



Performance E-bikes for the African market

The Micro Mobility Disruptor In East-Africa

June 2021



Problem



DEVELOPMENT

41%

of commuters in Kenyan cities say that walking is their only way of getting from A to B

10%

is the average share of Nairobi's opportunities that are accessible within 60 minutes of walking



CONGESTION

\$1 billion

is the estimated loss in productivity in Nairobi annually due to traffic

6 years

is the time it takes for Nairobi's car ownership to double at the current rate



POLLUTION

776.000

amount of people that are estimated to be killed annually by air pollution in Africa

#4

air pollution is the 4th biggest risk factors to drive the most death and disability combined in Kenya

Problem

Oversupply of boda boda's in Nairobi leading to restricted acces in key areas of the city

Boda bodas banned from Nairobi CBD

By **Samuel Ramtu** For Citizen Digital

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Boda boda operators during a past demonstration. PHOTO| COURTESY

Fuel prices hitting an all time high putting a brake on economic development and leading to public unrest

BUSINESS DAILY

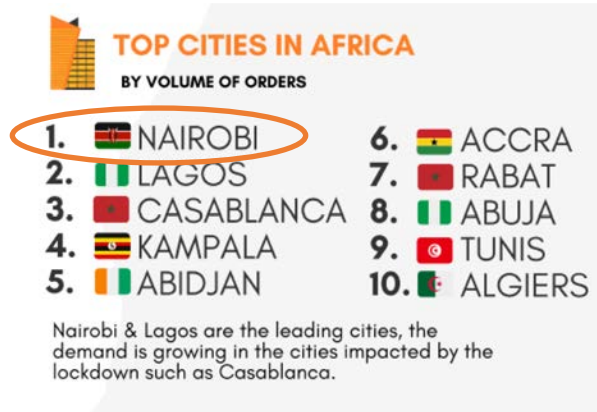
ECONOMY

More pain as petrol prices to hit historic high Wednesday

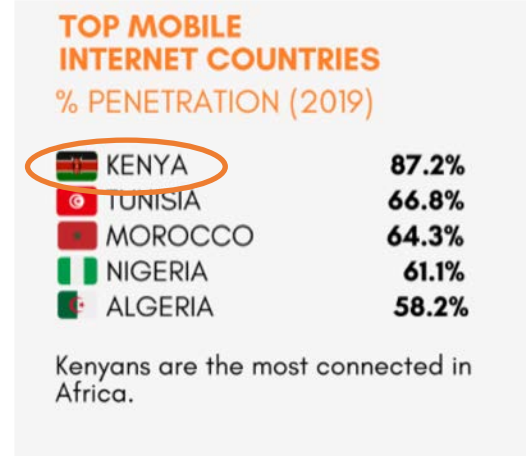
WEDNESDAY APRIL 14 2021



Opportunity



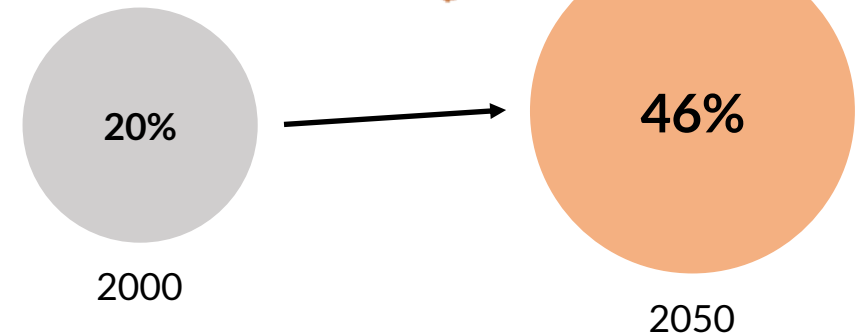
250.000 motorcycles
imported into Kenya in
2019



500Kes average daily
lease premium spend by
boda boda driver in Nairobi

Percentage of Population Residing in Urban Areas in Kenya

Population: 51 million



Hatua Utility E-bikes

Key specifications

- Battery 36 V, 14Ah
Lithium Battery
- Motor 250 watts rear hub
motor
- Range 60-80Km
- Top speed 30Km/h
- Charging time 3-4 hours
- Rear carrier load 25Kg
- Gears 6 speed
- Swappable/removable battery pack



