

AFRICA'S TECH PULSE



**World Cup
ICT lessons
for Africa**

**Satellites can
enhance our
connectivity**

Data Centres: What's at stake for Africa?

**A potential boom raises key questions
about the benefits to our digital future**

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A commitment to building solutions that work for all Africans

It is a privilege to welcome you to this edition of *Africa's Tech Pulse*, the official magazine of TICON Africa.

As Africa accelerates its digital transformation journey, this issue explores the infrastructure, technologies, partnerships, and policy priorities that will determine how effectively our continent competes, innovates, and prospers in the digital age.

It highlights a defining reality of our time: Africa's digital transformation is no longer driven solely by connectivity. It is increasingly being shaped by the strength of our digital infrastructure, our ability to harness emerging technologies responsibly, and our commitment to building solutions that work for all Africans.

Across the continent, investments in data centres, cloud platforms, fibre networks, satellite connectivity and artificial intelligence are accelerating. These developments present unprecedented opportunities to drive innovation, strengthen digital trade and enable Africa's participation in the global digital economy. At the same time, they challenge us to think carefully about issues of digital sovereignty, sustainability, governance and equitable access.

Artificial intelligence is a recurring theme throughout this issue. As governments and institutions race to adopt AI, the conversation is increasingly

shifting from innovation alone to governance, accountability and trust. Recent global assessments show that while many countries have adopted responsible AI frameworks, implementation often lags ambition. For Africa, this presents both a challenge and an opportunity: to develop AI ecosystems that are innovative, ethical, inclusive and aligned with our development priorities.

Encouragingly, new international platforms such as the World Artificial Intelligence Cooperation Organization (WAICO) are creating opportunities for developing countries to collaborate on AI capacity building, governance, standards and innovation. Africa must seize these opportunities to ensure that the continent is not merely a consumer of technologies and policies developed elsewhere, but an active contributor to the global AI agenda.

Another important message emerging from this edition is that digital inclusion must remain at the centre of our efforts. Despite impressive growth in mobile connectivity, millions of Africans continue to face affordability barriers that limit meaningful participation in the digital economy. Innovative approaches such as low-data architecture, leveraging familiar technologies including USSD, SMS, and WhatsApp, demonstrate that digital transformation is most effective when it

removes barriers rather than creates them.

At TICON Africa, we remain committed to advancing dialogue, research, partnerships, and professional development across the continent. Through collaborations with organizations such as the Caribbean Association of National Telecommunications Organizations (CANTO) and the Council of European Professional Informatics Societies (CEPIS), we continue to expand opportunities for knowledge exchange, skills development and international cooperation.

As we look ahead to the 2026 TICON Africa Conference in Livingstone, Zambia, I encourage all stakeholders to continue working together to build a connected, resilient, inclusive and globally competitive digital Africa.

The future will belong to those who not only adopt technology, but who shape it. Africa has the talent, the ambition and the opportunity to do exactly that.

David Gowu

President, Technology Information Confederation Africa



A defining reality of our time is that Africa's digital transformation is no longer driven solely by connectivity

Un engagement à concevoir des solutions qui répondent aux besoins de tous les Africains

C'est un privilège de vous accueillir dans cette édition d'*Africa's Tech Pulse*, le magazine officiel de TICON Africa. Alors que l'Afrique accélère sa transformation numérique, ce numéro examine les infrastructures, les technologies, les partenariats et les priorités stratégiques qui détermineront dans quelle mesure notre continent pourra être compétitif, innover et prospérer à l'ère numérique.

Cela met en lumière une réalité déterminante de notre époque : La transformation numérique de l'Afrique n'est plus portée uniquement par la connectivité. Elle est de plus en plus façonnée par la solidité de notre infrastructure numérique, notre capacité à exploiter les technologies émergentes de manière responsable et notre engagement à concevoir des solutions qui répondent aux besoins de tous les Africains.

À travers le continent, les investissements dans les centres de données, les plateformes cloud, les réseaux de fibre optique, la connectivité satellitaire et l'intelligence artificielle s'accroissent. Ces évolutions offrent des opportunités sans précédent pour stimuler l'innovation, renforcer le commerce numérique et permettre à l'Afrique de participer à l'économie numérique mondiale. Dans le même temps, elles nous obligent à réfléchir

avec attention aux enjeux de souveraineté numérique, de durabilité, de gouvernance et d'accès équitable.

L'intelligence artificielle est un thème récurrent dans l'ensemble de ce numéro. Alors que les gouvernements et les institutions s'empressent d'adopter l'IA, le débat se déplace de plus en plus de la seule innovation vers la gouvernance, la responsabilité et la confiance. De récentes évaluations mondiales montrent que, si de nombreux pays ont adopté des cadres d'IA responsable, leur mise en œuvre reste souvent en deçà des ambitions affichées. Pour l'Afrique, cela représente à la fois un défi et une opportunité : développer des écosystèmes d'IA innovants, éthiques, inclusifs et alignés sur nos priorités de développement.

Fait encourageant, de nouvelles plateformes internationales telles que la World Artificial Intelligence Cooperation Organization (WAICO) créent des possibilités permettant aux pays en développement de collaborer en matière de renforcement des capacités en IA, de gouvernance, de normes et d'innovation. L'Afrique doit saisir ces opportunités afin de veiller à ce que le continent ne soit pas simplement un consommateur de technologies et de politiques élaborées ailleurs, mais un contributeur actif au programme mondial de l'IA.

À TICON Africa, nous restons déterminés à faire progresser le dialogue, la recherche, les partenariats et le développement professionnel à travers le continent. Grâce à des collaborations avec des organisations telles que la Caribbean Association of National Telecommunications Organizations (CANTO) et le Council of European Professional Informatics Societies (CEPIS), nous continuons à élargir les possibilités d'échange de connaissances, de développement des compétences et de coopération internationale.

Alors que nous nous tournons vers la Conférence TICON Africa 2026 à Livingstone, en Zambie, j'encourage toutes les parties prenantes à continuer de travailler ensemble pour bâtir une Afrique numérique connectée, résiliente, inclusive et compétitive à l'échelle mondiale.

L'avenir appartiendra à ceux qui non seulement adoptent la technologie, mais la façonnent également. L'Afrique a le talent, l'ambition et l'opportunité de faire précisément cela.

David Gowu

Président, Technology Information Confederation Africa

Le numérique en Afrique la transformation n'est plus piloté uniquement par la connectivité





Do gabinete do Secretário-
Geral da Tecnologia
Confederação Africana
de Informação

From the desk of the Secretary General of the
Technology Information Confederation Africa

Building a **stronger** **ICT** community

As we look to the months ahead, TICON Africa is entering an important phase of growth, consolidation and continental collaboration.

Our 2026 conference in Livingstone, Zambia, will bring our community together to learn, exchange experiences and strengthen professional relationships across Africa. For the first time, the conference will include a dedicated Research Track, an important step in building a stronger culture of African-led ICT research.

Beyond the conference, we're preparing our continental professional certification framework to strengthen standards, recognition and mobility for African ICT practitioners. We are also implementing our three-year TICON Africa Research Agenda, supported by focused research clusters, while continuing development of the Compliance Toolkit as a practical resource for members.

Our people-centred work continues through Women in TICON Africa, education and training, masterclasses and professional development initiatives that create opportunities for participation, leadership and skills growth.

We are also strengthening international engagement. Our collaboration with CANTO in the Caribbean, growing relationship with CEPIS in Europe, and engagement with the International Digital Association (IDA) help us build bridges beyond Africa, exchange knowledge and position African ICT professionals within the global professional community.

Our direction is clear: stronger professionalism, research and skills; greater inclusion, and deeper collaboration.

TICON Africa is being built through the collective knowledge and participation of its members. By gathering, learning and working together, we are creating a stronger Pan-African ICT professional community.

Dr Jannie Zaaiman

Construindo uma **comunidade de** **TIC** mais forte

Ao olharmos para os próximos meses, a TICON Africa está a entrar numa fase importante de crescimento, consolidação e colaboração continental.

A nossa conferência de 2026 em Livingstone, Zâmbia, reunirá a nossa comunidade para aprender, trocar experiências e reforçar relações profissionais em toda a África. Pela primeira vez, a conferência incluirá uma secção dedicada à investigação, um passo importante na construção de uma cultura mais sólida de investigação em TIC liderada por africanos.

Para além da conferência, estamos a preparar o nosso quadro continental de certificação profissional para reforçar as normas, o reconhecimento e a mobilidade dos profissionais africanos de TIC. Estamos também a implementar a nossa Agenda de Investigação da TICON Africa para três anos, apoiada por grupos de investigação especializados, enquanto continuamos o desenvolvimento do Compliance Toolkit como um recurso prático para os membros.

O nosso trabalho centrado nas pessoas continua através de Women in TICON Africa, com educação e formação, masterclasses e iniciativas de desenvolvimento profissional que criam oportunidades de participação, liderança e desenvolvimento de competências.

Estamos também a reforçar o envolvimento internacional. A nossa colaboração com a CANTO nas Caraíbas, a relação crescente com a CEPIS na Europa e o envolvimento com a International Digital Association (IDA) ajudam-nos a construir pontes para além de África, a trocar conhecimentos e a posicionar os profissionais africanos de TIC na comunidade profissional global.

A nossa direcção é clara: maior profissionalismo, investigação e competências; maior inclusão e colaboração mais profunda.

A TICON Africa está a ser construída através do conhecimento colectivo e da participação dos seus membros. Ao reunirmo-nos, aprendermos e trabalharmos em conjunto, estamos a criar uma comunidade profissional pan-africana de TIC mais forte.

Dr Jannie Zaaiman

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- Nigeria Computer Society
- Rwanda ICT Chamber
- South African ICT Association (SAICTA)
- Tanzania Computer Society
- TogoTech
- West Africa ICT Action Network

CONTENTS

OUR COVER STORIES

8 Data Centres

What's at stake for Africa? A potential data centres boom raises key questions about the benefits to our digital future

18 Satellite Technology

Satellite connectivity was a last resort for remote locations. Now many believe they can close Africa's connectivity gaps

64 Digital Infrastructure

Examining the operational ICT strategy behind the FIFA World Cup 2026 – and what it means for Africa

OUR FEATURE STORIES

6 This is TICON Africa

Introducing TICON Africa as

the powerful and united voice of ICT professionals across our emerging continent

16 2026 Conference

It's here! Connect. Learn. Collaborate. Africa's digital future meets one of the world's most spectacular destinations

21 Partnerships

The Council of European Professional Informatics Societies (CEPIS) becomes a TICON Africa strategic partner

25 Digital Training

A tech knowledge-exchange agreement between the UAE and Ethiopia grows to seven million young people

27 Member News: South Africa

The results of a national ICT



skills survey are to be released and discussed at a skills conference in October

28 AI Governance

Governments are rapidly adopting responsible AI frameworks – but many remain little more than promises on paper

32 ICT News

This roundup highlights how governments, businesses, entrepreneurs and educators are unlocking tech innovation

36 Member News: Uganda

Uganda is working to position itself as a global IT and ITES export hub – and become the Tech Pearl of Africa

40 Agritech

Some celebrated agritech solutions struggle to reach the smallholder farmers they are intended to benefit

44 Digital Inclusion

How organisations can use low-data architecture to reduce digital friction and increase transaction completion

49 Member News: Ghana

The Institute of ICT Professionals Ghana (IIPGH) partners with NITA for National ICT Week 2026 in Accra

50 TICON Africa Masterclass

We partner with CANTO for an inaugural discussion on bridging Africa and the Caribbean's digital future

52 Edutech

AI can help to scale early learning support in Africa and become a scalable model for low-resource environments

55 Global AI

Africa can benefit from increased technical cooperation with other developing countries through WAICO

56 Member News: Ethiopia

Ethiopia is undergoing a period of rapid change – and ICT plays a central role in driving structural transformation

60 Shadow AI

Cybersecurity experts call for a governance-first approach as Shadow AI becomes a business reality

62 TICON Africa Masterclass

A Women in TICON Africa Masterclass explores emerging trends in artificial intelligence and tech leadership

68 AI Hubs

With organisations looking to scale AI adoption, a Google Cloud-powered Partner Experience Centre opens

70 Cyber Resilience

As African businesses digitise procurement and supplier management, cybercriminals target the supply chain



NEXT ISSUE:

- 2026 Conference report back
- The LLM that speaks 31 African languages

TICON AFRICA

OUR MEMBER BODIES

CAPE VERDE

NOSi (Núcleo Operacional da Sociedade de Informação) is a public institution driving digital transformation and innovation in governance, education and economic development.

[Website](#)



GHANA

The Institute of ICT Professionals, Ghana (IIPGH) is a connector of ICT professionals – from government to educational, corporates, investors and civil society organisations.

[Website](#)



TOGO

TogoTech is an association of innovative tech enterprises established to unite startups, FabLabs, investors and incubators under one banner and amplify their collective impact.

[Website](#)



WAICTANet

The West Africa ICT Action Network unites individuals and institutions in internet governance, ICT policy, digital regulation, and tech development. Members include Liberia, Sierra Leone, Côte d'Ivoire and Guinea.

[Website](#)



BOTSWANA

The Botswana Information Technology Society (BITS) is a non-profit, voluntary organisation representing various IT stakeholders across government, industry and the academic sector.

[Website](#)



NIGERIA

Nigeria Computer Society (NCS) is the premier umbrella organisation representing computing and information technology professionals, interest groups and stakeholders across Nigeria.

[Website](#)



SOUTH AFRICA

The Institute of Information Technology Professionals South Africa (IITPSA) is recognised by the South African Qualifications Authority and aims to further the study, science and application of ICTs.

[Website](#)



SOUTH AFRICA

The South African ICT Association (SAICTA) is a non-profit body promoting ICT development by maintaining high standards of skills, ability, ethics and integrity.

[Website](#)



LESOTHO

The Lesotho Information and Communication Technology Association (LICTA) is dedicated to advancing the ICT landscape by promoting high standards and fostering expertise.

[Website](#)



ESWATINI

The Eswatini ICT Association (EICTA) unites ICT professionals and businesses. It meets the need for a cohesive platform promoting digital innovation and skills enhancement.

[Website](#)



ETHIOPIA

The ICT Association Ethiopia (ICT-ET) is an alliance of private-sector ICT companies that aims to expose, engage and enable the private sector within the Ethiopian tech industry.

[Website](#)



KENYA

The Information Communication Technology Association of Kenya (ICTAK) serves as a hub for information technology experts and industry stakeholders in Kenya.

[Website](#)



UGANDA

The ICT Association of Uganda (ICTAU) is a multi-stakeholder, nonprofit initiative founded in 2012 to provide professional guidance, advisory services and promote professionalism.

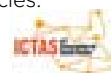
[Website](#)



SOUTH SUDAN

The ICT Society South Sudan is the professional association for ICT professionals & service providers. It sets standards, represents the sector and advocates policies.

[Website](#)



RWANDA

The Rwanda ICT Chamber is an essential hub for the tech community, dedicated to propelling ICT careers, entrepreneurship & investments to make Rwanda a tech leader.

[Website](#)



TANZANIA

The Tanzania Computer Society (TCS) is at the forefront of strengthening the ICT sector by encouraging collaboration, enhancing skills, and promoting emerging technologies.



MALAWI

The ICT Association of Malawi (ICTAM) is an umbrella body of all ICT professionals. It enables Malawians to participate effectively in the tech-based global economy.

[Website](#)



ZAMBIA

The Information & Communications Technology Association of Zambia (ICTAZ) was established by Act of Parliament in 2018 to register, regulate and promote the ICT sector.

[Website](#)



ZIMBABWE

The Information Communication Technology Association of Zimbabwe (ICTAZ) empowers society to master emerging technologies as essential tools for sustainable development.

[Website](#)



ZIMBABWE

The Computer Society of Zimbabwe (CSZ), established in 1974, is a globally recognised body for ICT professionals, dedicated to advancing the country's ICT ecosystem.

[Website](#)



➤ As AI adoption grows, data centres are emerging as a key battleground in debates about Africa's energy future, digital sovereignty and economic development

Data centres: what's at stake for the continent's AI future?

AI-driven data centre investment is reshaping Africa's digital future – but it raises questions about resource use, data sovereignty and who ultimately benefits from the continent's growing digital infrastructure. By **Fiona Zerbst**.





◀ Skills transfer and workforce development are essential measures of whether data-centre projects deliver lasting local benefits

Data centres – the digital infrastructure that has inconspicuously powered modern life for decades – have suddenly become the focus of intense public debate.

Facilities once interesting only to data-centre engineers, network architects, cloud providers and infrastructure planners are now attracting billions in investment, scrutiny from regulators, and concern from environmental groups and local communities.

What's changed is the scale and capacity

Blame the artificial intelligence boom. AI systems are software, but they run on physical infrastructure. Every large language model, chatbot and AI-powered

application depends on data centres that must be built, powered and cooled. Electricity networks, substations, cooling systems, fibre connectivity, battery storage and generation capacity are all vital.

Not everyone is convinced that this rapid build-out is sustainable – or desirable.

The industry's ambitions appear to brush aside corporate commitments to net-zero targets and some communities question whether scarce resources should be sacrificed "just to use ChatGPT", according to Shaun Versfeld, Director of Mission Critical Facilities at Atana, a consulting engineering firm.

AI is also outpacing sustainable energy solutions. "You cannot build a 10MW solar farm while simultaneously building a 100MW AI data centre and expect to catch up quickly," he points out.

As governments and technology companies race to secure the infrastructure needed to support AI, Africa is increasingly being drawn into conversations that extend far beyond technology itself and into larger questions of sustainability and public value.

What's powering the AI build-out

For much of the past decade, global technology conversations have centred on compute power and semiconductor availability, but this has changed dramatically, says Steven Santini, Vice-President for Secure Power, SSA at Schneider Electric. Among other things, the company provides systems to power and control data centres.

Versfeld notes that, compared with traditional enterprise and cloud applications, AI requires far greater computing density and significantly more power. "If we build a data centre on a 10,000-square-metre site, we could squeeze out 90MW of compute power," he explains. "If it was cloud, we would maybe look at 15MW or 20MW."

The increase in density translates directly into greater demand for electricity, cooling and supporting infrastructure.

According to the International Energy Agency, global data-centre electricity consumption could reach nearly 945TWh by 2030, equivalent to almost 3% of global electricity consumption, while electricity consumption from accelerated AI servers is expected to grow by roughly 30% annually throughout this decade.

"Data centres require significantly more power and higher power densities. This places greater demands on electricity generation, transmission and distribution

infrastructure," says Santini.

This is driving one of the largest infrastructure investment cycles in the history of the technology sector.

Analysts estimate that Amazon, Microsoft, Alphabet and Meta could collectively spend more than US\$700-billion on capital expenditure in 2026, with much of that investment directed towards AI data centres, specialised chips, networking infrastructure and power capacity. Critics point to rising debt levels and growing reliance on private financing to support the AI build-out.

Versfeld is unconvinced by suggestions that the sector may be entering bubble territory, however. "There has been a reset, but this isn't a bubble," he says. "The build-out is not going to stop."

As demand for AI infrastructure grows, hyperscale operators are placing greater emphasis on long-term energy security. Santini says this requires a combination of reliable grid infrastructure, renewable-energy development, energy storage and microgrids, supported by coordinated investment in both digital and energy systems.

Whether today's spending levels ultimately prove visionary or excessive remains to be seen, but it is undeniable that the AI boom has turned data centres, power grids and energy security into strategic assets. The result is a growing concentration of economic and infrastructural power in the hands of a small number of technology companies, raising questions about transparency, oversight and whose interests these vast investments are ultimately designed to serve.

Is Africa the new data centre frontier?

As hyperscale operators search for new markets, reliable energy sources and locations where future AI infrastructure can expand at scale, Africa is attracting growing attention.

"For years, conversations about Africa's digital future focused primarily on connectivity, mobile adoption and cloud migration. Now the continent is being evaluated as a potential frontier for next-generation AI infrastructure," Santini points out.

"Africa offers available land, expanding fibre connectivity, growing investment openness and, critically, untapped energy development potential."

The challenges, however, are huge. Grid instability, transmission constraints, financing hurdles and policy uncertainty



Human expertise remains at the centre of Africa's digital transformation, even as AI systems and data-centre infrastructure expand

are shaping investment decisions across much of the continent.

Nevertheless, the market is growing rapidly and data centres will be needed.

According to the African Energy Chamber, Africa had just 223 data centres spread across 38 countries by mid-2025, compared with more than 11,800 worldwide. South Africa led the continent with 56 facilities, followed by Kenya with 19 and Nigeria with 17, meaning that 41% of Africa's data centre infrastructure is concentrated in just three countries.

Industry forecasts reflect a growing enthusiasm on the continent.

"Everyone wants to build a data centre because it's the new thing to do," comments Versfeld, pointing out that the African data centre market is projected to grow from \$3.49-billion in 2024 to \$6.81-billion by 2030. The Africa Data Centres Association estimates that the continent currently has approximately 360MW of active capacity, with a further 238MW under construction and 656MW planned.

However, Versfeld believes the discussion about Africa's data centre future starts from the wrong premise. "Before we ask how to power and cool Africa's next data centre, we should ask

a more fundamental question: is the proposed location the right one for that facility and the market it is meant to serve?"

There is a risk of treating the continent as a single market with the same set of requirements, he says.

"When people talk about Africanising data centre design, they often mean adapting European or American approaches for African conditions. What receives less attention is that projects often need to be adapted within Africa as well.

"A facility in Limuru, outside Nairobi, faces very different design considerations from one in Lagos. At roughly 2,230m above sea level, free cooling is viable for much of the year in Limuru. In Lagos, where temperatures and humidity are significantly higher, cooling requirements are far more demanding."

The same concerns apply to connectivity, construction ecosystems, local skills, power availability and land use.

"In Nairobi, land is limited, and connectivity drops off quickly outside key areas, often pushing developers towards compact or multistorey facilities. South Africa's industrial nodes create opportunities for larger campus-style developments. In Nigeria, power and connectivity constraints frequently become dominant design considerations," he explains.

The need for strategic development in Africa

Africa's requirements are unique and may differ significantly from those driving the global AI boom, says Versfeld.

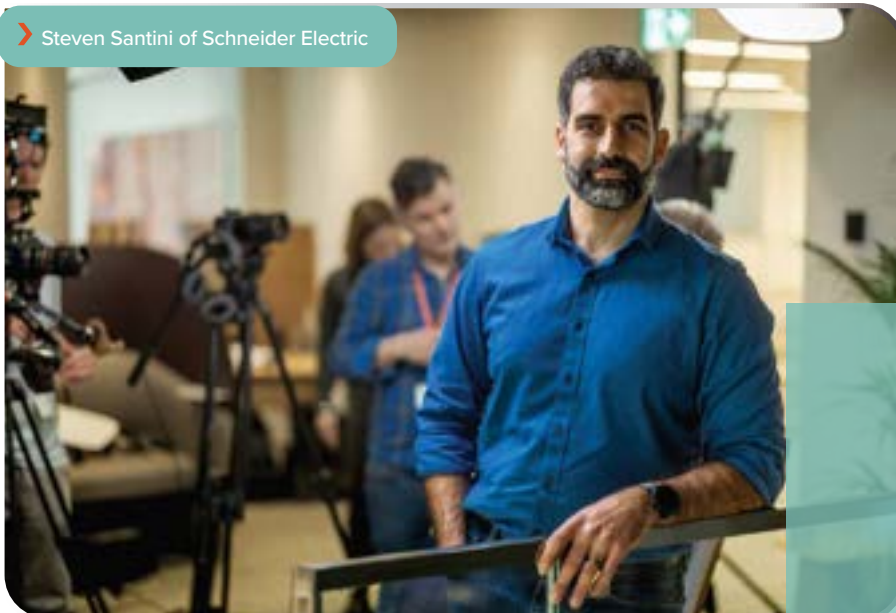
Much of the current investment is focused on hyperscale facilities for training large language models and supporting massive AI workloads, but in Africa there may be greater opportunity in inference – running AI models closer to the users and applications that rely on them – than in training frontier AI models.

