

PROJECT

Carr-e

CARR·e: Lightweight and versatile electric vehicle applied to urban logistics

Funding: European (Horizon 2020)

Duration: Jan 2017 - Mar 2017

Status: Complete

Total project cost: €71,429

EU contribution: €50,000



[CORDIS RCN : 208013](#)

Objectives:

Spirit Design has designed Carr.e, an innovative urban vehicle that exploits the technical components of e-bikes and applies them to a 4wheeler cargo so to exploit a 125,25M€ (by 2020) business opportunity. We are an internationally leading strategic design company born in 1993 in Vienna.

European cities are expected to reach 75% of the total population by 2020, besides Urban Freight Transport (UFT) represents 8% to 15% of the total. Urgent is the need of countermeasures to avoid road congestions, lower environmental pollution, from greenhouse gases (25% due to transport) to noise. Besides, e-commerce heavily relies on UFT and B2C sales are growing at a rate of 14% per year, urban logistics need to find solutions that are cost-effective, productive, efficient and environmentally sustainable.

Consequently, we propose Carr.e, which exploits electric power-assisted cycles features to create a 4-wheeler, innovative pedelec (pedal electric cycle) designed for UFT that needs no driving license and no homologation. Carr.e includes a modular architecture to provide flexible driver protection in a highly space-saving way. Carr.e is designed so that batteries can be easily changed and not recharged.

Carr.e is supported by the interest of main UFT stakeholders: POST AG, ÖAMTC and REWE and will be manufactured by the KSR Group. Carr.e will accumulate by 2020 a turnover of 125,25M€ and 32 new employees, ROI of 4,71%. Carr.e contributes to the EC goal for UFT of "CO2-free city logistics in urban centres by 2030".

Carr.e has been designed to address UFT issues:

- Reduction of urban environmental pollution.
- Increase of the cargo companies' delivery efficiency.
- An extension of B2B market applications for public administrations, SME business and corporations, tourism agencies or large-sized recreational areas thanks to its modularity.
- Energy efficient and low-cost solution for a wider range of cargo.
- No need to spend time to recharge batteries.

Parent Programmes:

[H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport](#)

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Lead Organisation:

Spirit Design - Innovation And Brand Gmbh

Address:

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Austria

EU Contribution: €50,000

Technologies:

Electric road vehicles
E-bike concept

Development phase: Implementation

Transport

STRIA Roadmaps: electrification

Transport mode: Road transport

Transport sectors: Freight transport

Transport policies: Environmental/Emissions aspects

Geo-spatial type: Urban