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**COMMISSION STAFF WORKING DOCUMENT**

**A call to action on urban logistics**

*Accompanying the document*

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL  
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

**Together towards competitive and resource-efficient urban mobility**

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#### Together towards competitive and resource-efficient urban mobility

### I. INTRODUCTION: THE CONTRIBUTION OF URBAN LOGISTICS TO CITY LIFE

Cities are places for the exchange of goods and information which are at the heart of our economy and way of life. For cities to be successful they need to optimise the exchange of goods and information while remaining attractive places to live and work.

Urban logistics ensure that shops and businesses are stocked, equipment is repaired, home deliveries are made, buildings are supplied and waste is removed. Every place of activity requires deliveries and servicing - if these logistic demands are not properly planned for urban logistics can be inefficient (e.g. low load factors) and polluting.

Urban logistics<sup>1</sup> makes up a relatively small share of urban traffic<sup>2</sup> but makes a major contribution to the success of cities. Improving the efficiency of the 'first and last mile' of deliveries is of particular important for economic growth.

Europe's cities continue to grow: 73% of Europeans already live in cities and cities generate 85% of European GDP and the level of urbanisation is expected to rise to 82% by 2050<sup>3</sup>. A growing urban population combined with other trends (e.g. home delivery, ageing population, e-commerce etc.) will lead to increased density and increased demand for goods and services – with consequently significantly increased demand for urban logistics.

### II. THE 2011 TRANSPORT WHITE PAPER AND POLICY BACKGROUND

The 2011 White Paper "Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system"<sup>4</sup> gave significant attention to urban transport and set the goal of **achieving essentially CO<sub>2</sub> free city logistics in major urban centres by 2030**.

Recently the Commission submitted its proposal to reduce CO<sub>2</sub> emissions from new vans<sup>5</sup>. These new vans will gradually enter the fleet of vehicles in the coming years. The Fuel

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<sup>1</sup> 'Urban logistics' may be defined as meaning the movement of goods, equipment and waste into, out, from, within or through an urban area.

<sup>2</sup> e.g. 18% of vehicle.km in London (Sources: Transport for London).

<sup>3</sup> DK, SE, BE, LU, MT and NL expected to have levels of urbanisation over 90% by 2050.

<sup>4</sup> COM (2011) 144.

<sup>5</sup> Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) No 510/2011 to define the modalities for reaching the 2020 target [of 147 gCO<sub>2</sub>/km by 2020 for newly registered vehicles] to reduce CO<sub>2</sub> emissions from new light commercial vehicles; COM (2012) 0394 final.

Quality Directive<sup>6</sup> should make possible a 6% reduction in the lifecycle greenhouse gas emissions from transport fuels by 2020. The Commission also set out a Clean Power for Transport Strategy<sup>7</sup> and proposed legislation<sup>8</sup> that mandates the deployment of alternative fuel infrastructure in the upcoming years much of which should be provided in urban areas – where the initial business case and benefits would be greatest.

As part of the 2009 Action Plan on Urban Mobility<sup>9</sup> (Action 19) an international conference on Urban Freight Transport<sup>10</sup> was held in Brussels on the 16<sup>th</sup> and 17<sup>th</sup> November 2010 which brought together a large range of stakeholders. Action 19 also included a "Study on Urban Freight Transport"<sup>11</sup> to provide EU policy recommendations and was completed in April 2012. The conclusions of the conference and the analysis and specific policy recommendations of the study have contributed to the contents of this strategy.

For many years the European research programmes have been supporting research and dissemination into urban freight vehicles and solutions. Several CIVITAS projects are focusing particularly on urban city logistics, in testing innovative policy and technological solutions. A wide range of best practices and case studies are available online for free<sup>12</sup>.

The results of the 2012 online public consultation on "The urban dimension of the EU transport policy" and related expert meetings revealed that urban logistics is a neglected area of urban transport planning and that Information and Communication Technologies (ICT) have a strong potential to improve urban freight operations.

