Clean Technology Hub
Energy Innovation Centre

Clean Technology Hub Business Case Study Series: SAGLEV

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October, 2025

CTHBCSS/006

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SAGLEV

This case study was written by David Inalegwu David, Kolade Kolawole and Abel B.S. Gaiya. It was compiled primarily using information from an interview with the company's Chairman and CEO.

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Introduction: The global pivot to sustainable mobility

The twenty-first century is witnessing a profound shift in the way humanity moves people, goods, and services. After more than a century of reliance on internal combustion engines (ICEs), the global adoption of electric mobility is being driven by a confluence of economic realignment, technological advancements, and climate imperatives.

Global sales of electric cars increased by more than 25% to reach 17 million in 2024. The total number of electric vehicles delivered in 2020 is surpassed only by the 3.5 million more vehicles sold in 2024 than in 2023[1]. The rapid rise in sales of electric cars over the past five years has had a substantial impact on the global automobile fleet. By the end of 2024, there were about 58 million electric cars on the road, which accounted for roughly 4% of all passenger cars and more than tripled the number of electric cars in 2021[2].

Governments have set ambitious timelines to phase out fossil-fuel vehicles[3], and capital investment in the EV sector has surged to meet both regulatory and consumer demand. Nigeria, Africa's most populous country, represents both the challenge and the promise of this transition. The removal of the long-standing petrol subsidy in June 2023 triggered sharp increases in transport costs, challenging assumptions about affordability and sparking a search for alternatives. At the same time, Nigeria's Energy Transition Plan introduced in

[1] IEA Golbal EV Outlook 2025: Expanding sales in diverse markets. https://iea.blob.core.windows.net/assets/7ea38b60-3033-42a6-9589-71134f4229f4/GlobalEVOutlook2025.pdf

[2] IEA Golbal EV Outlook 2025: Expanding sales in diverse markets. https://iea.blob.core.windows.net/assets/7ea38b60-3033-42a6-9589-71134f4229f4/GlobalEVOutlook2025.pdf

[3] Khan, H. (2021, May 25). "List of countries planning to phase out fossil fuel vehicles". Eventackle Intelligence. Retrieved August 15, 2025 from https://intelligence.eventackle.com/list-of-countries-planning-to-phaseout-fossil-fuel-vehicles/#:~:text=The%20Irish%20government%20plans%20to%20ban%20the,gas%2Dpowered%202%2D%20and%203%2Dwheeled%20vehicles%20by%202025.

2022, sets ambitious targets for EV adoption in support of the 2060 net-zero goal. By 2050, electric vehicles will account for 60% of the market, and by 2060, they will account for 100%[4].

In light of this, the need for practical, local pathways to electric mobility is evident. Solutions must balance global momentum with local realities: reducing operating costs for drivers, creating skilled jobs, and embedding warranty and after-sales service within the region. The SAGLEV Electromobility Company Nigeria Limited was established with this vision, founded by a Nigerian entrepreneur with global experience. SAGLEV is establishing itself as one of the first credible local EV assemblers in the nation. A company confident that building capacity on Nigerian soil will provide both a commercial edge and a developmental contribution

The founder's journey: from early conviction to operational reality

The story of SAGLEV is rooted in the conviction of its founder and CEO, Dr. Olugbenga Samuel Faleye, a medical doctor specializing in internal medicine and clinical informatics. Having spent more than three decades in the United States, Dr. Faleye was one of the early adopters of electric vehicles (EVs). Around 2012, he made his first EV purchase, a Tesla, which gave him firsthand knowledge of the technology's advantages and limitations. Over time, his conviction grew that electric mobility would not only dominate advanced markets but would also find a place in Africa once fuel price dynamics shifted.

The parent company, SAGLEV Incorporated, was established in Delaware, USA, and later registered in Nigeria and Ghana as SAGLEV Electromobility Company Limited. The name SAGLEV[5] was created from the initials of pioneering figures in EV and battery technology:

[4] https://energytransition.gov.ng/transports/
[5] For Dr. Faleye, it is intentional and strategic to have EV as the last two alphabets in the name SAGLEV.

Sibrandus **S**tratingh[6], Robert **A**nderson[7], Carl **G**asner[8], George **L**eclanché[9], Thomas **E**dison[10], and Alexandro **V**olta[11].

