

## INNOVATION IN AFRICA 2027 BRIEFING



### CONTENTS:

|                                                                            |        |
|----------------------------------------------------------------------------|--------|
| Executive Summary: Africa's Emerging Innovation Economy ...                | Page 1 |
| Innovation in Africa: Building National Innovation Economies ...           | Page 2 |
| Youth Innovation: From Job Seekers to Innovators and Entrepreneurs ...     | Page 3 |
| Innovation in Education Systems: The New Policy Direction ...              | Page 4 |
| Africa EdTech 2030: From Digital Projects to Digital Education Systems ... | Page 5 |
| What African Governments will be Implementing in 2027-2028 ...             | Page 6 |
| The Partnership Opportunity: Where Industry Fits...                        | Page 7 |
| Innovation in Action: African National Examples ...                        | Page 8 |

## INNOVATION IN AFRICA 2027

### POLICY, EDUCATION & THE NEXT GENERATION OF INNOVATORS

#### EXECUTIVE SUMMARY: AFRICA'S EMERGING INNOVATION ECONOMY

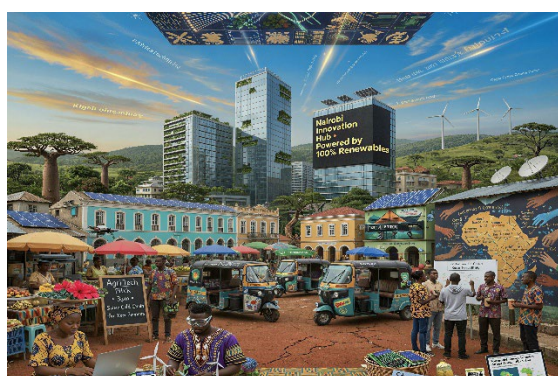
Africa's innovation agenda is entering a new phase. Moving from policy concentrated on building capacity, expanding ICT infrastructure, establishing technology hubs and encouraging entrepreneurship to a broader policy agenda.

African governments and continental institutions are increasingly attempting to connect:

**Education → Skills → Research → Innovation → Entrepreneurship → Enterprise → Employment → Industrialisation**

The African Union's **Science, Technology and Innovation Strategy for Africa 2034 — STISA 2034** provides the principal continental framework. It places science, technology and innovation at the centre of transformation and connects STI with industrialisation, emerging technologies, human-capital development, private-sector participation and the empowerment of young people and women.

This is being reinforced by the African Union's **Decade of Accelerated Action for the Transformation of Education and Skills Development in Africa 2025–2034**.



AUDA-NEPAD occupies an important position between continental strategy and implementation. Its work now spans science and innovation policy, emerging technologies, innovation measurement, digital education, youth entrepreneurship, TVET, skills development and policy-maker capacity.

## 1. Innovation in Africa — Building Innovation Economies

Governments are looking towards national innovation systems incorporating universities, research institutions, industry, entrepreneurs, finance, regulation and government.

STISA 2034 places particular emphasis on commercialisation: moving research beyond academic publication towards products, companies, industrial capability and jobs.

## 2. Youth Innovation — From Job Seekers to Innovators

Youth policy is also changing. Training young people remains essential, but programs increasingly seek to develop entrepreneurs, creators and innovators.

AUDA-NEPAD's Energize Africa, Skills Initiative for Africa and Africa Skills Revolution demonstrate this transition towards innovation, entrepreneurship, and employment creation.

## 3. Innovation in Education Systems

Innovation is increasingly becoming a characteristic of the education system itself.

Curricula are being redesigned around competencies, STEM, digital literacy, entrepreneurship, problem solving and increasingly AI. Governments are also developing national digital-learning ecosystems, teacher digital competencies, and locally produced educational technology.

**The significance for Innovation Africa is that 2027–28 increasingly represents an implementation and scaling period rather than simply a policy-development period.**

Policy-makers will require partners capable of helping governments translate innovation strategies into functioning ecosystems. The central opportunity is therefore no longer simply the sale of technology. It is participation in the construction of **Africa's emerging innovation economy**.

**Sources:** African Union: STISA 2034; AU Decade of Accelerated Action for Education and Skills; AUDA-NEPAD Annual Report 2025; Innovation Africa 2027 Market Intelligence Briefing.

## INNOVATION IN AFRICA: BUILDING NATIONAL INNOVATION ECONOMIES

The most significant change in African innovation policy is the movement from supporting individual innovation projects towards creating **national innovation ecosystems**.