The Commission's Communication on e-commerce and online services<sup>13</sup> identifies the improvement of the delivery of goods purchased online as one of the top five priorities to boost e-commerce by 2015 – most of these deliveries are in urban areas.

The recent EC Green Paper on "An integrated parcel delivery market for the growth of e-commerce in the EU"<sup>14</sup> states that "consumers increasingly look for and resort to online purchases, notably across borders, there is a growing need for a delivery system that meets their expectations and works smoothly to facilitate their daily lives, thereby generating greater confidence in, and increased use of, e-commerce. The performance and affordability of the delivery system is also a key driver of the sustainability of the business models of many SMEs and in particular of their ability to serve their customers". A critical part of these delivery systems are the 'first and last mile' in urban areas. The delivery dimension will also be followed up in a forthcoming roadmap<sup>15</sup>.

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<sup>6</sup> Directive 2009/30/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 98/70/EC as regards the specification of petrol, diesel and gas-oil and introducing a mechanism to monitor and reduce greenhouse gas emissions and amending Council Directive 1999/32/EC as regards the specification of fuel used by inland waterway vessels and repealing Directive 93/12/EEC; OJ L 140, 5.6.2009, p. 88. More details available from <http://ec.europa.eu/environment/air/transport/fuel.htm>.

<sup>7</sup> Communication from the Commission "Clean Power for Transport: A European alternative fuels strategy"; COM (2013) 017 final.

<sup>8</sup> Proposal for a Directive of the European Parliament and of the Council on the deployment of alternative fuels infrastructure; COM (2013) 018 final.

<sup>9</sup> COM (2009) 490 – Action Plan on Urban Mobility.

<sup>10</sup> [http://ec.europa.eu/transport/themes/urban/events/2010\\_11\\_16\\_urban\\_freight\\_en.htm](http://ec.europa.eu/transport/themes/urban/events/2010_11_16_urban_freight_en.htm).

<sup>11</sup> <http://ec.europa.eu/transport/themes/urban/studies/doc/2012-04-urban-freight-transport.pdf>.

<sup>12</sup> e.g. European Local Travel Information Service: [www.eltis.org](http://www.eltis.org) and European Platform on Mobility Management: [www.epomm.eu](http://www.epomm.eu).

<sup>13</sup> "A coherent framework for building trust in the Digital Single Market for e-commerce and online services", COM (2011) 942 final.

<sup>14</sup> COM (2012) 0698 final.

<sup>15</sup> Communication "A roadmap for completing the single market for parcel delivery by mid-2015 – Build trust in delivery services and encourage online sales".

**III. URBAN LOGISTICS: MAIN ISSUES**

Congestion has a negative impact on the competitiveness and environment of urban economies; it causes inefficiencies in logistics operations and increases costs. The costs of the 'first' and 'last mile' of supply chains are too high and present a barrier to growth of home delivery.

The environmental impacts of urban logistics operations can be high contributing to air and noise pollution, road damage and greenhouse gas emissions. Urban freight vehicles contribute disproportionately to air and noise pollution. Due to the proximity and density of people in urban areas the external costs of urban freight transport can be high. On the positive side, efficient and functioning urban logistics operations improve the delivery experience for consumers buying on-line, they can lower delivery costs, and contribute to a sustainable development of delivery solutions.

Urban transport emits approximately 23% of transport CO<sub>2</sub> of which about a quarter is urban freight (urban freight is approximately 6% of all transport GHG emissions). Despite the efforts of some cities and Member States, reducing these emissions will require major efforts in the years ahead.

The short distances, regular start stop, captive fleets and the large number of people exposed to the air and noise pollution provide an opportunity for urban logistics to make an early and significant contribution to optimising transport and foster the early and cost effective introduction of new types of operations, technologies and business models.

