



# **SMART EDUCATION IN NIGERIA: CHALLENGES AND PROSPECTS**





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### • **PROTOCOLS**

- APPRECIATION
- **CENTRE**

### GOALS

- $\rightarrow$ **Challenges and Prospects**
- $\rightarrow$ Set the stage for the panel discussions

### $\rightarrow$ **Outline:**

- Nigeria's Demography Reality
- Challenges
- Prospects
- Concluding remarks and call to action

## Housekeeping

### • THE SIGNIFICANCE OF THE UBEC DIGITAL RESOURCE

**Deliver** the Keynote Speech on the Title: Smart Education in Nigeria:

Smart Education and the Current Nigerian landscape

• Recommend Dimensions for accelerated progress

## **Nigeria's Demographic Reality** Demographic dividend or demographic disaster?

- Population projected to reach 400+ million by 2050
  - Current estimated population approx 216m
  - Annual growth rate of 3.2%
    - driven by a total fertility rate of 5.3 (> among rural households (5.9) and uneducated and poorest households (6.7)
  - Nigeria is projected to become the world's third most populous country by 2050<sup>2</sup>
- Over 40% of our population under age 15
  - Largest youth population in Africa
  - 40+ million children in basic education system<sup>3</sup>
- <sup>1</sup>United Nations Population Fund (UNFPA)
- <sup>2</sup>The French Institute for Demographic Studies (Ined)
- <sup>3</sup>UBEC



## Nigeria's Demography Reality An extraordinary opportunity and profound responsibility

- Challenge: Educating the youngest population in Africa during the most significant technological revolution in human history
- **Opportunity**: An opportunity to prepare our young people for the future
- An opportunity to bring everyone accross the entire Basic Education Ecosystem into a digital future

How: Enhance traditional education with <u>Smart</u> Education





# Smart Education

administrative processes)

## • The thoughtful integration of technology, digital tools, and innovative pedagogies into the entire school system (teaching, learning)



 UBEC Smart Schools Programme Launched in 2023 April 2023: Pilots established in Kwara and Kano States September 2023: Expansion to an additional 11 schools • September 2024: Further expansion to 8 more schools January 2025: 37 Model Smart Schools (1 in each state+FCT) I statistical and a statistical statisticae statisticae statisticae statisticae statisticae statist • September 2025: The remaining 16 states to be fully

- functional



# **Current Landscape in Nigeria UBEC Smart Schools Programme**



- Anatomy: Purpose-built facilities designed with technology integration as core principle More than just buildings with computers but a comprehensive ecosystem for technologyenhanced learning with:
  - Integrated technological infrastructure: Campus-wide networks facilitating connectivity for all learning spaces
  - **Smart learning environments**: Interactive whiteboards, personal digital devices, and multimedia technology
  - **Blended learning methodologies:** Pedagogical approaches that combine face-to-face instruction with digital learning experiences
  - Innovative teaching tools: STEM and robotics kits fostering creativity and problem-solving skills
  - **Self-sufficient operations:** Alternative power solutions including solar systems ensuring uninterrupted learning
  - **Comprehensive security:** Advanced systems protecting both physical assets and digital data



	UBEC Smart Schools (Avg)	Traditional Schools (Avg)	Difference
Primary 3 Mathematics	57.0%	31.7%	+25.3%
Primary 3 Basic Science	45.2%	22.6%	+22.6%
JSS1Mathematics	41.0%	27.5%	+15.3%
JSS 1 Basic Science	37.8%	27.7%	+10.1%

# Evidence of Impact

- schools.
  - performance differentials

### • Preliminary results from research conducted by KOICA in 2024 Provided empirical evidence of the impact of these smart

 Comparative studies between smart schools and neighboring traditional schools revealed significant

## Challenges **Digital Infrastructure Paradox**

## • Stark urban-rural digital divide

- Those who would benefit most have least access to the prerequisite infrastructure due to low internet penetration in rural areas, bandwidth and equipment costs, etc
- A basic tablet is almost 40% of monthly minimu wage
- Infrastructure Challenge is beyond technology but a fundamental issue of social justice:
  - Educational inequality
  - **Geographic disparities in digital readiness**
  - Exclusion of most learners from the digital revolution  $\bigcirc$



## Challenges

### **The Implementation Ecosystem Challenge**

- **Reality**: technology adoption in education is never merely a technical issue but a complex social process requiring attention to organizational dynamics, cultural factors, and stakeholder interests
  - **Governance fragmentation:** Education operates under a complex structure across federal, state, and local levels creating coordination challenges **Project sustainability:** Scaling and sustaining pilots beyond initial funding periods
  - $\bigcirc$ • **Stakeholder awareness:** Limitations awareness about benefits and approaches
  - - Parents, Teachers, Community Leaders...
  - **Cultural resistance:** to learner-centered pedagogical models
    - pedagogical transition from teacher-centred to learner-centred models
  - **Monitoring inadequacies** for tracking progress and outcomes  $\bigcirc$