SAGLEV is solely focused on the local assembly and distribution of battery electric vehicles (BEVs): BRT buses, 18-passenger buses, SUVs, and other models. Rather than following the path of importation, SAGLEV chose to pursue a more ambitious approach: establishing an assembly facility in Nigeria. The reason was obvious, importation would limit value addition to just distribution and would leave customers dependent on foreign after-sales channels. On the other hand, the local assembly could deliver three strategic benefits:

1. Technology transfer to Nigeria and the creation of skilled jobs,
2. Credible after-sales service and warranty backed by a global OEM,
3. A clear pathway towards deeper local content and industrial development.

> *"I could easily import cars and sell them, but that doesn't create jobs, doesn't transfer knowledge, and doesn't solve the after-sales problem. Assembly here in Nigeria was the only pathway that made sense."*
>
> Dr. Olugbenga Samuel Faleye

SAGLEV was fully bootstrapped since external investors were sceptical of a long-term, capital-intensive enterprise in a nascent market. Although self-funding temporarily slowed expansion, it gave the company the ability to retain control of its roadmap and credibility in negotiations with partners.

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[6] "The world's first electric car". (2025, January 09). University Museum. Retrieved August 10 from https://www.rug.nl/museum/collections/collection-stories/wagentje-van-stratingh?lang=en#:~:text=Stratingh%20realized%20he%20could%20generate,the%20canal%20near%20his%20house.

[7] "1832–1839 Robert Anderson's Electric Carriage". (2024, December 13).Story Cars. Retrieved August 10 from https://www.story-cars.com/1832-1839-robert-anderson-s-electric-carriage

[8] Bobby (2014, June 10). "Carl Gassner (1855–1942)". Upsbatterycenter.com. Retrieved August 15, 2025 from https://blog.upsbatterycenter.com/carl-gassner-1855-1942/

[9] "Georges Leclanché". (n.d.). Britannica. Retrieved August 10 from https://www.britannica.com/biography/Georges-Leclanche

[10] "Batteries: Types and History". (n.d.). Edison Tech Center. Retrieved September 1, from https://edisontechcenter.org/batteries.html#edison

[11] "Alexandro Volta". (n.d.). Britannica. Retrieved August 10 from https://www.britannica.com/biography/Alessandro-Volta

Establishing the plant: capacity, partnership and local grounding

At the heart of SAGLEV's operations is its assembly facility in Imota, Lagos State. The plant, which is between 5,000 and 8,000 square meters in size, is set up to assemble battery-electric four-wheelers in a semi-knock-down (SKD) fashion with the possibility of progressing to a complete knock-down (CKD). The facility has an installed capacity of 2,500 units annually on a single shift, scalable to 10,000 units annually with additional shifts and weekend operations. In the next two years, staff strength is projected to rise to over 120 and more than 400 in five years across the technical, assembly, and administrative departments.

The commissioning was delayed relative to original plans; assembly was initially targeted for November 2023 but actually commenced in 2024/2025. Nevertheless, reaching production marked a significant milestone: SAGLEV became one of the first indigenous EV assemblers to begin tangible operations in Nigeria.

SAGLEV currently has a workforce of about 35 staff, complemented by 18 fully trained EV technicians. These technicians, trained through a combination of classroom and practical modules, can disassemble and reassemble EVs entirely, a marker of deep technical competence. The emphasis on training was deliberate, as one cannot credibly sell or service EVs without a locally grounded technical workforce, according to Dr. Sam. These technicians not only ensure quality assembly and after-sales service but also act as ambassadors for EV technology, seeding knowledge in a country where electric mobility is growing.

The company's collaboration and partnership with Dongfeng, a major Chinese original equipment manufacturer (OEM), is a vital enabler of this capability. Dongfeng provides parts, technical support, and warranty underwriting, while SAGLEV provides assembly labour and local market engagement. The arrangement gives SAGLEV credibility in guaranteeing dependable parts and warranty structures, overcoming one of the biggest concerns consumers and fleet operators have about EVs in Africa.

> *The target is that we are not interested in just bringing cars; we want to be able to make sure that we have the warranty, which is underwritten by Dongfeng, so the warranty you see for our cars is not just SAGLEV. We do the labour, but our cars have the same warranty Dongfeng gives their cars in Asia. All the parts are available, all the support, training, education, everything. It's a grand plan because I can assure you that in Nigeria, there are going to be more electric vehicles on the road than any CNG shortly."*
>
> Dr. Olugbenga Samuel Faleye

