decision-making and management among partners without burdening the project with unnecessary structure and bureaucracy.
3. **Creating Multiple Roles.** It is often important to have individuals from each of the major stakeholder groups involved in implementation at some level, but it is not necessary to give each the same role. Each partner has its own interests and agenda, and its role in implementation will vary. Partnership management systems need to provide the means to engage each partner at an appropriate and effective level – ranging from simply receiving communications, to an advisory role, to a fully engaged leadership and management role. The key is optimal role allocation as determined by the demands of the program being implemented
4. **Plan for Transition.** Often leadership shifts during a long-term project, which will be reflected in governance and management of partners. Typically, NITDA should lead or share leadership during project development. However, NITDA's role often shifts into more of a background role during implementation, as leadership transitions to a government agency or other strategic partner that carries the project forward. NITDA's watch-dog role and creating the enabling environment for successful project implementation
5. **Administration.** Proper administration of the ecosystem would enhance management resulting in the success of the partnership ecosystem. This would include:
  - a. Setting clear cut roles & responsibilities



- b. Creating essential communication and reporting channels within partnerships and the entire ecosystem
- c. The Standard, Guidelines and Regulatory department and the Project Management Committee at NITDA can become the Desk Office of the IT Partnership Ecosystem.

### **LEGAL AND REGULATORY FRAMEWORK**

**Who:** Partners, external organizations, NITDA

**What:**

1. Scope of work
2. Role of partners or the partnership
3. Requirements for funding
4. Contract executions

**When:** As and when required

**Where:** At all levels of the partnership

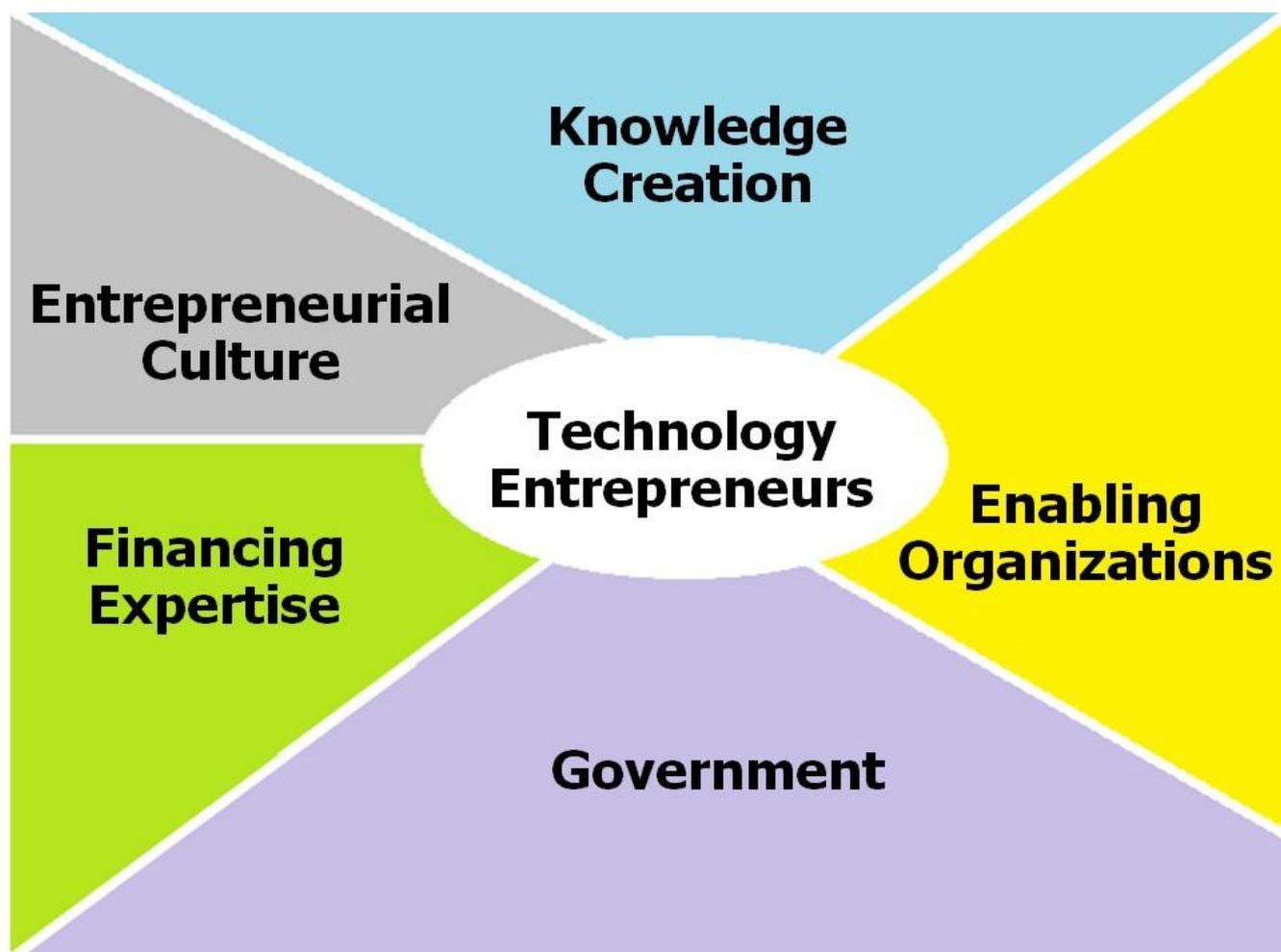
**Why:**

1. To fulfil partnership requirements
2. To bind partners, donors, etc to their commitments

**How:** Signing MOUs, contract documents, Service Level Agreements (SLA) Partner Agreement documents

## What makes an Ecosystem Successful?

The schematic below shows the factors that contribute to the success of an ecosystem



Sustainability and exit considerations for the model chosen (particularly from a financial standpoint); how to build capacity to support participatory decision making and governance; and how to select the right partners.