## Challenges **Human Capacity Imperative**

"Technology is only as good as the teacher who uses it" -- anon

- The success of smart education ultimately depends on the capabilities of our educators
- Few public school teachers are proficient in digital tools
  - Teacher Training
    - education curricula are not sufficiently aligned with digital competencies
  - While on the job
    - Imited Continuous Professional Development opportunities to develop digital pedagogical skills
    - Heavy workloads and administrative burdens leave limited time for teachers to experiment with and master new technological approaches

echnology will not replace great teachers but technology in the hands of great teachers can be transformational

### Challenges **Gaps in Policy and Governance Framework**

- Smart education thrives in environments with clear, coherent, and adaptive policy frameworks.
  - Policy and regulatory frameworks gaps create uncertainty Educational policies that have not kept pace with technological advancements
  - Educational policies have not kept pace with technology;
  - Limited funding mechanisms specifically dedicated to educational technology
  - Limited collaboration between stakeholders
  - Insufficient attention to critical issues including data privacy, digital safety, and ethical considerations





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PROCEDURES

# PROMISING PROSPECTS AND **OPPORTUNITIES**

→ Rapidly Evolving Digital Ecosystem









### • Mobile phone penetration

- >80% of our population own a mobile phone (statista, 2025) creating ubiquitous platforms for mobile learning
- Broadband expansion & Internet
  access costs
- The expansion of 4G and introduction of 5G leading to improved connectivity
- Growth of Indigenous Innovation
  Centres
- >120 active innovation centres across the country,
- Massive VC investment in Nigerian EdTech,
- Indigenous EdTech platforms like uLesson, ScholarX developing contextually-relevant learning content

### Catalytic effects of COVID-19

promotion of digital learning approaches

## PROMISING PROSPECTS AND OPORTUNITIES

### → FG's Vision and States Innovative Initiatives

### FG (via UBEC)

- Plan for 774 st
  LGA
- Effective Schools
- Teacher Inter capacity
- National Digit framework
- Digital Literac standards

### **State-Level Innovations**

- **Niger State:** Comprehensive smart education strategy with 5 model schools
- Abia State: "A schools
- Anambra Sta schools
- Enugu State: wards



- Plan for 774 smart schools nationwide -one in each
- Effective Schools Programme upgrading 111 additional
- Teacher Internship Scheme enhancing educator
- National Digital Learning Policy providing coherent
- Digital Literacy Framework establishing competency

- Abia State: "ABIAFIRS" initiative" with 20 planned smart
- Anambra State: "Smart Learn" initiative with 22 pilot
- Enugu State: "Smart School" project targeting all 260

## PROMISING PROSPECTS AND **OPPORTUNITIES**

International Partnerships and Knowledge Exchange

 $\rightarrow$ 

- collaborations:
  - partnership **Transformation** Project
- - **UBEC-KOICA** knowledge transfer World Bank's Accelerating Digital • UNESCO's Mobile Learning Initiative Global Partnership for Education

  - prioritizing Nigeria • etc



### Nigeria's smart education journey is increasingly supported by strategic international

• The partnerships expand both the resource pool and the knowledge base available for smart education implementation in Nigeria.

# STRATEGIC FRAMEWORK Four Dimensions for Accelerated Progress



- Infrastructure for Equity: Bridging the Digital Divide
  - community access points
    - Priority: Reach the most marginalized learners first, not last • Priority: Move beyond isolated success stories to system-wide
- Implementation Science: From Pilots to Systemic Change
  - transformation
- Human Capital Development: Teachers as Digital Learning Leaders • Priority: Teachers must be at the center of our smart education
- strategies
- Adaptive Governance: Policies for the Digital Age • Priority: A governance framework that is itself smart, responsive, evidence-based, and forward-looking





# Internet access, devise access, low bandwidth solutions,

# CONCLUSION & CALL TO ACTION



- The prospects of Smart Education in Nigeria
  - every learner in Nigeria
  - Leaners + stakeholders (teachers, minders, home lesson teachers, grandparents who assists with homework -) the entire learning ecosystem
- The imperative of collective action
  - Our challenges are substantial but not insurmontable
  - Smart education is fundamentally a human challenge, not just
  - We have a collective expertise, influence and passion in this room
  - Each stakeholder has a critical role to play:  $\bigcirc$ 
    - Government: Policy and resources
    - Private sector: Innovation and investment
    - Civil society: Advocacy and accountability
    - Academia: Research and knowledge development



## • Smart education presents and opportunity to unlock the potientials of

It presents an opportunity to upskill more than 50% of our population:

technological and requires vision, commitment, collaboration, and courage

