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## IEE , Call 2011, PROPOSAL ABSTRACT

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<b>Programme:</b>	IEE, Intelligent Energy Europe; STEER, Energy-efficient Transport
<b>Title:</b>	<b><u>ENCLOSE</u></b> - ENergy efficiency in City LOgistics Services for small and mid-sized European Historic Towns.
<b>Priority addressed:</b>	Targeted actions to increase the energy efficiency of <b>freight distribution in urban areas</b> , bringing together local authorities and local stakeholders, such as fleet operators, distributors, retailers and customers, to develop schemes to coordinate, manage and inform urban freight operations better
<b>Duration:</b>	30-36 months, starting from May 2012
<b>EC Cofinancing rate</b>	75% of eligible costs
<b>Overheads</b>	60% flat rate
<b>Eligible cost</b>	staff cost, subcontracting, travel and subsistence, other specific costs.
<b>Submission Deadline</b>	12 May 2011

### Background, motivation

Over the last decade, increasing efforts have been undertaken in EU countries to improve city logistics operations and reduce their negative impacts, with a significant number of projects implemented under FP6 and FP7 initiatives such as CiViTAS, Transport Research and IST/ICT, ranging from concept exploration to pilot implementation and demonstration. Based on gathered evidence, there is today a considerably growing consensus around the view that more sustainable city freight operations and significant benefits in terms of energy consumption and environmental impacts can be achieved by an appropriate mix of different measures, including: Urban Consolidation Centres, optimised urban freight transport and delivery plans, clean vehicles and low emission technologies, restrictions and public incentive policies, last mile and value added services. Furthermore, more recently, industrial and research efforts on Fully Electric Vehicles (FEVs) and plug-in hybrid vehicles (PHEVs) are providing a closely near-to-market “green technology” which is currently considered as one of the largest opportunities to radically change our mobility system towards more sustainable schemes and operations, including freight distribution in urban areas.

Whilst efforts and city logistics innovation projects have been undertaken in European capitals and major cities (like e.g. Barcelona, Berlin, London, Paris, Stockholm, etc.) smaller towns have more often to face and overcome barriers (related to e.g. shortage of resources, competences, organisational structures, institutional backing, etc.) to be able to effectively embrace innovation, adopt and implement appropriate plans and measures towards sustainable city logistics. This is a relevant issue significantly limiting the widespread adoption of energy efficient urban freight operations in Europe. Indeed, mid-sized cities (MCs) represent a major component of the EU prevailing urbanised structure, imply often additional constraints and difficulties related to their specific territorial, social and economic characteristics (e.g. presence of an historical centre, difficult mobility and freight distribution flows, higher impacts of environmental pollution on citizens and quality of life, etc.) and yet show increasing demand of effective measures and large potentials for improvements of energy efficiency and sustainability of logistics processes and freight flows in their urban centres.

### Approach and project elements.

The project foresees the following elements:

- 2 Forerunners Good Practice towns (pilot cities: Lucca - Italy and Trondheim - Norway), contributing with (a) infrastructures and services already in place and operational and with the underlying operational environments (the operated schemes and measures, the various providers throughout the service value chain, the targeted users) and (b) implementing the new planned schemes. The two cities will be charged of arranging study visits for Follower towns, moreover they will offer their past project experiences and skills, to support the Followers in the implementation of their studies.
- 7 Follower cities (Burgos – Spain, s’ Hertogenbosch – Nederland, Almada – Portugal, Dundee – UK, Usti nad Labem – Czech Republic, Serres – Greece, Balchik – Romania), which will basically carry out an analysis of their needs and requirements about green(er) logistics and undertake a learning process aimed at taking up the solutions investigated and assessed during the project (feasibility study).
- **2 network organisation/association acting as Multipliers (European Association of Historic Towns and Regions, Walled Towns Friendship Circle) facilitating knowledge exchange and transfer among Local Authorities (regions, cities), interfacing with EU policies.**

