Urban logistics / Last mile

Transport planning and execution

Safe GeoFenced N1 right-sized vehicle

Developed by :

PAXSTER a better day

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alkè

CERTH/HIT Hellenic Institute of Transport

Moving innovation

eurecat

Project by : Horizon Europe

SHIFT2ZERO

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GEOFENCED N1 RIGHT-SIZED VEHICLE

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Solution description

Geofenced N1 right-sized vehicles for safe driving in restricted urban areas

Advanced geofencing tools to manage urban logistics more effectively, using open standards already adopted by cities.

Working on vehicle-to-infrastructure connectivity, leveraging IoT and existing digital platforms of IVECO and Alkè that enable real-time monitoring of vehicles locations in the cloud.

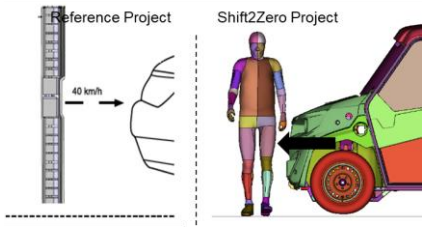
This concept extends beyond speed limits in geofencing, to explore various parameters such as specific delivery permissions and load restrictions in those areas.

Benefits

- Offering city authorities and operators a **smarter way to manage logistics** in **increasingly regulated environments.**
- **Vehicle-to-infrastructure** connectivity enhances **safety and compliance**, with in-cabin alerts that guide drivers in sensitive areas.
- Vehicle passengers' and pedestrians' safety is optimized with 3D-printed components and sustainable materials that reduce emissions.

Main beneficiaries:
Infrastructure manager & operator, Fleet managers, logistics operators, car sharing operators

- Smart way to manage logistics
- Enhanced safety
- Increase market penetration of eLCV made in Europe



Technology readiness level : ***TRL 7 / TRL 8***
Implementation stage : ***Pilot***

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Modularity & standardisation and transhipment

- **Modularity & standardisation (Bergen)**: Revealing the e-LCVs movements and allowing for more streamlined interaction with available infrastructure and other road users, while supporting UVAR implementation.
- **Transhipment (Thessaloniki)**: Allowing for optimal transportation network design and dynamic traffic management, supporting strategic planning for fleet, space, and operational characteristics of provided service.
- **Transhipment (Bologna)**: Responding to the user need for extended time windows for battery EVs in the city centre.

Safe and ergonomic systems design

- **Pedestrian safety:** Bonnet & Bumper re-styling and Frontal area review
- **Passive safety:** Door Trim redesign with Bio-Plastic and auxetic structure

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