

## New report spotlights e-mobility innovators unlocking access to the US\$3.65bn motorcycle market in sub-Saharan Africa

Electric motorcycles are set to be a dominant force in sub-Saharan Africa's sustainable mobility transformation

JOHANNESBURG, GAUTENG, SOUTH AFRICA, March 29, 2023
/EINPresswire.com/ -- Electric motorcycles are set to be a dominant force in sub-Saharan Africa's sustainable mobility transformation, but continued investment in start-ups tackling barriers across the value chain will be critical to maximise the full potential, says a report recently released by the Powering Renewable Energy Opportunities (PREO) programme.



Electric motorcycles in Africa

Two-wheelers are quicker and more easily manoeuvrable than four-wheeled vehicles, especially across sub-Saharan Africa, where countries often have poor-quality roads. Motorcycles also

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Jon Lane, PREO Programme Director provide stable income opportunities. The <u>Charging Ahead</u> – <u>Accelerating e-mobility in Africa</u> report from PREO outlines the market opportunity for e-motorcycles to become a driving force in the African e-mobility sector as, according to analysis by Mordor Intelligence, the market for motorcycles in Africa was worth US\$3.65bn in 2021, and is projected to grow to US\$5.07bn by 2027.

However, to accelerate progress in the e-mobility sector and meet the demands of a rapidly expanding customer base for two-wheelers, there are a number of challenges that need to be addressed. These include improving the

availability of durable hardware, reliable charging infrastructure and access to high-quality

battery solutions.

According to industry estimates, more than 90% of electric motorcycles sold in sub-Saharan Africa are imported from China and India and are not built for African conditions. Poor grid infrastructure means baseline electricity access is not reliable enough to support renewable battery recharge networks, and the electricity supply is weak. In addition, high-quality battery suppliers prioritise global buyers able to order at volume, which leaves small start-ups out of the picture.

The report examines how three PREO-supported companies – Roam (previously Opibus), Mobile Power and Zembo – are successfully addressing each of these barriers, and together are providing the solutions needed to support an enabling ecosystem to accelerate progress across the entire e-mobility sector.

Durable hardware – Roam is a Swedish-Kenyan company that manufactures robust electric motorcycles in Kenya. The company is demonstrating that with the support of local manufacturing and assembly, the final price of electric motorcycles can be lowered to compete with ICE (internal combustion engine) vehicles while also customising the product to local conditions. Roam has now acquired the capacity to fully design the vehicles and manufacture 35% of them in-house with a goal to reach 70% in the next three to five years.

The company plans to expand beyond Kenya to other African markets through strategic partnerships, raise US\$17.5 million in equity and debt for working capital and hopes to supply Uber with 3,000 electric motorcycles for its delivery services across sub-Saharan Africa.

Reliable charging infrastructure – Ugandan company Zembo has developed a solution to enable the roll-out of e-motorcycles in areas with weak and unreliable access to electricity by using solar energy to charge the batteries.

In Uganda, Zembo operates 27 battery-swap stations for electric motorcycles, considered one of the largest networks in the region. It sells motorcycles to taxi operators on a pay-as-you-go basis and provides batteries-as-a-service through its battery-swap network. 73% (personnel cost – 55%, rent – 18%) of the monthly cost of operating a swap station is fixed cost in nature, delaying profitability and slowing down expansion.

Zembo's scale-up strategy involves expanding its network using risk-sharing mechanisms such as franchisee models, and reducing personnel costs by deploying automatic swap cabinets. The company is also installing solar power solutions for off-grid areas and hybrid power for on-grid areas with weak or unreliable grids. This will enable batteries to be charged even in areas that are not on the grid and during grid blackouts. Zembo plans to expand its fleet to more than 2 000 motorcycles and 60 swap stations by 2025.

High-quality battery solutions – Mobile Power operates in Sierra Leone, Liberia, the Democratic

Republic of Congo and Nigeria and is tackling the scarcity of high-quality battery technologies for small-scale businesses. The company has developed clean energy storage products (lithium-ion batteries) that it offers to businesses and individuals through a rental model. Since 2017, Mobile Power has grown its rental business to 500,000 rentals every month and is gaining 2,000 new customers every week at its peak growth periods.

Mobile Power is now replicating its rental model in the mobility sector and generator replacement sector by leveraging the same technology components: batteries, battery management systems and battery charging hubs. The company has now reached a stage whereby it can manufacture robust batteries tailored to African conditions at scale for its inhouse use and satisfy the demand of its electric mobility peers. Mobile Power's pay-per-use battery-swap model enables customers to access the service based on their needs.

Jon Lane, PREO Programme Director, comments: "Investing in e-motorcycles provides a path to more sustainable and equitable growth across African communities and addresses the urgent issue of climate change. Through our work with several start-ups, we have identified opportunities for a full ecosystem of solutions that address challenges across the value chain. We hope this report demonstrates the impressive progress being made by companies in the e-mobility sector and will act as a call for investors, policymakers and partners to engage and collaborate to help meet the scale of the challenge."

PREO is funded by the IKEA Foundation and UK aid (via the Transforming Energy Access platform), and is delivered by the Carbon Trust and Energy 4 Impact. To date, it has supported 27 productive-use-of-energy enterprises across 11 countries in sub-Saharan Africa, four of which are in the e-mobility sector.

Click here to download PREO's Charging Ahead – Accelerating e-mobility in Africa report: <a href="https://www.preo.org/charging-ahead-accelerating-e-mobility-in-africa/">https://www.preo.org/charging-ahead-accelerating-e-mobility-in-africa/</a>

## About PREO

The Powering Renewable Energy Opportunities (PREO) Programme stimulates renewable energy demand in Africa by providing high-risk grant capital, technical assistance and knowledge dissemination services to a portfolio of companies in a range of sectors. In this way it creates sustainable jobs and improves livelihoods through economic growth and empowering women. It is supported by the IKEA Foundation and UK aid and delivered by the Carbon Trust and Energy 4 Impact.

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