NITDA must leverage and maximize its impact by consistently engaging in multi stakeholder talks within the framework and must be driven by the basic underlying precept that each partner has something valuable to contribute—and that, by systematically working together, the partners can achieve their goals more effectively than by working alone. NITDA also has the role of constantly scanning the IT industry for new entrants who have requisite skills and resources for ongoing or planned programs

Another key strategy is to establish an intervention of pilot projects in key sectors of the economy such as health, agric, education, national security amongst others and encourage Nigerian content initiatives in ICT development and deployment especially in software.

The Creation of ICT knowledge and infrastructure hubs in collaboration with States while increasing the level of national presence by multi-nationals in ICT sector. Supporting States to recognize and facilitate development of its resident 'informal' IT sector e.g the phenomenal proliferation of computer villages across the country.

Most importantly, a proper communication strategy is of utmost necessity. It is crucial that a full use of electronic and other means of communication be used to ensure an effective and reliable flow of

information. The effectiveness of a communication strategy is only as good as the weakest link. It is therefore very important that all the project partners comply with agreed strategy.

### **List of prospective stakeholders**

1. 'Informal' IT sector
2. Academia
3. Media
4. Faith-based organizations
5. Community-based organizations (CBOs)
6. Private Sector, etc.

### **RECOMMENDATIONS**

The nature of governance is changing. Social networks and media are creating a new level of transparency. Generational shifts, technological advancement, revenue challenges and ever-present political change underscore the kinds of constant shifts occurring within the federal space.

Government is the ultimate oversight body in the implementation and sustenance of the whole project and as such has to exhibit certain key leadership skills to ensure that the necessary and relevant tools and resource pool required for the success of the project are made available according to projected completing schedules. These should include but not limited to;

1. Funding
2. Capacity building
3. Expertise outsourcing

There has to be the formulation of specific policies to direct the project, partnerships and stakeholders and the creation of regulations to govern all the players within the framework.

A consultative committee should be constituted to aid NITDA in the development of the framework and be accountable for the progress of projects, identified in the NITDA work plan. Establishment of the consultative committee should be given due recognition in NITDA's annual work plans

The Committee may co-opt independent expertise from NITDA if required and establish working groups to deal with specific issues as required.