Because inference workloads are highly sensitive to latency, there is a strong case for placing infrastructure closer to where AI services are consumed, rather than trying to compete directly in the global race to train large language models.

"In many African markets, the more immediate need is infrastructure that supports cloud services, inference workloads and practical AI applications tailored to local requirements," Versfeld notes.

"Designing around assumptions borrowed from the world's largest AI markets can result in infrastructure that

› Steven Santini of Schneider Electric



› Shaun Versfeld of Atana



› Denessa Loregnard of The Loregnard Group

Designing around global assumptions can result in infrastructure that's overbuilt and unnecessarily expensive

is overbuilt, unnecessarily expensive and disconnected from actual demand. If we had to build another 5,000 data centres tomorrow, nothing would change, since more than 85% of data on the continent is processed and trafficked outside of the continent."

A question of Africa's data sovereignty

For years, policymakers have discussed digital sovereignty largely in terms of where data resides, but Versfeld argues the issue is ultimately more complicated than geography.

The fact that more than 85% of African data is still processed outside the continent despite significant local capacity suggests that building facilities is only one part of the equation. Policy frameworks, localisation requirements and business incentives also come into the picture.

This issue is already influencing decision-making in some markets. Versfeld points to Nigeria's efforts to localise banking transactions as an example of how regulation can create demand for local infrastructure rather than simply hoping that demand materialises on its own.

It is not just a matter of security – storing and processing data locally, or within

trusted regional jurisdictions, gives countries greater control over critical information while creating opportunities for lower latency, local economic activity and additional revenue streams.

Yet localisation comes at a cost. Data centres can take two years or more to move from planning and design to commissioning, while much of the equipment required in markets such as Nigeria needs to be imported. Procurement costs, taxes and customs duties can make projects significantly more expensive in the short term.

Even so, Versfeld argues that local processing creates the conditions for long-term industry development, infrastructure investment and economic growth.

Until more countries address these questions, he believes, capacity alone is unlikely to transform Africa's digital economy.

Digital ambitions and developmental needs

Questions of localisation inevitably lead to a more difficult debate about development priorities.

Versfeld says the long-term benefits of data centre investment can be substantial. New facilities create jobs during construction, stimulate local supply chains and support broader digital transformation. But in many African markets, the trade-offs are not always straightforward.

Take the Central African Republic, for example. A 10MW data centre could generate significant long-term economic benefits, he points out, but large portions of the population still lack reliable electricity, internet access and other basic services.

"You could argue that data centres deliver long-term economic benefits, and that's true, but governments are also dealing with immediate social priorities."

That tension is not unique to the Central African Republic. Across the continent, policymakers are increasingly balancing future digital ambitions against present-day developmental needs, including employment and economic growth.

Every major data centre announcement tends to emphasise employment, skills development and local economic benefits.

➤ Every AI application relies on physical infrastructure, placing growing demands on power generation, transmission and grid capacity



But Denessa Loregnard, founder of The Loregnard Group – an advisory practice focused on execution infrastructure and accountability architecture for AI data centre operators, energy developers and governments – argues that these promises can be flimsy. A construction project may create hundreds or even thousands of temporary jobs over an 18-month to three-year period, but operational facilities are very different.

“Once the facility is running, it operates on a much smaller and more specialised permanent team, often in the range of 50 to 200 people even on a large build, because so much of the operation is automated by design,” she explains.

Loregnard believes countries should focus less on headline employment numbers and more on workforce preparation. “This is almost always treated as something that will resolve itself after the infrastructure is in place, when in fact it is the one thing that had to be planned first,” she argues.

The challenge extends beyond workforce development.

“A data centre operates for decades and across multiple administrations, which makes continuity the real necessity,” Loregnard says. For that reason, she believes commitments linked to local hiring, skills transfer and community benefit must be embedded into governance and operating structures rather than tied to particular politicians, companies or funding cycles.

In addition, negotiating teams and advisory bodies should include ICT professionals. “The associations and industry bodies that represent ICT professionals are exactly what can make a technical seat at the negotiating table the norm rather than an exception,” she emphasises.

Community-benefit agreements, public reporting mechanisms and disclosure dashboards are becoming more common, she notes, and they are a genuine improvement. But transparency alone is not enough. “What separates a durable commitment from a decorative one is whether abandoning it carries a cost,” she says.

The ultimate test, Loregnard argues, is whether the promised benefits have been given the same permanence as the facility itself. “That is what tells you a data centre is developing the place it sits in, rather than simply operating on top of it.”

The ongoing need for environmental assessments

Much of the public concern around AI infrastructure focuses on electricity consumption, but water use has increasingly emerged as a flashpoint in many countries. High-density computing generates heat and heat requires cooling.

According to Santini, AI is accelerating the need for higher-density computing, which makes thermal management particularly important.

He says cooling technologies are changing rapidly, and closed-loop liquid-cooling systems can significantly reduce water consumption compared with traditional cooling approaches, while supporting the increasing power densities associated with AI workloads.

However, Loregnard says a site using

PHOTOS: SUPPLIED; MICROSOFT COPILOT; XUNSPASH; EVENING_TAO/MAGNIFIC



evaporative cooling consumes large volumes of water but less energy, while a closed-loop or immersion-cooled site recirculates nearly all of its water but relies more on power. “There is no version that draws on nothing – only a choice about which resource carries the weight.”

Communities evaluating new developments must understand these trade-offs. “A community that understands which burden it is actually being asked to hold is in a far stronger position to negotiate around it,” she explains.

Another question is how communities themselves will actually benefit. While a fully operational facility usually employs relatively few people for the scale of resources it uses, she believes this outcome doesn’t have to be inevitable.

The facility’s technical needs are carefully planned because they have to be. But the benefits for the surrounding community are rarely planned with the same level of care. That imbalance, rather than the technology itself, is often what causes concern.

This is where governance becomes

crucial, she argues. If governments are willing to provide access to public resources, those benefits should be reflected in binding commitments around local hiring, procurement, skills development and community investment. “The path forward for a government is not to turn investment away but to set firmer terms before it says yes.”

Can AI sovereignty be guaranteed?

There is much debate about AI sovereignty and Africa’s desire to forge its own path. However, this idea of sovereignty is often framed as freedom from foreign powers, even as African states are ‘captured’ when signing agreements that cater for the interests and agendas of large corporations, says Dr Fola Adeleke, Executive Director of the Global Center on AI Governance and Associate Professor at the University of the Witwatersrand School of Law.

His concern is not simply who hosts the data but who owns the platforms, controls the underlying technologies and captures the economic value generated by them. “The biggest risk relates to the implied assumption that AI adoption can leapfrog development, which isn’t the case in reality,” Adeleke says.

While acknowledging that AI applications are already addressing specific challenges across parts of Africa, he warns that deploying AI infrastructure and delivering development outcomes are not the same thing.

“The huge number of resources needed for AI infrastructure, such as data centres, raises legitimate questions about whether the benefits of AI adoption outweigh the risks,” he says.

In countries like Kenya, where the construction of one data centre that was to be financed by Microsoft was eventually suspended due to concerns about energy use, the choices facing countries become clearer, Adeleke says: prioritise public services before investing in AI infrastructure.

There is also a danger that Africa could supply land, labour, energy, water and data while much of the ownership and value creation remains concentrated elsewhere.

“Most countries across the globe have become providers of natural resources and labour for the insatiable appetite of big tech,” Adeleke asserts. “The real risk in Africa is that organising and resistance against these developments is not taking place.”

Strengthening governance

While AI governance is vital, governance models should not simply be imported from elsewhere, believes Adeleke.

“AI policies in Africa are not distinct from Europe, China or the United States, despite what some research suggests,” he says. “To date, the African Union continental strategy on AI is the only high-level governance framework at a multilateral level, and African states have adopted their own national strategies with quite distinct approaches.”

To avoid unsustainable AI development, African countries need a clear framework that ensures AI delivers social benefits without creating unnecessary environmental costs.

He points to Zimbabwe’s AI strategy, which requires environmental-impact assessments before new AI infrastructure projects are approved, as an example of a more proactive approach. South Africa’s cloud policy similarly reflects growing awareness of the environmental implications of data-centre development.

In Adeleke’s view, African countries would benefit from greater regional planning and cooperation around infrastructure rather than simply replicating facilities market by market. Shared infrastructure could improve utilisation rates, reduce duplication and lessen environmental impacts, particularly where demand is relatively modest.

Loiregnard cautions that a project can look cheap because it asks for little upfront but can become expensive in the long run. If the agreement does not clearly cover water, energy, jobs and benefits for the local community, the country may end up carrying those costs for years.

By contrast, projects built around clear expectations may appear more demanding at the negotiating stage but are more likely to create enduring value.

For Africans to benefit from the AI economy, an equitable model should frame AI as public infrastructure. It should include investing in AI literacy for low-resource communities and developing governance frameworks for vulnerable groups – such as child rights protections – says Adeleke. ●

Fiona Zerbst has been a journalist and editor for over 20 years. She writes primarily about business and finance and has worked for publications and clients in South Africa, Botswana, Zambia, Nigeria, Canada, Finland and the UK.

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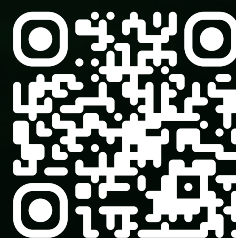


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▲ Fresh ideas, thought leadership discussions, meaningful collaborations and networking are the cornerstones of the 2026 TICON Africa Conference

It's here! Connect. Learn. Collaborate. For three days, Africa's digital future meets one of the world's most spectacular conference destinations as TICON Africa and local partner ICTAZ (ICT Association of Zambia) host the 2026 TICON Africa Conference in Livingstone, Zambia.

Just steps away from the Victoria Falls, delegates, speakers and ICT leaders have gathered to immerse themselves in powerful fresh ideas, thought leadership discussions, meaningful collaborations and networking. Most importantly, they're helping to shape the digital transformation of the continent.

Last year's TICON Africa Conference in Accra, Ghana set a new benchmark, bringing together more than 400

This gathering of ICT leaders in Livingstone is helping to shape Africa's digital transformation

delegates, 50-plus expert speakers and representatives from more than 20 nations. It was a powerful showcase of Africa's accelerating digital momentum.

In 2026, that momentum has travelled south to the banks of the Zambezi. From Accra's vibrant energy to the breathtaking majesty of the Falls, this year's conference builds on a legacy of excellence, expanding partnerships, deepening knowledge exchange and shaping Africa's digital future in a setting unlike any other.

The theme of the conference is 'Africa

The digital transformation within Africa is happening. Leaders gather in Livingstone to help shape our tech future.

Rising: Converting Strengths into Global Impact with ICT.

Says Dr Clement Sinyangwe, President of the ICT Association of Zambia: "TICON brings together ICT professional bodies from more than 20 countries located across Africa. And every year we come together to discuss various issues that impact ICT in Africa and globally.

"We have different views on how people perceive cybersecurity; we have different practical instances that we bring to the fore. So, we have invited people to come and learn, contribute and improve ICT in the region."

Adds Freddy Ndhlovu, President of the Computer Society of Zimbabwe (CSZ): "It is a must-attend for ICT professionals because it's where we share experiences and knowledge so that we can together take Africa to another level from a technology perspective.

"The opportunities are vast. You can then take those experiences back home and improve organisations and government. Although we are trying to build our own solutions, we are still very much dependant on other nations. We need to make sure that, as Africa, we can work together to build capacity and shared understanding across the region."

Notes Tshepo Bathai, President of the Botswana Information Technology Society (BITS): "The digital transformation within Africa is happening with or without you, so it's better to come and be part of the discussion.

"ICT professionals from across the continent can learn from other countries and take those lessons back to their own countries to implement. Collaboration within the continent is very important so that our laws can talk to each other and our digital skills frameworks can talk to each other. We can then work together on different projects."

Research track

The BITS President also expresses enthusiasm for the information that will become available through the new research element that is being



Honouring the best in African tech achievement

◀ A scene from the 2025 TICON Africa Awards in Accra, Ghana. To receive a TICON Africa Award is to be recognised as a standard-bearer for African technology leadership. For many past winners, an award has become a career-defining and brand-elevating milestone that delivers value extending far beyond the awards evening itself. As has become tradition, the 2026 TICON Africa Awards will be presented at a glamorous final night dinner. This year's awards span a wide range of categories reflecting the depth and diversity of Africa's ICT ecosystem.

introduced to the 2026 conference.

TICON Africa 2026 features two tracks: the conference track for ICT leaders to connect, learn and collaborate, and the research track for academics and experts to share insights and shape Africa's digital future.

The research programme aligns with the conference theme and covers the following five focus areas: Artificial Intelligence; ICT for Sustainability; Trust, Ethics and 'Post-Quantum' Security; Convergence of Physical and Digital; and Skills Development and Access. ●

▼ A flashback to the 2025 conference as the Zambian contingent celebrates being awarded host status for 2026



⬆ Is there a more spectacular conference destination than this?

Three disciplines converge

This year, for the first time, the TICON Africa conference unites with the conferences of the African Marketing Confederation (AMC) and the African Supply Chain Confederation (ASCON) under the banner of the Africa Commerce Convergence Summit.

The ACCS is a new multi-sector African business conference bringing together three major professional communities: marketing, ICT and supply chain. Together, they create the 'Power

of Three' to promote integrated growth, cross-border innovation and long-term sustainability across Africa.

The underlying idea of a 'convergence' summit is that marketing, technology and supply chains are increasingly interconnected. So, rather than treating these as separate professional disciplines, the ACCS brings leaders of these professions together to discuss Africa's broader commercial development.

➤ Falling launch costs, improved performance and new business models are positioning satellite connectivity as a key enabler of Africa's digital future

Satellite technology may be **poised** to transform **Africa**

For decades, satellite connectivity was a last resort for locations unreachable by conventional networks. Today, many believe that satellites can viably close Africa's connectivity gaps.

➤ Satellites are no longer a futuristic technology available only to a handful of users



Africa's connectivity challenges have always seemed straightforward: build more fibre, erect more towers and expand mobile networks. However, the economics of reaching unconnected users have proved a stumbling block, and millions of Africans remain beyond the reach of reliable connectivity, especially in rural and remote areas.

Satellite technology is stepping into the breach, having evolved from a niche solution to remote connectivity problems into a mainstream solution. In fact, it is now a critical component of telecommunications networks. Best of all, satellites can expand coverage and capacity without the need for massive investment in fibre and mobile networks.

According to Mustapha Iderawumi, Senior Analyst and Team Lead at Lagos-based Space in Africa, a media, analytics and consulting company focusing on the African space and satellite industry, the shift has been driven by a combination of lower launch costs, cheaper equipment and dramatic improvements in performance.

"Reusable rockets and mass-produced low-earth-orbit (LEO) satellites have collapsed the cost per bit, while user terminals dropped from thousands of dollars to a few hundred," he explains.

"LEO latency (25-40ms) is now close to terrestrial broadband, versus 600ms+ on old geostationary systems, so satellite

finally works for video calls, cloud apps and gaming, not just email."

Mainstream infrastructure

Satellite operators have stopped positioning themselves purely as a retail alternative to mobile networks and have started selling themselves as wholesale infrastructure, says Iderawumi. As a result, satellite has become something operators plug into rather than compete against – and this is what has pulled the technology into the telecoms mainstream.

Amazon's recent application to launch 5,105 direct-to-device (D2D) satellites is a prime example. The proposed constellation would allow ordinary smartphones to connect directly to satellites for voice, messaging, data and emergency communications without requiring dedicated satellite equipment.

Amazon first signalled its ambitions in April 2026 when it announced plans to acquire satellite operator Globalstar in a deal valued at about US\$11.6-billion. Deployment is expected to begin in 2028.

Rather than replacing terrestrial networks, D2D services are designed to complement them by extending connectivity beyond the reach of traditional cell towers, helping operators close coverage gaps more cost-effectively.

Iderawumi believes direct-to-cell technology could substantially alter the economics of rural connectivity. "It's

significant because it removes the biggest adoption barrier: the cost of a dish or terminal by working with an unmodified smartphone," he says.

While "the first wave is mostly SMS and basic messaging, not full broadband", Iderawumi notes that, in the near term, direct-to-cell is a genuine breakthrough for closing coverage gaps and enabling emergency communication in rural and maritime areas, rather than a replacement for terrestrial mobile broadband.

The potential scale is substantial. Airtel Africa's direct-to-cell partnership with Starlink is targeting 14 African markets and more than 170-million people. Starlink already operates the world's largest LEO satellite network, with more than 10,000 satellites in orbit.

Meanwhile, AST SpaceMobile's partnership with Axian Telecom is being positioned as Africa's first direct-to-device (D2D) space-based mobile broadband service.

A hybrid future

Satellite is unlikely to replace terrestrial networks, however. "The physics supports that satellite is strongest in low-density, hard-to-reach geography," Iderawumi points out, citing border regions, remote clinics, mining operations and agricultural sites.

In cities, towns and major economic corridors, fibre and mobile networks remain more cost-effective and can



◀ Satellite connectivity is increasingly being integrated into Africa's broader telecommunications ecosystem, helping extend connectivity to areas beyond the economic reach of fibre and mobile networks

◀ New satellite and direct-to-device technologies are expected to extend mobile connectivity to areas where conventional networks remain difficult or expensive to deploy



carry far greater volumes of traffic.

The industry's leading players increasingly describe a hybrid future in which fibre, mobile, Wi-Fi and satellite technologies work together. Users may move between different networks without even knowing it, connecting through whichever option offers the best available service.

"The honest framing for policymakers is complementary, not competitive," says Iderawumi. "Fibre and mobile would still carry the bulk of Africa's traffic, but satellite closes the long tail."

Amazon's partnerships illustrate the trend. In South Africa, it has signed an agreement with internet service provider Herotel to launch satellite broadband services in underserved areas from 2027 through a new service called Evry.

Elsewhere, it is working with rural network specialist Vanu to use satellite backhaul to support the expansion of mobile coverage across southern Africa. Starlink has adopted a different model, selling services directly in many African countries, although regulatory hurdles have prevented its entry into some markets.

Both approaches share a recognition that Africa represents one of the world's largest untapped connectivity opportunities.

Research commissioned by Amazon estimates that non-geostationary satellite systems could generate up to US\$16.9-

billion annually across the Southern African Development Community region through productivity gains, improved logistics and broader digital.

Yet Iderawumi argues that technology is no longer the primary obstacle. "The technology – LEO constellations, direct-to-cell, hybrid satellite-fibre backhaul – already exists and works," he emphasises.

The constraints are affordability, licensing, spectrum allocation and investment. The frontier has moved from 'Can this be built?' to 'Can this be licensed, priced and financed?'

Iderawumi indicates that there is no continent-wide harmonised framework for spectrum allocation or equipment-type-approval for direct-to-device services. As a result, operators continue to negotiate market access on a country-by-country basis. "That fragmentation is arguably a bigger impediment to rollout speed than any single country's caution," says Iderawumi.

Whether the industry's ambitious projections materialise remains to be seen. What appears increasingly certain is that satellites are no longer a futuristic technology available only to a handful of users. The market is becoming ever more competitive.

For Iderawumi, the growth of competing satellite providers should give mobile network operators, or



▶ Mustapha Iderawumi

MNOs, more leverage.

"For Africa, having multiple operators is good news: it gives MNOs and governments negotiating leverage instead of dependence on a single vendor, and should put downward pressure on pricing over time," he points out.

Satellite technology has a vital role to play in Africa's digital future. Increasingly, the debate centres on how quickly regulators, operators and governments can integrate it into a broader connectivity ecosystem that combines the strengths of fibre, mobile and space-based infrastructure.

As Iderawumi argues, the technology is largely ready. The challenge now is to create the conditions that allow it to scale. ●

PHOTOS: SUPPLIED; ZELCH CSABA/PEXELS; MIKE VAN SCHOONDERWALT/PEXELS; CHRISTIAN ALEMU/PEXELS; SIMPSON MEDIA/MAGNIFIC AI

CEPIS partnership opens an important gateway to Europe

TICON Africa's international footprint has received a boost with the announcement that the Council of European Professional Informatics Societies (CEPIS) will become a strategic partner.



▲ The partnership between TICON Africa and CEPIS creates a gateway for greater collaboration between African and European ICT professionals

The partnership, which will be formalised through a Memorandum of Understanding (MoU), places TICON Africa alongside a major European ICT professional body.

Established in 1989, CEPIS represents 30 national professional informatics associations from 29 countries and speaks for more than 450,000 ICT professionals across greater Europe.

It works closely with policymakers, industry leaders and professional bodies on issues ranging from digital skills and IT professionalism to cybersecurity, artificial intelligence and digital sovereignty.

For TICON Africa, the agreement represents far more than a symbolic relationship. It creates opportunities for African ICT professionals, researchers and industry leaders to participate directly in international conversations shaping the future of technology.

A key feature of the partnership is

TICON Africa's invitation to engage with CEPIS's expert groups, which focus on areas such as legal and security issues, IT professionalism, women in ICT, informatics education, artificial intelligence, and research and development.

Introductory engagements with these groups are expected to begin shortly, creating opportunities for knowledge exchange and future collaboration.

A timely partnership

The timing is significant as governments, businesses and professional bodies across the world grapple with complex questions around AI governance, data sovereignty, cybersecurity, digital skills shortages and the future of the ICT profession. Many of these issues are relevant to Africa, where countries are speeding up digital transformation while navigating concerns around digital inclusion, regulation and skills development.

The partnership also aligns closely with several of TICON Africa's own strategic priorities. CEPIS has long been active in promoting professional standards for ICT practitioners through frameworks such as the European e-Competence Framework, while also championing digital skills, ethical technology use and greater participation by women in the technology sector.

Shaping digital policy

Another area of potential value lies in policy development. CEPIS regularly engages with European institutions on issues including data protection, secure communications, digital education and emerging technology governance.

Recent work has included advocacy around encryption, digital rights and Europe's approach to technological independence. Such discussions are increasingly relevant to African countries seeking to strengthen their own digital ecosystems and regulatory frameworks.

The announcement follows TICON Africa's recent efforts to expand its global network through a partnership with the Caribbean Association of National Telecommunications Organisations (CANTO). Together, these new international relationships reflect a broader ambition to position African ICT professionals within global conversations on technology, innovation and digital development.

Creating opportunities through collaboration

For TICON Africa members, the CEPIS partnership offers access to new networks, expertise and collaborative opportunities spanning education, research, professional development and policy advocacy. As Africa's digital economy continues to grow, such international connections may prove increasingly important in ensuring that African perspectives help shape the technologies and standards that will define the future.