- 1 Technological Agency for studying most appropriate technological options related to the different sites, that will be developing feasibility studies, concerning operative and organisative issues, energy efficiency and impacts, know-how transfer (AustriaTech - Austria).
- 1 Energy Agency (TBD, probably german) which is going to evaluate the possible environmental benefits basing on Forerunners achievements and on Followers feasibility studies results, in case of concrete application.
- 1 Communication Agencies which is going to provide professional advise and support for rolling out the dissemination and promotion phase.
- MemEx srl engineering company will play the role of technical coordinator and proposal editor, budget planner and project coordinator and will take care of arranging project events, workshops and national/international conferences. Of course all the activities dealing with the preparation of the proposal (including budget definition) will be carried out with all the due partners contributions.

The consortium has already on-board, the pilot towns, 4-5 followers, the multiplier organizations, the energy agencies.

The selected, targeted measures will involve a mix of advanced freight distribution and logistics services based on Urban Consolidation Centres (UCCs) – including the use of **clean vehicles** (FEVs and PHEVs) and their **energy management infrastructure and services** – and evolving towards the concept of a **City Logistics Agency** providing an integrated coordinated set of B2B and B2C services, examples of which include: *(i)* advanced urban transshipment services through virtualisation of logistics resources (the “Virtual Urban Consolidation Centre”); i.e. optimised and coordinated management of the UCC and other logistics infrastructures (logistics bases, warehouses) of freight operators in the area (couriers, long-distance transport operators, etc.); *(ii)* improvement of energy efficiency of last mile deliveries through dedicated loading/unloading facilities (reservation of I/u lots, optimised planning and assignment, identification, enforcement of violations, ...); *(iii)* improved reverse logistics services; *(iv)* improved coordination between city distribution and urban mobility management (e.g. credit-based access and distribution schemes); etc.

Overall, the project goals are to

- 1) look at the current practice and lessons learnt in city schemes already in operation today, starting from the involved pilot towns and their relevant operational schemes;
- 2) assess the benefits and measure the impacts on the urban environment in terms of energy efficiency and sustainability of the current operational schemes and of the new urban logistics measures and services,
- 3) identify the elements of strength and the barriers for the take up FEV/PHEV operated city logistics (elaborating not only on top of documented success stories but also on tracked problems and failures), particularly assessing and comparing these with the schemes operated by other non-FEV/PHEV clean vehicles;
- 4) identify, exchange and promote good practice approaches within a network of participating urban centres and associated towns and cities,
- 5) identify the needs of mid-size towns as regards education, training and support to introduction of city freight distribution innovation (wrt service schemes and value chains, stakeholders roles, organisational frameworks, business models, relations with institutional/policy frameworks, etc.) and elaborate, assess during project implementation and delivery at project end the appropriate education and training models;
- 6) build up a structured framework of recommendations and action plan elements for mid-size towns willing to evaluate and effectively implement energy efficient and sustainable urban logistics schemes and value added services.

## Consortium

In order to capitalize on and learn from available experiences (both good practices/success stories and problems/failures), investigate in depth and come up with a structured view about key stakeholders needs/goals, associated solutions and energy performance/benefits, the project will build upon and combine two main types of reference application towns:

- Forerunners Good Practice towns, contributing with (a) infrastructures and services already in place and operational and with the underlying operational environments (the operated schemes and measures, the various providers throughout the service value chain, the targeted users) and (b) implementing the new planned schemes;
- Follower/Learner towns, who will basically contribute their needs and requirements about green(er) logistics and undertake a learning process aimed at the take up of the solutions investigated and assessed during the project.

Overall, the consortium is set up to meet the required expertise according to three main dimensions: (1) the addressed e-Logistics service value chain and the entire underlying stakeholders structure (Local Authorities, service providers, distributors, FEV/PHEV suppliers/converters, retailers/users), (2) the right mix of partners expertise and

roles required by the project (transport engineering and innovation, research and academic background, evaluation and assessment of energy and environmental performance, interface with regions, local authorities and decision makers, dissemination and promotion), (3) the combination of Forerunner and Follower/Learner cities.