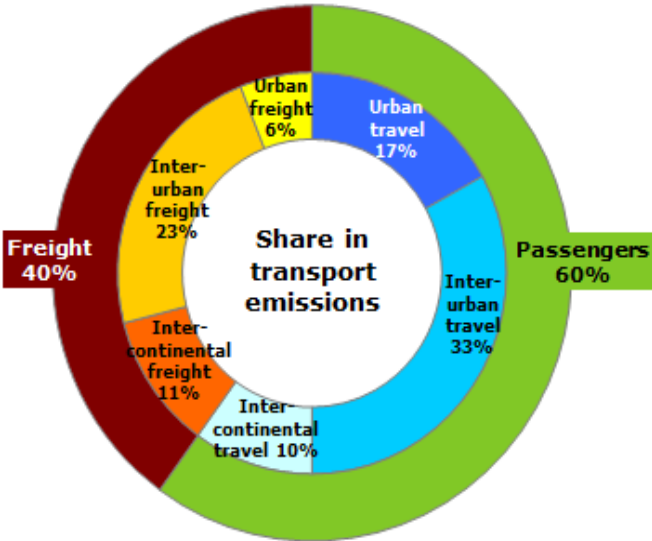


Figure: CO<sub>2</sub> emissions from transport<sup>16</sup>

Whilst the 2011 Transport White Paper goal targets a reduction in CO<sub>2</sub> emissions it is important to acknowledge that such action will also lead to reductions in other emissions such as NO<sub>x</sub> and PM which are too high in many urban areas and are very harmful to human health.

Business trends (e-commerce, personalized delivery, business to consumer) driven by technological developments are leading to significant changes in behaviour and expectations.

<sup>16</sup> Source: PRIMES and TREMOVE.

Simple improvements in urban logistics such as better mode and vehicle selection, improved load factors, route optimisation and access to loading/unloading zones can be very cost effective and reduce the cost of goods and services.

While there is a general consensus on the problems of urban logistics and there is also widespread agreement on the possible solutions to these problems the solutions are not implemented in a systemic way. In a survey of Swedish cities 43% did not spend any time working on freight transport issues despite 65% identifying freight transport as a problem<sup>17</sup>.

**Urban logistics is heavily neglected<sup>18</sup> in city and transport planning.**

### **Lack of focus and strategy on urban logistics**

Few cities have a well-developed and comprehensive urban logistics strategy. City authorities focus their attention and resources on passenger transport and lack appreciation of the contribution urban logistics makes to the city economy and the potential for working with urban logistics stakeholders to improve urban logistics efficiency, reduce costs and negative impacts. Despite its key role in the urban economy few cities have a clearly identified official responsible for urban logistics.

For businesses, operators, infrastructure and service providers to be able to plan properly there needs to be a well-considered and stable long term vision for a city's logistics. Some cities may decide to focus on reducing costs others on air quality improvements, safety or reducing greenhouse gas emissions. But to be effective the vision needs to be integrated with other urban policies, clearly articulated and shared by all stakeholders. **Urban Logistics is not properly integrated into urban transport and economic development strategies.**

### **Lack of co-ordination of urban logistics actors**

The majority of urban logistics operations are carried out for and by private actors who operate regularly in the same cities but without a meaningful dialogue with city authorities. Inefficient operations are costly and when given the chance operators and shippers are often keen to work with city authorities to identify problems and work co-operatively to implement solutions. **Without co-operation and understanding amongst stakeholders it is not possible to implement long term solutions to urban logistics problems.**

### **Strategic freight plan for the Paris region – Ile-de-France, FR**

In 2012 the broader Paris region 'Ile-de-France' launched its integrated freight strategy for the period until 2025. The plan concerns the expected future logistics demands of the Paris region and addresses not only the transport aspects but also the other logistics functions such as organisation, storage and transshipment. The plan sets out nine strategic actions to be taken, identifies who will lead on each action and who the necessary partners are.<sup>19</sup>

<sup>17</sup> Assessing knowledge and awareness of the sustainable urban freight transport among Swedish local authority policy planners – Maria Lindholm and Magnus Blinge, 2006.

<sup>18</sup> 83% of those who expressed an opinion did NOT agree that 'urban transport planning give sufficient consideration to urban freight logistics' – DG MOVE Public stakeholder Questionnaire 2012.

