



The So What from BCG

PATRICIA SABGA, TOLU OYEKAN, GENE

Patricia Sabga: Imagine this, it's 2035 and the value of Pan-African trade has exploded from around \$200 billion today to roughly \$2 trillion. Tolu, what's behind that dramatic increase?

Tolu Oyekan: Well, in this 2035 of ours, the Africa Continental Free Trade area isn't an idea on paper anymore. It's a live marketplace that's powered by shared energy grids across the continent with reliable electricity, goods, and data, and even drones can move freely across the borders.

Patricia Sabga: That's Tolu Oyekan, BCG managing director and partner. And I'm Patricia Sabga. Welcome to Imagine This..., where we take a trip into the future we hope will challenge the way you think and act today.

The African Continental Free Trade Agreement, or AfCFTA, is the largest free trade bloc in the world. Encompassing 54 countries, it promises to unleash the continent's economic potential by creating a single market where goods and services flow freely. That's a game changer, and just as this trade deal is reaching full implementation, Africa is on the cusp of solving another massive problem that has also held back economic development.

Only half of Africans currently have access to reliable electricity. And with new advancements and solar energy and a renewed interest in expanding and strengthening the power grid, it's likely that all Africans will have access to reliable power within a decade. Today, we'll look at what these developments mean for Africa and the rest of the world. Also joining us is my AI cohort GENE. GENE, please introduce yourself.

GENE: I'm GENE, here to spotlight what matters, not just what's trending. Africa's energy leap isn't just about flicking on more lights, it's about powering factories, scaling startups, and finally making made-in-Africa mean business on a global scale. Execution is everything.

Patricia Sabga: So Tolu, let's start with where intra-African trade stands today and why the African Continental Free Trade Agreement is poised to radically change it a decade from now.

Tolu Oyekan: Well, today, just under 20% of total African trade is with itself. What that means is a lot of the goods, often raw materials tend to leave as low value-added products out of the market and go outside of the continent where their value is added and often re-imported at higher prices.

And so the reality is we're exporting opportunity for jobs, we're exporting opportunity for value addition, and we're also lowering the opportunity to develop the continent. This is where we are and this is what the AfCFTA is trying to resolve. So an Africa that's trading with itself decides its own future, decides its own path, increases its bargaining power in a multipolar world.

Patricia Sabga: So how then is Africa going to plug into global supply chains ten years from now?

Tolu Oyekan: Well, given the size of the continent, you have a situation where a lot of what's needed is in different parts. So East Africa, DRC, Zambia, you have a lot of critical minerals that are going to drive the future in South Africa, in North Africa, in Morocco, you have a lot of a strong industrial base, and so there's actually the opportunity for Africa to support itself and be self-sufficient in a lot of instances.

And so it's not a situation that Africa will become totally self-sufficient and not interact with others, but it'll be interacting with others in the global community from a place of strength, from a place of equal footing and considered more of an equal partner increasingly with others.

Patricia Sabga: So where have you already seen intra-African trade facilitated by the AfCFTA start to push the needle significantly on economic



development and unlocking greater value from some of Africa's raw materials, for instance?

Tolu Oyekan: Yeah, so trading really just began a few years ago in 2021. So I think it's still early days to actually get measured data on the impact that's actually occurring on the ground. Now having said that, you'll begin to see the impact of that. For example, the concept of single window systems and digital border clearings that are expected to reduce time at borders and improve trade.

For example, between Kenya and Uganda, we had...clearance used to take something like three days at the border before, but now with the implementation of some of these clearance systems, leveraging technology clearance now has dropped to a few hours and we begin to see since that was done, you've seen increased truck volumes, increased cross-border trade. And so while we don't have enough time yet to show really strong traction, the clear examples of benefits from some of the implementation of the components of AfCFTA.

Patricia Sabga: And what do you say to skeptics who think that this view of significantly more prosperity in Africa driven by free trade and universal access to electricity is naive?

Tolu Oyekan: I say, what's the alternative? Six hundred million people is over twice the population of the US, for example, without electricity. What's the alternative? A continent with so many people needing jobs, needing stronger livelihoods, what's the alternative?