Design principles



Value for money



Charging using local
grid or solar



African road
conditions



Overloading and
heavy commercial
usage

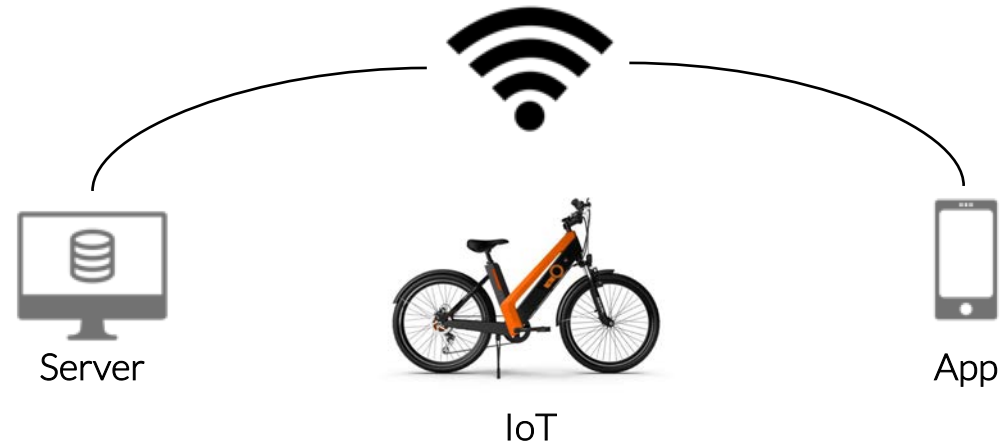
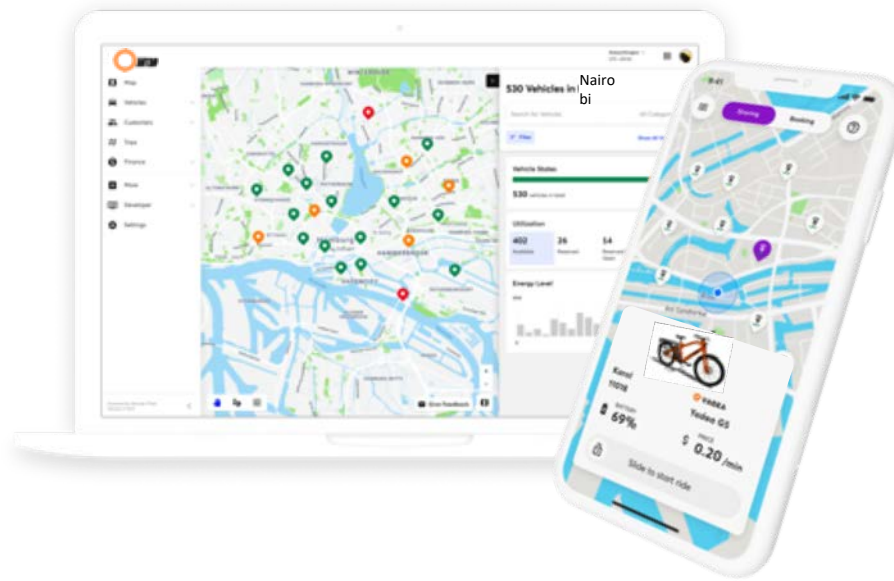


Anti theft and
molest



Standardized parts

Connected fleet management



Location tracking



Tamper warnings



Remote battery control



Mobile money integration



Usage data



Vehicle monitoring & diagnostics

User case

Why e-bikes?

- Lower OpEx and CapEx, higher daily earnings
- Work longer hours if need be without tiring out
- Faster speeds, easier acceleration
- Power boost when going uphill, facing headwinds, carrying heavy loads
- No license, no insurance, no registration

Save up to 40% on operational expenses per vehicle!



E-bike

VS.



Boda

Expenses Kes/Month

	E-bike	Boda
Lease rate	15,000	14,000 (old) – 28,000 (new)
Fuel	250 - 500	8400 – 28,000
Maintenance	Free	1500 - 3000
Insurance	Free	500 - 1000
Total average	15,375	42,200
Price per KM	(70KM/day) 7.3 KES/KM	(120KM/day) 11.7KES/KM

Impact



	E-bike	Boda	Passenger vehicle
Energy consumption	0.007 kWh/km	0.046L/km	0.22L/km
Energy emission	1kWh = 440gr Co2	1L Petrol = 2.3kg Co2	1L Petrol = 2.3kg Co2
Co2 emmisisions per Km	3.08gr	106gr	506gr
Compared to e-bike	-	34x	164x



Make cities and human settlements inclusive, safe, resilient and sustainable

Business model

Mobility-as-a-Service (B2B)

The Hatua ecosystem provides affordable transport to the billions of people that will never own a vehicle; new or used. By keeping ownership of the bike we can dramatically extend the life-span of the product and offer great service at an affordable rate.