The STISA 2034 strategy places emphasis on creating the structures through which research can generate economic value.

### 1. From Research to Commercialisation

The emerging model is:

**Research → Intellectual Property → Technology Transfer → Commercialisation → Enterprise → Industrial Production**

**Objective:** transforming African knowledge and research into African products, African companies and African jobs.

This creates requirements for: university innovation hubs; technology-transfer offices; incubators and accelerators; innovation financing; intellectual-property capability; industry-sponsored research; computing and AI infrastructure; science and technology parks.

### 2. Measuring Innovation — ASTII

The fourth African Innovation Outlook was launched as part of this evidence-building process, while AUDA-NEPAD is preparing a further ASTII programme phase for **2027–2030**.

For governments, this creates demand for:

**STI data systems; research databases; innovation indicators; university management systems; impact measurement; and analytics.**

### 3. Governing Emerging Technologies — APET

The **African Union High-Level Panel on Emerging Technologies — APET**, supported through AUDA-NEPAD, provides evidence-based advice on technologies with the potential to transform African economies.

**How can governments regulate new technologies without harming innovation?**

This is driving interest in experimentation frameworks, responsible-AI policies, data governance and technology standards.

### 4. Developing Innovation-Literate Policy Makers

Innovation capacity is required inside government as well as universities and companies.

AUDA-NEPAD's **Calestous Juma Executive Dialogue on Innovation and Emerging Technologies** was established to strengthen the capabilities of senior policy and decision-makers to assess emerging technologies and translate evidence into policy.

This is an important but often overlooked innovation market:

**Policy-maker education and institutional capability.**



### 5. The Emerging National Innovation System

The strongest African innovation systems are increasingly being built around a five-way partnership: Government + Industry + Research Institutions + Universities + Investors

Education is therefore not separate from innovation policy.

The most important policy transformation through 2034 is therefore likely to be the movement from **innovation projects** towards **innovation economies**.

**Sources:** African Union STISA 2034; STISA 2034 Implementation briefing; AUDA-NEPAD ASTII/African Innovation Outlook; APET; Calestous Juma Executive Dialogue.

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## YOUTH INNOVATION: FROM JOB SEEKERS TO INNOVATORS AND ENTREPRENEURS

Africa's youth-employment challenge has traditionally been approached through education, vocational training and job creation. This innovation agenda adds another objective:

**Enable young Africans to create the technologies, enterprises and employment opportunities of the future.**

The policy pathway therefore changes from:

**Education → Qualification → Employment to:**

**Education → Skills → Innovation →  
Entrepreneurship → Enterprise → Employment**

AUDA-NEPAD's **Energize Africa** initiative is intended to harness young people's creativity and innovation for economic development.

This approach combines young professional talent, innovation ecosystems and entrepreneurship, reflecting a wider shift towards treating young Africans as **producers of solutions**.

### Skills Initiative for Africa — SIFA

Skills policy is simultaneously becoming more closely connected to economic transformation.

AUDA-NEPAD reports that the **Skills Initiative for Africa has supported 48 continental TVET projects with €100 million**, supporting new approaches to technical and vocational capability.



Innovation-oriented TVET encompasses: automation; mechatronics; renewable energy; digital fabrication; coding; robotics; AI; advanced manufacturing; entrepreneurship; employer-led certification.

This moves TVET closer to industrial and innovation policy.

### Africa Skills Revolution

AUDA-NEPAD's **Africa Skills Revolution** goes further by connecting vocational skills with entrepreneurship and youth-created solutions. Its continental competition attracted **490 participants from 36 African countries**. The significance is that the model it represents:

**Skills → Applied Problem Solving → Innovation  
→ Enterprise**

### The Youth Innovation Ecosystem

For policy-makers, supporting youth innovation increasingly requires an ecosystem containing:

1. *Innovation Hubs*
2. *Incubators and Accelerators.*
3. *Digital and AI Skills*
4. *Entrepreneurship Education*
5. *Challenge Funds and Competitions*
6. *Access to Finance*
7. *Government Procurement*
8. *University Commercialisation*
9. *Industry Partnerships*

**What structures must surround a talented young African so that an idea can become a company?**

For Innovation Africa, this expands the partnership opportunity far beyond conventional education suppliers. The ecosystem increasingly requires technology companies, universities, venture funds, banks, accelerators, certification providers, research organisations, employers and development institutions working alongside government.

Youth innovation is therefore becoming the bridge between **education policy and economic policy**.

