

FACTSHEET HANOI



Demonstration City | Hanoi - Vietnam

The City of Hanoi is the capital of Vietnam, and is home to approximately 7.7 million residents and is the second most populated city in the country (around 8% of the total population of Vietnam). It features an urban area roughly 320 sq. km in size.[1] The city is also the cultural, commercial and educational centre of Northern Vietnam. Its economy is primarily based on tertiary sector industries, and has robustly grown in the last years (7.6% growth in 2018; 21.6% export growth in 2018) (Voice of Vietnam, 2019). The Hanoi Capital Region (or the Hanoi Metropolitan Area) is composed of the City of Hanoi and its adjacent municipalities, and is home to 16.1 million inhabitants (24 thousand sq.km).

It is estimated that 11.5 million trips are conducted each day in the city. Public transport is only estimated to account for 10% of the trips as passenger transport demand is met primarily by private motorized two-wheelers (Ahn, 2019). This mode share has essentially stayed at 10% since 2010 (Molt, 2010 as quoted in Allaire, 2012).

The demonstration project will focus on boosting the ridership and effectiveness of the currently running BRT and the forthcoming metro rail with a 200 shared E-scooter system (associated partner Bosch) as last-mile connectivity. This project will also include 20 E-mini-buses provided by the city and Vinfast, for which fast charging solutions (ABB) will be tested. The shared E-scooter system will be equipped with state-of-the-art 10 docking-cum-charging stations, contactless payment and will be developed that provides a hassle-free experience of e-mobility and clubbing it with longer trips on public transport. The project will be a win-win for both public transport and e-mobility. A technical support team will design and develop vehicles that are tailored for the local context and operated under the oversight of the local public transport operator and the city of Hanoi. The project will experiment innovative business models on E-minibuses and charging solutions, such as battery swapping technologies, using existing telecom and power distribution boxes to accommodate vehicle charging.

Smart services, fleet bundling, E-scooter GPS positioning that support eco-routing will also be the part of the project (SOL+ MaaS App). The demonstration project will have a high potential to not only make e-mobility attractive but also reduce the GHG emissions from transport and increasing the share of public transport use.

E-mobility for last-mile connectivity

The approach/ innovative aspect

- Shared E-scooter system as last-mile connectivity and docking-cum-charging stations at BRT stations and the forthcoming metro rail
- Contactless payment
- Battery swapping technologies, telecom and power distribution boxes to accommodate vehicle charging



Activities

- Smart services, fleet bundling, e-scooter
- GPS positioning that support eco-routing

| Demonstration actions | | | |
|-----------------------|---|---|-----------------------------------|
| | 20 E-minibuses provided by the city and Vinfast | Fast charging for E-bus and E-minibuses | Smart services (apps, smart card) |
| | State-of-the-art 10 docking-cum-charging stations | Battery swapping technologies | |