NITDA shall display general information on all project activities on its website, and shall provide, on request from member partners and stakeholders, details of specific activities, with the consent of stakeholders and other recipients concerned, for which projects and programmes will be implemented. NITDA must create, in coordination with member partners, a database to match specific I.T related development needs with available resources or expertise, thereby expanding the scope of its technical assistance programs, aimed at bridging the digital divide in the country.

## THE LAST WORD

In conclusion, with reference to “Information and Communication Technologies in the - Nigerian Economy (Sunday Mauton A. Posu, Olabisi Onabanjo University)”, ICTs can aid sustainable economic development when used appropriately, with the full participation of all stakeholders, especially within the Partnership Ecosystem.

The intrinsic value of ICTs lies not in easing communications and information, but in enabling growth and development. In a country like Nigeria, where a vast section of the population is below the poverty line, ICTs offer a chance to empower the citizens and transform them into more productive human capital.

Historically, a nation moves through three stages of economic development- from agriculture to manufacturing and then to services. However, in the current information era, it is possible to move in a parallel direction and not necessarily follow sequential development.

However, this would require national efforts in human capacity building. There are some factors, however, militating against the smooth development of ICTs in Nigeria. These include erratic power supply, illiteracy, cultural barriers, lack of computer skills and technological know-how, inadequate access to computers and computer networks as a result of the digital divide, and high cost of internet access.

The government should therefore fine-tune its policies in view of these lapses in order to bridge any existing gaps between the economy and the rest of the world.

The goal of the NITDA is to facilitate the creation of this enabling tool – The Framework for building an IT Partner Ecosystem.

## Glossary

1. **Touchpoint:** This describes the interface of a product, service, or brand with customers / user, non-customers, employees and other stakeholders, before, during and after a transaction. This may be applied in business-to-business as well as business-to-customer environments.
2. **NITDA:** National Information Technology Development Agency (NITDA) is the clearing house for all IT projects in the public sector in Nigeria.
3. **Private Public Partnerships:** is a government service or private business venture which is funded and operated through a partnership of government and one or more private sector companies. These schemes are sometimes referred to as PPP, P3 or P<sup>3</sup>.

PPP involves a contract between a public sector authority and a private party, in which the private party provides a public service or project and assumes substantial financial, technical and operational risk in the project. In some types of PPP, the cost of using the service is borne exclusively by the users of the service and not by the taxpayer. In other types (notably the private finance initiative), capital investment is made by the private sector on the basis of a contract with government to provide agreed services and the cost of providing the service is borne wholly or in part by the government. Government contributions to a PPP may also be in kind (notably the transfer of existing assets). In projects that are aimed at creating public goods like in the infrastructure sector, the government may provide a capital subsidy in the form of a one-time grant, so as to make it more attractive to the private investors. In some other cases, the government may support the project by providing revenue subsidies, including tax breaks or by removing guaranteed annual revenues for a fixed time period.

4. **Capacity Building:** also referred to as capacity development, is a conceptual approach to development that focuses on understanding the obstacles that inhibit people, governments, international organizations and non-governmental organizations from realizing their developmental goals while enhancing the abilities that will allow them to achieve measurable and sustainable results. Community capacity building often refers to strengthening the skills, competencies and abilities of people and communities in developing societies so they can overcome the causes of their exclusion and suffering. Organizational capacity building is used by NGOs to guide their internal development and activities.
5. **Grants:** These are non-repayable funds disbursed by one party (grant makers), often a government department, corporation, foundation or trust, often (but not always) a non-profit entity, educational institution, business or an individual. Most grants are made to fund a specific project and require some level of compliance and reporting.
6. **Private Sector:** is that part of the economy, sometimes referred to as the citizen sector, which is run by private individuals or groups, usually as a means of enterprise for profit, and is not controlled by the state. By contrast, enterprises that are part of the state are part of the public sector; private, non-profit organizations are regarded as part of the economy (voluntary sector), a subset of the private sector.
7. **Public Sector:** refers to the part of the economy concerned with providing basic government services. The composition of the public sector varies by country, but in most countries the public sector includes such services as the police, military, public roads, public transit, primary education and healthcare for the poor. The public sector might provide services that non-payer cannot be excluded from (such as street lighting), services which benefit all of society rather than just the individual who uses the service (such as public education), and services that encourage equal opportunity.