Interaction with the Government

A central pillar of SAGLEV's establishment and continued growth in Nigeria has been its close interaction and sustained collaboration with the National Automotive Design and Development Council (NADDC). The first point of engagement occurred under the leadership of former NADDC Director General Jelani Aliyu, a U.S.-trained automotive designer best known for his role in designing the Chevrolet Bolt at General Motors. During the formative years, SAGLEV worked almost daily with NADDC to navigate critical questions around assembly plant establishment, Semi-Knockdown (SKD) processes, licensing, facility inspection, and compliance with the National Automotive Industry Development Plan (NAIDP). This relationship has continued under the current NADDC Director General, Joseph Oluwemimo Osanipin, whose leadership has been described by SAGLEV as highly responsive and solution-oriented. In practice, NADDC serves as both a regulatory authority - responsible for licensing, facility inspections, and enforcement of compliance and as a strategic partner, facilitating SAGLEV's ability to operate within Nigeria's evolving automotive ecosystem. Beyond direct regulatory functions, NADDC's role in training, capacity building, and ecosystem strengthening has also been emphasized. SAGLEV characterizes its relationship with NADDC as indispensable, not merely as a regulator but as a partner whose mandate and actions have been essential to enabling its establishment, licensing, and growth in Nigeria's automotive industry.

SAGLEV EV model

SAGLEV EV model

VOYAH PASSION

BATTERY CAPACITY : 87.5/109KWH
RANGE : 580KM ~ 730KM
TORQUE : 790NM
ENERGY TYPE : PURE ELECTRIC
VARIATION : 2 VARIANTS OF PREMIUM LUXURY SRAND
MAX SPEED : 210 ~ 205KM/H

R6 EV PICKUP

BATTERY CAPACITY : 67KWH
RANGE : 350KM - 403KM (EXT)
TORQUE : 420NM
ENERGY TYPE : PURE ELECTRIC
MAX SPEED : 120KM/H

SAGLEV YIPAI 008

BATTERY CAPACITY : 82.28KWH
RANGE : 636KM
TORQUE : 340NM
ENERGY TYPE : PURE ELECTRIC
VARIATION : 2 VARIANTS THE EXTENDED RANGE OPTION COMBINES ICE WITH THE ELECTRIC

M-HERO 917

BATTERY CAPACITY : 191 - 195KWH
RANGE : 505KM/200KM & 1026KM (EXT)
TORQUE : 16,200NM/11,592NM
ENERGY TYPE : ELECTRIC
ENGINE : 94HP
VARIATION : 2 VARIANTS OF LUXURY M-HERO
MAX SPEED : 800KM/H ~ 600KM/H