- Pay-as-you-go
- Flexibility
- Maintenance
- Service whenever and wherever



Mobility-as-a-Service



Rental



Perpetual lease



Lease-to-own



Cash sales

← Consumer buys a **service** Consumer buys a **product** →

Team



Nairobi office



Joost Boeles
CEO



Isidoor Maljers
COO



Kipkorir Kirui
Head of Digital



Terry Kuriah
Finance director



Daccon Owino
Operational

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Ex-board member Care-pay
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Patrick Anthonissen
Funding
Founder Young Impact and
CRZY!

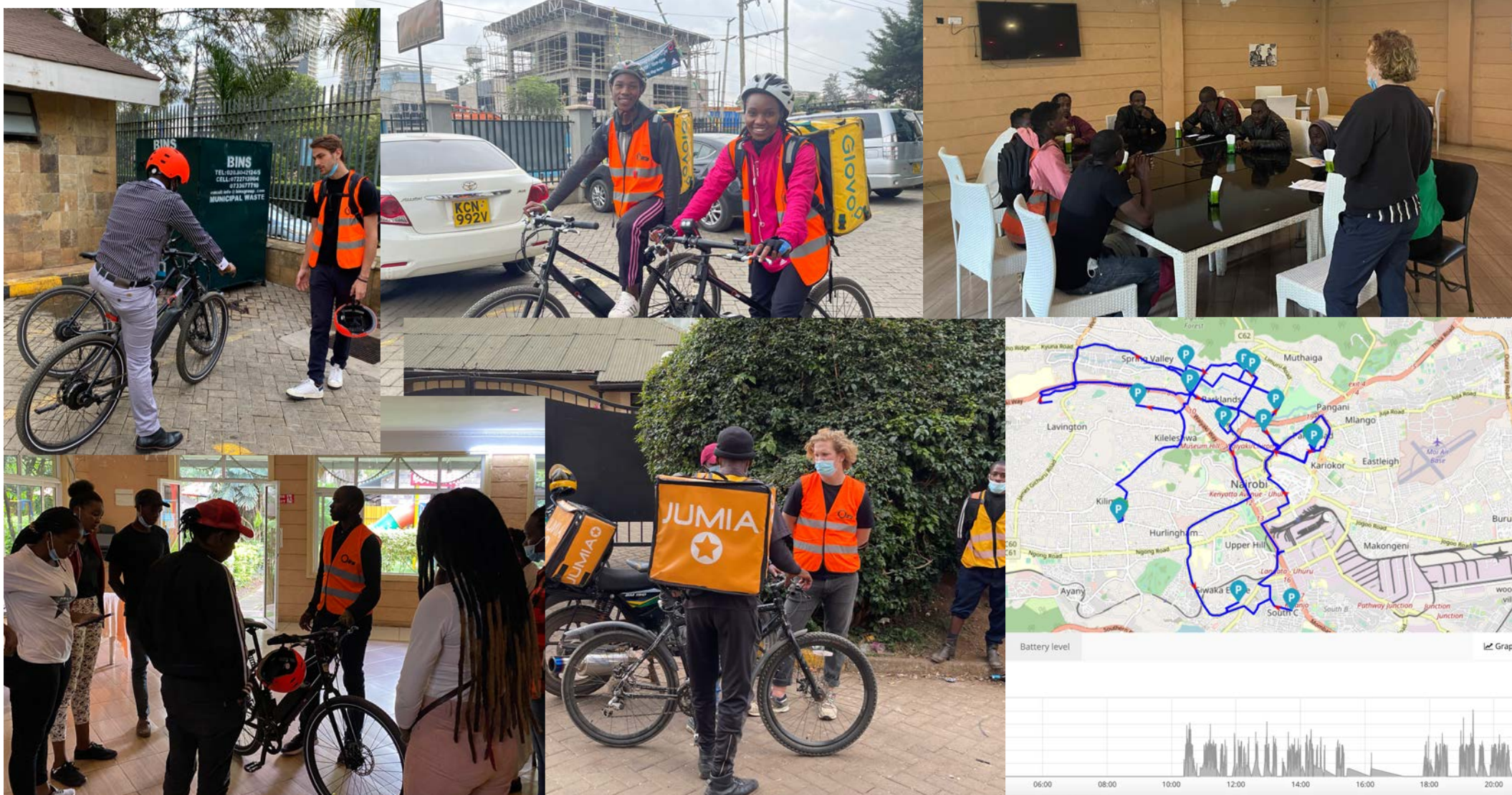


Sten van der Ham
Product development
Ex-CEO Accell



Leoncio Montemayor
Solar & Batteries
Solarplaza and General
Electric

Progress so far



Want to work with us? Get in touch!



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