Smartfusion

Smart Urban Freight Solutions

Smartfusion aims to evaluate the technical and logistical feasibility of introducing fully electric vehicles and the second generation of hybrid truck technology in the urban logistics environment.

COOPERATION

www.smartfusion.eu

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Smartfusion a private-public partnership is directly linked to the European Green Car Initiative and is co-funded by the FP7 programme.

The scope of the project is to demonstrate novel transport innovations that will improve the efficiency, social and environmental sustainability of urban freight in last mile operations and the related urban/inter-urban shipment processes.

Smartfusion will develop a **Smart Urban Freight Designer** tool that will allow other urban policy makers, users and operators to analyse the likely success and benefits of applying green vehicle technologies to their city-regions and supply chains.

From its **demonstrations** Smartfusion will determine the critical success factors in stimulating the market uptake of new sustainable vehicle technology in conjunction with information technology, operational, managerial and regulatory innovations including urban consolidation centres (UCCs) and telematics systems.

What Will Smartfusion Do?

Three technology providers participating in Smartfusion will develop technological solutions to solve specific problems:

- Volvo Technology: intelligent hybrid electric propulsion systems for different environments (inter-urban and urban).
- Centro Ricerche FIAT: deployment of battery/drive metering systems to allow a smart mission planning and routing to optimize and exploit vehicle autonomy.
- PTV Group: intelligent routing and planning systems for freight deliveries.

Two supply chain providers will develop and implement innovation in both port-centric logistics and last mile deliveries:

- Clipper Logistics is looking to solve the paradox of who pays for urban consolidation centres with retailer led added value solutions.
- Office Depot will assess at which point to convert their last mile distribution fleet to electric vehicles, on the basis of commercial viability and environmental sustainability.

CSUspa-Como

The Three Demonstration Sites

The project will build upon existing urban freight development strategies from three demonstration city-regions in Europe:

- The City of Berlin (DE) will demonstrate integrated technology solutions linking emission threshold information along delivery corridors from an urban interurban transhipment centre to the inner city using hybrid trucks.
- The Lombardy Region (IT) will demonstrate a remote monitoring system for full electric vehicles enabling a dynamic mission management, integrating energy forecasting procedures and algorithms for urban interurban shipment planning.
- Newcastle upon Tyne (UK) will demonstrate collaborative approaches for urban interurban shipment planning and execution among shippers, logistics service providers and local government implementing last mile services using electric trucks.

Stakeholder workshops among the different test sites will be organised in each of the 3 city-regions, in order to derive the user requirements from the various regions in Europe.

The Enhanced Transfer Programme

Smartfusion will establish an Enhanced Transfer Programme (ETP) consisting of key stakeholders within city-regions in Europe who want to exchange knowledge and best practice on the subjects of urban freight, electric and hybrid freight vehicles. They will benefit from:

- 3 dedicated workshops
- On-site demonstrations
- Access to key project outcomes
- On-line resources

This group will provide a mentoring process whereby city-regions can develop their expertise in the field, supporting the transferability of innovation to other regions in Europe.

The Consortium

The Smartfusion consortium gathers 14 partners from 7 European countries. These are 3 city-regions, 2 automotive manufacturers and 3 commercial businesses, together with research expertise in urban freight monitoring and evaluation.

Volvo Technology (SE)
Centro Ricerche FIAT (IT)
Clipper Logistics Group (UK)
Office Depot International (UK)
PTV Group (DE)
Panteia/NEA (NL)
Gruppo CLAS (IT)
University of Westminster (UK)
IRU, the International Road Transport Union (CH)
Polis, the European city network (BE)

The three demonstration city-regions:
Berlin Senate Department for Urban Development (DE)
Lombardy Region (IT)
Newcastle City Council (UK)

The project is managed and coordinated by NewRail at Newcastle University (UK).

More information
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