**Sources:** AUDA-NEPAD *Energize Africa*; *Skills Initiative for Africa*; *Africa Skills Revolution*; AUDA-NEPAD *Annual Report 2025*.

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## INNOVATION IN EDUCATION SYSTEMS: THE NEW POLICY DIRECTION

Innovation policy increasingly begins inside the education system.

The AU's policy architecture recognises that economic transformation depends upon education producing people capable not simply of absorbing knowledge, but of applying it.

The AU's Decade of Accelerated Action for Education and Skills explicitly seeks movement **from diplomas towards skills** and **from institutional isolation towards innovation**, while expanding STEM, TVET, digital technology and AI-enabled education.

### From Knowledge Acquisition to Capability

Education reforms increasingly emphasise: problem solving; creativity; competency-based learning; STEM; coding; computational thinking; digital literacy; AI literacy; entrepreneurship; project-based learning; collaboration; practical application of knowledge.

An innovation-oriented education system increasingly asks:

**What can the learner do, create, solve or build with that knowledge?**

### Innovation Across the Education System

**Schools** increasingly provide the foundations of innovation through STEM, digital literacy, coding, robotics, creativity and problem solving.

**Teachers** must increasingly become facilitators of technology-enabled and competency-based learning rather than solely transmitters of curriculum content.

**TVET** institutions are being repositioned around advanced vocational capability, entrepreneurship, digital fabrication and direct industry requirements.

**Higher education** is increasingly expected to perform five functions simultaneously:

**Teaching + Research + Innovation + Entrepreneurship + Economic Development**

Zimbabwe's Education 5.0 model provides one of the clearest African examples. In June 2026, the African Union conducted a dedicated policy-

learning mission to examine the model and its potential scalability, specifically highlighting its integration of learning, research, innovation and production.



### AI Changes the Innovation Requirement

Artificial intelligence introduces two separate education challenges.

#### AI for Education

Using AI for tutoring, assessment, lesson planning, administration, analytics and personalised learning.

#### Education for AI

Ensuring students, teachers and policy-makers understand AI sufficiently to operate in an AI-driven economy.

Education ministries must therefore address curriculum, ethics, teacher capability, data governance, academic integrity and learner safeguarding simultaneously.

### The Innovation–Education–Economy

The emerging architecture is:

**Curriculum Reform → Teacher Capability → STEM / Digital Learning → Applied Skills → Research & Innovation → Entrepreneurship → Industry → Employment**

This is why the education and innovation agendas can no longer be treated independently.

**Sources:** African Union Decade of Education and Skills; STISA 2034; African Union benchmarking mission to Zimbabwe; UNESCO/Egypt AI Teacher Competency Framework.

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## AFRICA EDTECH 2030: FROM DIGITAL PROJECTS TO DIGITAL EDUCATION SYSTEMS

Africa's digital-education agenda is also moving beyond individual projects.

Historically, many education-technology interventions were implemented as disconnected pilots: devices in selected schools, an individual learning application etc.

The emerging policy direction is towards **national digital education ecosystems**.

### Africa EdTech 2030 Vision & Plan

AUDA-NEPAD's **Africa EdTech 2030 Vision & Plan** establishes a continental framework for scaling technology-enabled education.

It contains six strategic areas:

1. Access and Infrastructure
2. Courseware Development
3. Teacher Capacity
4. Interoperability and Standards
5. Policy and Governance
6. Data and Research

The plan's implementation architecture places **2026–2028 in a system-integration phase**, with particular emphasis on interoperable digital public infrastructure and the scaling of African-developed courseware.

This makes the timing especially significant for Innovation Africa 2027.



### Digital Public Infrastructure for Education

The policy direction is increasingly towards shared architecture capable of connecting:

Learner Identity + Learning Platforms + Digital Content + Assessment + Teacher Systems + Education Data + Analytics

Interoperability becomes particularly important because governments do not want today's procurement decision to permanently lock an education system into one supplier.

This increases demand for: open standards; APIs; single-sign-on architecture; education-data standards; secure learner identity; data sovereignty; offline capability; cross-platform integration.

### 2027: Consolidating Digital Education

The African Union's separate **Digital Education Strategy and Implementation Plan 2023–2028** reinforces this timing.

Its first phase established foundations; the second phase, covering 2024–2026, rolls out strategic actions; and **Horizon 3 begins in 2027**, concentrating on consolidation, implementation support, and additional resource mobilisation.