According to Jannie Zaaiman, Secretary General of TICON Africa, the partnership marks an important step in strengthening Africa's voice in global ICT discussions. ●

➤ La baisse des coûts de lancement, l'amélioration des performances et de nouveaux modèles économiques positionnent la connectivité satellitaire comme un levier clé de l'avenir numérique de l'Afrique

La technologie satellitaire pourrait être sur le point de transformer l'Afrique

Pendant des décennies, la connectivité satellitaire constituait une solution de dernier recours pour les zones inaccessibles aux réseaux conventionnels. Aujourd'hui, beaucoup estiment que les satellites peuvent combler de manière viable les lacunes de connectivité en Afrique.

➤ Les satellites ne sont plus une technologie futuriste accessible uniquement à une poignée d'utilisateurs

Les défis de connectivité en Afrique ont toujours semblé simples : déployer davantage de fibre, ériger davantage de pylônes et étendre les réseaux mobiles. Cependant, les contraintes économiques liées à l'accès aux utilisateurs non connectés se sont révélées être un obstacle majeur, et des millions d'Africains restent privés d'une connectivité fiable, en particulier dans les zones rurales et reculées.

La technologie satellitaire vient combler cette lacune, ayant évolué d'une solution de niche pour les problèmes de connectivité dans les zones éloignées vers une solution largement adoptée. En fait, elle constitue désormais un élément essentiel des réseaux de télécommunications. Mieux encore, les satellites peuvent étendre la couverture et la capacité sans nécessiter d'investissements massifs dans la fibre et les réseaux mobiles.

Selon Mustapha Iderawumi, analyste principal et chef d'équipe chez Space in Africa, une entreprise basée à Lagos spécialisée dans les médias, l'analyse et le conseil, et axée sur l'industrie spatiale et satellitaire africaine, cette évolution a été portée par une combinaison de coûts de lancement plus faibles, d'équipements moins chers et d'améliorations spectaculaires des performances.

« Les fusées réutilisables et les satellites en orbite terrestre basse (LEO) produits en masse ont fait chuter le coût par bit, tandis

que les terminaux utilisateurs sont passés de plusieurs milliers de dollars à quelques centaines », explique-t-il.

« La latence LEO (25-40 ms) est désormais proche de celle du haut débit terrestre, contre plus de 600 ms sur les anciens systèmes géostationnaires, de sorte que le satellite fonctionne enfin pour les appels vidéo, les applications cloud et les jeux, et pas seulement pour le courrier électronique. »

Infrastructure de référence

Les opérateurs satellitaires ont cessé de se positionner uniquement comme une alternative de détail aux réseaux mobiles et ont commencé à se présenter comme une infrastructure de gros, affirme Iderawumi. En conséquence, le satellite est devenu une ressource à laquelle les opérateurs se raccordent plutôt qu'une technologie avec laquelle ils sont en concurrence — et c'est ce qui a fait entrer cette technologie dans le courant dominant des télécommunications. ».

La récente demande d'Amazon visant à lancer 5 105 satellites direct-to-device (D2D) en est un parfait exemple. La constellation proposée permettrait à des smartphones ordinaires de se connecter directement aux satellites pour la voix, la messagerie, les données et les communications d'urgence, sans nécessiter d'équipement satellitaire dédié.

Amazon a d'abord affiché ses ambitions

en avril 2026 lorsqu'elle a annoncé son intention d'acquérir l'opérateur satellitaire Globalstar dans le cadre d'une transaction évaluée à environ 11,6 milliards de dollars américains. Le déploiement devrait commencer en 2028.

Plutôt que de remplacer les réseaux terrestres, les services D2D sont conçus pour les compléter en étendant la connectivité au-delà de la portée des antennes-relais traditionnelles, aidant ainsi les opérateurs à combler les lacunes de couverture de manière plus rentable.

Iderawumi estime que la technologie direct-to-cell pourrait modifier de manière substantielle les paramètres économiques de la connectivité rurale. « C'est important parce que cela supprime le principal obstacle à l'adoption : le coût d'une parabole ou d'un terminal, grâce au fonctionnement avec un smartphone non modifié », dit-il.

Bien que « la première vague concerne surtout les SMS et la messagerie de base, et non le haut débit complet », Iderawumi souligne que, à court terme, le direct-to-cell constitue une véritable avancée pour combler les lacunes de couverture et permettre les communications d'urgence dans les zones rurales et maritimes, plutôt qu'un remplacement du haut débit mobile terrestre.

L'ampleur potentielle est considérable. Le partenariat direct-to-cell d'Airtel Africa avec Starlink cible 14 marchés africains et



« La connectivité satellitaire est de plus en plus intégrée dans l'écosystème plus large des télécommunications en Afrique, contribuant à étendre la connectivité à des zones situées au-delà de la portée économique de la fibre et des réseaux mobiles »

plus de 170 millions de personnes. Starlink exploite déjà le plus grand réseau satellitaire LEO au monde, avec plus de 10 000 satellites en orbite.

Entre-temps, le partenariat entre AST SpaceMobile et Axian Telecom est présenté comme le premier service africain de haut débit mobile spatial direct-to-device (D2D).

Un avenir hybride

Il est toutefois peu probable que le satellite remplace les réseaux terrestres. « Les lois de la physique montrent que le satellite est le plus performant dans les zones à faible densité et difficiles d'accès », souligne Iderawumi, en citant les régions frontalières, les cliniques éloignées, les exploitations minières et les sites agricoles.

Dans les villes, les agglomérations et les grands corridors économiques, la fibre et les réseaux mobiles restent plus rentables et peuvent acheminer des volumes de trafic bien plus importants.

Les principaux acteurs du secteur décrivent de plus en plus un avenir hybride dans lequel la fibre, le mobile, le Wi-Fi et les technologies satellitaires fonctionnent ensemble. Les utilisateurs peuvent passer d'un réseau à un autre sans même s'en rendre compte, en se connectant via l'option qui offre le meilleur service disponible.

« La manière la plus honnête de présenter les choses aux décideurs publics est de parler de complémentarité, et non de concurrence », déclare Iderawumi. « La fibre et le mobile continueraient à acheminer l'essentiel du trafic africain, mais le satellite couvre les besoins résiduels. »

Les partenariats d'Amazon illustrent cette tendance. En Afrique du Sud, l'entreprise a signé un accord avec le fournisseur d'accès à Internet Herotel pour lancer, à partir de 2027, des services satellitaires à haut débit dans les zones mal desservies au moyen d'un nouveau service appelé Evry.

Ailleurs, elle travaille avec le spécialiste des réseaux ruraux Vanu afin d'utiliser le backhaul satellitaire pour soutenir l'extension de la couverture mobile à travers l'Afrique australe. Starlink a adopté un modèle différent, en vendant directement ses services dans de nombreux pays africains, bien que des obstacles réglementaires aient empêché son entrée sur certains marchés.

Les deux approches reposent sur le constat que l'Afrique représente l'une des plus grandes opportunités de connectivité encore inexploitées au monde.



Les nouvelles technologies satellitaires et direct-to-device devraient étendre la connectivité mobile à des zones où les réseaux conventionnels restent difficiles ou coûteux à déployer

Une étude commandée par Amazon estime que les systèmes satellitaires non géostationnaires pourraient générer jusqu'à 16,9 milliards de dollars américains par an dans l'ensemble de la région de la Communauté de développement de l'Afrique australe, grâce à des gains de productivité, à une amélioration de la logistique et à un accès numérique plus large.

Pourtant, Iderawumi soutient que la technologie n'est plus le principal obstacle. « La technologie – constellations LEO, direct-to-cell, backhaul hybride satellite-fibre – existe déjà et fonctionne », souligne-t-il.

Les contraintes concernent l'accessibilité financière, l'octroi de licences, l'attribution du spectre et l'investissement. La question est passée de « Peut-on construire cela ? » à « Peut-on l'autoriser, le tarifier et le financer ? »

Iderawumi indique qu'il n'existe pas de cadre harmonisé à l'échelle du continent pour l'attribution du spectre ni pour l'homologation des types d'équipements destinés aux services direct-to-device. Par conséquent, les opérateurs continuent de négocier l'accès au marché pays par pays. « Cette fragmentation constitue sans doute un obstacle plus important à la rapidité du déploiement que la prudence de n'importe quel pays pris isolément », affirme Iderawumi.

Il reste à voir si les projections ambitieuses du secteur se concrétiseront. Ce qui paraît de plus en plus certain, c'est que les satellites ne sont plus une technologie futuriste accessible seulement à une poignée d'utilisateurs. Le marché devient de plus en plus concurrentiel.

Pour Iderawumi, la croissance des fournisseurs concurrents de services satellitaires devrait donner aux opérateurs de réseaux mobiles, ou MNO, une plus grande marge de négociation.

« Pour l'Afrique, le fait de disposer de plusieurs opérateurs est une bonne nouvelle : cela donne aux MNO et aux gouvernements une marge de négociation, au lieu d'une dépendance à l'égard d'un seul fournisseur, et devrait exercer une pression à la baisse sur les prix au fil du temps », souligne-t-il.

La technologie satellitaire a un rôle essentiel à jouer dans l'avenir numérique de l'Afrique. De plus en plus, le débat porte sur la rapidité avec laquelle les régulateurs, les opérateurs et les gouvernements peuvent l'intégrer dans un écosystème de connectivité plus large, qui combine les atouts de la fibre, du mobile et des infrastructures spatiales.

Comme le soutient Iderawumi, la technologie est globalement prête. Le défi consiste désormais à créer les conditions qui lui permettront de se déployer à grande échelle. ●



Initiative to train five million Ethiopian coders is expanded

A knowledge-exchange agreement between the UAE and Ethiopia reaches its original goal ahead of schedule and grows to seven million young people.

PHOTO: FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

The Five Million Ethiopian Coders initiative, launched in July 2024 as part of a strategic partnership in government knowledge exchange between the UAE and Ethiopia, has been expanded to seven million participants.

This was announced in July 2026, following the success of the original initiative which achieved its target of training five million young Ethiopians in essential digital skills well ahead of schedule.

Under the free scheme learners can gain foundational-level skills across three domains: Programming Fundamentals,

Data Science Fundamentals and Android Kotlin Developer Fundamentals.

The aim is help them establish a career in the ever-evolving technology industry. Learners are supported by mentors who assist them on a dedicated community platform to unpack technical questions. Upon successful course completion, learners receive skill-based certifications.

According to the news portal *Ethiopia Today*, the decision to extend the programme to seven million young people reflects confidence in its results and its wide impact on building digital capabilities and empowering youth with future skills.

"This achievement embodies the depth of partnership and cooperation between the two governments in building digital capabilities and empowering national competencies through the integration of visions and experiences to expand opportunities for access to digital knowledge, enhance the readiness of future generations for future skills, and support the journey of digital transformation and the knowledge-based economy," *Ethiopia Today* states.

Speaking at an event to mark the extension, Ethiopian Prime Minister, Abiy Ahmed, said: "Reaching five million Ethiopian programmers in less than two years is an extraordinary achievement that reflects Ethiopia's firm commitment to digital transformation and empowering youth and communities with future skills."

The Prime Minister also expressed his appreciation to the government of

the United Arab Emirates for its strategic partnership and unwavering support, which played a pivotal role in accelerating this achievement.

International cooperation

Mohammed Abdullah Al Gergawi, Minister of Cabinet Affairs for the UAE, said the partnership with the Ethiopian government represented a real translation of the impact of international cooperation in developing societies and governments. The initiative empowered human resources and supported digital transformation.

He also noted that Ethiopia and the United Arab Emirates have an ongoing bilateral relationship covering different sectors.

The original Five Million Ethiopian Coders initiative launched in July 2024 is an offshoot of a proposal by Sheikh Mohammed Bin Rashid Al Maktoum, Vice President, Prime Minister and Ruler of Dubai, at the 2017 World Economic Forum. At the forum, he put forward a 'One Million Arab Coders' programme to provide basic digital literacy training.

When the 2024 initiative was launched, the news website *We Are Tech.Africa* commented: "With over 128-million inhabitants, a significant portion of whom are young, Ethiopia faces a digital divide that prevents its population from reaping the benefits of digital growth. In the era of the technological revolution, the country must equip this young generation with the necessary skills for future jobs." ●



WORKFORCE INTELLIGENCE

CONFERENCE & PRESIDENT'S AWARDS

2026



**30 OCTOBER, 2026
FROM 8AM**

**EMPEROR'S PALACE,
JOHANNESBURG:**

AI is changing the face of ICT workforces. How will SA respond?

The IITPSA Workforce Intelligence Conference is the IITPSA's largest conference to date, designed to address the most burning issue facing the South African ICT workforce today: the impact of AI on ICT skills.

At this event, ICT professionals and employers will discuss AI's impact on ICT employment and career pathways, emerging technology skills requirements, ICT skills gaps and development strategies, and the future of work in South Africa's digital economy.

The IITPSA Workforce Intelligence Conference 2026 brings together South Africa's leading CIOs, technology executives, HR leaders, policymakers, academics and ICT professionals to examine how AI is transforming the profession.

Follow @IITPSA for news updates



The full-day conference will reveal the findings of the 2026 IITPSA ICT Skills Survey, with expert speakers addressing critical questions such as:

Will AI replace or reshape ICT roles? ✓

How can professionals prepare for changing skills requirements? ✓

What opportunities will AI create for technology careers? ✓

How should organisations build an AI-ready workforce? ✓

Attend the Prestigious IITPSA President's Awards 2026 ✓



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IITPSA puts spotlight on ICT skills in South Africa

The results of an in-depth national skills survey are to be released and discussed at a skills conference in October 2026.

The Institute of Information Technology Professionals (IITPSA) is set to host its first major ICT skills conference to delve into the findings of this year's landmark IITPSA Skills Survey, which analyses the impact of AI on ICT jobs in South Africa.

The IITPSA *Workforce Intelligence Conference*, to be held at Emperor's Palace in Johannesburg on 30 October 2026, will focus on how AI is impacting jobs and skills demand in South Africa's ICT sector.

IITPSA President Pearl Pasi says: "AI is potentially the most disruptive technology in the modern workplace. As AI adoption grows, key questions are: Will ICT jobs be lost? Will employers upskill and reassign workers to higher value roles? And do ICT professionals see AI as a threat or an opportunity?"

She notes that this year's Skills Survey, currently being carried out by Africa Analysis on behalf of the IITPSA, will be released at the conference.

"The conference is an opportunity to bring ICT practitioners and employers into the same room to consider the findings of the Skills Survey. They will also learn from expert speakers and analysts about the expected impacts of AI on global workforces, and what skills will be needed in the AI era," Pasi says.

The IITPSA *Workforce Intelligence Conference* will also feature an exhibition and extensive networking opportunities.

President's Awards 2026

The conference proceedings will end with the IITPSA President's Awards 2026 gala dinner, where South Africa's leading ICT professionals will be

recognised for their achievements.

These include the IT Personality of the Year and Visionary CIO awards, regarded as the leading industry awards for decades. This year's President's Awards theme is 'Excellence in ethical digital transformation'.

Skills Survey

The IITPSA ICT Skills Survey went live in June 2026. Its objective is to identify the most pressing skills needs from a corporate perspective, balanced with the view of current skills capacity of the practitioners and their intentions for future skills development.

IITPSA General Manager Kelvin Nhlapo says that while this year's survey includes the traditional questions around skills gaps and in-demand skills, it also deep dives into the impact of AI on ICT jobs from both an employer's and employee's perspective.

Organisations are being asked what roles they expect to see automated or augmented by AI

"Generative AI and Agentic AI are now driving such profound change within organisations that we felt the time was right to assess sentiment around the technology and look into how it is likely to impact ICT jobs in the short and medium term," he states.

In the corporate survey, the research looks at digital skills shortages and capabilities across key technologies in 20 industry sectors; as well as the ICT skills organisations expect to need in the next 12 months. Organisations are being asked about their views on AI, how AI is expected to impact recruitment and staffing requirements, and what roles they expect to see automated or augmented by AI.

The ICT practitioner survey assesses what qualifications practitioners have, their skills development plans, and how they are using AI in the workplace. They are also being asked for their sentiments about using AI in the workplace, whether they feel AI poses a risk to their jobs, and how they intend to respond if they do see AI as a career threat. ●

The Institute of Information Technology Professionals South Africa (IITPSA) is a member of TICON Africa.

Promises alone will not close the **global AI** governance gap

Governments are rapidly adopting responsible AI frameworks – but many remain little more than promises on paper, the latest *Global Index on Responsible AI* finds.



^ The report assesses governance across five key dimensions of AI usage

Developed by the South Africa-based Global Centre on AI Governance, the index asks whether countries are building the laws, institutions and oversight systems for redress needed to ensure that AI serves people rather than harms them.

The report is grounded in a human-rights-based approach. It assesses governance across five dimensions: inclusion and diversity, ethics and sustainability, labour and skills, trust and safety, and AI use in public service.

“The *Global Index on Responsible AI* exists because responsible AI governance is a precondition for AI to benefit people rather than harm them,” he says.

“Responsible AI must be secured through translating high-level commitments, like the UNESCO Recommendation on the Ethics of AI, into institutions, resources, oversight, enforcement, monitoring and accessible solutions.”

The point, he emphasises, is to move the global debate from what governments promise and preach about responsible AI, to evidence of the work being done on the ground to govern the technology.

The findings show that responsible AI governance is expanding, but not deeply or quickly enough to match the pace of AI deployment.

According to the report, 128 of the 135 countries and jurisdictions assessed now show some form of commitment to responsible AI, while around 200 new responsible AI-related frameworks have been adopted since the first edition.

For Grossman, this distinction between commitment and protection is crucial. “A commitment is a strategy, a principle, or a signed declaration,” he says. “On the other hand, a protection is enforceable; it can be a binding law, an oversight body with resources and independence, and an accessible route to redress when someone is harmed.”

If a person is denied a public benefit, wrongly profiled, subjected to automated decision-making, harmed by biased systems or affected by AI-enabled surveillance, they need to know what happened, who is accountable and how they can challenge the decision.

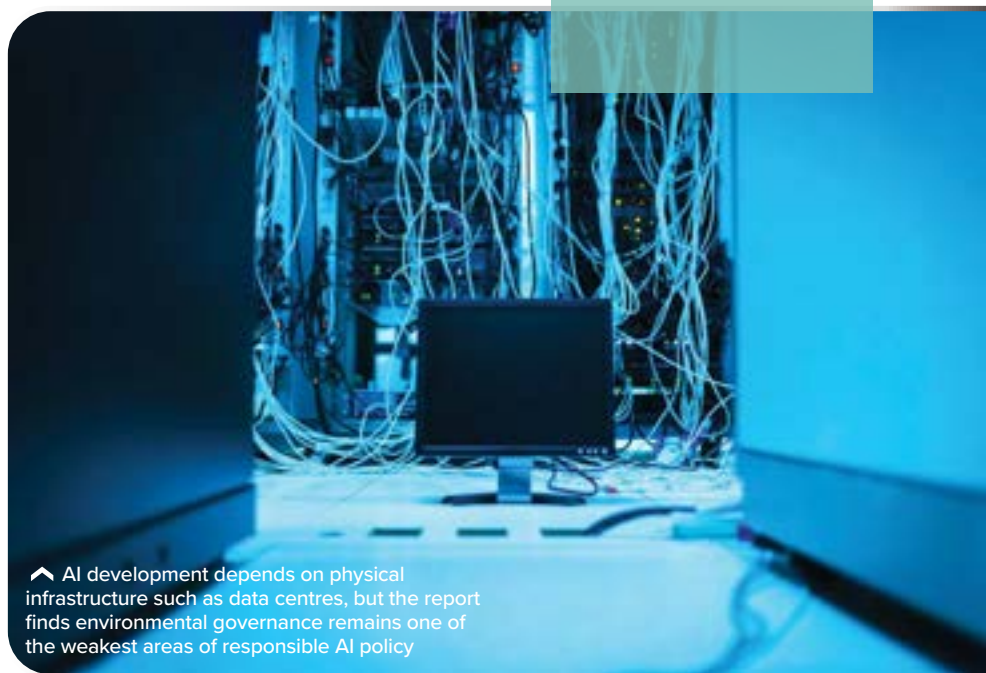
In practice, Grossman says, this means “focusing on binding frameworks rather than voluntary frameworks” and ensuring that people have real complaint and appeal mechanisms to challenge AI-related decisions. It also means governments should apply the same standards to their own use of AI.

One of the report's most important contributions is that it broadens the evidence base beyond the places that have tended to dominate global AI governance debates.

“Much of the global debate on AI governance has been shaped by developments in Europe and North America,” Grossman notes. “While evidence from Africa, South and Central America, the Caribbean, Asia and the Middle East has often been fragmented or absent. This distorts the global picture, making the governance challenges of the Global

The index attempts to correct that imbalance by drawing on country-level researchers embedded in the places they assess. The report says the second edition was built from more than 68,000 data points collected across 135 countries – including evidence on government frameworks, implementation activity, civil society engagement and documented government deployments of unacceptable-risk AI systems.

That wider lens produces a more complex picture of the Global South. The report shows that Global South countries are not simply lagging behind. In fact, they



AI development depends on physical infrastructure such as data centres, but the report finds environmental governance remains one of the weakest areas of responsible AI policy

Implementation does require binding legal force, which is often unavailable in Global South nations

account for 203 of the 306 new country cases of indicators covered by frameworks since the first edition. The average number of governance topics covered by Global South frameworks rose from 2.5 to 4.7, while Global North countries increased from 8.2 to 11.1.

However, much of this progress remains non-binding. The report finds that 78% of responsible AI framework cases in the Global South are non-binding, compared with 42% in the Global North.

Grossman says this reflects a deeper governance challenge. "Implementation also requires binding legal force, which is unavailable in most countries," he says. "And it requires resourcing that highlights a deeper divide: low implementation scores in developing countries reflect structural conditions, infrastructure, financing, technical evaluation capacity and bargaining power."

Challenges for Africa

Africa recorded the lowest regional average score in the index at 21.79 out of 100, around 13 points below the global average. However, the continent is far from a uniform picture. Report data shows that Nigeria, Egypt, Kenya, Ghana, Benin and Morocco all score above the global average, highlighting emerging pockets of responsible AI governance despite broader implementation challenges.

The continent's governance efforts also remain heavily reliant on voluntary

rather than binding instruments. The report shows that across Africa, binding AI policy coverage remains low, with Africa recording 4.68% binding coverage, 15.84% non-binding coverage and 79.49% no framework coverage across AI policy indicators.

The report's foreword cautions that low implementation scores in developing countries reflect structural factors such as infrastructure, financing, technical evaluation capacity, institutional bandwidth and bargaining power within global AI ecosystems. In other words, countries may recognise the need for responsible AI governance but lack the resources, leverage or institutional machinery to make it a reality.

Governments should be held accountable

One of the report's sharpest findings concerns governments' own use of AI. The index does not assess individual AI systems or the conduct of technology companies. Instead, it focuses on national-level governance conditions. Grossman says this is the right level of analysis

▲ There was evidence of government deployment of unacceptable-risk AI systems in 35 countries. More than half involved mass biometric surveillance

➤ The report warns that Global South countries often have limited influence over the technologies and standards they are expected to govern

PHOTO: GLOBAL CENTRE ON AI GOVERNANCE; LARA JAMESON/PEXELS; TOQFIQU BARBHUIYA/PEXELS; PANUMAS NIKHOMKHA/PEXELS

because “responsible AI is about whether governments translate commitments into protections for their citizens, and it is the government’s responsibility to protect rights, set enforceable rules, and account for their own use of AI”.

