



# Urban Pathways

## Kigali

Urban Pathways has been working with the City of Kigali, the country's commercial and administrative hub, since 2019. Kigali is rapidly urbanizing as a result of a growing population and increasing economic activities (World Population Review, 2019). Consequently, the city's major economic sectors are challenged with issues ranging from congestion, pollution, deteriorating infrastructure, among others. Together with local partners in the city, project concepts on sustainable mobility (e-mobility for last-mile connectivity) have been developed. Activities on waste issues, such as implementing EcoZones, organic waste pilots and integration of e-mobility in the waste collection fleet are currently being discussed with the municipality.

### **Pilot and Demonstration Action**

#### E-mobility for last-mile connectivity

The demonstration action in Kigali focuses on e-mobility for last-mile connectivity. It will have a systemic approach integrating the Public Bus System with electrified feeder-services provided by 30 e-moto taxis (20 new and 10 remodelled) and 100 e-bikes that support first/last mile connectivity.

With support from city authorities, transport operators and bus manufacturing companies, a suitable business model for e-Buses for the city's current bus transport administration will be explored. Expectedly, the project will create a good precursor to public transport electrification in Kigali. The business model for e-moto taxi will also be developed in the demonstration project. Together with riders, transport associations and other relevant institutions, 10 existing motorcycles will also be remodelled into e-motorcycles – with the possibility to easily swap and charge batteries (Lithium-ion) and considering local-EU prototypes with Valeo 48V.

The demonstration project will also test the establishment of an e-Bike sharing scheme along the most widely used bus corridors with charging points fitted with solar power energy to provide seamless charging service to riders and patrons. For the wider use of E-Moto taxis and E-Bikes, smart services applications will be explored that support eco-routing. The proposed demonstration project concept was submitted on 25 April 2019 as a part of EC H2020 proposal for funding. It will be implemented by SOLUTIONSplus project (project duration 01/2020 – 12/2023) together with local public transport operator.

Budget: 1,500,000 EUR

Estimated direct GHG emissions reduction: 87 tCO<sub>2</sub>/year

## Outlook: Planned and/or Possible Future Action

### Integration of e-mobility in the waste collection fleet

The Urban Pathways team has initiated the discussion with the Department of Public Health and Environment, responsible for waste collection, to integrate a pilot e-vehicle in the fleet. This would mean converting a diesel pick-up into an electric vehicle. This project could be supported by SOLUTIONSplus project through the provision of an electric drivetrain from the SOLUTIONSplus consortium member, Valeo. Urban Pathways' contribution could be geared towards financing the residual value of the vehicle conversion.

Estimated budget: 20,000 EUR

Estimated direct GHG emissions reduction: 11 tCO<sub>2</sub>/year

### **EcoZone pilot: integrating mobility and waste issues**

Together with local partners, the Urban Pathway team is currently designing an EcoZone pilot for Kigali, where traffic calming measures as well as source separation and/or composting pilots will be initiated.

Estimated budget: 10,000 EUR

Estimated direct GHG emissions reduction: 12 tCO<sub>2</sub>/year

# Future Outlook

Implemented by:



In cooperation with:



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based on a decision of the German Bundestag