
Case study

Insight

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Using flexible debt to support capital- intensive e-mobility businesses

Early lessons from our
Climate Innovation Facility



Practical thinking on investing for development

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01

Introduction

At BII, we provide capital in many ways: direct equity, debt, intermediated investments (funds, for example), guarantees and trade finance. Each product has different benefits, so a flexible approach helps us achieve a wider range of impact objectives and meet the needs of each business.

Introduced in 2021, our Climate Innovation Facility has a highly catalytic, climate-focused investment mandate. This lets us test, seed, and scale cutting-edge technologies or unproven business models and strategies with the potential for transformational climate impact in Africa, Asia and the Caribbean.

Through the facility, we use catalytic capital in different ways, including offering debt on flexible terms to help early-stage companies test and scale climate innovations, and reducing capital risk to mobilise private investment in emerging markets. Our focus includes productive use of renewable energy (PURE), agriculture and forestry, and green infrastructure.

All investments made through the facility must align with the DFI Blended Finance Principles published by the International Finance Corporation (IFC)¹, which include providing a clear rationale for concessional finance, minimising use of concessionality, supporting a graduation to more commercial capital, reinforcing markets, and promoting high standards.

While the Climate Innovation Facility is a relatively new facility, we are keen to share early lessons from our experience investing using this catalytic capital. In this case study, we focus on how our flexible debt product has helped capital-intensive e-mobility businesses in East Africa and India overcome challenges in the market. We hope these insights will help to inform other like-minded investors on similar journeys.

Contents

1. Introduction	2
2. Flexible debt to support capital intensive technologies	3
3. How flexible debt can support E-mobility solutions	4
4. Insights from investments	5
4.1 BasiGo (Kenya and Rwanda)	5
4.2 Loadshare Networks (India)	7
5. Lessons learned	8

¹ IFC: [How Blended Finance Works, DFI Enhanced Blended Concessional Finance Principles for Private Sector Projects](#)



02

Flexible debt to support capital-intensive technologies

Our flexible debt product provides flexibility on key terms (including tenor, seniority, currency and repayment profile) and has a higher risk tolerance than our core investment strategies. We use it to support companies to scale climate technologies and business models, often where they have significant capital requirements and suitable funding is not available in the market. Our flexible debt typically has the following features:

- **Catalytic and patient:** Businesses testing new innovations or business models in nascent markets frequently face higher costs as first movers. They also often need to course-correct based on early learnings, and require longer timelines before achieving economies of scale efficiencies in their operations. Lower-cost debt, or longer tenors, help these businesses to navigate early-stage uncertainties, sustain operations through pilot phases, and position themselves for commercial viability.
- **High market additionality:** Commercial lenders are often unwilling to lend to companies testing new climate technologies because of real or perceived sector or country-specific risks. When they do lend, the terms or costs are often too high for the project to be viable. Debt financing from our Climate Innovation Facility not only helps bridge this gap, but also demonstrates to other investors that investing in the technology or sector can be profitable.
- **Non-dilutive:** Capital-intensive businesses usually can't rely on funding their expansion through equity alone, because they struggle to deliver the returns equity investors expect. Our flexible debt provides companies with the funds needed for growth while also helping to unlock further equity investment. This is critical for making sure high-risk climate technologies have an opportunity to scale in our focus markets.
- **Tailored structures:** We can adapt the seniority, currency, and repayment terms based on the stage of the company or technology.

Lower-cost debt, or longer tenors, help businesses to navigate early-stage uncertainties



03

How flexible debt can support e-mobility solutions

E-mobility has the potential to reduce greenhouse gas (GHG) emissions, improve air quality and create green jobs across our markets. However, the sector still faces barriers that hold back its growth. These challenges vary by market, and are influenced by factors such as technology readiness, infrastructure availability, policy and regulatory environments, and financial sector maturity.

In sub-Saharan Africa, the sector faces multiple constraints, such as a lack of charging infrastructure, unreliable or limited access to the power grid in some areas, and high upfront and financing costs for consumers. A limited number of asset financiers provide consumer financing to buy electric vehicles (EVs), and most banks are uncomfortable lending to wholesale EV financiers. These factors have driven up the cost of financing and reduced EV uptake. Importing vehicles or parts also poses a challenge for EV companies and equipment manufacturers, as delays can tie up working capital and raise overall financing needs.