8. **Transformation Agenda:** The agenda is based on a set of Federal Government's key priority policies and programmes which when implemented will transform the Nigerian economy. It is a four year project that covers issues of Governance, Macroeconomic Framework and Economic Direction, Agriculture, Safety & Security and others.
9. **Ecosystem:** is a system formed by the interaction of a community of organisms with their environment. Ecosystems are controlled both by external and internal factors. External factors control the overall structure of an ecosystem and the way things work within it, but are not themselves influenced by the ecosystem.
10. **Consultative Committee:** is a committee set up to develop the framework for NITDA & IT Stakeholders collaboration for using ICT to transform the Nigerian economy.

## END NOTES

### Resources for Implementing the Project & Programme Standards

1. Sunday Mauton A. Posu, International Conference on Human and Economic Resources, Information and Communication Technologies in the Nigerian Economy 2006
2. Chapter 7: Select the Right Implementation; Model and Partners
3. Building Better Ecosystems; a handbook for tech cluster growth and success
4. Content Strategy; Six Steps to better content – A guide to understanding, developing and implementing a content strategy for your business
5. Nigerian Transformation Agenda
6. Business ecosystem as the new approach to complex **adaptive business environments**; Mirva Peltoniemi<sup>1</sup>; Elisa Vuori<sup>2</sup> 1Researcher, M.Sc.(Eng), Tampere University of Technology
7. Creating and Sustaining Successful Business Ecosystems, 2009
8. National Implementation by the Government of UNDP Supported Projects: Guidelines and Procedures  
<http://iwoce.org/definitions-of-ecosystems.pdf>  
[http://lrrpublic.cli.det.nsw.edu.au/lrrSecure/Sites/Web/13289/ezine/year\\_2006/feb\\_apr/feature\\_ecosystem.htm](http://lrrpublic.cli.det.nsw.edu.au/lrrSecure/Sites/Web/13289/ezine/year_2006/feb_apr/feature_ecosystem.htm)  
<http://www.nitda.gov.ng/>  
<http://www.npc.gov.ng/vault/Transformation.pdf>  
<http://bitstrategist.com/2011/06/digital-ecosystems-a-framework-for-online-business/>  
[http://en.wikipedia.org/wiki/Digital\\_ecosystem](http://en.wikipedia.org/wiki/Digital_ecosystem)

### About the Consultative Committee

1. **Fakinlede, O. A., Chairman** - Professor of Computational Mechanics and Dean, Faculty of Engineering, University of Lagos. Was head of the Department of Systems Engineering at the same university and had previously been Director, Energy Information Systems at the Energy Commission of Nigeria.
2. **John Dada**- Fantsuam Foundation: He is best known for his innovative community development work as the Executive Director of Fantsuam Foundation.
3. **Jummai Umar-Ajijola, (Ph.D.)** :Currently the Executive Chair and CEO of The Business People (tbp) Limited, Dr. Jummai has over two decades of high flying professional experience that spans across Microsoft Corporation, ACTION AID International, United Nations Education Scientific Cultural Organization (UNESCO) and the Nigeria Security Printing and Minting Company Limited. She is the Moderator of the "Interfaith Forum" program that is simulcast on Television and Radio, featuring inter-faith guests and discussions, with emphasis on breaking down religious stereo types and building bridges.
4. **Muoneke, Stanley – Intel**: He is the Business Development Manager for Intel West Africa.
5. **Olayinka Oni – Microsoft**: Mr. Oni is currently the National Technology Officer for Microsoft Nigeria. Prior to this, he was the CIO/ GM for IT and Operations at Wema Bank Plc. He has 15 years experience in IT and has had a profound impact in the industry.
6. **Wang Hongli/Teddy Wang** – Huawei
7. **Mohammed Agbali, Committee Secretary (MSc. IT, UK)** – He is one of the pioneering staff of the Corporate Strategy & Research (CSR) dept. of NITDA. Mr. Agbali has research interest in Big Data analytics/emerging technologies in the cloud.