

Vitoria-Gasteiz: Smart Electric Bus (BEI)

Overview

The deployment of high capacity and 100% electric public transport is crucial for sustainable mobility to achieve carbon neutrality. In this regard, the Vitoria-Gasteiz City Council, the provincial government and the Basque Government agreed to finance the evolution of the circular bus-line with the highest number of passengers in the city (Line 2) into a modern and clean electric bus rapid transit line with 48 bus-stops (24 for each direction), 4 ultra-fast inverted pantographs, 7 articulated e-buses and 6 conventional-size e-buses (18 meters long with a capacity of 139 people and 12 meters long for 90 people, respectively). The smart electric bus (acronym BEI in Spanish) will cover a route of over 10 kms with a service frequency of 8 minutes and circulating through exclusive lanes for a large part of the route. Moreover, BEI will enjoy priority traffic lights at junctions and will serve key points in the city. 13 e-buses that will replace 12 diesel buses that currently give service to Line 2 are expected to enter in operation by summer 2020.



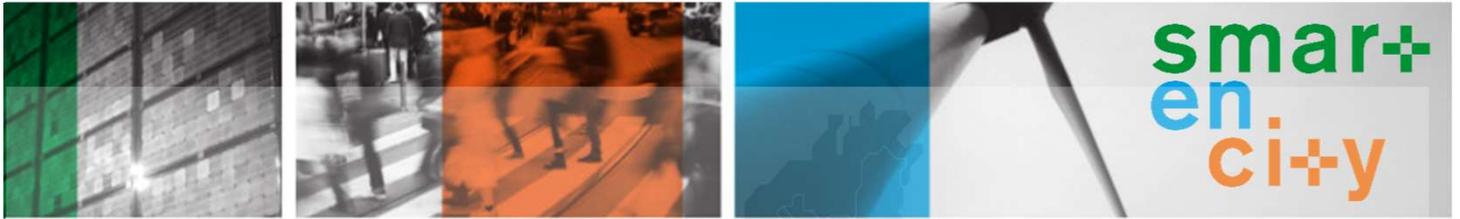
Already in June 2019, a first unit of the new smart electric buses presented as an exemplar in the framework of a public event and allowed the citizens to have a glimpse on the new type of bus and also to experience the service in situ.

The final prototype of the vehicle was presented in July 2020, at an official ceremony with the city's mayor and representatives from the provincial and regional governments. The citizens were able to visit the convoy, which was showcased in different places of Vitoria-Gasteiz on several days and to get to know its characteristics from a personal experience.

In addition, the city council set up a specific website (in Spanish and Basque) to inform in detail about the development of the works. This website has later been replaced by the official one that provides all information on this new sustainable transport mode and also provides information on specific problems that may arise during the deployment period, such as implications on the traffic (congestions during the public works) and parking provision (due to dedicated lanes in the majority of the route, in areas with a deficit in parking availability for residents a significant part of them will be replaced at nearby locations). These problems has been tried to overcome by means of an intensified communication and answering to citizens' concerns and complaints through the mobility forum and other participatory channels of the city council.

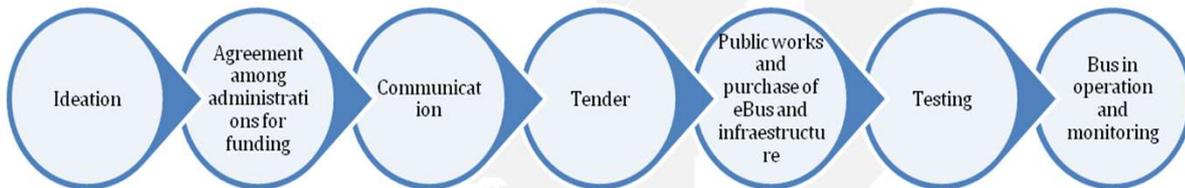
Benefits

- Reduction of CO² emissions
- High capacity, smart and more efficient (dedicated lanes) public transport
- Traffic noise reduction
- Charging and ICT infrastructures that allow further replication to other lines
- Increase in the visibility and acceptance of EVs



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Process



Stakeholders

Owner(s)	Vitoria-Gasteiz City Council
Service/Technology Provider	UTE Irizar E-Mobility S.L., Yarritu S.A., LKS BUILDINGENIA, S.L.
Users	Citizens, transport users
Investors	Citizens, transport users

Investment/Finance

42,300,000 €

Replication Potential

The Smart Electric Bus combines many advantages: it is a non-polluting form of public transport and enables journeys in the urban area in less time. This solution has already been successfully implemented in other cities in the world that, like Vitoria-Gasteiz, are benchmarks in mobility and sustainable policies. The potential for replication of such a solution is high.

However, in order to replicate this solution, some aspects should be taken into account. Large scale construction works have to be carried out during the project, so citizen engagement is particularly relevant due to the implications on the traffic and parking provision. These problems have been tried to overcome by means of increasing communication and answering to citizens' complaints one by one through the mobility forum and other participatory channels of the city council.

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More information:

<https://smartencity.eu/about/solutions/the-electrification-of-vitoria-gasteiz-public-transport-the-new-smart-electric-bus-bei/>



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No 691883.