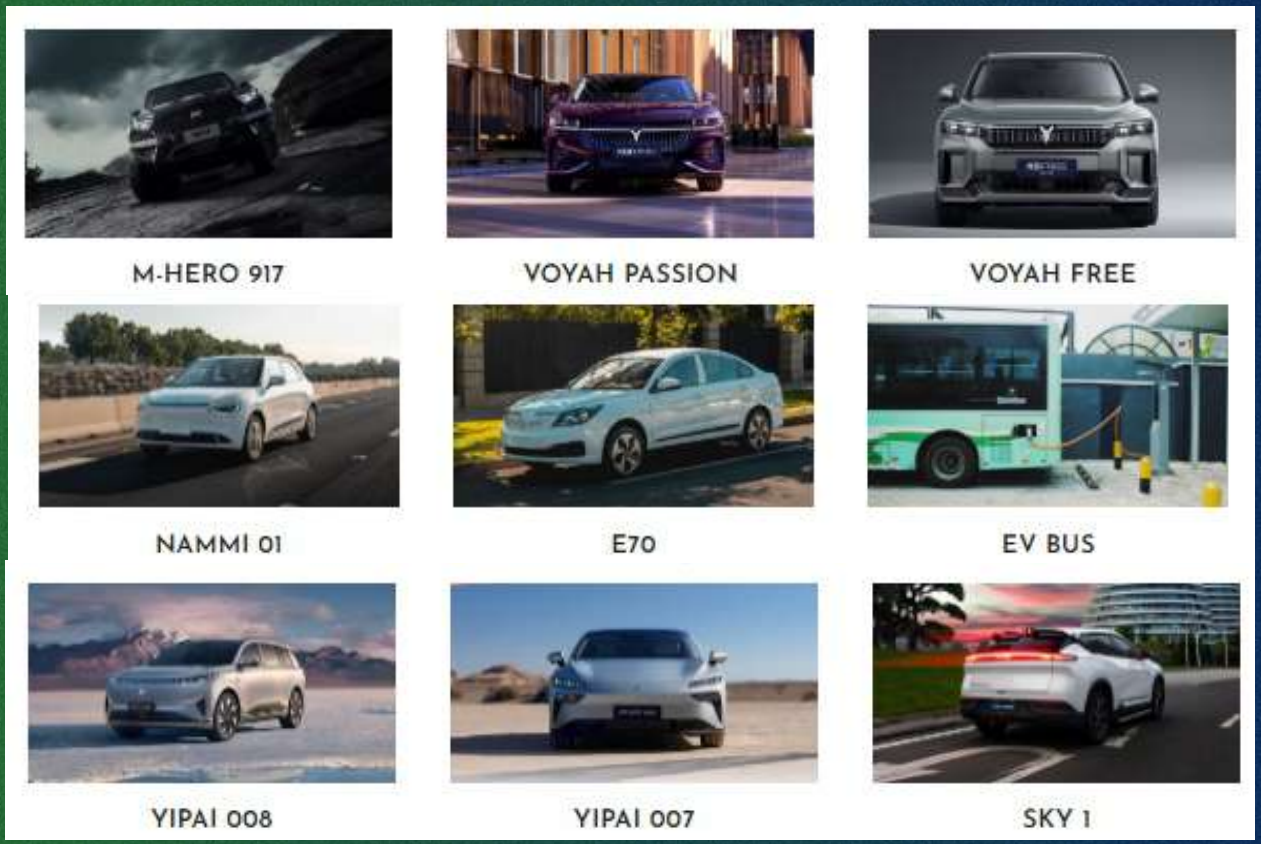
VOYAH DREAM

BATTERY CAPACITY : 108.7KWH
RANGE : 605KM
TORQUE : 620NM
ENERGY TYPE : EV
ENGINE : 320HP
VARIATION : EV N3
MAX SPEED : 200KM

SAGLEV EC 75

BATTERY CAPACITY : 41.86/50.38KWH
RANGE : 240/285KM
TORQUE : 230NM
ENERGY TYPE : EV
ENGINE : 94HP
MAX SPEED : 242KM

SAGLEV EV model



Source: https://saglev-media.s3-accelerate.amazonaws.com/2025%2F02%2FSAGLEV-CAR-BROCHURE-PORTRAIT-5.pdf
https://saglev.com/models/

Lessons and reflections

From SAGLEV's experience, several practical lessons emerge for entrepreneurs, policymakers, and funders aiming to support an African EV industry:

1. **Regulatory clarity and predictable incentives are decisive:**
Ambiguous or rapidly shifting import duty/VAT rules and weakly defined licensing processes materially slow investment and create unmanageable risk for manufacturers. Addressing that uncertainty should be a top policy priority.

2. **Local skills development is non-negotiable:**
SAGLEV's investment in training EV technicians shows that technical capacity underpins credible assembly and after-sales service and is a multiplier for broader industrialisation.

3. **Financing remains the main bottleneck:**
Even when EVs deliver superior operating economics for ride-hailing fleets and other high-mileage users, adoption stalls without tailored, affordable financing products. Innovative asset-backed lending, inventory finance, and concessional windows will unlock rapid uptake.

4. **Proof-of-concept via self-funding can be strategically powerful:**
By self-financing early assembly and demonstrating demand and operational capability, SAGLEV reduced information asymmetry and created better negotiating leverage with financiers. That path is costly, but it materially de-risks the opportunity for later investors.

5. **Market timing matters:**
The removal of Nigeria's fuel subsidy in June 2023 materially accelerated demand, validating SAGLEV's thesis that macroeconomic shifts (fuel pricing) can convert latent interest into an immediate market opportunity.

Conclusion: A pathway for Africa's electromobility transition

SAGLEV's case demonstrates the complex mix of ambition, pragmatism, and perseverance required to build an EV industry in Africa. It is not simply a story of technology transfer but of aligning global momentum with local realities such as high petrol prices, financing gaps, regulatory ambiguity, and a pressing need for job creation.

By establishing SKD assembly, partnering with a major OEM, training local technicians, and targeting high-mileage fleets, SAGLEV offers a practical pathway to sustainable mobility in Nigeria. While challenges remain, particularly in financing and regulatory clarity, the company's early progress illustrates how indigenous initiatives can complement global trends and help Africa carve out its place in the EV future.

The coming years will determine whether SAGLEV can scale from dozens of cars to thousands and whether Nigeria can leverage such initiatives to anchor a broader industrial and sustainable mobility ecosystem. Either way, the company's journey provides invaluable lessons for policymakers, investors, and entrepreneurs across the continent

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