In India, financing remains the key hurdle, but infrastructure and market maturity are improving. Expanding charging networks, local manufacturing, and government subsidies are lowering costs and increasing adoption. While concerns about the value of second or third-hand EVs persist, they are less of a barrier than in sub-Saharan Africa due to a more developed second-hand market. Urban mobility dominates, reducing concerns over range anxiety since most electric two-wheelers and three-wheelers operate within cities. Although sub-Saharan Africa and India have different challenges, businesses in both markets face financing gaps preventing them from adopting EVs at scale. In both contexts, our flexible debt helps businesses overcome these barriers by providing patient, risk-tolerant capital that:

Reduces risk perceptions	Builds infrastructure	Tests pathways to affordability	Attracts additional capital
Many businesses struggle to secure financing because lenders are sceptical about technology readiness and market demand. Flexible debt helps bridge this gap by providing early-stage capital.	Large-scale investments in critical assets, such as charging stations and service hubs, are essential for e-mobility adoption. Our investments are supporting the build-out of infrastructure ahead of demand, reducing range anxiety for drivers.	We enable innovative financing and leasing models that reduce upfront costs for operators and drivers.	Demonstrating early success creates a pathway for more commercial investors to enter the market, increasing long-term private sector involvement.



04

Insights from investments

BasiGo (Kenya and Rwanda)

The challenge

In Nairobi, there are approximately 20,000 diesel buses which are a major source of emissions. Kenya's transport sector accounts for 13 per cent of the country's total GHG emissions, contributing significantly to poor air quality.² With Nairobi's population growing, and demand for public transport increasing, transitioning to e-buses is critical for reducing pollution and ensuring sustainable urban mobility.

The solution

BasiGo is pioneering electric mass transit in Africa with its 'pay-as-you-drive' (PAYD) leasing model, helping bus operators in Kenya and Rwanda to transition to e-buses without high upfront costs. Banks in these markets are not yet familiar with e-buses as an asset class, and with no secondary market, they have so far been unwilling to finance direct purchases by operators. BasiGo addresses this challenge by retaining ownership of the buses and offering leasing options, which reduces the technology risk for operators, making e-bus adoption more feasible. At the time of our investment, BasiGo had deployed 19 e-buses and had a waitlist of over 150 operators. Although operator demand was high, the company still had to prove that its PAYD model could deliver strong unit economics while scaling into a sustainable, profitable business.

20,000

diesel buses in use across Nairobi

\$5m

initial investment in BasiGo in 2023, followed by a \$7.5 million loan in 2024

² World Bank (2023) [Country Climate and Development Report – Kenya Transport Sector Background Note](#)

The role of our flexible debt

Our first \$5 million loan to BasiGo provided patient capital at a critical stage, enabling it to shift from buying limited amounts of fully assembled e-buses, to local assembly of e-bus kits in larger volumes. This significantly reduced per-unit costs and improved operational efficiency. The loan was structured to be disbursed in stages, with each tranche linked to BasiGo raising matching equity. This ensured debt levels stayed manageable, while also encouraging the company to bring in more investors for its next round of funding. By providing flexible, early-stage funding in this way, we helped BasiGo scale in line with demand, when most lenders – including impact debt funds – were reluctant to provide financing due to the company's limited track record. Relying solely on equity would have reduced BasiGo's ability to scale quickly, making it harder to achieve strong unit economics. By contrast, the flexible debt we provided also helped make the business a more compelling investment prospect to future equity investors.

Owing to these early successes in Kenya – proving demand for e-buses, validating the PAYD model, and demonstrating strong e-bus reliability – BasiGo could expand into Rwanda, launching a four-bus pilot in Kigali in 2023. We supported this expansion with a follow-on \$7.5 million loan, enabling BasiGo to scale up its Rwanda fleet and charging infrastructure. Rwanda's regulatory environment differs from Kenya's, with fewer, larger operators and a centralised 'tap-and-go' fare collection system. This let BasiGo link lease payments directly to fare collection, cutting down on cash-handling risks. The pilot covered over 70,000km with no unexpected breakdowns or service interruptions, demonstrating demand and reliability.

Impact to date

By March 2025, BasiGo had expanded its e-bus fleet to 55, helping to avoid an estimated 1,611 tonnes of CO₂ emissions that would have been generated by internal combustion-engine (ICE) buses, while also reducing other harmful pollutants. The transition to e-buses has also made commuting better and increased operator revenues. BasiGo's data from Kenya shows that bus operators' earnings have increased by at least 20 per cent.

Traditional diesel buses in Nairobi are often poorly maintained, highly polluting, and unsafe, making electric alternatives particularly attractive to both commuters and policymakers. The Rwandan government has set a target of 20 per cent electric buses by 2030³, making businesses like BasiGo essential in driving the transition.

Our loan strengthened BasiGo's credibility in both markets, by proving e-bus leasing was a viable model capable of attracting new funding. Since our investment, BasiGo has closed \$14 million in new money through their Series A and raised \$10 million in additional debt from U.S. Development Finance Corporation (DFC). BasiGo now has positive gross margins on its PAYD model, a direct result from the scale that the Climate Innovation Facility loan helped them achieve. The capital has therefore helped BasiGo to scale faster, secure bulk orders, and reduce costs, setting the stage for long-term sustainability.