Patricia Sabga: African countries have a late start in some areas compared to more mature economies, but that's not always a bad thing because instead of having to upgrade aging or obsolete infrastructure with the right investments, so many of these countries can leapfrog more developed countries. So what could an African renaissance look like and how would it differ from the West's economic development trajectory, especially with regards to things like the infrastructure needed to conduct business?

Tolu Oyekan: Yes, Africa continues to show the world this idea that it can leapfrog and move ahead. In Nigeria, where I live, for example, I'm able to transfer money instantly to any bank in the country from my bank account. So First Bank of Nigeria

customer can send money instantly to an Access Bank customer.

So this is an example of where Africa is leading and showing the world what the future can look like. Something like this could happen. Africa entrepreneurs show the world that we can innovate through crazy and challenging contexts. So electricity is a non-negotiable, right?

But imagine you had universal electricity in Africa by 2035, and so a drone with the charged battery can go from Nairobi all the way to Accra despite the fact that the roads are not well-connected, for example, or from Lagos to Lesotho. And so that will be, despite the physical infrastructure may not be there, but with this charged fully charged battery, a drone is able to achieve the logistical requirements that are necessary.

So this could be another way where this leapfrog can be demonstrated. We are not able to anticipate what all the possible innovation could be. What we do know though is that African entrepreneurs equipped with the right enabling environment, with electricity, with the right skills, are able to design around the challenges that the continent has.

Patricia Sabga: So let's put a question to GENE where GENE is an expert and that is AI. GENE, AI, GenAI, AI agents, these are the hottest technologies of the moment. How do you see these technologies being harnessed across the African continent, especially as the continent-wide free trade agreement takes full effect?

GENE: AI in Africa will look different. Expect hyper-local solutions, voice bots in local languages, real-time price mapping for traders. GenAI will automate paperwork at borders, smooth customs and unlock regional E-commerce. AI will cut the friction out of cross-border trade.

When red tape shrinks and information flows, small businesses get to play big. Let's be honest, most African innovation comes from working around constraints, not copying Silicon Valley. With universal power generation, AI becomes the force multiplier, turning every smartphone into a trade hub.

Patricia Sabga: Does that ring true to you, Tolu?



Tolu Oyekan: Oh, absolutely, absolutely. I think a lot of the progress that we've made in Africa has been African entrepreneurs leveraging digital technologies, as GENE said, to work around constraints. And so I expect that AI and generative AI will be quite transformational across the continent as well.

Patricia Sabga: Do you think the continent will have its own sovereign AI ecosystem?

Tolu Oyekan: Right now we see that pockets of capability, whether we're talking about the programs or the code or the necessary hardware and the chips that are required, these are concentrated in particular parts of the world and not necessarily evenly distributed in other continents of the world. So it's not necessarily the case that South America has its own core capability or even Europe has its own core capability. We're seeing really two centers of excellence in the US and in China right now.

So I think Africa, like the rest of the world, will need to build up its own capabilities to ensure that once again, not to be anti-collaboration, but really to ensure that it has the right seat at the table. I think that's something that's already in the works. Africans met in Rwanda a couple months ago to discuss Africa's plans in the world of AI.

I think just as AfCFTA is trying to lower trade barriers and increase Africa's ability to collaborate on trade in general, we're seeing other avenues and AI itself is becoming a source of collaboration across the continent as well. I'm very excited about what the 54 countries together will do on AI.

Patricia Sabga: Okay, hold it right there because we're going to take a quick break, but when we come back we'll explore what it would mean for Africa. If everyone on the continent has access to reliable electricity, stay with us.

Bill Moore: Hi, I'm Bill Moore. I'm part of the team that created GENE. Stick around after the episode where GENE and I will explore the potential risks and rewards of creating a pan-African battery company.