Government AI systems can directly affect people’s rights, freedoms and access to essential services. “Public sector AI is public power,” Grossman says. “When a government uses AI in warfare, policing or migration, it should be held to a higher standard than the market it regulates.”

Yet this is precisely where the report finds some of the weakest governance. Transparency and explainability is the strongest-performing indicator in the index, with 58% of countries having some form of framework. But public disclosure of government algorithmic systems is the weakest-performing indicator, with only 18% of countries requiring disclosure of government AI systems.

“What we found surprising is that governments are quick to set rules for others but slow to bind themselves,” Grossman says.

The risk is not theoretical. Researchers found credible evidence of government deployment of unacceptable-risk AI systems in 35 of the 135 countries and jurisdictions assessed. More than half of those cases involved mass biometric

surveillance. The report also found that only 49 countries have frameworks addressing AI-facilitated misinformation and violence, showing that governments often focus more on technical safety than on the social harms people experience.

Weak protections in critical areas

That pattern repeats across other areas. Governments are investing heavily in AI literacy and skills, but they are doing less to protect children, workers and vulnerable communities from AI-related harms. The report finds that 71 countries have AI literacy frameworks and 106 show some evidence of activity in this area. By contrast, only 55 countries have frameworks addressing children’s rights in AI, and only 27 show evidence of implementation.

The same imbalance appears in labour policy. While 72 countries have frameworks supporting reskilling and upskilling in the context of AI, only 39 have frameworks specifically addressing labour protections. This is significant because AI is already reshaping working conditions through automated hiring tools, workplace monitoring, task allocation systems and platform-based work.

The report argues that governments are more likely to prepare workers for the AI economy than to protect them from its risks.

Environmental governance is another blind spot. Only 27% of countries have frameworks addressing AI’s environmental effects, and 83% of those frameworks are non-binding. The report warns that few governments require disclosure of AI systems’ energy use, water use or wider environmental impact, even as data centres and AI infrastructure place growing pressure on energy, water and land.

This matters for Global South countries because AI’s environmental and labour impacts are not abstract. They intersect with development priorities, infrastructure constraints, resource scarcity, outsourced digital labour, and the bargaining power of countries adopting technologies they often did not design and cannot easily regulate.

The index also highlights the importance of language and cultural representation. Governments are increasingly recognising the need for local-language AI, with 52 countries showing government-led initiatives focused on local cultural or linguistic identities. However, only 47 countries have frameworks addressing cultural and linguistic diversity, and few require developers to use diverse datasets or adapt systems to local contexts.

This is especially relevant in Africa, where many people interact in languages that remain poorly represented in dominant AI systems. Without clear obligations on developers, local-language initiatives risk remaining promising but voluntary.

Moving from promise to implementation

The report ultimately warns that global AI governance is fragmenting before a shared floor of protection has been established. Average GIRAI scores range from 55 in Global North countries to 27 in the Global South. Of 197 AI-related frameworks approved between November 2023 and September 2025, 150 are non-binding. Only 73 of the 135 countries assessed have adopted a national AI policy or equivalent framework, while civil society organisations were consulted in the drafting process in just 37 cases.

Grossman says the index is intended to support accountability, policy learning and public action. “Governments and regulators can use the Index as a diagnostic tool, to see where stronger laws, institutions and implementation mechanisms are needed, and to learn from the bright spots,” he says. “Civil society can use it to see where governments have made commitments and hold them accountable, backed by publicly verifiable evidence.”

The country-level data is openly available, which means researchers, funders, businesses and investors can also use it to understand governance environments and identify where capacity gaps are most acute.

If policymakers take away one message, Grossman says, it should be that “a policy on paper is not a protection in practice”.

“Responsible AI governance is growing but the challenge is still the implementation of laws and policies,” he points out. “We have ascertained that AI is shaping people’s rights, opportunities, dignity and everyday life; now the next phase is making sure that they are protected.”

That next phase will require more than new strategies, principles and declarations. It will require binding laws in high-risk areas, properly resourced oversight bodies, public registers of government AI systems, accessible complaint and appeal mechanisms, environmental reporting, labour protections and meaningful civil society participation.

“We believe that AI will only fulfil its purpose if it moves from promise to practice,” Grossman concludes. ●





ICT NEWS

Africa's young, digitally native population is becoming a powerful driver of innovation. From AI entrepreneurship in Nigeria and tech skills development in Kenya, to homegrown fintech in South Africa, this roundup highlights how governments, businesses and educators are helping to unlock that potential.

Google hosts first Cloud Summit in Africa

Google marked a milestone in its African expansion when it hosted its first Cloud Summit on the continent in Johannesburg in July 2026. Held under the theme *'Building for Africa with Google Cloud'*, the event attracted more than 2,500 business leaders, developers, policymakers and technology partners from across the continent.

The summit showcased Google's growing commitment to Africa's digital economy and featured a series of announcements focused on artificial intelligence (AI), cloud infrastructure, digital skills and startup development. Google said the new initiatives build on its existing US\$1-billion investment commitment to Africa and a further US\$37-million allocated to AI skills development and research.

"The AI opportunity for Africa is significant, and Google is committed to doing our part working with Africans to help Africa realise it," said James Manyika, Google's Senior Vice-president for Research, Labs, Technology and Society.

"Building on our past commitments, we're making new investments in critical areas: infrastructure, African-led innovation, and education and skill building. From a new Digital Exchange Port in the Eastern Cape to Africa's first Applied AI lab, we're harnessing technical progress and building partnerships to amplify and scale Africa's incredible vibrancy, hustle and innovation for the world."

For African technology businesses, the significance of the summit lies not only in the announcements themselves, but in the growing recognition that the continent is becoming a strategic market for cloud computing, AI innovation and digital transformation.



Kenyan students make history at Huawei ICT Competition

Kenyan university students achieved their best-ever performance at the Huawei ICT Competition 2025-2026 Global Final in Shenzhen, China, securing a Grand Prize, a first prize and a special award.

This is the first time Kenya has won the Grand Prize in the competition's decade-long history. This year's competition was the largest ever, drawing over 220,000 participants from 100 countries, with 177 teams reaching the finals.

In the Cloud Category, Team Kenya claimed the Grand Prize with a four-member team coming from various Kenyan universities. Kenya's Network Category team won first prize, while an all-female Kenyan team took the Special

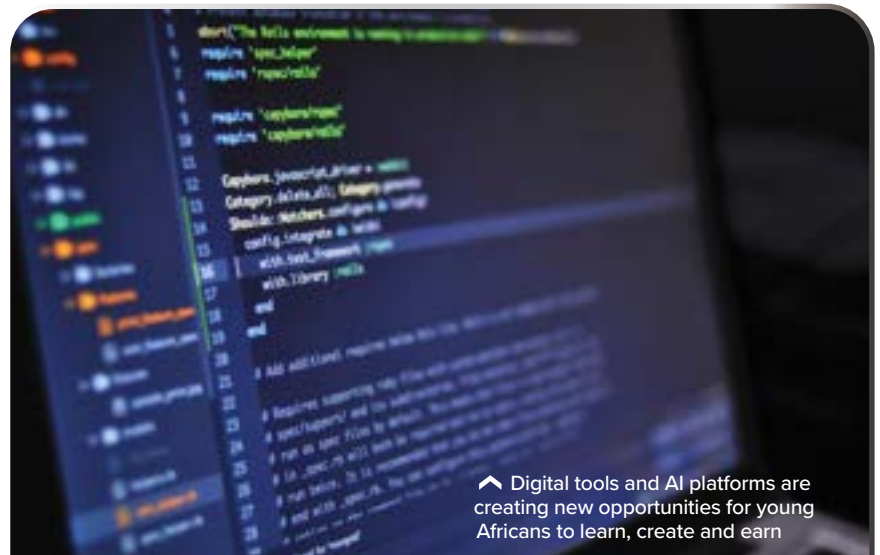
Women in Tech Award with a strong second prize in the Computing Category. The results cement Kenya's position as a leading technology talent hub. Huawei's Ritchie Peng highlighted the competition's broader role in applying technology to social and environmental challenges. The competition, which focuses on AI, computing, big data, cloud and cybersecurity, has become one of the most recognised student pipelines in the global tech industry.

Kenya's sweep across three categories in a single competition represents a significant leap from previous years and reinforces the country's growing reputation as a powerhouse for digital talent in Africa.



➤ A scene from the Huawei ICT Competition 2025-2026 Global Final

With formal jobs shrinking, she reframes AI as an entrepreneurial toolkit requiring very little capital



⤴ Digital tools and AI platforms are creating new opportunities for young Africans to learn, create and earn

GirlCode gives an AI blueprint for Africa's youth

GirlCode CEO Zandile Mkhwanazi is urging African youth to move beyond using AI passively and start turning their digital familiarity into economic opportunities.

While roughly 35% of Gen Z use AI tools every day, few translate those skills into income or career advancement. This is a gap the South African initiative, which focuses on empowering young women in technology, aims to address.

With formal jobs shrinking, she reframes AI as an entrepreneurial toolkit requiring little capital. Recommended platforms include Resume.io for CV

optimisation (paired with SAYouth.mobi for job listings), ElevenLabs for local-language podcasts, Kling AI for text-to-video creation, Lovable.dev and Rosebud AI for no-code app and game development, and Yoco for digital payments.

However, GirlCode stresses that AI should complement, not replace, core human competencies. Critical thinking, communication and ethical judgement remain essential. By lowering barriers to entry, AI gives young people new opportunities to build brands, solve problems and participate in the digital economy.



Nigeria's data centre demographic reality

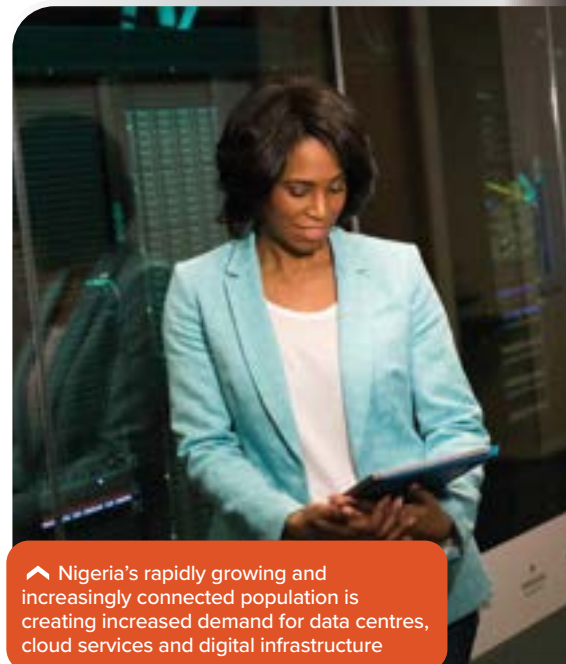
Nigeria's growing data centre market is underpinned by more than advances in technology. At its core is a simple demographic reality: the country is home to one of the world's largest and youngest populations, creating long-term demand for digital services.

Nigeria already has more than 240-million people, and UN projections suggest that figure could exceed 400-million by 2050, making it the world's third most populous country. Combined with a median age of around 18 and broadband penetration reaching 53.07% by January 2026, according to figures published by the Nigerian Communications Commission,

the country is building a vast base of mobile-first consumers entering the digital economy.

That demographic profile is attracting significant investment in digital infrastructure. Investors are positioning for a future in which Nigeria becomes one of the world's largest digital populations, driving demand for cloud computing, AI-enabled services, fintech platforms, streaming content and sovereign data storage.

The country's data centre market, valued at roughly US\$288-million in 2025, is projected to exceed US\$1-billion by 2031. The sector could reach US\$1.09-billion by 2031.



▲ Nigeria's rapidly growing and increasingly connected population is creating increased demand for data centres, cloud services and digital infrastructure



◀ MTN Nigeria will expand its fibre connectivity to eight million homes by 2028

MTN Nigeria commits to home-fibre connections

MTN Nigeria has committed to expanding its fibre connectivity to eight million homes by 2028, a massive 160-fold increase from its current base of around 50,000 connected users.

The rollout, centred on the FibreX platform launched in April 2025, targets households, small businesses and communities across Nigeria.

The push comes as Nigeria's broadband penetration reached 53.07% by January 2026, though the bulk of that growth remains mobile-driven, making fixed infrastructure expansion critical for data-heavy workloads.

The initiative aligns with Nigeria's National Broadband Plan, which targets 70% penetration and aims to expand the country's fibre network

from 35,000km to 125,000km. FibreX currently spans more than 16 states, with ongoing expansion into urban and semi-urban corridors. Tobe Okigbo, Chief Corporate Services and Sustainability Officer, emphasised that significant investments are being made despite challenges. These include regulatory approvals, right-of-way constraints, vandalism, network damage from road construction, and long cost-recovery timelines.

MTN says this reflects the company's long-term commitment to bridging Nigeria's digital infrastructure gap. The company is partnering with infrastructure providers, state governments and local contractors to address the hurdles.

SA takes hackathon win

South Africa's third Interledger Foundation and UCT Financial Innovation Hub Hackathon brought together 80 students from six tertiary institutions to develop homegrown fintech solutions to the country's most pressing financial challenges.

The winning team, Fireline, took home US\$2,200 (R35,000) for a community-led micro-insurance model that provides fast cash within hours of a home fire in informal settlements where conventional insurance is absent.

Second place and US\$1,200 (R20,000) went to Bokomosa, which turns routine payments into automated savings contributions to address South Africa's retirement crisis, where only 6% of citizens retire financially independent.

Third place and US\$620 (R10,000) was awarded to Common Cents, which converts informal cash payments into verified financial records, enabling rural and seasonal workers to access insurance, credit and formal employment benefits. For the first time, women featured in all three top teams.

The hackathon was the culmination of a week-long bootcamp with mentoring from Interledger engineers and UCT's Dr Allan Davids.

PHOTOS: WAY HOME STUDIO/MAGNIFIC; GAUTENG TOURISM AUTHORITY; CHRISTINA MORILLO/PEXELS; LUIS GOMES/PEXELS

ICT ASSOCIATION OF UGANDA (ICTAU)



ELIZABETH NTEGE
CHAIRPERSON



JAMES BYARUHANGA
VICE. CHAIRPERSON



GRACE LABONG ACHIRE
DIRECTOR



HENRY K. WAVAMUNNO
DIRECTOR



MICHAEL NIYITEGEKA
DIRECTOR



JACKIE NAMARA RUKARE
DIRECTOR



PATRICK KADAMA
DIRECTOR

MEMBERSHIP CATEGORIES WITH RESPECTIVE ANNUAL FEES;

PRIVATE COMPANY/
GOVERNMENT BODIES/
NGOS

UGX 2 million

PROFESSIONAL
MEMBERSHIP

UGX 200,000

STUDENTS
MEMBERSHIP

UGX 20,000

BANK DETAILS

Account Name: ICT Association of Uganda

Account Number: 1040006744842

Bank Name: Housing Finance Bank

Branch: Ntinda

Swift Code: HFINUGKA

Currency: UGX

Positioning **Uganda** as a **global IT and ITES export hub**

Uganda has potential, talent, a young population and growing digital infrastructure. Now it must move from potential to performance, says **Elizabeth Ntege**.

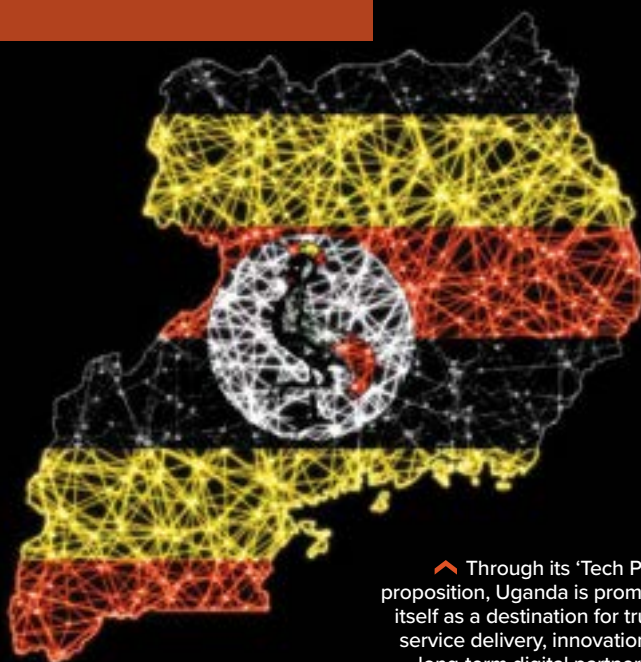
➤ With growing digital infrastructure, a young talent pool and increasing international connectivity, Uganda aims to strengthen its position in the global tech economy

Uganda has companies already delivering IT services, information technology-enabled services (ITES) and business process outsourcing (BPO) services. And we have a national ambition bigger than anything we have attempted before: the Tenfold Growth Strategy.

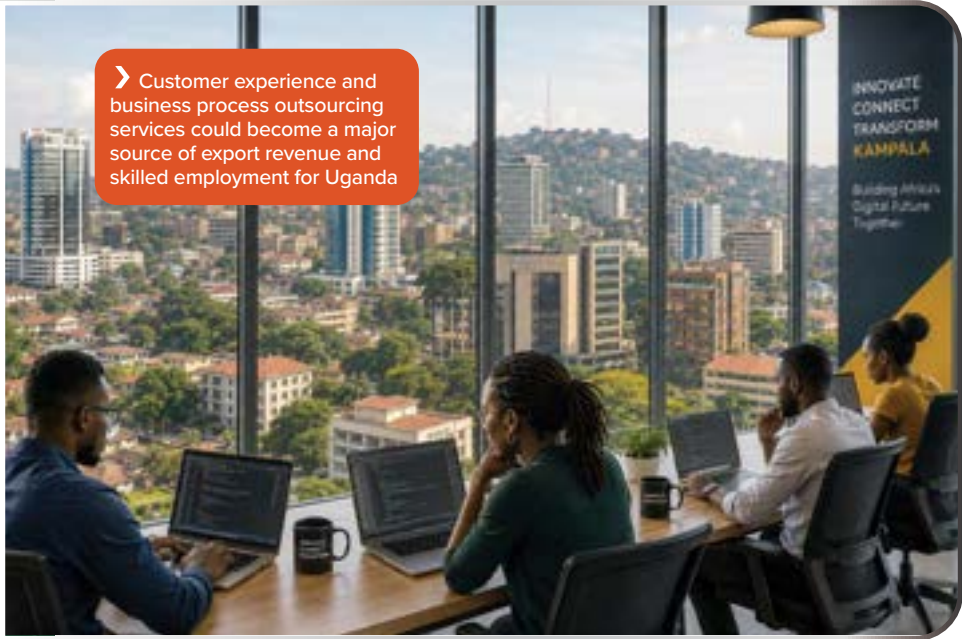
Potential, by itself, does not create export revenue, produce contracts, generate jobs or transform an economy. Performance does. But what must we do differently – and urgently – to turn Uganda's potential into measurable global performance?

Examining the size of the Ugandan opportunity

Uganda's ICT services exports currently stand at approximately US\$48.5-million. The global IT services market is projected to grow to around \$1.57-trillion this year. And Uganda's broader ambition under the Tenfold Growth Strategy is to build a



➤ Through its 'Tech Pearl' proposition, Uganda is promoting itself as a destination for trusted service delivery, innovation and long-term digital partnerships



➤ Customer experience and business process outsourcing services could become a major source of export revenue and skilled employment for Uganda

\$500-billion economy by 2040, with the knowledge economy targeted to contribute approximately \$136-billion to national GDP.

Those numbers tell us something important. If we are serious about the Tenfold Growth Strategy, ICT cannot remain an enabling sector that supports other industries. It must become an export industry in its own right that brings foreign exchange into Uganda, creates high-value employment, enables young Ugandans to work for global companies without necessarily leaving Uganda, and allows the country to participate in global value chains from wherever talented Ugandans can connect to the world. This is why IT and ITES matter.

Low cost and a young population not enough

For a long time, the African outsourcing story has often been presented through two propositions: 'We are cheaper' and 'We are young'. Those things matter, but they are not enough, because there will always be somewhere cheaper and somewhere with a younger population. So, if our competitive proposition is simply low cost, plus young people, we are competing in a race that can easily be won by someone else.

We need to compete on something more enduring – something that builds trust and relationships, and creates repeat business. Through the work that the ICT Association of Uganda (ICTAU) and partners have undertaken with the government, industry, academia and development partners, we have been developing a stronger national proposition for Uganda's digitally enabled services

sector. And this is the narrative we should take to the world.

Trusted service, genuine partnership, real impact

The UK Trade Partnerships (UKTP) programme is a trade initiative funded by the United Kingdom's Foreign, Commonwealth and Development Office (FCDO) and implemented by the International Trade Centre. It helps small and medium-sized enterprises in developing countries increase exports to the UK and the European Union by using preferential trade agreements.

Uganda's 'Tech Pearl' brand proposition is built around three pillars: reliable, high-quality delivery; specialised and empathetic talent; and a collaborative and welcoming ecosystem. This is important because it changes the conversation. We are no longer saying: 'Come to Uganda because we are cheap.' We are saying: 'Come to Uganda because we can be trusted to deliver'.

Trust has become the new infrastructure

Earlier this year, we took Ugandan IT and ITES companies into the UK market. The response from potential buyers was instructive. They did not primarily question whether Ugandans could write software, whether we had intelligent people or whether we had ambitious entrepreneurs.

They tested: can you onboard properly? Can you govern the relationship, manage contracts professionally and deliver predictably? Can you meet security and data-protection requirements? Can you communicate professionally? Can you

become a long-term partner rather than simply winning one contract?

That experience taught us a simple and important lesson for Uganda's IT and ITES export ambitions: market interest exists, but conversion requires structure. We don't just have a marketing problem – we have a conversion problem. And conversion requires an ecosystem.

We have proof that structure works

We should not underestimate what has already been achieved. Through the UK Trade Partnerships programme, Ugandan firms have gone through export readiness support, market preparation, certification and international matchmaking.

Ten firms achieved Export Marketing Plan certification, two converted leads from the London mission into signed UK contracts, two achieved ISO 9001 certification, and 30 high-potential companies were profiled in the national ITES and BPO sector directory.

These may look like small numbers, but they are extremely important because they prove that when Ugandan companies are given the right structure – standards, preparation, matchmaking, market intelligence and institutional support – they can convert opportunity into business. The lesson is therefore not simply to build a system that enables more companies to become export-ready and then helps them win and retain international business.

AI changes the game

At ICTAU, we have been deliberately focusing our national conversation on three pillars: artificial intelligence, digital infrastructure and innovation. These are not separate conversations from IT and ITES exports. They are the infrastructure of the next generation of exports. AI, the first pillar, changes the competitive equation. We should not think of it simply as a technology that will replace jobs, but about how Uganda can use it to increase the value of the jobs we export.

There is a difference between exporting labour and exporting intelligence, providing basic processing and providing AI-enabled business solutions, answering customer calls and using AI-powered customer experience platforms, and data entry and data intelligence. There is also a difference between basic software development and AI-enabled software engineering, and traditional BPO and intelligent process automation.

The opportunity is to move up the value chain. Uganda should therefore ask: what

Uganda has the talent.
Uganda has the narrative.
Uganda now builds the structure.