<sup>19</sup> [http://www.driea.ile-de-france.developpement-durable.gouv.fr/IMG/pdf/DOS\\_Fret\\_IdF\\_-\\_horizon\\_2025\\_cle2d3e18-1.pdf](http://www.driea.ile-de-france.developpement-durable.gouv.fr/IMG/pdf/DOS_Fret_IdF_-_horizon_2025_cle2d3e18-1.pdf).

## **Lack of data and information**

In almost all cities there is a lack of information and understanding of freight flows. What is being moved, where, when, by who and by what means? Improving such information is important for the economy. The Green paper on an integrated parcel delivery market for the growth of e-commerce in the EU (COM (2012) 698 final) and the roadmap for completing the single market for parcel delivery have identified the need for increased transparency and information for all actors along the e-commerce value chain as a key objective and crucial action for improving parcel delivery operations and boosting e-commerce.

Only by having good data is it possible to improve operational efficiency and plan for the long term. There is also a lack of easily available and useful information available to urban transport operators about urban logistics policies, regulations and services. Local authorities often have various restrictions on freight movements (e.g. noise, emissions or weight). New and increasingly cost effective ICT technologies can help provide clear information about possible routes, restrictions, parking, support services, alternative solutions and administrative procedures and so can facilitate access to urban areas and improve freight delivery efficiency. Such technological solutions need to be interoperable along the whole (often international) supply chain.

## **IV. URBAN LOGISTICS SOLUTIONS – WHAT NEEDS TO BE DONE?**

Without the right vision and stable policy framework it is difficult for operators to see a clear business case to make the investments necessary to implement solutions to urban logistic problems. Clear strategies for the management of urban logistics are needed at the national and primarily local levels. These strategies need to set out clearly the objectives and the measures that will be implemented to reach them. Implementation needs to be monitored, plans need to be periodically reviewed and revised. For local decision makers to provide the necessary support and focus, they need a deeper and clearer understanding of the contribution urban logistics makes to the economy. To improve urban logistics in the long term there needs to be better definitions, data collection, monitoring and evaluation.

City authorities, regions, logistics operators and businesses have a common interest to optimise city logistics – but far too often they operate in isolation and without the necessary co-operation and agreement.

Through bringing together the local actors, as part of a Sustainable Urban Mobility planning, meaningful plans of action can be developed.

A review of best practice shows that particular attention should be paid at the following areas:

### *1. Manage urban logistic demand*

Good land use planning and the widespread use of 'service and delivery plans' can reduce the impacts and cost of urban logistics (for operators and society as a whole) and are particularly important for large sites (e.g. hospitals, office buildings, factories, city centres).

Simple actions by consumers and operators can help manage the demand for urban logistics so as to improve service and reduce costs. For example bundling outgoing shipments together to allow a single collection or shifting some deliveries to off peak periods can improve logistics efficiency and reduce costs. Concerted efforts by businesses in London during the 2012 London Olympics helped reduce congestion and delays – many companies have since made their 'temporary' Olympic delivery changes permanent.

### **Promotion of Delivery and Servicing Plans – London, UK**

Transport for London (TfL) support operators of large sites in the city to develop and implement site based 'Delivery and Servicing Plans' to improve logistics efficiency and reduce congestion and emissions. TfL provides guidance and advice so sites can prepare their unique plan addressing their specific delivery, collection, service trips and waste removal needs. Sites are also encouraged to ask their suppliers carriers to join the London Freight Operators Recognition Schemes – another initiative in the London Freight Plan.<sup>20</sup>

#### *2. Shift modes*

Urban logistics remains dominated by road transport. But analysis of freight patterns can identify certain flows (e.g. light short distance or heavy regular flows) that can be more efficiently moved to alternative modes of transport such as bike<sup>21</sup>, boat or rail.

Many different solutions have been tested and are technically proven – but without the city authorities providing the right framework conditions e.g. strategy, dedicated space, enforcement, privileged access, planning conditions, free parking etc. good technical solutions often struggle for economic viability even if they deliver overall improvements.