Patricia Sabga: Welcome back to Imagine This... I'm Patricia Sabga. Let's return to our conversation with BCG's Tolu Oyekan. Tolu, you mentioned earlier that Africa is on the cusp of an energy

revolution. Right now, only about 50% of Africans have access to reliable power, but you expect it'll be near universal access ten years from now. So walk us through what it's going to take to make that happen and why you're optimistic that it will march forward.

Tolu Oyekan: Yes, I'm certainly hopeful that it will march forward and as an African, I can only be optimistic and glass half full. Now, what are the things that must happen? In my opinion, I think there are two buckets of things that we must see. I think first is we need to find a way to utilize our installed capacity appropriately, and the other is we need to make it easy to drive investments into electricity.

Today in a country like Nigeria, we have about 15,000 megawatts of installed capacity, but at any point in time, only about a third of that gets to the end customer who then only pay for about half of that. And so you see, when we are only paying for about a sixth, the system cannot really be sustainable. And so we need to find ways to drive the conversion of delivered energy into revenue at the end of the value chain.

When you think about the value chain as generation, transmission, distribution, we need to increase the amount of revenue that is generated at the distribution end of the value chain, which we can then send back all the way. So that's one thing that we need to do. Now, part of the reason the 15 megawatts in Nigeria for example, doesn't get to the end is because we need to upgrade our transmission.

We need to upgrade our grid, and so we need to make some investments in there to modernize the grid and ensure that the trapped generation capacity can be released and unlocked and the energy can flow. And then at the end of the value chain generation, at the generation plants where we have the fuels converting matter into electrons, we need to ensure that we can drive stable inputs, stable fuels to ensure that we can actually generate.

So Nigeria is an example of what the continent looks like. We have all this installed capacity, but we're not even converting that into actual electrons that people get. So I think that's a big opportunity there. The second then is we need to make it easy for investors to come in. There are some countries across the continent where government regulations



don't allow investors in the chain to collect what's called cost-reflective tariff. In electricity market, a tariff is a unit of electricity, a unit price of electricity.

And so when for a lot of different reasons, the tariffs that have been set, there's a price ceiling. So you're not able to recoup your investments appropriately, which makes the sector unattractive. So we need to, on the one hand, make the sector more attractive by ensuring that investors can recoup their investments, and on the other hand, we need to make targeted investments to ensure that our trapped installed capacity can be fully utilized.

Patricia Sabga: So where do you see most of this investment coming from, if you can overcome those challenges? Do you see foreign direct investment, more sort of domestic investment? Where does the money come from?

Tolu Oyekan: So traditional economics teaches us that when investors have a good understanding of a project and they have a good understanding of the risk of the project, and the returns on the project are attractive and appropriately match the risks, investment will flow. So I think generally I'm not one to sort of restrict where investments come. I think investments should come from where they will come from.

However, I think there is increasingly opportunity for Africa to fund its own projects. There's a tremendous amount of capital that's sitting idle in Africa in our pension funds, for example, that are increasingly growing because one of the exciting things that's happened is a lot of the countries have implemented regulations to incentivize savings. And so Africa is actually growing its savings at a really, really fast clip.

So essentially we have this capital that's sitting idle that's effectively being paid for, that's unallocated to appropriate investments that can be utilized. So while I think we should remain open, I think Africa should increasingly look to its savings to fund these electricity and other projects.

Patricia Sabga: So a lot of countries want to build more transmission lines. They want, especially with the power usage of AI and AI development, they want to build not only more capacity, but also the transmission, and transmission can be tricky. It can take a long, long time to build those lines. Do you see red tape being slashed sufficiently in order to

really change the game on electricity in Africa in ten years from now?

Tolu Oyekan: Yes, I think it's quite possible. I was just mentioning earlier that Nigeria had about 15,000 megawatts or 15 gigawatts. Egypt added 20,000 megawatts of capacity in under a decade, right? So that's one example. There's several examples around the continent where we've been able to scale these seemingly challenging barriers, and I think Egypt's ability to add that much more power into its network is an example.