The commercial implication is clear. Governments increasingly require:

**Connectivity + Platforms + Content + Assessment + Teacher Development + Data + Governance + Support**

### African Technology, Not Simply Technology for Africa

Another important objective is greater African participation in the production of EdTech.

Supporting local courseware, African languages, local developers and interoperable systems can turn education technology into an **industrial opportunity as well as an education intervention**.

The long-term objective is therefore not simply for Africa to become a larger consumer of global educational technology. It is for Africa to become a **producer and exporter of education innovation**.

**Sources:** AUDA-NEPAD *Africa EdTech 2030 Vision & Plan*; AU *Digital Education Strategy and Implementation Plan 2023–2028*; AUDA-NEPAD *Annual Report 2025*.

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## WHAT AFRICAN GOVERNMENTS WILL BE IMPLEMENTING IN 2027–2028

The convergence of STISA 2034, Africa EdTech 2030, continental education reform and national innovation strategies points towards ten particularly important implementation areas during 2027–28.

### 1. National and Regional Innovation Hubs

Governments are creating physical and digital environments where researchers, students, entrepreneurs and companies can develop and test new technologies.

### 2. University Innovation and Entrepreneurship Centres

Universities are increasingly expected to commercialise research and produce companies as well as graduates. Demand should grow for technology-transfer capability, intellectual-property management, prototype development and industry-linked research.

### 3. Artificial Intelligence and Robotics

AI is moving rapidly into education, government and industrial policy. Governments will require AI laboratories, teacher and student AI literacy, responsible-AI frameworks, specialised university programmes, robotics equipment and national AI skills programmes.

### 4. STEM and Applied Science

Scientific capability is essential to innovation economies.

Investment will increasingly involve laboratories, simulation, engineering equipment, coding, robotics, computing and teacher capability.

### 5. National Digital Education Ecosystems

The policy direction is towards integrated national platforms incorporating content, teacher services, data, assessment and learner access.

### 6. Innovation-Focused TVET

TVET systems are being more closely connected to industrial policy. The strongest areas include automation, renewable energy, mechatronics, digital fabrication, AI, ICT, manufacturing and employer-recognised certification.

### 7. Youth Incubators, Accelerators and Challenge Funds

Government youth policy is increasingly incorporating entrepreneurship alongside employability. Incubators, seed funds and university entrepreneurship programs provide mechanisms for scaling young innovators.

### 8. Research Commercialisation

The objective increasingly moves beyond publishing research towards deploying it. Governments will require:

**Technology-transfer systems; research grants; intellectual-property capability; commercialisation finance; industry partnerships; and science parks.**

### 9. Regulatory Innovation

AI, fintech, biotechnology and digital platforms require faster regulatory learning.

Regulatory sandboxes, responsible-AI frameworks, technology standards, cyber policy and data-governance capability.

### 10. Government–University–Industry Partnerships

The strongest innovation models increasingly bring all three together.

**Government** establishes policy and finance.

**Universities** provide talent and research.

**Industry** supplies technology, expertise and markets.

### The 2027–28 Implementation Opportunity

The central market change is:

**Policy → Programme → Infrastructure → Skills → Implementation**

The next requirement is increasingly **execution**.

This should favour organisations capable of combining products with implementation expertise, training, localisation, institutional capacity and long-term partnership.

**Sources:** STISA 2034; AU Digital Education Strategy; Africa EdTech 2030; AUDA-NEPAD Skills Initiative for Africa and Energize Africa.

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## THE PARTNERSHIP OPPORTUNITY: WHERE INDUSTRY FITS

Innovation systems cannot be constructed by education ministries or governments acting alone. The emerging African policy architecture therefore creates opportunities for a much wider partnership ecosystem.

### 1. Technology Companies

Governments require partners in:

Artificial intelligence; cloud; data platforms; connectivity; cybersecurity; computing; devices; digital identity; analytics; interoperability and education platforms.

### 2. Education Technology Companies

Opportunities include:

Digital content; adaptive learning; learning management; digital assessment; teacher platforms; AI tutoring; digital laboratories and curriculum-aligned applications.

### 3. Universities and Research Institutions

African governments increasingly seek international research collaboration capable of creating domestic capacity.

Areas include: joint research laboratories; Centres of Excellence; faculty development; technology transfer; AI and STEM research; innovation centres; research commercialisation.



### 4. Industrial Companies and Employers

Companies are increasingly becoming participants in education itself. They can provide:

Industry academies; professional certification; apprenticeships; internships; curriculum input; technical equipment and applied research.