### **Urban deliveries by boat – Utrecht, NL**

Since 2005 boats have been successfully delivering goods (including frozen foods and beer) and collecting waste for businesses in the historic city of Utrecht. Since 2010 an electric, zero emission boat has been in use that can run for 8-9 hours on a single charge. These solutions make use of existing spare capacity on the canals and reduce road goods vehicle traffic in the city centre.

#### *3. Improve efficiency*

Urban deliveries are often delayed by road congestion and inadequate loading/unloading facilities which can significantly increase the direct and indirect costs of urban transport, causes further congestion and environmental consequences. Similarly poorly planned and/or executed urban logistics can cause wider traffic delays e.g. if suitable loading places are not available.

Better selection of modes and vehicles can ensure that a transport solution is optimally matched with the shipments' and the cities requirements.

Increasing the generally poor load factors of existing urban freight vehicles can be a very cost effective way to reduce costs and impacts.

New ITS solutions can help to optimise routes, improve service and reduce costs and impacts. In the framework of the e-Freight initiative<sup>22</sup>, attention will be given to the optimisation of information exchange for urban freight transport as part of longer (international) logistics chains. Driver training can also be a cost effective way to improve urban logistics with low costs.

<sup>20</sup> [http://www.tfl.gov.uk/microsites/freight/delivery\\_servicing\\_plans.aspx](http://www.tfl.gov.uk/microsites/freight/delivery_servicing_plans.aspx).

<sup>21</sup> 25% of all urban goods could be delivered by bike.

<sup>22</sup> [http://ec.europa.eu/governance/impact/planned\\_ia/docs/2013\\_move\\_001\\_e\\_freight.pdf](http://ec.europa.eu/governance/impact/planned_ia/docs/2013_move_001_e_freight.pdf).

### **Management of truck parking – Rotterdam, NL**

The Rotterdam Fruitport is located next to a residential area, many truck drivers make use of this area to park their vehicles, especially in the weekends causing safety, noise and accessibility problems for local residents. Through the use of intelligent transport system technologies Fruitport are now able to manage the truck parking, reduce the parking in residential areas and regulate the movement of lorries from the highways to the port area. An additional expected outcome is that the measure is speeding up the handling/ processing of orders.

#### *4. Improved vehicles and fuels*

The operational characteristics of urban logistics can often be suitable for the early introduction of new types of vehicles and operational models (e.g. electric vehicles, off peak deliveries). Improvements in vehicles can make urban logistics quieter, safer, cleaner and more efficient.

The Commission adopted on 24 January 2013, the "Clean Power for Transport Package", which is constituted by a Communication<sup>23</sup>, an LNG action plan and a legislative proposal<sup>24</sup>. The Communication sets out a comprehensive alternative fuels strategy for the long-term substitution of oil as energy source for transport, comprising all modes of transport. It provides a framework to guide investments and technological development. The legislative proposal requires the implementation of an EU-wide harmonised alternative fuels infrastructure, for the selected fuels by 2020.

The clean power for transport initiative will guarantee the deployment of alternative fuels infrastructure, in particular electric recharging stations within urban areas. This will help urban freight and logistics and fleets operators to use cleaner vehicles to operate within cities and therefore contribute to the 'zero emission' target for urban freight logistics in major urban centres by 2030.

The density and frequency of operations and actors makes urban areas a particularly attractive place for the roll out of alternative fuel infrastructure. The large number of actors in urban logistics operating on a commercial basis makes it a very suitable sector for the uptake of new but profitable business models – particularly if the right local policy framework is in place.

While public budgets remain limited there may be financial constraints to the implementation of some solutions - but many of the solutions to urban logistics problems are cost effective and the investment will come from the private sector. For example if cities limit access to very low emission vehicles can ensure the deployment and operation of alternative fuels vehicles and infrastructure may well be delivered by the private sector.

To support this development the Commission has just launched a large scale demonstration project 'FREVIEW - Freight Electric Vehicles in Urban Europe'<sup>25</sup> which will demonstrate innovative urban logistics solutions in eight EU big cities using electric vehicles.

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<sup>23</sup> Clean Power for Transport: A European alternative fuels strategy, COM (2013) 017 final.