So it's not impossible. It's obviously a big dream, but it's not impossible. We have examples of it. Egypt now exports power to places like Sudan and Libya after having done this. So just to give you a sense of the magnitude, if Egypt is able to bring on equivalent of all the electric capacity that's in Nigeria under a decade, then I don't really see why we cannot do this with the right collaboration.

Patricia Sabga: What about the energy mix? How big a role does sustainable energy play in this build-out and do you see Africa becoming a leader in sustainable energy?

Tolu Oyekan: I don't see why not. I saw some stats somewhere that suggest that over 50% of the solar sites in the world are in Africa, but my hypothesis would be that under 5% of solar energy is coming from Africa. So I do think renewable energies such as solar can be part of the solution and part of the mix. Having said that, though, I think Africa has resources, other resources like natural gas, that must also be part of the solution. Otherwise, we're not going to achieve the amount of access that we want to over the next decade.

Patricia Sabga: GENE has a question. Go ahead, GENE.

GENE: Africa's solar footprint is massive. Sunlight, land, critical minerals all in play. If the continent leapfrogs to decentralized renewables, it could lead not just in supply, but in energy innovation. Will African policy tilt decisively toward local ownership and new grid models or default to imported structures and old power dynamics?

Tolu Oyekan: Well, I think we must continue to collaborate with the world, but we must also begin to develop local capacity, and that includes



increasing the value addition to the critical minerals that are being produced on the continent and includes making batteries on the continent. There's no reason, for example, why copper and cobalt from Zambia or DRC are not sent over to be converted into batteries in South Africa that already has a strong automotive sector and those batteries shipped across the continent.

So I think there's opportunity to, for sure, localize and we need to prioritize technical training, support domestic assembly of some of these important products, and then we can even begin to support the world in the upcoming energy transition and EV revolution. And so we become a supplier to the world as well if we do this right.

Patricia Sabga: So let's dive into that battery example a little bit deeper because you've got the critical minerals, but then, as you said, you have to ship it. Tell me about the challenges that currently exist and what are some of the ways that Africans are likely to innovate around again, the infrastructure challenges of getting goods across borders to other African nations?

Tolu Oyekan: My view is given that these minerals are already being shipped around the world, sometimes we move from landlocked countries then onto the shore and then shipped overseas to the East or to the West. My perspective is that it cannot be that difficult to move them across the continent.

I think what's more needed is full implementation of the Africa Continental Free Trade area because I think once we start to look inward as the potential source of value addition, once East Africa starts to look at South Africa as where value addition to those critical minerals can be made, then we start to sort of see the value. So I'm not convinced that infrastructure challenges are the limitation, given how we are already overcoming some of those infrastructure challenges to get these critical minerals out.

Patricia Sabga: So GENE loves to throw cold water on our conversations and be the ultimate skeptic. So GENE, what could upend this future for Africa of free trade and universal access to electricity?

GENE: Plenty could disrupt this future policy: backtracks, tariff freezes, or sudden currency swings. Weak utility governance can stall progress, supply chain hiccups for panels or batteries, even local

pushback to new power corridors. All real risks, honestly, the biggest threat is policy whiplash. Investors can price tech risks. They can't price chaos.

Patricia Sabga: Do You agree with that, Tolu?

Tolu Oyekan: It's a valid perspective and it's fair given evidence from the past. Yes, governance is uneven. Yes, supply chains are not as connected. Yes, infrastructure is challenging, but quite frankly we see a lot of innovations despite all these challenges. Africa's entrepreneurs today are able to build. In fact, they don't only build for volatility, they build around volatility.

So these are not real challenges for me. The way I think about it is you have 600 million people or so that are still off the grid. Doing nothing, in my opinion, is the unrealistic option, not dreaming that this can happen. And we're talking about a tenfold increase in trade, Patricia, even a fivefold increase would be a revolution. And so my perspective is full steam ahead. Let's get going.

Patricia Sabga: So if it's full steam ahead, what is one no-regret move that CEOs in Africa and elsewhere around the world can do now to prepare to really thrive and prosper in this future?

