

FACTSHEET DAR ES SALAAM



Demonstration City | Dar es Salaam - Tanzania

Due to rapid urban growth and growing individual motorisation, the transport system in Dar Es Salaam suffers from chronic congestion. This has led Dar es Salaam City Council to introduce a Bus Rapid Transit (BRT) scheme in 2016 (named DART). 140 fossil fuelled buses are currently running, connecting the city centre with the Western suburbs (phase 1). The existing BRT stations and terminals are therefore important transport hubs. Further plans include expansion to new routes and the addition of 150 buses, which could be powered by CNG. The city however also considers other sustainable solutions including electric mobility solutions (e.g. e-Feeder to BRT, e-BRT-Busses, e-bike sharing).

The demonstration project in Dar es Salaam will focus on integrating 60 electric feeder/e-3-wheeler and distribution services with Dar es Salaam's BRT (DART) to support first/last mile connectivity. The e-3-wheelers (newly built 50 imported/provided by DART and 10 newly built with Valeo components), will be an integral part of public transport. Under SOLUTIONSplus, the deployment of e-3 wheelers will happen at 5 DART stations considering urban locations: a) in the city centre, where fossil-fuelled 3-wheelers are currently banned for environmental reasons and where accessibility to/from the BRT stations can be limited due to longer distances; b) in peri-urban areas where combustion-fuelled 3-wheelers are currently very common as feeder-modes.

Further aspects to be assessed under the demonstration relate to the battery type (fixed vs. battery swapping), ownership models (leasing/pay-per-use model), the use of existing telecom and power distribution boxes to accommodate vehicle charging, fleet bundling, and eco-routing. Interaction with the passengers and the system will be fostered through the SOLUTIONSplus-MaaS-smartphone application that will consider the growing smartphone ownership of Dar es Salaam's population, to allow a maximum spread of the use and increase smart metering services. An open Application Program Interface (API) will be made available to allow 3rd-parties/software programmers to develop further services. The demonstration project will furthermore include local stakeholders as much as possible to increase the acceptance of the system: The current 3-wheeler market employs many people in Dar and the inclusion of current drivers will be a crucial target of the project. Furthermore, capacity building on sustainable maintenance of the vehicles will be carried out, building on the current structures of OEMs in Tanzania. Tanzania has already a high share of renewable energies through hydropower which will be used for the services.

E-mobility for last-mile connectivity

The approach/ innovative aspect

- E-3-wheeler feeder and distribution services in DART stations
- Business models for vehicle ownership, rental, and maintenance
- Use telecom and power distribution boxes for vehicle charging
- Subsequently, a masterplan for the introduction of 3-wheelers is developed



Activities

- Data collection using geo localization-devices
- MaaS-smartphone application
- Inclusive and participatory approach towards assessment, and recommendations building

Demonstration actions		
	50 imported e-3-wheelers 10 prototypes (incl. business model)	Smart battery swapping Charging at hubs
		Integrated e-3-wheelers at 5 BRT stations SOL+ MaaS App