Tech Pearl: Where Talent Meets Technology. From potential to performance,



▲ The third Annual National ICT Summit in September 2026 saw ICTAU, the Alliance for Trade in Information-Technology and Services (ATIS) and Uganda Free Zone and Export Promotion Authority (UFZEPA) sign a Commitment Agreement to Uganda's 'Tech Pearl' brand proposition. From left: Patrick Kagenda (ATIS); Elizabeth Ntege (ICTAU) and Brenda Kabasinguzi (UFZEPA)

IT and ITES services can we deliver better because of AI? Can we build AI-enabled customer experience centres? Can we provide AI-assisted software development? Can we deliver data annotation, data processing and AI model support? Can we build AI solutions for agriculture, tourism, healthcare, financial services and logistics? Can our BPO companies evolve into intelligent operations centres?

We should ask: can our young developers become builders of AI products for global markets? Can Uganda become a place where global companies don't just outsource processes, but outsource innovation?

This is why our Tenfold Growth Strategy and digital transformation agenda must be connected to our export strategy.

Digital infrastructure is expert infrastructure

The second pillar is digital infrastructure. For IT and ITES, infrastructure is not simply about connectivity; it is about enabling Ugandan companies to deliver to clients around the world, offering a company in Singapore the same reliable, secure, affordable and scalable connectivity it might expect from a provider operating in that market.

That means reliable power, resilient connectivity and cloud infrastructure.

It also means cybersecurity, secure data environments and data protection, digital identity and trusted digital

transactions, and ensuring that the benefits of infrastructure reach beyond Kampala. Because if we are serious about creating meaningful employment for Uganda's young population, the export economy cannot be concentrated only in one neighbourhood of Kampala. Digital infrastructure can allow talent all over the country to participate in global service delivery and facilitate economic transformation.

Innovation must move to the export market

The third pillar is innovation. Uganda has no shortage of innovators. What we need is more is commercialisation. We need to move from **innovation → prototype → competition → applause to innovation → product → customer → export → scale**. Our innovation ecosystem needs to become much more connected to international demand.

We need to ask not only what problem we can solve, but also who will pay for the solution, and in which market? That means linking innovators to buyers, universities to industry, accelerators to export markets, government procurement to local innovation, and our diplomatic missions to Ugandan technology companies.

Our embassies and High Commissions should not only promote Uganda's tourism and traditional exports, but can become commercial gateways for the country's digital exports.

The need to think bigger than individual companies

Many Ugandan companies are good enough to win international work, but not necessarily large enough to execute very large contracts individually. So, we need to change the mindset from how my company can win to how Uganda can win.

If three, four or five Ugandan companies combine complementary capabilities, they can pursue opportunities that none could pursue alone. One brings customer operations, another brings technology, a third brings data, and a fourth brings cybersecurity. Yet another brings project management.

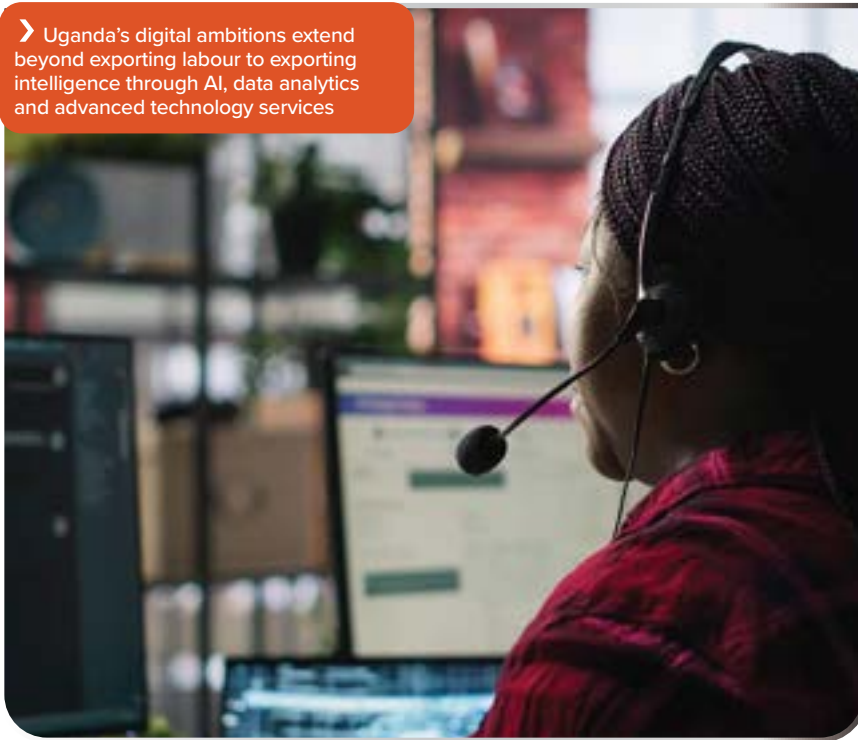
Together, they can offer a much larger proposition. The operationalisation plan proposes piloting consortium delivery models through the Uganda Business Process Outsourcing Association, in collaboration with ICTAU, including a three- to five-company consortium capable of pursuing larger international opportunities. That is how we move from a collection of small firms to an export ecosystem.

Being everything to everyone

Collaboration alone is not enough. We also need focus. Uganda should identify three to five priority export domains where we have genuine capability, where global demand is growing, and where we can realistically build a globally competitive position. That is the logic of smart specialisation.

PHOTOS: KATEMANGO STAR/MAGNIFIC; MOHAMMAD ABDULLAH/MAGNIFIC; ALLEXANDAR/MAGNIFIC; AI-GENERATED ILLUSTRATION: CHAT GPT

› Uganda's digital ambitions extend beyond exporting labour to exporting intelligence through AI, data analytics and advanced technology services



We should not wake up tomorrow and say Uganda is a global leader in everything. That is not credible.

We must identify areas where Uganda can be exceptionally good and market these globally

Instead, we should ask where Uganda can become exceptionally good. Where can AI, our talent, our English proficiency, our GMT+3 time zone and our cultural empathy give us an advantage? Where can we build enough scale to compete? The operationalisation work recommends exactly this: a market-driven process to identify three to five priority service segments based on genuine or realistically buildable Ugandan capability and growing international demand. Focus creates competitiveness.

Leveraging Uganda's human advantage

Technology cannot completely replace people. Uganda has a significant demographic advantage. Approximately 73% of our population is under 30. We are also strategically positioned in the GMT+3 time zone, giving us working-hour overlap with Europe, the Gulf and parts of Asia.

But a young population is not automatically an economic advantage.

It becomes an advantage when young people have skills, work experience, professional discipline and access to technology and markets. So, our talent strategy must go beyond university graduation. We need to develop the whole export professional: technical skills, AI skills, cybersecurity, data, cloud, project management, communication, client management, timekeeping, professional conduct, business development, and global work culture.

The operationalisation work specifically identifies professional communication, reliability, client-facing conduct, project management and work-readiness as areas requiring strengthening. If we can combine Uganda's technical talent with our culture of hospitality, empathy and collaboration, we have something distinctive.

That is why I believe culture itself can be an economic asset. In ITES, BPO, customer experience, healthcare support, education support and many other services, human interaction is part of the product. Uganda's hospitality can become part of our competitive advantage.

The opportunity before us

If we get this right, a young Ugandan graduate does not have to wait for a job to be created locally. She can join a Ugandan technology company and work on a global project. A Ugandan BPO company can serve customers across three continents.

A Ugandan AI company can build

solutions for international markets. A university can co-create programmes with industry based on real global demand. An innovation hub can connect its startups directly to buyers. A Ugandan embassy can introduce a Ugandan technology company to a global investor.

And the Uganda Free Zones Export Promotion Agency can help position Uganda not simply as a destination for investment in factories and physical infrastructure, but for investment in talent, technology and knowledge.

Potential to performance

We have come full circle, positioning Uganda as a competitive global IT and ITES export hub: from potential to performance.

Uganda has the talent, ambition, digital foundations and innovation. Uganda has the demographic opportunity, the geographic and time-zone advantage. And increasingly, Uganda has a story to tell.

But our next chapter cannot simply be about telling the story. It must be about proving the story. We need to turn AI into productivity, digital infrastructure into export capacity, innovation into scalable businesses and talent into globally competitive careers.

We must turn diplomatic relationships into commercial relationships, and policy into measurable performance. That is how we contribute to the Tenfold Growth Strategy and move towards the knowledge economy ambition.

And that is how IT and ITES become not just an ICT success story, but a Ugandan economic success story.

The call to action

The world is not waiting for another country to announce its potential, but for partners who can deliver.

Uganda will be known not merely for the talent we possess, but for the value we deliver; not merely for the companies we have, but for the global problems we solve; not merely for our potential, but for our performance. And we will be known not merely as a destination for outsourced work, but as a partner for innovation, intelligence and growth. We have the talent and the narrative. Now we must build the structure.

Through that structure, we can make the Tech Pearl more than a brand. ●

Elizabeth Ntege is Chairperson of the Board of the ICT Association of Uganda (ICTAU) and Vice-President of TICON Africa.



Agritech for Africa is not built for African farmers

Brian Chiware explains why some of the continent's most celebrated agritech solutions struggle to reach the smallholder farmers they are intended to benefit.

An AI platform is being demonstrated on the main stage of a tech conference somewhere in Africa. It tells farmers exactly when to plant, when to water, when to harvest. Take a photo of a diseased leaf on your phone, and it tells you what's wrong and what to do about it.

Investors in the front rows have flown in from London, San Francisco and Berlin. They lean forward, impressed. Few of them have stood in a maize field with no signal. Fewer still have asked what phone the farmer three districts away actually owns. They applaud anyway, because the platform looks exactly as the future is supposed to look.

◀ Solutions for smallholder farmers should be designed around the needs, resources and operating environments of farmers rather than the expectations of investors and technology developers

This is not a story about whether the technology works – it does – but it's a story about who decides what gets funded, and how rarely that decision is made by anyone who understands what the farmer is actually working with.

An uncomfortable truth

We are building US\$500 solutions for people living on US\$2 a day. That is not a metaphor – it's close to the literal gap between the smartphone a crop-health app needs and the income of the farmer it claims to serve.

A solution that reaches 10% of farmers is not really a solution. It is a product built for the wrong customer, dressed up as a product built for the right one.

Yet at almost every African tech conference, the agritech ventures that win the room, and the investment, are the ones that look most like Silicon Valley: slick interface, elegant dashboard, a founder fluent in the language international capital wants to hear.

What rarely gets asked by the audience is the only question that actually matters: does this reach the farmer with no smartphone, on a 2G connection, three hours from the nearest tarred road? Innovation gets the applause.

Groundedness rarely does, because being grounded in reality doesn't demo well.

What the numbers say

Smallholder farmers produce roughly a third of the world's food (*Lowder et al., 2021*), and a widely cited World Economic Forum figure puts smallholder farming as the livelihood for around 70% of Africa's population (*Biteye, 2016*). These are the people any serious agritech platform needs to reach at scale – not as a footnote, but as the primary user.

Yet smartphone adoption across Africa is still low. The exact figures shift from country to country, but the underlying shape of the gap, rural infrastructure trailing urban by a wide margin, repeats across the continent.

Zimbabwe's telecoms regulator makes that shape concrete: in its fourth-quarter 2025 sector report, LTE networks reach 95.9% of the urban population but only 29% of the rural population geographically (*POTRAZ, Q4 2025 report*). Rural residents are still served overwhelmingly by 2G and 3G infrastructure, and 5G has not reached rural areas at all.

Notably, this is coverage (i.e. whether a signal exists) – not confirmation of how many farmers actually own a compatible

✓ For Agritech to scale across Africa, solutions must be designed for the devices and connectivity that farmers already have, not the infrastructure developers hope will exist in the future





◀ From SMS alerts to USSD-based services, tools that work on existing networks and basic mobile devices are more likely to reach farmers at scale than smartphone-dependent applications

device or use it that way. The real adoption gap is very likely wider than the coverage gap alone suggests.

The counter-arguments

The obvious counter-argument is the fact that mobile money has proven that African markets leapfrog infrastructure gaps entirely. M-Pesa is the case everyone reaches for. But M-Pesa's success is precisely the point being missed. It worked because it was built on USSD and basic feature phones – technology that required no smartphone, no app store, no LTE signal: just a SIM card and a menu of numbers.

M-Pesa was designed for the network that actually existed, not the network planners hoped would arrive next.

The lesson from mobile money isn't 'Africa leapfrogs anything'. It's 'solutions that match existing infrastructure spread; solutions that assume infrastructure not yet built, don't.'

What actually works

The agritech that works at scale in Africa shares one unglamorous trait: it fits the device and network farmers already have:

Agritech that works at scale in Africa must fit the device and the network that rural farmers already use

USSD advisories, SMS price alerts, voice and radio extension, agro-dealers relaying information face-to-face where signal doesn't reach.

Esoko, launched in Ghana and now active across several African countries, has connected over a million farmers to market prices, weather alerts and agronomic advice this way, through SMS and voice, no app required. The innovators worth backing ask what the weakest link in a farmer's network looks like before they ask what their platform can technically do.

The real test

The question every investor in that aforementioned tech conference front row should ask isn't whether the demo impresses them, but whether it would still work for the farmer standing furthest from the fibre line – the one who will never make it onto that stage to say otherwise.



That is the only test that should decide what gets funded, not how well the platform photographs on a pitch deck. ●

Brian Chiware is a Zimbabwean technologist who has worked on African digitisation projects in complex environments. He thrives in building realistic technology solutions that maximise adoption and truly Pan-African problem-solving. When he is not building technology, he spends his time writing experience pieces like this one.

PHOTOS: SUPPLIED; GNIM ZABADIEL MIGNAKE/UNSPASH; RICHARD NYONI/UNSPASH; SIMPSON MEDIA/MAGNIFIC/CHATGPT



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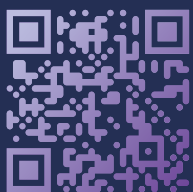
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Sponsoring outcomes, not apps: Low-data architecture for South Africa's digital economy

Jannie Zaaiman explains how organisations can use low-data architecture – combining USSD, SMS, WhatsApp Business and reverse-billed data – to reduce digital friction, improve customer engagement and increase transaction completion.

South Africa has embraced mobile technology at scale, yet many enterprise digital services remain inaccessible, not because people lack devices or connectivity, but because data is still too expensive.

For millions of prepaid users, downloading a 50MB application, running software updates, or maintaining active web sessions comes at a real cost. To drive mass-market growth, enterprise



◀ Familiar channels such as USSD, SMS and WhatsApp allow organisations to engage customers on platforms they use daily

KEY TAKEAWAY:

Low-data architecture is an enterprise ICT strategy that minimises mobile data consumption by orchestrating USSD, SMS, WhatsApp Business, and reverse-billed data to ensure high conversion rates in prepaid economies.

leaders must rethink digital strategy.

True digital transformation is not about deploying bandwidth-heavy applications; it is about making it easier for customers to complete transactions.

This requires inclusive digital architecture, designing low-data customer journeys that take affordability into account without compromising security, governance, or user experience.

The Power of Three framework (USSD,

SMS and WhatsApp), combined with reverse-billed data, helps organisations remove barriers to completing transactions, turning digital inclusion into a competitive advantage.

Mobile data affordability gap in South Africa

South Africa's mobile market is one of the most connected in Africa, but connectivity alone does not guarantee digital inclusion. The statistics below illustrate the gap between widespread mobile access and the reality of data affordability.

South Africa by the numbers

METRIC	FIGURE	SOURCE
Active mobile connections	124 million (early 2025)	DataReportal Digital 2025
Mobile penetration	193% of total population	DataReportal / Analysys Mason
Offline population	~13.6 million people	DataReportal Digital 2025
Primary usage model	Predominantly prepaid	ICASA ICT Sector Report
Key adoption barrier	Mobile data affordability	Competition Commission

DataReportal's *Digital 2025 South Africa* report showed 124-million active mobile connections (193% penetration) in early 2025. However, this masks a complex reality: millions manage multiple SIMs to hunt promotions, around 13.6-million citizens remained offline at the start of 2025, and prepaid users strictly ration data.

The Competition Commission's *Second Cost of Living Report* confirms South Africa lags African peers in data affordability. As the Independent Communications Authority of South Africa (ICASA) March 2026 *State of the ICT Sector Report* notes, prepaid data costs frequently breach the International Telecommunication Union (ITU) target of 1GB broadband, costing 2% or less of monthly Gross National Income (GNI).

Mobile data is a major household budget item, competing directly with groceries, transport and electricity.

Speaking at the *Social Media Summit for Government* on 9 July 2026 in Johannesburg, South Africa's Communications Minister, Solly Malatsi, emphasised that network coverage alone does not guarantee economic participation: "If the digital state works beautifully for those with good smartphones, affordable data, high literacy, strong connectivity,

English fluency and confidence online, then we have not built a digital state. We have built a premium-service layer for the already included."

Coverage is not inclusion. Meaningful digital access requires services that are affordable, reliable and easy to use. Enterprise growth depends on removing barriers for the broadest possible audience.

Outcomes over applications: Rethinking enterprise CX

For a decade, enterprise architecture defaulted to an 'app-first' strategy,

forcing app downloads for every account opening, claim or payment.

While effective in high-income markets with ubiquitous Wi-Fi, this model creates severe drop-off in South Africa's prepaid economy, where every extra megabyte increases the risk that customers will abandon the process before completing a transaction.

Customers do not want applications; they want outcomes such as paying accounts, renewing policies, uploading know-your-customer (KYC) identity documents, or retrieving statements.

This means we need to redefine architectural priorities. Instead of driving app installations, enterprise architects should focus on removing friction that prevents users from completing tasks through lightweight channels and targeted data sponsorship.

The Power of Three framework: CPaaS channel orchestration

Emerging from South Africa's Communications-Platform-as-a-Service (CPaaS) ecosystem – cloud platforms that integrate real-time communication into enterprise applications – the Power

of Three framework orchestrates three ubiquitous channels with sponsored connectivity.

The three core channels

CHANNEL	DATA COST TO CUSTOMER	PRIMARY STRENGTH	TYPICAL ENTERPRISE USE
USSD	No mobile data required	Universal availability across all GSM handsets	Service initiation, balance checks, authentication
SMS	Free to receive	Immediate, trusted message delivery	OTPs, notifications, secure transaction links
WhatsApp Business	Very low data usage	Rich conversational interaction	Customer support, document sharing, guided onboarding

Unstructured Supplementary Service Data (USSD) is a session-based GSM protocol that enables real-time dialogue without internet connectivity or a data balance across feature phones and smartphones alike.

Tens of millions of South Africans rely on USSD monthly for banking, utilities and social grant management. The South African Reserve Bank *Payments Study Report 2023* notes that 22% of debit card consumers access their accounts using USSD.

By orchestrating these channels into a unified sequence, enterprises engage users on familiar tools they use daily.

Reverse-billed data (zero-rating) for enterprise conversion

Even the best digital journey can fail if customers must pay for data to complete it.

Reverse-billed data (zero-rating) allows businesses – working with partners like Vodacom Business, MTN Business, Cell C Business and Cellfind – to cover the cost of data for specific actions, such as making payments, uploading KYC documents, submitting claims or downloading statements.

Sponsoring a few hundred kilobytes of mobile data costs far less than recovering a transaction, through call centres or branch visits, that was never completed.

By removing data costs where they matter most, organisations can improve transaction completion rates while supporting greater digital inclusion.

Local market leaders sponsoring outcomes

This strategy is not theoretical. Some of

South Africa's most successful retail and financial institutions illustrate the rewards of outcome-first, low-data architecture:

- **Capitec Bank:** Recognising that prepaid data limits and limited smartphone storage often led customers to remove heavy apps, Capitec prioritised conversational banking through WhatsApp, alongside a universal USSD menu and zero-rated app environments. According to company-reported data and vendor case studies, Capitec serves 26-million active clients, handles over 1-million monthly WhatsApp interactions, routes roughly 50% of digital support via WhatsApp, and achieves a 77% first-contact resolution rate with an 84%–86% bot containment rate.

- **Shoprite Group (Money Market):** Rather than requiring customers to download a standalone banking application, Shoprite built a fee-free digital wallet accessible through USSD, WhatsApp and physical loyalty cards. Company reports indicate that the Money Market account has scaled to more than 4-million customers, supported by over 2,800 store locations featuring financial services and a base of 35.1-million Xtra Savings members.

- **Mukuru SA money transfer:** To serve cross-border remittance clients who frequently operate with a zero airtime balance, Mukuru combined USSD session management and WhatsApp with reverse-billed web pages. Company-reported results show active conversational customers grew from 4,000 to 129,000, WhatsApp campaigns achieved over 92% read rates, transaction drop-off rates were cut in half in key corridors like Botswana, and operational costs were reduced by 15% on reverse-billed USSD channels.

Even the best digital journey can fail if customers must pay for data to complete it

➤ Network coverage alone does not guarantee digital inclusion



Low-data enterprise implementation and impact summary

ENTERPRISE / BRAND	CHANNELS IMPLEMENTED	KEY OPERATIONAL AND COMMERCIAL IMPACT (COMPANY-REPORTED)
Capitec Bank	- WhatsApp Business platform - USSD (*120*3279#) - Zero-rated mobile app	- Servicing 26-million active clients - Handles 1M+ monthly WhatsApp interactions 50% of customer digital support runs via WhatsApp 77% first-contact resolution (FCR) rate 84%–86% bot containment rate
Shoprite Group	- USSD (*120*3534#) - WhatsApp - In-store Xtra Savings cards	- Scaled to more than 4-million Money Market customers - Engages a base of 35.1-million Xtra Savings members - Supported across 2,800+ store locations with financial services
Mukuru SA	- USSD (*130*567#) - WhatsApp - Reverse-billed web portals	- Active conversational users grew from 4,000 to 129,000 - Enables zero-data KYC document uploads and order confirmations - Reduced USSD transaction execution costs by 15%

Trust, privacy and industry capability

Removing friction cannot come at the expense of privacy and security.

When designed correctly, low-data architecture can support compliance with privacy regulations such as South Africa's Protection of Personal Information Act (POPIA). User-initiated interactions, such as dialling a USSD code or sending WhatsApp messages, create opportunities to capture explicit consent and maintain clear records of customer interactions before processing personal information.

Using accredited Tier-1 South African telecommunications infrastructure can further reduce security risks and support regulatory compliance. Building these capabilities requires collaboration across the ICT sector.

Organisations such as the South African Information and Communication Technology Association (SAICTA), alongside Belgium Campus iTversity and continental partners such as TICON Africa, are equipping ICT professionals to design digital systems that are secure, inclusive and well suited to emerging market economics.

Five strategic recommendations for enterprise leaders

- **Audit customer journeys:** Map drop-

off points caused by app downloads, registration steps, or data requirements.

- **Design for outcomes:** Focus on task completion rather than channel-specific adoption metrics.
- **Deploy low-data architecture:** Combine USSD, SMS, and WhatsApp with targeted reverse-billed web pages at conversion points.
- **Embed governance by design:** Integrate privacy notices directly into conversational flows.
- **Measure completion rates:** Track transaction completion, acquisition cost, and drop-off rates instead of app installs.

Looking ahead

As South Africa's digital economy evolves, data affordability will remain a primary customer constraint. Market leaders will not be those with the largest applications, but those that eliminate friction and sponsor outcomes.