<sup>24</sup> Proposal for a Directive of the European Parliament and of the Council on the deployment of alternative fuels infrastructure, COM (2013) 018 final. This package is accompanied by a Staff Working Document on Actions towards a comprehensive EU framework on LNG for shipping.

<sup>25</sup> <http://freview.eu>.



## V. NEXT STEPS

The Commission has been providing support for the preparation and dissemination of urban logistics **best practice**. In particular the Best Practice Factory for Freight Transport (BESTFACT)<sup>26</sup> provides access to a wealth of best practice experience<sup>27</sup> and expertise. Over 70 urban freight case studies are available on the European Local Transport Information Service.<sup>28</sup> **The support for urban logistics best practice will continue and more effort is needed to increase dissemination and take up through focussed activities on urban logistics.** Ensuring the transferability is not easy - the BESTLOG<sup>29</sup> project identified the 10 steps needed in order for the 'transferability' of best practices to take place. This can only be successful if city authorities provide the right, stable framework conditions so that logistics operators will have the necessary business case to 'take up' best practice.

The Commission will also prepare, with experts, **guidance documents that provide practical assistance** on how to improve urban logistics performance: e.g. Urban Logistics definitions, data collection and evaluation methodologies, recommendations and Best Practices for including urban logistics in Sustainable Urban Mobility Plans, treatment of urban logistics in access restriction schemes, Delivery and Service Plans, implementation of consolidated local urban delivery schemes, reducing CO<sub>2</sub> emissions from urban logistics for cities and operators, and ITS solutions supporting city logistics.

**Joint procurement of low emission urban freight vehicles** has potential benefits for operators, manufacturers and the environment. However the potential benefits are often not easily foreseeable and significant effort is required to bring actors together (in particular actors from different Member States) early enough in their procurement processes to identify common specifications and prepare the joint tendering processes.

The new horizontal EU legislation to be adopted in 2014<sup>30</sup> contains clear rules in order to facilitate this process. Additionally, the life-cycle approach, introduced into procurement legislation by Directive 2009/33 (the 'Clean Vehicles Directive')<sup>31</sup> has been incorporated into this new horizontal cross sector legislation. The Commission will support projects to understand and facilitate joint procurement of urban freight vehicles and **review the scope of the 'Clean Vehicle Portal'** which was originally created to facilitate the application of the Clean Vehicles Directive to bring information, and actors together.

Member States should consider **ensuring that urban logistics are given proper consideration in their national approaches to urban mobility and in Sustainable Urban Mobility Plans**. Member States should also consider ensuring creating platforms for cooperation, exchange of data and information, training, etc., for all actors of urban logistics chains.

## VI. CONCLUSION

Efficient urban logistics is essential for the economy and the quality of life in cities where most European citizens live but is largely neglected in urban transport policy and planning.

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<sup>26</sup> [www.bestfact.net](http://www.bestfact.net).

<sup>27</sup> The action responds to Recommendation 8 of the 2012 'Study on Urban Freight'.

<sup>28</sup> [www.eltis.org](http://www.eltis.org).

<sup>29</sup> [www.bestlog.org](http://www.bestlog.org).

<sup>30</sup> Proposal for a Directive of the European Parliament and of the Council on procurement by entities operating in the water, energy, transport and postal services sectors, inter-institutional file 2011/0439 (COD).

<sup>31</sup> Directive 2009/33/EU of the European Parliament and of the Council of 23 April 2009 on the promotion of clean and energy-efficient road transport vehicles, OJ L 120, 15.5.2009, p. 5.

Despite the general agreement on the problems, and in many cases the solutions, there is a broad lack of attention to urban logistics issues.

This strategy, along with the accompanying Communication on Sustainable Urban Mobility Plans, is a call for action at all levels to **improve the efficiency of urban logistics**.

Improving urban logistics is an area where early progress can be made towards the overall goal of reducing transports greenhouse gas emissions 60% by 2050.

**Urban freight policy can deliver cost effective improvements** at the local level and at the same time make significant contributions to longer term European transport, environmental and economic policy goals/objectives.