### 5. Investors and Financial Institutions

Africa's challenge is not simply generating ideas; it is financing the route from idea to enterprise.

This creates opportunities for: venture capital; innovation funds; seed funds; challenge finance; guarantees; start-up programs.

### 6. Development Partners

Development institutions will continue to play a major role through program finance, technical assistance, support and institutional capacity.

### 7. Certification and Skills Companies

The rapid expansion of digital skills and TVET creates growing demand for internationally recognised certification in: cloud; networking; cybersecurity; AI; data science; software; engineering and technical occupations.

### 8. Innovation Ecosystem Partners

Governments also require organisations capable of operating:

Innovation hubs; accelerators; entrepreneurship programs; challenge competitions; technology-transfer programs; innovation databases and Entrepreneurship

### The Innovation Africa Opportunity

Innovation Africa therefore sits at an increasingly valuable intersection:

#### Government Policy



#### Education



#### Technology



#### Youth Innovation



#### Industry & Investment

Its role is not simply to present new technology to African governments.

The greater opportunity is to connect policy-makers with the partners capable of helping convert **education into skills, skills into innovation, innovation into enterprise and enterprise into economic transformation.**

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## INNOVATION IN ACTION: AFRICAN EXAMPLES

Across Africa, governments are already implementing different elements of this emerging policy model.

### ZIMBABWE: HERITAGE-BASED EDUCATION

Zimbabwe is connecting higher education with innovation, production and industrialisation through Heritage-Based Education 5.0. The AU conducted a dedicated benchmarking mission in June 2026 and identified the model as an important African-led example of linking learning, research, innovation and production.

### KENYA: EDUCATION + TECHNOLOGY + INNOVATION

Kenya is combining mass digital-skills development with investment in Konza Technopolis, the Open University of Kenya and the Kenya Advanced Institute of Science and Technology. Government policy explicitly connects globally competitive talent, education and emerging technology with the country's ambition to strengthen its position as an African innovation hub.

### GHANA: ROBOTICS, CODING & INNOVATION

Ghana is expanding digital skills and applied STEM. The 2026 RoboTechLab initiative at the University of Mines and Technology connects robotics and automation directly to youth employability and industrial transformation, while government policy emphasises digital infrastructure, skills and innovation ecosystems.

### NIGERIA: AI & EMERGING TECHNOLOGIES

Nigeria's **3 Million Technical Talent program** is creating a large digital-skills pipeline spanning AI, cloud, data, software and cybersecurity. The National Centre for Artificial Intelligence and Robotics provides a complementary research, collaboration linking tech, skills and enterprise.

### SOUTH AFRICA: COMMERCIAL RESEARCH

South Africa is placing greater emphasis on moving laboratory research into markets through institutions such as the Technology Innovation Agency while simultaneously supporting township, rural and youth innovators through living laboratories, entrepreneurship centres and grassroots innovation programmes.

## BOTSWANA: SMARTBOTS & DIGITAL EDU

Botswana's SmartBots transformation programme combines digital-government development with education and skills. Current implementation includes plans to connect **500 schools**, and roll out a Digital Competency Framework.

### UGANDA: DIGITAL EDUCATION & INDUSTRIAL SKILLING

Uganda's Ministry of Education and Sports has launched a **Digital Agenda Strategy 2025–2032**, supported by evidence gathered from more than 3,000 secondary schools. Separately, the Government is expanding Presidential Industrial Skilling Hubs to provide practical training and support young people to become entrepreneurs.

### ZAMBIA: AI, DIGITAL SKILLS & YOUTH INNOVATION

Zambia is expanding youth-oriented innovation hubs, digital entrepreneurship and AI capability. In 2026 the Ministry of Technology and Science highlighted innovation hubs and digital entrepreneurship programmes supporting young innovators, alongside partnerships developing AI skills, robotics and career pathways.

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## THE CONTINENTAL DIRECTION

The models differ, but the direction is increasingly consistent:

**Education develops talent.**

**Skills enable participation.**

**Research creates knowledge.**

**Innovation converts knowledge into solutions.**

**Entrepreneurship converts solutions into enterprises.**

**Industry converts innovation into value.**

The strategic challenge for African policy-makers through 2027–28 is to connect each component.

The resulting opportunity is the creation of a new generation of African education and innovation ecosystems capable not only of preparing young Africans for the future economy — but enabling them to **build it**.

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