By deploying low-data architecture, organisations turn digital inclusion into a scalable strategy for commercial growth. ●

Jannie Zaaiman is the Chief Executive Officer of the South African Information and Communication Technology Association (SAICTA). SAICTA is a member of the Technology Information Confederation Africa (TICON Africa).

The author has supplied a list of references. This is available from the editor on request.



INSTITUTE OF ICT PROFESSIONALS GHANA
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TRANSFORMING LIVES THROUGH ICT

- > Membership
- > Professional Services
- > Academy
- > Public Awareness

Our Vision

To become the most reliable partner in ICT development in Ghana and beyond.

The Institute of ICT Professionals, Ghana (IIPGH) is a professional association made up of professionals in various domains of Information and Communication Technology (ICT) practice. The Institute is a connector of ICT professionals from government MDAs, educational institutions, corporate organizations, start-ups, investors and the civil society organizations to create a vibrant ICT ecosystem.



The Coding Academy

The IIPGH Coding Academy is a structured, paid training program designed to equip learners of all ages - children (6yrs +), teenagers, adults, and professionals, with essential coding and digital skills. Offering flexible online and in-person learning options, the academy provides customized learning paths to meet the needs of every student, from beginners to advanced learners.



Professional Skills Development

ICT skills training and continuous professional development for students, young graduates and professionals. Emerging technology training and other forms of capacity building to support the digital transformation agenda of the country.



Industry-led Public education

ICT public education and sensitisation through media engagements and publications online, on radio, television, newspaper and social media.

The Coding Caravan



The Coding Caravan is a nationwide digital inclusion initiative that has, over the years, delivered hands-on ICT and coding education to underserved and underserved communities across Ghana. Bringing digital opportunities to all.

The Coding Caravan at the Demonstration School for the Deaf, Mampong-Akuapem

Inclusion took center stage on July 11, 2025, as 120 students and 15 teachers at the Demonstration School for the Deaf, Mampong-Akuapem experienced a full-day digital skills training workshop like never before. This landmark event, organized by the Institute of ICT Professionals Ghana (IIPGH) in partnership with the Ghana Chamber of Telecommunications and sponsored by Helios Towers Ghana, marked a significant milestone in bridging digital gaps for Ghana's deaf community.



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IIPGH partners with NITA for National ICT Week 2026

Institute built new connections and contributed to important conversations on the skills, standards and partnerships required to sustain Ghana's digital transformation.



The Institute of ICT Professionals Ghana (IIPGH) was proud to partner with the National Information Technology Agency (NITA) Ghana for the National ICT Week 2026 at the Cedi Conference Centre, University of Ghana, Legon.

Held under the theme '*Innovation at Scale: Creating Opportunities Across Ghana's Digital Ecosystem*', the week brought together government institutions, industry leaders, ICT professionals, academia, innovators, students and other stakeholders to exchange ideas and explore opportunities for strengthening Ghana's digital future.

For IIPGH, National ICT Week provided another important platform to advance its commitment to ICT professionalism, capacity development, innovation, professional standards and collaboration across Ghana's technology ecosystem.

Throughout the week, members and representatives engaged with stakeholders, shared knowledge, built new connections and contributed to important conversations on the skills, standards and partnerships required to sustain Ghana's digital transformation.



A major highlight of the institute's participation was the Day 3 Tech Professionals Forum, hosted by IIPGH, which focused on '*Professionalism, Standards and the ICT Ecosystem for National Development*'.

Overall, it proved to be an inspiring week of learning, networking, collaboration and advancing Ghana's digital ecosystem.

"We extend our appreciation to NITA, our

partners, members, speakers, participants and all stakeholders who contributed to the success of National ICT Week 2026," IIPGH said in a social media post.

"Together, we continue to build a stronger, more professional and inclusive ICT ecosystem for Ghana."

IIPGH is a member of the Technology Information Confederation Africa (TICON Africa). ●

CANTO x TICON Africa MASTERCLASS

Bridging Africa and the Caribbean's digital future



Access the
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Bridging Africa and the Caribbean's digital future

Multiple speakers offered their expert insights into how the two regions can build resilience and long-term cooperation.

TICON Africa and its Trinidad-based counterpart, CANTO, recently hosted a landmark cross-regional digital masterclass titled *'Bridging Africa & the Caribbean's Digital Future'*, where participants heard from leading voices from Africa and the Caribbean in the tech sphere.

The first-of-a-kind webinar focused on positioning women and youth at the centre of digital cooperation. Multiple speakers offered their expert insights into how the two regions can build resilient ICT ecosystems, develop talent and leadership pathways, and open up new opportunities.

Welcoming the participants, CANTO Secretary General Teresa Wankin said she hoped the engagement would build "a lasting bridge between Africa and the Caribbean".

TICON Africa President David Gowu said in his opening remarks that partnership was particularly significant considering the existing digital divide: less than half of Africa's population is currently online.

In his address, innovation strategist and 4IR specialist Dr Raj Pillay spoke about the deep affinities between the two regions, noting that it was a unified block representing 1.5-billion people that could create collective resilience and shared technical standards. Both regions experienced socio-economic obstacles such as persistent levels of youth unemployment, rapid urbanisation and siloed tech markets, but their vibrant, digital-native demographic was fundamentally adaptive, curious and tech-friendly.

By 2050, one in every four people

on earth will be African, forming a workforce surpassing that of both China and India combined and representing "the single greatest opportunity for transatlantic cooperative growth in the next two decades", Pillay said.

Equipping women with cloud, AI and cybersecurity skills was key to scaling up regional stability and modern services, he added.

Pillay listed five priority actions for a digital cooperation framework between the two regions:

1. Sharing technical certifications and talent exchanges;
2. Incubating 500 women-led software startups across the two zones;
3. Creating inter-university pipelines to build local Agritech models;
4. Sharing cloud infrastructure and regulatory frameworks;
5. Enacting sandbox laws enabling fast financial service deployment.

"We must act now with deliberate unity, investing in our people before

technologies. Empowering youth is not just development; it's survival," he emphasised.

Exceptional potential for a digital corridor

Dr Dickson Osuala, Director of CANTO and Group Head of Regulatory Affairs at the Digicel Group, highlighted an Afro-Caribbean digital corridor as a blueprint for transatlantic economic integration. He said direct connectivity offered "unprecedented potential" to lift historic barriers and potentially scale trade flows from the current baseline of US\$729-million to \$2.1-billion.

The first pillar to achieve a macroeconomic framework would be trusted and resilient digital infrastructure: high-speed transactional networks and secure physical digital highways.

The second pillar would be next-generation human capital development, including funding dual-region startup sandboxes and eliminating structural gender-technology imbalances across borders. A 2024 survey showed that women were leading internet usage in the Eastern Caribbean Telecommunications Authority region, but that just 1.5% to 2.6% had advanced digital skills such as coding.

He believed a CANTO-TICON Africa programme could put women and youth at the epicentre of high-level policy formation.

Trade and partner ecosystems could unlock deep commercial channels, digital creative exchange models and scalable trade opportunities, Dr Osuala added, noting that it was important to digitalise the creative economy in both regions – to "stop being consumers and rather be creators".

Prioritising leadership pathways for women

Chairperson of the Women in TICON Africa chapter, Elizabeth Chabaluka Masache, noted that strength lay in collaboration.

She laid out the chapter's purpose, vision and goals, as well as its five strategic pillars:

1. To equip members with technical skills and training for excellence;
2. To connect a strong network of professionals;
3. To inspire by highlighting success stories and role models;

4. To create access to funding and jobs;
5. To foster inclusivity for women from all tech backgrounds.

Setting the context for Africa-Caribbean digital cooperation, Masache said both regions had major advantages, including youthful populations and strong entrepreneurial energy.

The issue was not a lack of talent among women, but a lack of structured pathways. "We can't expect women to lead digital revolutions if they're still excluded," she said, noting that the issue is not necessarily on entry to the sector, but on progression. "We're not losing women at the start, but along the journey."

Both regions benefit from youthful populations and entrepreneurial energy

Leadership pathways for women must be prioritised, and the TICON Africa-CANTO partnership could champion joint academies and masterclasses for this purpose.

Women's skills should be able to travel, and standards should be aligned across borders, she stated, stressing that "high-level dialogue without metrics is just noise" and that impact should be measurable. "What's measured gets improved."

A strategic roadmap for facilitating cooperation

The last speaker, Vice Chair of CANTO Charles Douglas, listed critical pillars to allow women to develop deep skills and be active creators and supporters of digital transformation.

He highlighted statistics showing that while sub-Saharan Africa had mobile SIM penetration of 85% to 90%, the Caribbean regional average was 110% to 120%. The former had unique internet penetration of 36% to 40%, while the latter had penetration of 65% to 75%. In Africa, less than 2% of households had fixed broadband penetration, compared with 35% to 50% of households in the Caribbean.

He acknowledged that there were huge network gaps needing massive investment. This could be addressed through trusted resilient ICT ecosystems, with women and youth as primary levers to secure and scale networks, to solve vulnerabilities; talent, skills and leadership pathways to help youth talent blossom; and innovation, trade and partnerships, focusing on aspects such as fintech sandboxes and joint incubators.

Douglas suggested a 24-month strategic roadmap to facilitate cooperation, including setting up transatlantic working groups, an executive mentorship programme and an Africa-Caribbean digital trade expo. ●



▲ CANTO Secretary General, Teresa Wankin



◀ AI support can help to strengthen classroom quality and practitioner support at scale

How **AI** can help to **scale** early learning support across Africa

An AI-enabled platform built for early childhood development is delivering results – but the bigger test is if it can become a scalable model for low-resource environments.

Much of Africa's artificial intelligence debate has focused on enterprise productivity, automation, cybersecurity and generative AI tools. But one of the continent's more interesting AI use cases is unfolding in a sector not usually associated with advanced digital infrastructure: early childhood development.

South Africa-based nonprofit The Unlimited Child has developed an AI-enabled platform to support early childhood development (ECD) practitioners working in underserved communities.

While the platform is designed to improve school readiness and practitioner support, its significance for ICT professionals lies

PHOTOS: SUPPLIED

in a broader question: can this kind of AI-enabled support model be scaled across African countries, languages, curricula and connectivity environments?

The organisation argues that it can.

It already works in South Africa, Zimbabwe, Lesotho, Malawi and Zambia, as well as Yemen in the Arabian Peninsula, in a humanitarian context.

“From a township in South Africa to a refugee camp in Yemen, it is the same model and the same rigour, because the challenge is universal: practitioners need better support, and quality cannot depend on geography,” says Candice Potgieter, CEO of The Unlimited Child.

She adds: “Africa is set to be home to the largest and fastest-growing child population in the world, so the urgency to change how early childhood development is delivered has never been greater.”

Model first, tech second

For African ICT professionals, one of the most important lessons may be that the platform did not begin as a technology experiment. The nonprofit spent years building and testing its ECD methodology before adding AI.

“The decision that changed everything was building the evidence before we built the technology,” states Potgieter. “We spent years developing and independently evaluating our ECD blueprint before a single screen was involved, so when we deployed AI, it was amplifying something proven, not digitising a guess.”

Across Africa, many digital transformation projects fail because technology is introduced before the underlying operating model is clear, repeatable or trusted by users.

In this case, AI was layered onto an existing programme of practitioner training, toys and educational resources, coaching and mentoring. The technology was designed to shorten feedback loops, improve coaching efficiency and make support more consistent across large networks of ECD centres.

Environments with low connectivity

The technical challenge is not about whether AI can generate useful recommendations, as it obviously can. It is about whether those recommendations can reach frontline workers in environments where connectivity is unreliable, devices are basic and digital literacy varies widely.

“All the sophistication of the AI sits under the hood – generative AI, cloud

infrastructure, analytics – while everything in the practitioner’s hand stays simple: an app that runs on the cheapest device, works offline, and syncs when the signal returns,” explains Potgieter.

This is where the platform becomes especially relevant to African ICT professionals. It is not built around assumptions common in high-income markets: permanent connectivity, high-end devices, sophisticated users and centralised support teams. Instead, it has been designed around intermittent signal, low-cost hardware and geographically dispersed users.

“If we had designed for people sitting in an office with good signal and the latest device, we would have failed exactly where we were needed most,” Potgieter emphasises.

Scaling quality and access

The core problem The Unlimited Child is trying to solve is not access alone. It is the uneven quality of early learning across under-resourced communities.

The app generates personalised development plans for practitioners, supports classroom preparation, gives coaches clearer insight into where support

is needed, and creates real-time data that can be used by supervisors, funders and government partners. It is intended to strengthen human coaching rather than replace it.

About 80% of the variation in child outcomes comes down to the practitioner, notes Potgieter, which is why the AI is designed to support rather than displace the human relationship.

The core problem is not access alone. It is the uneven quality of early learning across under-resourced communities on the continent

➤ The app is designed to work on low-cost devices and in low-connectivity environments





➤ Early childhood development lays the foundation for literacy, learning and school readiness

“It works more like a mirror than magic,” she says. “It reflects and amplifies what is already there. The technology does not replace the human relationship; it makes every human relationship better informed.”

An independent evaluation found that practitioners using the AI-guided support achieved stronger classroom readiness outcomes than a comparison group.

According to the nonprofit, practitioners using the platform achieved 67% classroom readiness, compared with 46% in the comparison group – a 21-point gap – with the largest gains in rural communities that started from the lowest baseline.

The localisation challenge

If the model is to scale across Africa, localisation will be central. ECD systems differ across countries, as do languages, curricula, regulations, funding models and levels of infrastructure.

Potgieter argues that this is manageable if localisation is treated as part of the deployment model rather than an afterthought.

“We adapt, we do not impose,” Potgieter states. “The adaptation work is real: language, curriculum alignment, local context. But none of it is a barrier

if you build with communities rather than for them.”

That point has wider relevance for African technology deployment. AI systems that work in one country cannot simply be copied into another without attention to language, regulation, data governance, user behaviour and institutional readiness. Scaling requires technical architecture, but also local trust.

A model for other frontline workers?

Although the platform is focused on ECD, its underlying logic could apply to other sectors where Africa faces shortages of skilled support personnel. Community healthcare, agriculture, local government services and small-business development all face similar challenges: too few experts, too much distance, uneven data and limited real-time support.

In that sense, The Unlimited Child may be demonstrating more than an education solution – it could be pointing to a broader African AI model: one that codifies proven practice, supports frontline workers, works offline, adapts locally and generates data that can guide investment and policy. ●

➤ Candice Potgieter, CEO of The Unlimited Child





How Africa could gain from new world AI body

The continent can benefit from increased technical co-operation with other developing countries through the newly formed WAICO artificial intelligence organisation.

TICON Africa believes the newly formed World Artificial Intelligence Cooperation Organisation (WAICO) could help build AI expertise on the African continent and deepen ties with China.

Representatives from 29 countries – including China, Russia, Brazil, Pakistan and Indonesia – have established WAICO to promote the safe, fair and orderly development of AI. The independent intergovernmental body is guided by the principles of the United Nations Charter.

“As a pan-African nonprofit organisation that unites technology professionals, drives digital skills development, and sets ICT practice standards across the continent, we believe that Africa can benefit from increased technical co-operation with other developing countries,” comments TICON Africa’s President, David Gowu.

WAICO aims to serve as a platform for international cooperation on AI governance, capacity building and dialogue, with a focus on developing countries and the Global South. Gowu says its goal of helping countries build AI innovation, application and governance

capabilities aligns with TICON’s vision.

African countries that have joined WAICO so far include Algeria, Cameroon, the Democratic Republic of Congo, Ethiopia, Kenya, Lesotho, Mozambique, Senegal, South Africa and Zambia.

“The organisation opens a door for developing countries to access AI expertise, technical assistance and international partnerships at a time when governments are looking to the technology to grow their economies and improve public services,” Gowu notes.

Deepening China-Africa ties

The TICON Africa President says the establishment of an international AI cooperation body focused on developing countries reflects growing recognition that AI needs stronger international coordination, backed by effective national and regional governance frameworks, rather than fragmented national approaches.

China has recently extended zero-tariff treatment to all 53 African countries with diplomatic relations with Beijing, covering 100% of tariff lines to boost

imports from Africa and support industrialisation and exports.

The policy builds on an earlier initiative that granted duty-free access to least-developed countries, later expanded to 20 additional African countries including South Africa, Botswana, Namibia and Morocco.

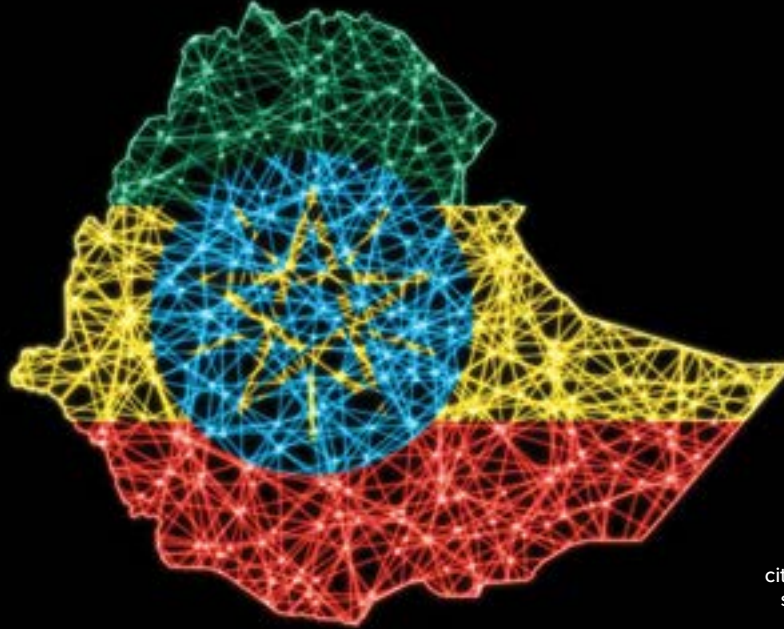
“Africa can leverage ties with WAICO to ensure the continent is not simply a consumer of AI policies developed elsewhere, but an active contributor to the standards, ethics and technical frameworks that will shape the future digital economy,” Gowu states.

“Through collaboration, skills development and common standards, African ICT professionals have an important role to play in ensuring AI supports inclusive and sustainable development across the continent.”

In an opinion column published in South Africa’s *Mail & Guardian* newspaper, geostrategic analyst Dr Imran Khalid writes: “As WAICO begins its operations, the global community is faced with a definitive choice. The old model of ‘AI as a proprietary monopoly’ is increasingly viewed as an instrument of exclusion, whereas China’s model of ‘AI as a people-centred partnership’ offers a pathway toward true digital liberation.”

Khan adds: “The era of accepting a subordinate role in the technological order is over. Through the collaborative framework of WAICO and the wider vision of Chinese-led digital cooperation, the world is moving towards an era where technology serves the collective progress of humanity.” ●

ICT as an engine of Ethiopia's digital transformation



◀ Ethiopia's evolving digital infrastructure is reshaping how citizens connect, transact and access services, as ICT becomes central to structural economic reform

Ethiopia is undergoing a period of rapid economic and digital change – and ICT plays a central role in driving structural transformation across the country.

Ethiopia's growth is increasingly shaped by large-scale public investment in digital infrastructure, telecoms liberalisation, and a clearer policy commitment to ICT as a foundation for inclusive growth.

Recent reforms are beginning to change how Ethiopians connect, transact and access services – and the scale of this shift is visible in the data.

An estimated 50-million people, just under half the population, now have access to the internet, leaving significant room for further expansion. Since 2018, mobile data costs have fallen by more than 90%, sharply improving affordability and nationwide access.

Digital financial services have expanded rapidly. Mobile money, which did not exist in Ethiopia before 2020, reached around 60-million users by the end of 2024, according to the World Bank.

Regulatory reform has also stimulated business creation. Between 2020 and 2024, more than 3,000 digital firms were licensed by the Ethiopian Communications Authority, the World Bank reports.

▶ Yilkal Abate speaking at the Accelerated Digital Transformation Summit 2025



Since 2018, mobile data costs have fallen by more than 90%, sharply improving affordability and access

ICT at the heart of development

For Yilkal Abate, President of Information and Communication Technology Sectoral Association Ethiopia (ICT-ET), these developments are clear indicators that ICT is not merely a supportive sector but a driver of structural economic transformation.

The transformation, he argues, is already visible in multiple sectors.

"ICT can make significant contributions to financial and digital inclusion efforts," he explains. "It can help in boosting productivity by helping streamline logistics, market information and linkage for manufactured goods, and it can help improve accessibility and quality of government services. It can also support more seamless trading across borders."

At the centre of this evolving ecosystem sits ICT-ET, an organisation whose mandate has shifted alongside Ethiopia's maturing digital landscape. While its core purpose remains intact, its focus areas have evolved in response to changing needs, gaps and opportunities.

"ICT-ET tries to expose, engage and enable the private sector within the ICT industry," Abate says. "The focus areas of action shift from time to time based on needs, gaps, opportunities and capabilities."

In recent years, that has meant working across a range of ICT-enabled sectors. Abate notes that activities have touched

on work related to the African Continental Free Trade Area (AfCFTA), small and medium enterprises (SMEs), transport and logistics, and payment and ecommerce.

A distinctive landscape

What distinguishes Ethiopia's ICT environment, in Abate's view, is not one single innovation, but the speed and scope of recent reforms.

"Ethiopia's ICT landscape is distinctive because of recent liberalisation and opening of sectors such as telecoms, logistics and banking," he says.

"These changes are happening in a relatively short period of time and are driven by government-led initiatives such as Digital Ethiopia 2025 and 2030 strategies, and rollout of digital public infrastructure such as Fayda digital ID (the national identification system)."

The reforms have been reinforced by significant public-private investment. World Bank-supported programmes have focused on fostering competition in the telecoms market, expanding connectivity and enabling digital service delivery.

As part of this effort, the rollout of Digital ID reached 40-million Ethiopians by early 2025, improving access to public and financial services while being underpinned by new legal frameworks, including the Digital ID Proclamation (2023) and the Data Protection Proclamation (2024).

Together, these shifts are reshaping the foundations of Ethiopia's digital economy. But Abate is clear that progress will depend on coordination, not isolated innovation.

"Professional bodies play an important role in connecting different stakeholders through curated events, proposing solutions and recommendations to challenges through policy studies and deliberations," he says.