Tolu Oyekan: If there's one no-regret move for private sector, for public sector, I would say it's to power and connect Africa now. And that's physically with energy, that's commercially through AfCFTA and also digitally leveraging data and payments. I think everything else builds on top of that. On the energy front, we need to continue to invest in energy interconnectedness across the countries.

Research has shown that when we have energy pooling, for example, we're able to reduce costs and improve reliability. And I think the thing about digital infrastructure is that it can be cheaper than physical ones. And even more effective things such as PAPSS, which is the Pan-African Payments and Settlement System can be further scaled. It's already clearing millions in regional transactions today. And so that's proof that that connection has value. And so focusing on powering and connecting Africa now would be what I recommend.

Patricia Sabga: That's Tolu Oyekan, BCG managing director and partner. Stick around, our AI



handler, Bill Moore will ask GENE to explore how drones can help close Africa's transport infrastructure gaps.

Bill Moore: Hi, I'm Bill Moore. I'm part of the team that created GENE. Today GENE, I'd like you to play the role of the CEO of a Pan-African startup that is planning to manufacture batteries. I'll play the role of an investor looking to make returns on a ten-year horizon.

GENE: Bill, thanks for taking this meeting. The continent sits on over 70% of global cobalt, significant lithium, manganese, graphite. Right now, most of that ships raw overseas. We're building the infrastructure to process it here and capture the value locally. So what's your first concern?

Bill Moore: GENE, Africa's been resource-rich forever, but those minerals still leave as ore, not batteries. What makes you think this time is actually different?

GENE: Fair question. What's different now is the infrastructure equation finally pencils out. For decades you couldn't process locally because power was unreliable or it didn't exist at all. By 2030, we're hitting near universal electricity access across the continent. That means you can run energy-intensive refining and sell production at scale.

Plus the recent African Free Trade Agreement removes tariff walls between 54 countries. Suddenly you're not stuck exporting raw cobalt and buying back finished cells at markup. You can move materials from DRC to a Moroccan gigafactory tariff-free, build the value chain regionally, keep more margin onshore. It's not hope, Bill, it's timing. The fundamentals just flipped.

Bill Moore: Okay, but even with power and trade agreements, where's the technical know-how? Battery manufacturing is complex. Who's actually going to build and run these plants?

GENE: We're not starting from zero. South Africa and Morocco already have automotive and industrial manufacturing ecosystems, skilled engineers, quality control and supply chain management. We're partnering with technical institutes across the region to build battery-specific training programs. Hire locally, upscale fast. We're

licensing proven cell designs then optimizing for regional conditions.

The hard part isn't the tech. It's coordinating mineral flows, power, reliability, and logistics. That's where drone delivery starts to matter. We can move critical components, cathode materials, even small battery packs across borders without waiting for roads to get paved. Drones let us operate faster than infrastructure can catch up.

Bill Moore: GENE, this is all sounding very promising on paper, but coordinating across multiple countries, different regulations, political risk. What happens if one government changes the rules or nationalizes a mine? How do you de-risk this?

GENE: Honestly, you can't eliminate political risk, but you can design around it. We're structuring this as a consortium, not one company owning everything end-to-end. Local partners hold stakes in each node, mining, processing, assembly, that way governments have skin in the game. They benefit from jobs, tax revenue, industrial capacity. We are also diversifying sourcing—if one country tightens export rules.

We've got lithium from Zimbabwe, cobalt from DRC and Zambia, graphite from Mozambique, and the new trade agreement gives us legal frameworks for dispute resolution across borders. Look, Bill, ten years ago, this would've been too fragile. But the trade agreement, the power build-out, the regional cooperation, they're all moving in the same direction. By 2035, Africa won't just supply batteries, it'll be a battery superpower.

Bill Moore: You've convinced me, GENE. Thank you. This is Bill Moore signing off.

GENE: This episode was made possible by Tolu Oyekan generously sharing his insights with us, and also by BCG's AI whisperer Bill Moore, and BCGs pod squad, producer Michael May, composer Kenny Kusiak, and sound engineer George Drabing Hicks. Please subscribe and leave a rating wherever you found us.