Before BII's investment, we relied heavily on equity financing, and scaling was slow. The debt facility allowed us to bulk-order buses, drastically improving our cost structure.

Jonathan Green

Co-founder and CFO, BasiGo

3 UN Environment Programme (2022): ['In face of rising air pollution Rwanda turns to electric vehicles'](#)

Loadshare Networks (India)

The challenge

India's last-mile logistics sector has grown rapidly in recent years, driven by the expansion of e-commerce and hyperlocal delivery services. However, this has also led to a significant rise in transport emissions, with last-mile deliveries accounting for a large share of total CO₂ emissions from major e-commerce companies.

By removing the need for fuel, EVs eliminate CO₂ emissions and have lower running costs than ICE vehicles. Yet adoption remains low due to the lack of affordable financing. Lenders are hesitant to provide financing for EVs due to concerns about battery life, resale value, and the absence of a second-hand market, leading to interest rates for EV financing being nearly double those for ICE vehicles.

The solution

Loadshare, a last-mile logistics provider working with major e-commerce platforms, is addressing this financing gap through a pilot to lease electric two-wheelers (E2Ws) to riders. A key element of the Loadshare model is leveraging India's existing battery-swapping infrastructure to remove the upfront cost of purchasing batteries, cutting the price of an E2W from approximately 100,000 to 50,000 rupees. Battery rental fees mean that daily operating costs for riders are slightly higher than if they owned their own batteries and could charge them at home. However, both the upfront and daily running costs are significantly lower than those of an ICE two-wheeler. This has helped Loadshare bring new riders onto their platform who didn't previously own bikes, creating new jobs and income opportunities.

The role of our flexible debt

Our \$5 million loan is helping Loadshare to expand its EV pilot and gather real-world data on vehicle performance and driver economics. Loadshare had found commercial banks were unwilling to finance EVs, and non-bank financial companies (NBFCs) charged interest rates as high as 18 to 28 per cent – nearly double the 10 per cent typical for ICE vehicles – making leasing financially unviable.

Beyond providing Loadshare with a lower margin, the flexibility of our Climate Innovation Facility was key. A grace period gave the company time to adjust its model during the pilot's early stages, and the loan was split into three tranches to match financing with performance milestones and repayment capacity. Other lenders couldn't offer this level of flexibility, which played a key role in de-risking the EV model scale up. With patient, risk-tolerant capital in place and more than 1,800 E2Ws deployed (800 of which were financed through our facility), Loadshare has since received offers at much lower interest rates from NBFCs for EV financing than before. By creating the commercial demand for E2W riders, Loadshare acts as a strong counterparty, helping lenders get comfortable with financing the commercial E2W sector.

Impact to date

Loadshare plans to expand to 4,400 EVs, creating green jobs for riders and avoiding more than 4,880 tCO_{2e} annually. Although EV riders often travel more slowly and spend time swapping batteries, their operating costs can be as low as 1.25 rupees per kilometre – around half the cost of ICE vehicles, increasing overall rider profits. By proving the commercial viability of EV fleets through real-time data on vehicle and driver profitability, along with successful pilot results, Loadshare is boosting lender confidence and unlocking broader private sector investment in India's sustainable logistics sector.



The flexibility BII provided in terms of grace period and disbursement in tranches was critical to enable us to course correct and ensure we can repay debt - we haven't seen this kind of flexibility from other lenders.

Abhinandan Raghuthaman
CFO, Loadshare Networks



05

Lessons learned

Although our flexible debt investments are still at an early stage, initial findings offer valuable insights into how to support capital-intensive climate technologies in emerging markets:

Timely, flexible debt enables early movers to scale and prove new markets quickly

Flexible debt deployed at the right time lets early-stage businesses scale faster. It improves unit economics, accelerates the path to breakeven, and increases the chances of long-term sustainability. This makes businesses more attractive to follow-on investors and lenders, especially in capital-intensive sectors where early momentum is critical.

Structured flexibility can reduce risk and encourage capital mobilisation

Linking disbursements to clear milestones, such as matched equity and performance targets, helps businesses scale sustainably. This manages risk for both parties and encourages businesses to raise equity alongside the debt, building stronger capital structures over time.

Early proof points are helping to unlock capital and improve financing terms

Early signs suggest flexible debt can mobilise additional capital and improve financing terms by demonstrating commercial viability and generating real-world performance data. These effects, whether through increased investor interest or greater lender confidence, are promising, though more time and examples are needed to understand how consistently they apply in different settings.

For further information:

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