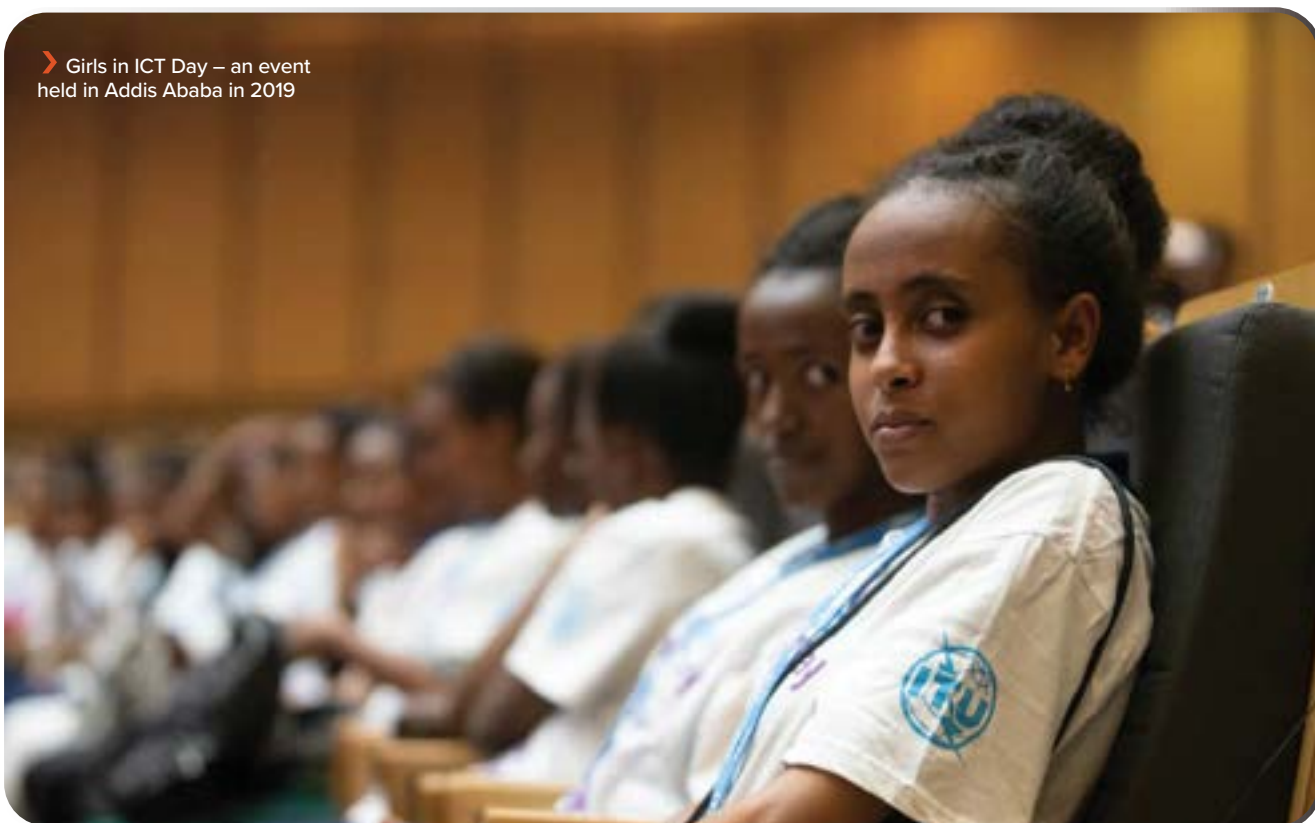
"They also serve as a critical bridge between private innovation and government strategies, such as Digital Ethiopia 2025 and 2030, and provide support for a healthy and interoperable digital economy."

Leveraging innovation and creating impact

Across the continent, a persistent challenge is ensuring ICT innovation translates into broad-based economic and social value. For Ethiopia, Abate sees opportunity in continental frameworks that align digital innovation with market access.

"The AfCFTA and its Digital Trade Protocol can provide a good opportunity to be able to leverage ICT innovation in the service of market development that can be accessed by more actors on the continent," he says. "Digital public infrastructure also has a role to play in making it easier for businesses to do KYC (know-your-customer) protocols and for citizens to have better access to services."

➤ Girls in ICT Day – an event held in Addis Ababa in 2019





➤ Participants at an ICT-ET-hosted workshop in Addis Ababa discussing digital transformation strategies for small and medium-sized enterprises (SMEs) ▼ Ethio Telecom launched its mobile money service under the brand name Telebirr in May 2021. Mobile money did not exist in Ethiopia before 2020



Alongside infrastructure, skills development remains critical.

“Broad-based digital skill initiatives can also lay a good foundation for the ability of individuals to participate in, and benefit from, a digitising economy at home and abroad,” Abate notes.

Indeed, skills are one of the most urgent priorities for Ethiopia’s ICT sector over the next five years.

Leadership & collaboration

Ethiopia’s ICT sector needs competencies in cyber resilience, sector-specific IT-enabled competencies, and emerging areas such as AI and its application for productivity, Abate believes.

As these capabilities deepen, ICT is

becoming more tightly embedded across the wider economy. “Digital generally is now a crosscutting agenda,” he points out.

Beyond commercial performance, Abate believes ICT leaders carry wider responsibilities regarding inclusion, trust and long-term public value. “ICT leaders are important contributors to a social contract because of the gaps that remain to be bridged in connectivity and access to financial services and skills,” he says.

These leaders are also required to manage complex tradeoffs, with Abate emphasising: “They can help navigate the balance between job creation and automation, sustainability and environmental responsibility, and cyber and online safety and trust.”

Ethiopian ICT professionals, he believes, have both much to learn and much to offer.

“They can learn from other entrepreneurship ecosystems, market innovations, and export successes,” he notes. “They can also contribute lessons from ID rollouts, PPP models, and AI rollout approaches that are now evolving.”

A vision for the decade ahead

Looking ahead, Abate’s longterm vision is for ICT-ET to play a role in positioning Ethiopia as a globally competitive digital ecosystem.

“My vision is for the association to contribute towards making Ethiopia a globally competitive digital ecosystem,” he says. “This will require work in different areas such as infrastructure resilience, policy stewardship, BPO and exports, interoperability rails, skills and integration.”

Advising policymakers and business leaders today, he has a straightforward message: “To win the next decade, policymakers and business leaders should shift toward agency where Ethiopians are empowered as creators and owners of the digital economy: from silos to systems, from regulation to enablement, from access to capability.”

The Information and Communication Technology Sectoral Association Ethiopia (ICTET) is a member of TICON Africa. ●

PHOTOS: ALEXANDAR/FREEPIK;
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Como África poderá beneficiar da nova entidade mundial da IA

O continente pode beneficiar de uma maior cooperação técnica com outros países em desenvolvimento através do recém-criado órgão WAICO, diz o Presidente da TICON África.

A TICON África acredita que a recém-criada Organização Mundial de Cooperação em Inteligência Artificial (WAICO) poderá ajudar a desenvolver competências especializadas em IA no continente africano e a aprofundar os laços com a China.

Representantes de 29 países, incluindo a China, a Rússia, o Brasil, o Paquistão e a Indonésia, estabeleceram a WAICO para promover o desenvolvimento seguro, justo e ordenado da IA. O órgão intergovernamental independente rege-se pelos princípios da Carta das Nações Unidas.

“Como organização pan-africana sem fins lucrativos que reúne profissionais de tecnologia, impulsiona o desenvolvimento de competências digitais e estabelece normas de prática das TIC em todo o continente, acreditamos que África pode beneficiar de uma maior cooperação técnica com outros países em desenvolvimento”, comenta o Presidente da TICON África, David Gowu.

A WAICO visa servir de plataforma de cooperação internacional em matéria de governação da IA, capacitação e diálogo, com enfoque nos países em

desenvolvimento e no Sul Global. Gowu afirma que o objectivo da organização de ajudar os países a desenvolver capacidades de inovação, aplicação e governação da IA está alinhado com a visão da TICON.

Os países africanos que aderiram à WAICO até ao momento incluem a Argélia, os Camarões, a República Democrática do Congo, a Etiópia, o Quênia, o Lesoto, Moçambique, o Senegal, a África do Sul e a Zâmbia.

“A organização abre uma porta para que os países em desenvolvimento tenham acesso a conhecimentos especializados em IA, assistência técnica e parcerias internacionais, numa altura em que os governos recorrem à tecnologia para fazer crescer as suas economias e melhorar os serviços públicos”, observa Gowu.

Cooperação em IA

O Presidente da TICON África afirma que o estabelecimento de um órgão internacional de cooperação em IA centrado nos países em desenvolvimento reflecte um reconhecimento crescente de que a IA necessita de uma coordenação internacional mais forte, apoiada por quadros eficazes de governação nacional

e regional, em vez de abordagens nacionais fragmentadas.

“África pode tirar partido dos laços com a WAICO para garantir que o continente não seja simplesmente um consumidor de políticas de IA desenvolvidas noutros contextos, mas sim um contribuinte activo para as normas, a ética e os quadros técnicos que irão moldar a futura economia digital”, afirma Gowu.

“Através da colaboração, do desenvolvimento de competências e de normas comuns, os profissionais africanos de TIC têm um papel importante a desempenhar para garantir que a IA apoie o desenvolvimento inclusivo e sustentável em todo o continente.”

Num artigo de opinião publicado no jornal sul-africano *Mail & Guardian*, o analista geoestratégico Dr. Imran Khalid escreve: “À medida que a WAICO inicia as suas operações, a comunidade global depara-se com uma escolha decisiva. O antigo modelo de ‘IA como monopólio proprietário’ é cada vez mais visto como um instrumento de exclusão, ao passo que o modelo da China de ‘IA como parceria centrada nas pessoas’ oferece um caminho para uma verdadeira libertação digital.” ●

Focus on **Shadow AI** governance rather than its elimination – experts

Cybersecurity experts call for a governance-first approach as Shadow AI becomes a business reality in organisations across the continent.

Organisations should move beyond trying to eliminate Shadow AI and instead focus on governance, visibility and employee education to reduce cyber risk while enabling responsible AI adoption.

This is according to experts from the Institute of Information Technology Professionals South Africa (IITPSA) and its Special Interest Group for Cybersecurity, known as SIGCyber.

The challenge facing organisations is no longer whether employees are using unauthorised AI tools, but how businesses govern that reality, the experts say.

As AI becomes part of everyday work, they are urging organisations to replace reactive restrictions with practical governance that gives employees access to approved AI platforms, establishes clear policies for responsible use, and protects sensitive information through appropriate technical and organisational controls.

The IITPSA SIGCyber experts argue that most employees adopt AI to work more efficiently rather than to circumvent security policies. However, without clear governance, organisations can lose visibility into how business information is being processed, increasing the risk of data leakage, regulatory breaches and reputational harm.

Professor Kerry-Lynn Thomson, Director of the School of Information Technology at Nelson Mandela University in South Africa, says organisations should recognise that Shadow AI is primarily a governance challenge rather than simply a technology problem.

“Shadow AI risks often do not originate from malicious intent and the use of AI tools to improve productivity is primarily driven by the good intentions of employees,” Thomson points out.

“However, employees may upload sensitive data such as customer information, intellectual property or internal documents into public AI platforms without understanding where that data is stored, how it is processed or who may ultimately be able to access it.”

She thinks organisations should focus

less on restricting AI and more on creating a culture of responsible use.

"Addressing Shadow AI should not only be focused on restricting access to AI tools. Organisations should cultivate a culture of AI risk awareness, ethical use and trust, where employees are guided on how to use AI tools to reduce risk," Thomson states.

Employees will use AI anyway

Meanwhile, Bryan Baxter, Head of Securelytics at IT consulting and cybersecurity firm BC Technologies, believes organisations should accept that employees will continue to seek AI tools unless secure alternatives are available.

"If approved platforms are not provided, employees will use AI anyway, as surely as water flows downwards," Baxter warns.

He recommends that organisations establish acceptable AI use policies covering approved platforms, acceptable use, prohibited activities, data protection requirements and risk mitigation measures, supported by ongoing employee education.

"The best way to deal with it is to engage openly with employees, educate them and obtain their buy-in to develop a culture to safely adopt AI in the business."

Mandla Mbasane, Chief Information Security Officer at state-owned development finance institution, the



National Housing Finance Corporation, says governance must extend beyond policy documents to include technical controls and information management practices.

"Organisations need to define AI policies and governance processes that align with companies' environment and goals," Mbasane notes.

He says AI governance should be integrated with bring-your-own-device (BYOD) policies, supported by data loss prevention (DLP) technologies and aligned with data classification frameworks.

"User awareness can never be overemphasised. Organisations need to regularly run campaigns to empower employees with information pertaining to the dangers of using AI in contravention of

company policies," Mbasane comments.

An anonymous contributor, the CTO of a Johannesburg-based multi-site contact centre group, says many organisations may underestimate the scale of unauthorised AI use until they examine their own network traffic.

Following a routine review of AI-related firewall activity, the organisation identified dozens of different AI platforms in active use across the business. While the example reflects one organisation's experience, the contributor says it demonstrates why visibility is the first step in effective governance.

The IITPSA SIGCyber committee contributors encourage organisations to begin by understanding which AI services are being used across their environments before implementing risk-based governance that distinguishes between approved, conditionally approved and prohibited tools.

Combined with employee awareness, data protection controls and clear governance, this approach allows organisations to realise the productivity benefits of AI while managing associated cybersecurity and compliance risks. ●

Law firm urges proactive steps

A blog post published in 2025 by ENS Africa, which claims to be the continent's largest law firm, says organisations can take proactive steps to manage and mitigate the risks associated with shadow AI by implementing some of the following processes:

- **Develop a Clear AI Governance Framework:** Establish policies that define acceptable AI usage, data privacy and security measures, and governance and compliance requirements. It is also important to ensure that employees are made aware of, and trained on, approved AI tools and their proper usage.
- **IT Oversight and Monitoring:** Implement AI usage monitoring tools that can detect use of unauthorised AI applications. Conduct regular audits to help identify instances of

shadow AI and bring them under formal oversight and within the AI governance framework.

- **Employee Training and Awareness:** Educate employees on the risks of shadow AI and encourage them to seek approval before utilising AI tools. Providing training and guidance on responsible and ethical AI usage and compliance requirements can reduce the temptation to use unauthorised AI tools.
- **Integrate AI Risk Management into Vendor Assessments:** If third-party AI tools are being used, ensure the third party's legal terms have been legally reviewed and vetted. Conduct an AI risk and privacy impact assessment on the third-party AI tool and ensure that the third-party AI tool meets security and AI compliance and governance requirements.



▲ Professor Kerry-Lynn Thomson, Director of the School of Information Technology at Nelson Mandela University

Emerging trends in AI and tech leadership

As tech opens a world where people have more access to information, it is vital to grow skills across the workforce, webinar told.



Tech leaders face a landscape in which artificial intelligence, automation and connectivity are fast converging, attendees at a recent digital masterclass hosted by the Women in TICON chapter heard.

Jacqui Muller – Industry Coordinator at Belgium Campus iTversity, automation strategist and award-winning ICT professional – delved into this evolving landscape and its implications for technology leadership in organisations.

Muller said four forces drive the convergence of AI and intelligent automation:

1. Compounding AI capability;
2. Cheaper costs, with frontier technology moving from laboratories into everyday operations;
3. Billions of connected devices dissolving the boundary between physical and digital;
4. Ageing workforces, skills shortages and climate targets demanding automation.

With regulations for AI policies already

in place in various spaces, Africa has the potential to become a leader in AI governance, she added.

In addition, there are four 'converging waves of change', said Muller. These are:

1. 6G communication, which allows every single device on a network to interact;
2. Advanced brain-to-computer interfaces, which can integrate human thoughts with technology;
3. Quantum technologies, which enhance computer power;
4. Interconnected cities that use AI and the Internet of Things to optimise urban living.

Muller explained to attendees that 6G communication enables immersive experiences and capabilities such as cars on the road knowing exactly when traffic lights are about to change, or remote surgery. This tech is already widely in use in countries such as China.

But with advantages come risks. Considering bandwidth constraints throughout Africa, it would be hard to

roll 6G out through shopping centres and municipalities, for example. Leaders would have to seriously consider the opportunity costs. For some cities in Africa, this tech could also increase vulnerability to cybersecurity attacks.

Governance is key

AI agents are now often able to work on their own. This means governance is vital, said Muller. "We need to consider what access systems have to our information," she emphasised. "This can be a big concern, especially in large organisations where training is not given around this."

She provided fascinating insights into agentic AI, polyfunctional robots, ambient intelligence and human-AI collaboration, why they matter now, and where they show up. When it comes to agentic AI, for example, 'agents' are now able to do end-to-end resolution instead of just scripted chat in customer operations, and run back-office workflows in finance, human resources and compliance.

"The reality is that we will have a workforce of people and robots working together," she noted.

Everywhere, not just in Africa, people trust "far too easily" what AI is doing,

6G

TECHNOLOGY

^ 6G, which allows every device on a network to interact, is one of the four 'converging waves of change'

Muller warned, stressing the importance of validating results and understanding data and how AI can sometimes 'skew' things, thereby hampering processes.

Traditionally, AI was trained off human-verified data, but then AI started generating data that went into the same knowledge base and weakened it, she explained to attendees.

Where the new trends may fit in

Discussing emerging trends, Muller said leaders today must ask themselves if their organisations have a place for polyfunctional robots such as those used in warehousing and manufacturing for lifting, fetching and logistics support.

The same goes for ambient intelligence, used to improve the lives of people, for example, in smart buildings or for patient monitoring. "If it won't improve the lives of people, is it worth investing in this very expensive tech?"

Discussing human-AI collaboration, she said it's important for leaders to ensure the investment is relevant to what they want to achieve. "Think of these [AI] agents as personas with job descriptions, just like humans in a team."

AI governance should include understanding of the constraints of AI agents, and frameworks for ethical, transparent and accountable AI. Lack of oversight, auditability and clean human accountability can lead to hallucinations in the greater ecosystem, she cautioned.

AI's access to financial data must

be ringfenced to avoid it feeding it into unrelated processes, she added. Unintended consequences pose a real risk. "If humans are not trained on how to use AI, agents and interfaces, they could use it incorrectly," Muller said.

She suggested companies should appoint AI boards to ensure that what the AI has access to is safeguarded, decide who can say 'no' to AI deployment, and on what evidence, and make sure data sources are properly vetted.

Importance of leadership

Muller highlighted how technology leadership is changing, noting that: "We used to hire for specific roles – now we're moving to orchestrating intelligence."

Leaders must consider how they can use tech to create 'a blended workforce'

of humans and agents, and how they govern this. "How responsible are you for what your agents do? If an AI messes up, you need to be accountable if you're the team leader," she said.

Imperatives for technology leaders include redesigning workflows around blended human-AI teams, and embedding AI governance, security and post-quantum readiness into architectures from day one.

As tech opens up a world where people have more access to information than ever before, it is vital to grow skills across the workforce and for students to develop their entrepreneurial skills as much as possible to stay relevant.

Muller cautioned webinar attendees: "AI is making us increasingly lazy ... We need to grow our skills rather than rely on AI to do it for us." ●

> Leaders must ask themselves if their organisations have a place for polyfunctional robots



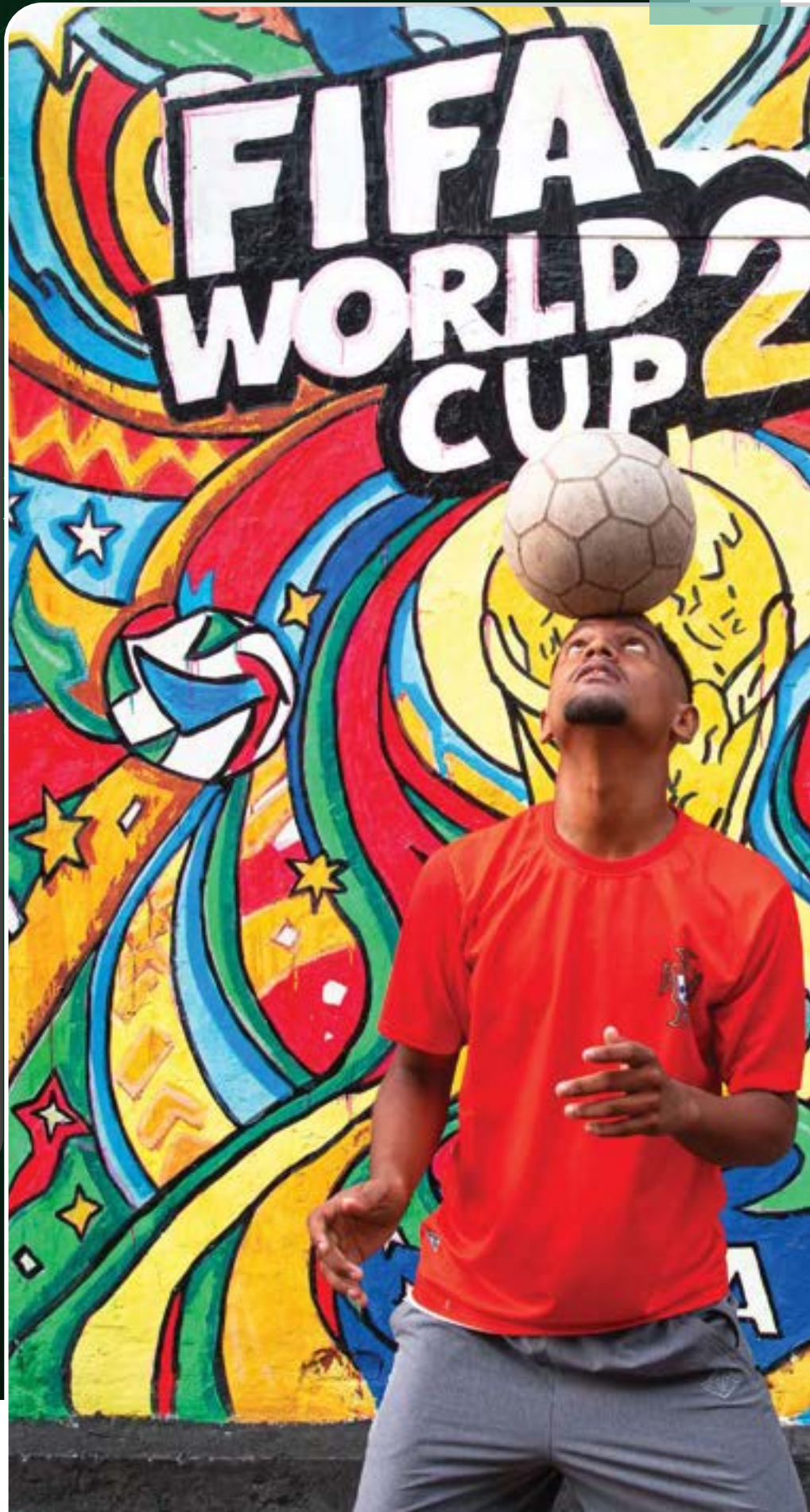
Beyond the final whistle: ICT lessons from the World Cup

Jannie Zaaiman reflects on the operational ICT strategy behind the FIFA World Cup 2026 – and what this means for Africa's digital future.



^ The 2026 FIFA World Cup was not only a sporting spectacle but also a major test of the digital infrastructure that connected fans

> The World Cup became one of the largest real-world tests of international coordination, logistics and connectivity



The recent FIFA World Cup was more than a showcase of football talent. It was one of the largest real-world tests of digital infrastructure ever experienced by African networks.

As millions of fans streamed matches,

global internet traffic peaked at a record 29.517 Tbps during the Argentina-Egypt knockout-stage match, while regional internet exchanges such as NAPAfrica relied on years of investment in peering, fibre connectivity and cloud infrastructure to absorb unprecedented demand.

Rather than consuming valuable capacity through widespread 4K delivery, broadcasters and network operators relied on optimised 1080p HDR feeds and advanced compression technologies to deliver high-quality viewing experiences while preserving network performance.

The tournament highlighted the value of investments extending far beyond stadiums and broadcast facilities. New subsea cable systems, including 2Africa and Equiano, combined with multi-terabit terrestrial fibre corridors, helped connect coastal landing stations to inland markets, demonstrating the infrastructure required to support Africa's growing digital economy.

The World Cup was a successful sporting event – but beyond that, it revealed how improvements in cloud infrastructure, internet exchange capacity, network engineering and policy coordination are positioning the continent for a future shaped by digital trade, artificial intelligence and cross-border connectivity.

