PROJECT

FABULOS

Pre-Commercial Procurement of Future autonomous bus urban level Operation Systems

Funding: European (Horizon 2020)  
Duration: Jan 2018 - Mar 2021  
Status: Complete  
Total project cost: €7,775,000  
EU contribution: €6,997,500

CORDIS RCN : 213133

Background & policy context:

The FABULOS (Future Automated Bus Urban Level Operation Systems) project focuses on how cities can use automated shuttles in a systematic way. FABULOS is the first Pre-Commercial Procurement project on urban mobility. A proof-of-concept for the economic, technical, societal and legal maturity of autonomous fleets as part of the public transportation provision is not yet available. Therefore, the goal of the 6 partner cities is to procure R&D for the prototyping and testing of smart systems capable of operating fleets of self-driving shuttle buses as part of last-mile urban transport.

FABULOS has a total budget of around 7.8M€, of which 5.5M€ is reserved for companies' R&D. Phase 1 (solution design) and Phase 2 (prototyping and lab testing) take place in 2019. Phase 3 (field tests in all 6 partner cities) takes place in 2020.

Objectives:

The FABULOS PCP focuses on how the cities can use autonomous buses in a systemic way.

Cities, such as Helsinki, already have a relatively integrated public transportation system, although not capable of absorbing or utilizing RTI in a systemic way for smart routing and such.

Pre-Commercial Procurement (PCP) of Operation of an autonomous minibus service, for a specific line/zone in urban environment.

Leading European Smart Cities have been running some of the world's first autonomous buses on open streets.

The FABULOS PCP goal is to push the market to creation of smart systems for the management of autonomous electric bus fleet operations and related services, in urban environments.

This sort of intelligent transportation systems and integrated transportation approach, are key to enable a sustainable development of public transportation and for cities to be able to become car free in a foreseeable future.

Autonomous buses are a key part of this future. The robotic bus technology is fast approaching its market readiness stage; however current transportation systems are not equipped to deal with such type of transportation.

The management of autonomous fleet as part of public transport is missing. Also, some parts of the driving automation need to mature.

The PCP should now focus on how the cities can use autonomous buses in a systemic way. Cities, such as Helsinki, already have a relatively integrated public transportation system, although not capable of absorbing or utilizing RTI in a systemic way for smart routing and such.

In order to capitalize on the potential of autonomous buses, Cities should combine efforts in pushing the market to develop system solutions capable of bridging autonomous bus technologies and the city's public transportation systems, helping them to become smarter in the process, and also helping to open
up demand for the autonomous vehicles industry.

**Parent Programmes:**
H2020-EU.2.1. - Horizon 2020: INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies

**Institute type:** Public institution
**Funding type:** Public (EU)
**Other programmes:** ICT-27-2017 System abilities, SME & benchmarking actions, safety certification

**Lead Organisation:**

**Forum Virium Helsinki Oy**
**Address:**
UNIONINKATU 24
00130 HELSINKI
Finland

**Organisation Website:**
http://www.forumvirium.fi

**EU Contribution:** €1,838,925

**Partner Organisations:**

**Metropolia Ammattikorkeakoulu Oy**
**Address:**
MYLLYPURONTIE 1
00920 HELSINKI
Finland

**Organisation Website:**
http://www.metropolia.fi

**EU Contribution:** €233,550

**Gemeente Helmond**
**Address:**
Weg Op Den Heuvel 35
5700 Helmond
Netherlands

**EU Contribution:** €1,036,013

**Gjesdal Kommune**
**Address:**
RETTEDALEN 1
4330 ALGARD
Norway

**EU Contribution:** €1,045,688

**Majandus Ja Kommunikatsioniministeerium**
**Address:**
SUUR-AMEERIKA 1
10122 TALLINN
Estonia

**EU Contribution:** €1,017,928
<table>
<thead>
<tr>
<th>Address</th>
<th>EU Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sociedade De Transportes Colictivos Do Porto Sa</td>
<td>€912,656</td>
</tr>
<tr>
<td>Dimos Lamia</td>
<td>€912,741</td>
</tr>
</tbody>
</table>

**Technologies:**
- Connected and automated vehicles
- EV autonomous bus

**Development phase:** Research/Invention

**STRIA Roadmaps:** Cooperative, connected and automated transport

**Transport mode:** Road transport

**Transport sectors:** Passenger transport

**Transport policies:** Other specified

**Geo-spatial type:** Urban