And the tournament was just the beginning, as these operational lessons inform the long-term continental strategy through regional ICT policy development, ITU Article 22 reform discussions ahead of the World Radiocommunication Conference 2027 (WRC-27), and the 2026 TICON Africa Conference in Livingstone, Zambia.

Looking beyond the game: Africa's historic campaign

The digital stress test unfolded alongside an athletic breakthrough. A record 10 African nations qualified for the 2026 tournament, with an unprecedented nine advancing to the knockout stage.

Debutants Cape Verde held eventual champions Spain to a draw, Egypt recorded its first World Cup victory and progressed to the knockout stages, while Morocco followed up its historic 2022 semi-final appearance with another quarter-final run.

➤ 2026 was the largest tournament in the competition's history and the first to be hosted by three nations



When Spain lifted the trophy at MetLife Stadium on 19 July, Africa's digital networks had already demonstrated that they could perform at global scale.

Managing the WC streaming crunch

While audiences simply pressed 'play', an extensive digital ecosystem was working behind the scenes to deliver uninterrupted World Cup coverage across Africa. Streaming platforms including DStv Stream, SABC Plus, SportyTV and StarTimes complemented traditional broadcast networks, highlighting the growing importance of IP-based content delivery for live sport.

Rather than defaulting to bandwidth-intensive 4K distribution, broadcasters prioritised efficiency. FIFA's Host Broadcast Services (HBS) produced feeds in 1080p Full HD at 59.94 frames per second using the ITU-R BT.2100 Hybrid Log-Gamma

BROADCAST PROFILE	RESOLUTION AND FRAME RATE	DYNAMIC RANGE	TARGET BITRATE (HEVC)	PROTOCOL STANDARD
Standard host feed	1080p @ 59.94 fps	HDR (HLG / BT.2100)	6.5 – 8.5 Mbps	LL-HLS, CMAF
Premium event feed	2160p @ 59.94 fps	UHD-HDR (BT.2100)	15.0 – 25.0 Mbps	CMAF low-latency
Mobile-optimised feed	720p @ 30.00 fps	SDR (Rec. 709)	1.2 – 2.0 Mbps	LL-HLS, WebRTC

➤ Large audiences place growing demands on network infrastructure



(HLG) high dynamic range standard, delivering a visually impressive experience while significantly reducing bandwidth requirements.

This approach reflected a broader shift in network engineering strategy. Advances in video compression, content delivery optimisation and edge caching enabled operators to serve growing audiences without proportionally increasing capacity demands. For millions of viewers watching on smartphones and tablets, the difference between native 4K and optimised HD was often negligible, while the reduction in network strain was substantial.

The result was a more resilient digital viewing experience, demonstrating that

smart infrastructure design can be as important as capacity when managing large-scale online events.

Network engineers did not achieve greater capacity by increasing bandwidth. They achieved it by transmitting smarter signals.

By combining High-Efficiency Video Coding (HEVC/H.265) and AV1, which offer around 50% better compression than H.264, with Low Complexity Enhancement Video Coding (LCEVC), operators transmitted enhancement metadata alongside highly compressed base video.

Rather than sending more data, they sent better instructions about how to reconstruct the image. The result was



➤ Behind every live broadcast is a complex production chain that distributes content across television, streaming and mobile platforms

visually lossless playback without adding strain to the core network.

Building the continent's middle-mile advantage

Tournament streaming accelerated investment in one of Africa's most important digital priorities: inland connectivity. According to FIFA's tournament reporting, more than 161,000km of fibre was deployed, and 13-million gigabytes (13 petabytes) of data were transported across tournament and broadcast networks.

While subsea systems such as Meta's 2Africa and Google's Equiano have expanded bandwidth capacity at Africa's coastal landing stations, the real challenge lies in transporting that data efficiently to inland cities, businesses and consumers.

This is where terrestrial infrastructure providers came into their own. Liquid Intelligent Technologies drew on its 100,000km pan-African network, including the 12 Tbps Mombasa-to-Johannesburg corridor, a key digital artery between East and Southern Africa.

At the same time, Seacom strengthened regional resilience through its high-capacity Nairobi-Kampala route, launched at the start of the tournament and supported by Automated Switched Optical

PHOTOS: ANIRBAN DAS/PEXELS; DARIUS/PEXELS; ALLEN BOGUSLAVSKY/PEXELS; ALEX GRAJEDA/PEXELS; K/PEXELS

These terrestrial networks ensured international band-width could be distributed efficiently across Africa

Network (ASON) technology capable of restoring traffic in under 50 milliseconds during outages.

Beyond these flagship investments, regional infrastructure carriers continued expanding multi-terabit metropolitan and long-haul fibre networks across major digital hubs in Nigeria, Kenya, Angola, Zambia and other markets.

Together, these terrestrial networks ensured that international bandwidth arriving on Africa's shores could be distributed efficiently across the continent, supporting both tournament traffic and wider economic activity.

The significance extends far beyond soccer. By improving regional interconnection and reducing the cost of moving data across borders, these investments support the ambitions of the African Continental Free Trade Area (AfCFTA) and strengthen the infrastructure required for digital trade, cloud services and AI-driven growth.

Edge peering and 5G broadcast innovation

Local peering proved just as important as raw bandwidth. According to Teraco's NAPAfrica exchange, peak traffic exceeded 6 Tbps across more than 680 connected networks. By serving content locally instead of retrieving it from overseas, operators reduced latency and significantly lowered international transit costs.

Cloudflare telemetry confirmed sharp traffic surges at kick off and drops at half-time across North and Central Africa, a clear signature of heavy mobile streaming.

With sub-Saharan fixed broadband penetration still under 1% according to ITU data, mobile networks absorbed the vast majority of the region's streaming load, amid evolving regional data pricing dynamics.

5G Broadcast, standardised as FeMBMS under 3GPP Release 14, remains one of the more promising tools available to African operators for protecting tower capacity at future mega-events. Its High-Power High-Tower (HPHT) architecture can, in principle, deliver a single feed to unlimited devices simultaneously, reclaiming cellular spectrum that individual unicast streams would otherwise consume.

Sovereignty, satellite governance and human capital

Cloud ticketing and real-time analytics highlighted the urgent need for unified data governance to keep user data processing within the continent. This imperative extends to satellite connectivity, vital given that only about 30% of Africans live within 10km of a fibre node.

Expanding Low Earth Orbit (LEO) coverage requires modernising the ITU's roughly 25-year-old Article 22 Equivalent Power Flux Density (EPFD) power limits, first adopted in 1997 and revised in 2000. Africa's unified stance will be coordinated ahead of WRC-27 through regional preparatory meetings.

Concurrently, TICON Africa is addressing talent development through its Women in TICON Chapter, which provides mentorship, technical training and advocacy to grow the pipeline of women across Africa's ICT sector.

Translating operational success into continental policy

The 2026 FIFA World Cup demonstrated that Africa's digital infrastructure can perform under demanding operational conditions. The challenge now is to transform those proven capabilities into permanent policy, regulatory alignment, and long-term investment.

TICON Africa is anticipating three strategic initiatives designed to convert tournament experience into lasting continental advantage:

1. September 2026: Building a unified African position for WRC-27 National ICT authorities will be developing a coordinated position on modernising the International Telecommunication Union's (ITU) Article 22 Equivalent Power Flux Density (EPFD) framework ahead of the 2027 World Radiocommunication Conference (WRC-27). A unified African position will strengthen the continent's ability to expand affordable Low Earth Orbit (LEO) satellite connectivity while protecting long-term spectrum sustainability.

2. Q4 2026: Advancing regional regulatory harmonisation Building on the operational lessons of the tournament, there will be the development of model technical and regulatory frameworks for SADC, ECOWAS, and the East African Community. These blueprints will support interoperable regulatory sandboxes, improve cross-border data

flows, and reduce barriers to regional digital commerce under the African Continental Free Trade Area (AfCFTA).

3. 2027: Establishing continental infrastructure benchmarks Beyond policy, a continent-wide benchmarking framework using regional Internet Exchange (IX) performance data to measure carrier resilience, routing efficiency and network performance under peak demand. Shared operational metrics will enable African operators and regulators to evaluate infrastructure readiness against common standards and identify areas requiring further investment.

Operationalising strategy in Livingstone

These lessons will not remain confined to post-event reports. They will form part of the agenda for the 2026 TICON Africa Conference, taking place 23-25 September 2026 in Livingstone, Zambia, under the joint theme '*Africa Rising: From Continental Strengths to Global Impact*'.

- **Conference track:** Executive discussions on regulatory sandboxes, spectrum governance, and cross-border routing.
- **Research track:** Academic papers on AI, Sustainability, Post-Quantum Security, Physical-Digital Convergence, and Digital Skills.

Beyond the game

The greatest legacy of the FIFA World Cup 2026 may not be found in the tournament's record books, but in the infrastructure, standards and partnerships that will continue to power Africa's digital economy long after the final whistle.

What began as an operational stress test for live sports streaming demonstrated that Africa is increasingly designing, operating and governing the digital infrastructure on which its future depends.

The networks, policy frameworks and technical expertise strengthened through this experience will support the next generation of commerce, public services and innovation.

By strengthening its own networks, regulatory institutions and technical expertise, Africa is building a digital future on foundations it increasingly owns and controls. ●

Jannie Zaaiman is Secretary General of the Technology Information Confederation Africa (TICON Africa).

New AI hub aims to bridge Africa's cloud and skills gap

◀ Cloud infrastructure provides the foundation for organisations to develop, test and deploy AI-powered applications at scale

As organisations look to scale AI adoption, a new Google Cloud-powered Partner Experience Centre aims to help partners turn concepts and pilots into relevant solutions.

In Africa there is strong interest in artificial intelligence (AI), but turning that interest into scalable, locally relevant solutions remains a challenge for businesses, state entities and other bodies. Skills shortages, infrastructure constraints and the difficulty of deploying advanced technologies continue to slow adoption across the continent.

Vinay Hiralall, Chief Commercial Officer of pan-African cloud and cyber security business Liquid C2, believes that Africa needs more than awareness campaigns and AI experimentation labs – it needs practical environments where organisations can build, test and deploy solutions that solve real business problems.

To address that gap, Liquid C2, a business unit of technology innovations company Cassava Technologies, has launched what it describes as Africa's first Google Cloud-powered Partner Experience Centre in Johannesburg, South Africa.

The facility gives partners, resellers, enterprises, developers, academic institutions and public-sector stake-

holders access to Google Cloud technologies, including Gemini Enterprise and a dedicated Gemini Playspace for AI experimentation.

According to Hiralall, the centre aims to help organisations move beyond traditional technology reselling towards developing customised solutions for African customers.

"The Experience Centre is designed to address the historical barriers that have slowed digital transformation across the continent, specifically infrastructure constraints, skills gaps and complexity barriers," he says. "It does so by providing a practical, immersive environment where partners can move beyond traditional reselling to architecting and deploying customised solutions to their customers' specific needs."

Proof-of-concept hub

The initiative reflects a broader trend in Africa's cloud and AI market, where organisations are increasingly looking for practical implementation support rather than purely theoretical training. As AI adoption accelerates globally, African



enterprises face the additional challenge of ensuring technologies are relevant to local operating conditions.

"A hands-on approach allows for the creation of a strong ecosystem that combines global innovation with local infrastructure," emphasises Hiralall. "It provides a real-world environment for organisations to explore and scale solutions that deliver tangible business value, rather than just theoretical concepts."

A key feature of the centre is its role as a proof-of-concept hub. Partners can prototype solutions, test use cases and demonstrate complete technology stacks to prospective customers before bringing

solutions to market through Liquid C2's distribution network. The facility also offers a structured enablement pathway that includes Google Cloud accreditation, technical training and collaboration with specialist engineers.

For ICT professionals, one of the more interesting aspects is the focus on developing solutions tailored to African realities rather than importing use cases developed elsewhere. Hiralall says the facility encourages collaboration between local developers, startups and academic institutions to build solutions that work within the continent's unique operational and infrastructure environments.

"Rather than assuming ideal operating conditions, the centre promotes co-creation of solutions by local developers, startups, and academic institutions," he explains. "These solutions utilise Liquid C2's localised expertise and infrastructure to ensure they are tailored specifically to the unique needs and constraints of African markets."

The centre includes industry-focused platforms for sectors such as financial services, healthcare and retail, where AI applications are increasingly being explored to improve efficiency, reduce operational risk and strengthen customer engagement.

The initiative could contribute to local skills development and create job opportunities

C2 argues that the initiative could contribute to skills development and job creation. The company says expanding its ecosystem of certified partners and engineers will help deepen local expertise while creating new economic opportunities across African markets.

Looking ahead, Hiralall sees the centre as part of a broader effort to strengthen Africa's role in the global AI economy.

"By enabling local organisations to build, integrate and own their technology solutions, the initiative fosters digital inclusion and sovereignty," he states. "It ensures that African businesses are not just consumers of global tech but active participants and innovators within the global AI economy."

For Africa's technology sector, the ultimate test will be whether facilities such as this can translate AI enthusiasm into measurable deployments, expanded local expertise and sustainable digital skills development. That, rather than the number of proofs-of-concept completed, may prove the most meaningful indicator of success. ●

PHOTOS: SUPPLIED; WAYHOMESTUDIO/MAGNIFIC; RAWPIXEL; COM/MAGNIFIC



◀ Vinay Hiralall, Chief Commercial Officer at Liquid C2

◀ Mobile and cloud technologies are helping African organisations accelerate digital transformation and AI adoption



Economic opportunities

Beyond technology enablement, Liquid

Turning pilots into systems

For many African organisations, the challenge is turning promising pilots into systems that deliver measurable business value.

Many have experimented with AI through hackathons, proofs of concept and limited-scale pilot projects, yet relatively few initiatives progress to full deployment. The reasons are often less about the technology itself and more about the ecosystem needed to support it.

One obstacle is the shortage of specialist skills. Organisations may have access to AI tools but lack the cloud architects, data engineers, cybersecurity specialists and implementation partners required to integrate them into operational environments.

Infrastructure constraints can also complicate deployments, particularly where organisations must balance performance requirements, cost

pressures and data governance obligations.

A further challenge is proving return on investment. Business leaders increasingly expect AI projects to deliver tangible outcomes, whether through improved efficiency, reduced risk or better customer experiences. Demonstrating those benefits at scale can be considerably more difficult than building a successful pilot.

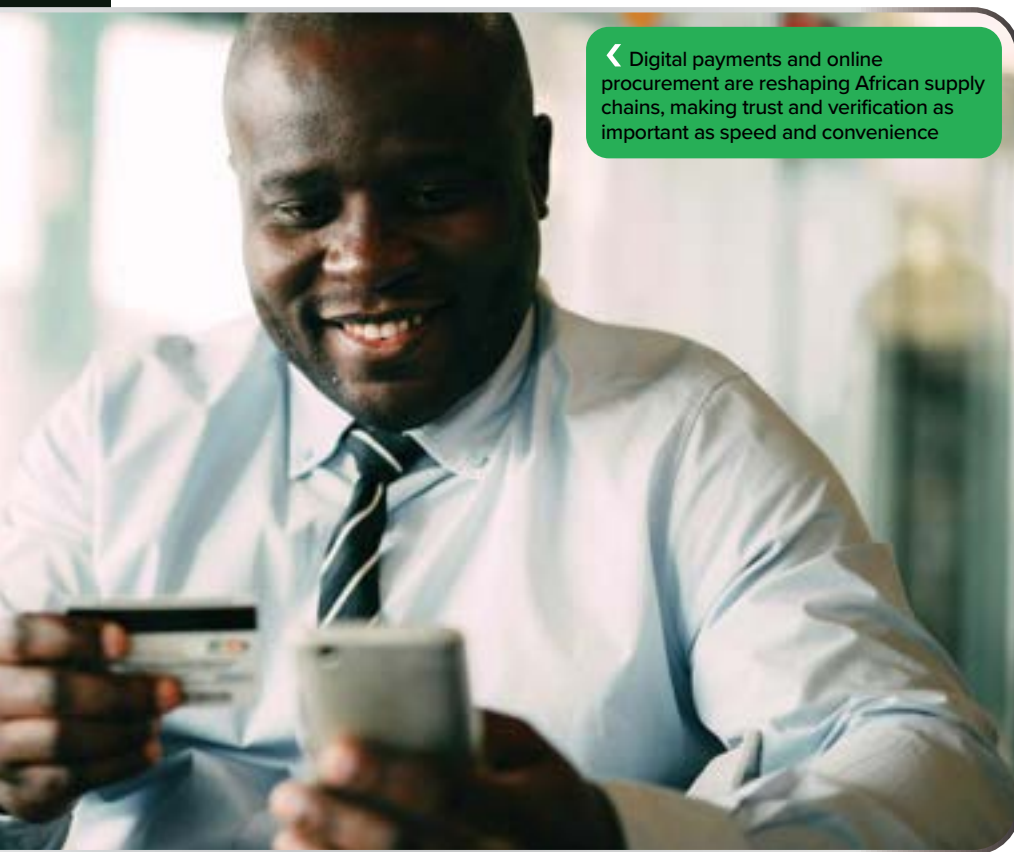
These challenges have helped fuel interest in proof-of-concept hubs, technology sandboxes and partner-enablement programmes. The idea is to give organisations a space where solutions can be tested, refined and validated before larger investments are made. Facilities such as Liquid C2's new Partner Experience Centre are part of a broader effort to bridge that gap between experimentation and implementation.

The technologies reshaping cyber resilience in African supply chains

As African businesses digitise payments, procurement and supplier management, cyber criminals are targeting the supply chain itself. New technologies are critical in the fight, says **Fiona Zerbst**.



What looks like a legitimate payment request can in fact be cyber fraud concealed within everyday business processes



◀ Digital payments and online procurement are reshaping African supply chains, making trust and verification as important as speed and convenience

African businesses have embraced digital transformation with remarkable speed. Digital platforms, mobile payments and online procurement tools are changing how organisations transact and manage suppliers. However, these same technologies are also creating new vulnerabilities.

According to Kudakwashe Charandura, director of cybersecurity at SNG Grant Thornton, cybercrime costs Africa more than US\$4-billion annually, with Nigeria, South Africa and Kenya among the most heavily targeted markets. The rapid growth of mobile internet usage has increased mobile-specific cyber threats.

As businesses move procurement, supplier onboarding and payments online, cyber risk is no longer confined to the IT department. It is increasingly becoming a supply chain issue.

Attack surface expands

For many organisations, the greatest cyber threat no longer comes from a direct attack on their own networks. It comes from the growing web of suppliers, logistics partners, payment providers and software vendors that support their operations.

The 2025 'Verizon Data Breach Investigations Report' found that third-

party involvement in breaches doubled to 30% in a single year, highlighting the growing risks within supplier ecosystems. The report also found that exploitation of vulnerabilities accounted for 20% of breaches analysed, while credential abuse remained one of the leading initial attack vectors.

This has implications for African organisations that depend on digitally connected suppliers, payment providers and logistics partners. A weakness anywhere in that network can become an entry point for fraud or a cyberattack.

"Businesses have digitised quickly, but not securely," says Paul Vos, Regional Managing Director of the Chartered Institute of Procurement & Supply (CIPS) Southern Africa. Procurement systems have become faster and more digital, but supplier verification, payment controls and fraud-awareness processes have not always kept pace.

AI is changing the game for everyone

Artificial intelligence is changing both procurement and fraud risk.

In procurement, AI can analyse data from multiple sources, identify patterns, predict outcomes and recommend actions in real time, giving organisations a more forward-looking view of supplier and

operational risk. But the same shift towards automated, digital workflows can also create openings for fraud.

In logistics, fraud is increasingly moving upstream into processes such as carrier onboarding, document exchange and payment, where spoofed credentials, fabricated documents, fake identities, compromised inboxes and cloned domains can be used to make fraudulent activity look routine. The technology challenge, therefore, is not simply to automate procurement faster, but to build stronger verification into the process.

Identity is becoming the new perimeter

Historically, organisations focused their cybersecurity efforts on protecting networks and systems. Today, the greater challenge is often proving that the person requesting a payment, changing banking details or onboarding a supplier is genuinely who they claim to be.

Many supply-chain fraud types – including business email compromise, invoice redirection and fake supplier onboarding – are identity-management failures.

As credential theft and abuse remain among the most common routes used by cyber criminals, organisations are increasingly turning to technologies such as multi-factor authentication, digital identity verification and stronger access controls to secure procurement processes.

This challenge is particularly acute in Africa's mobile-first economy. With much of the continent accessing digital services through mobile devices, SIM-swap fraud continues to feature prominently in industry reporting.

For many organisations, cyber resilience may increasingly depend on verifying identities before transactions occur, rather than investigating fraud after the money has already disappeared.

Supplier vetting and monitoring

Traditionally, supplier due diligence has been a periodic exercise. Organisations assessed vendors during onboarding, conducted occasional reviews and then largely trusted that controls remained in place.

That model is beginning to change. The US National Institute of Standards and Technology (NIST) describes cybersecurity supply chain risk management as an ongoing process of identifying, assessing and mitigating



◀ Digital connectivity is helping African businesses move faster, but stronger verification and identity controls are needed ▶ As businesses move procurement, supplier onboarding and payments online, cyber risk is increasingly becoming a supply chain issue

risks throughout the life cycle of products and services. Its guidance emphasises continuous risk management rather than one-off compliance checks.

This shift is fuelling growth in a new category of technology: supplier-risk management platforms.

These platforms are designed to provide ongoing visibility into supplier risk, helping organisations monitor external vulnerabilities, track compliance issues and identify emerging threats across their vendor ecosystems. In an environment where supplier networks are increasingly interconnected, continuous monitoring may become just as important as traditional audits.

Africa has a unique chance to leapfrog

While the cyber threat landscape is becoming more complex, Africa also has a unique opportunity.

Unlike many mature economies that must retrofit cybersecurity controls into ageing systems, many African organisations are still in the process of digitising procurement and supply chain operations. This creates an opportunity to embed stronger controls from the outset.

Recent commentary argues that AI could help Africa leapfrog traditional procurement models by improving transparency, strengthening decision-making and providing better visibility across value chains.

However, technology alone is not enough.

Vos argues that the fundamentals remain essential: supplier verification, disciplined payment controls, contractual accountability and procurement professionals trained to recognise emerging risks.

The most resilient organisations will be those that combine technology with governance, human oversight and operational discipline.

Vos believes the three most effective ways companies can strengthen their supply chain resilience right now are:

- Tightening supplier onboarding, where most vulnerabilities are introduced.
- Putting stronger controls around payments and data changes, as this

is where money tends to leak.

- Building procurement capability, so people can recognise risk and not just process transactions.

Full transformation isn't needed, he notes – but you should focus on closing the biggest gaps first.

The 'trust' advantage

Customers, suppliers and global buyers increasingly want assurance that their partners can protect data, manage cyber risk and maintain operational continuity. Organisations that can demonstrate resilience, transparency and control may gain advantages that extend well beyond compliance.

For African businesses integrating into global supply chains, cyber resilience is no longer simply a defensive necessity. It is increasingly a business capability.

The next competitive advantage may not be speed, scale or cost. It may be the ability to prove that every supplier, transaction and digital interaction can be trusted. In a world of growing uncertainty, that trust could become one of the most valuable assets a business possesses. ●

Editor's note: The author has supplied a list of references, which is available from the editor on request.

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