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ProSFeT Project

**Promoting Sustainable Freight Transport in
Urban Contexts: Policy and Decision-
Making Approaches**

D4.5

Policy Briefs





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1. Context

This policy briefing comes as a result of the research work performed within the ProSFeT project during 2016-2019. These recommendations are aimed to fit within the policy targets of the following EU and global initiatives:

- 1) Urban Agenda for the EU: <https://ec.europa.eu/futurium/en/urban-agenda>
- 2) United Nation's New Urban Agenda: <http://habitat3.org/the-new-urban-agenda>
- 3) United Nations' Sustainable Development Goals: <https://sustainabledevelopment.un.org/?menu=1300>
- 4) EU's Smart Cities Strategy: https://ec.europa.eu/info/eu-regional-and-urban-development/topics/cities-and-urban-development/city-initiatives/smart-cities_en

The policy recommendations come from the following sources:

- Research reports developed within ProSFeT (WP1, WP2)
- Technical reports developed within ProSFeT (WP1, WP2)
- Research publications in academic journals
(<http://www.prosfet.eu/PROSFET/index.php/publications/>)

Stakeholders (types) involved in developing and/or influencing the policy recommendations:

- Universities & research centres
- Local & regional councils
- Industries
- Local/regional decision makers
- End-users

Specialized policy briefing areas presented in this document:

- Stakeholder engagement
- Waste management
- Urban decongestion through lorry parks and urban consolidation centres
- Urban decongestion through the freight tram & innovative last mile
- Urban decongestion through charges and incentives
- Urban decongestion through public transport infrastructure enlargement and park & ride facilities
- Local, regional & national policy making
- Citizen education





2. Policy briefings

2.1 Stakeholder engagement

[PR1] Develop an Urban Multi-Stakeholder Platform focused on transportation. Public authorities should enable a platform for multi-stakeholder co-creation and collaboration aimed at enabling a faster implementation of sustainable transportation initiatives in the urban context. The ultimate aim of this platform would be to enable incentives & goal-alignment when it comes to ensuring the participation of each stakeholder to the successful implementation of any related initiatives.

[PR2] Devise a strategy for a constant stakeholder appraisal. Local authorities should always keep track of any new stakeholder that appears in the sphere of sustainable freight transportation in urban contexts. At the moment, confirmed stakeholders consist of: freight operators, infrastructure owners, public authorities, citizens/consumers, local retailers (end receivers), public transport operators, delivery operators, etc. Nevertheless, new stakeholders might appear (including NGOs, e-commerce entities and others) that might be required to be included in the decision-making process for enabling the transition to the sustainable urban transport.

2.2 Waste management

[PR3] Switch to electric & route-optimized waste collection vehicles. Local authorities should incentivize and promote the replacement of fossil-fuelled waste collection vehicles with electric ones in order to contribute to the pollution reduction in the urban areas. Similarly, waste collection route optimization mechanisms should be implemented (to reduce energy consumption).

[PR4] Implement smart bins. Local authorities should incentivize and promote the utilization of smart collection bins that would facilitate a better route planning for waste collection vehicles.

[PR5] Handle seasonal waste flows. Local authorities should make better urban and regional planning to foster seasonal urban concentrations (i.e. touristic, seasonal worker and student populations) that cause seasonal increases in waste flows that require a more intense waste collection process that causes further congestion in urban contexts.

[PR6] Integrate reverse logistics flows in urban planning. In order to achieve a more effective urban logistics, local authorities should consider reverse logistics flows, namely, waste and commercial returns management into their urban policy planning.





[PR7] Promote the use of parcel lockers for commercial returns. Local authorities should promote the utilisation of parcel lockers and mini warehouses for collecting commercial returns, which have become a major challenge for citizens and retailers.

2.3 Urban decongestion through lorry parks and urban consolidation centres

[PR8] Promote the use of alternative urban freight shipments. This can be done via the development of urban consolidation centres, integration of both freight and passenger transportation infrastructure (including tram lines), development of parcel locker and mini-storage facilities within the city.

[PR9] Ensure better urban planning. This can be done via the use of innovative technologies and solutions that would enable: a) better lorry park location development; b) facilitation of real-time identification of lorry parking; and c) enforce the monitoring of illegal parking, loading and unloading operations.

[PR10] Make lorry parking locations more useful and attractive for the drivers. When lorry parks are available and are attractive to drivers, they are less willing to park their lorries inappropriately inside the urban areas; as such, the more attractive a lorry park is, the less lorries will be parked inappropriately in urban areas. Therefore, designing proper and attractive lorry park facilities would help to minimize social and environmental unintended consequences associated with freight transport in urban areas. Useful and attractive lorry parks should contain: safe and clean environment, CCTV, security personnel, insurance in case of vandalism, night lighting) and meals (restaurant, cafeteria, one meal included in the price).

2.4 Urban decongestion through freight tram & innovative last mile deliveries

[PR11] Develop the freight tram concept. Bridge the required stakeholders and facilitate the development of the freight tram concept aimed at: a) reducing the number of delivery vans/trucks inside the city; b) integrate waste flows into the freight tram; c) reduce the overall pollution and CO₂ emissions. This would also imply the provision of incentives to the involved stakeholders (especially to retailers, operators and infrastructure owners).

[PR12] Facilitate the implementation of innovative last mile delivery options. City councils should incentivise last mile delivery operators (in urban contexts) to utilize environmentally compliant last mile delivery infrastructure that would integrate with the freight tram concept. Such solutions consist of: man-powered devices, bikes, cargo-bikes, electrical-powered platforms, etc.

[PR13] Introduce parcel lockers in urban transport stops. City councils should consider the implementation of parcel lockers (and mini-warehouses) in urban transport stops in order to avoid the





“last-metre” product delivery in case of e-commerce. In this context, the consumer would engage in collecting/returning the products on their own. Together with this initiative, efforts required to promote this concept to the citizens are also required (proper promotion and marketing).

2.5 Urban decongestion through taxes and incentives

[PR14] Introduce congestion charges in central urban locations. In parallel with congestion & pollution reduction mechanisms (i.e. freight tram, proper lorry parks, electric waste vehicles, etc) a charge for accessing central urban locations should be introduced in order to discourage the usage of fossil-powered vehicles and to coerce the stakeholders to use the desired (new) mechanisms.

[PR15] Facilitate incentives for the involved stakeholders. To better incentivise the stakeholders to contribute to urban decongestion and pollution reduction, city councils should offer financial and non-financial incentives to all the involved stakeholders (including tax discounts, enhanced public visibility and appreciation, access to influencing decision-making, etc).

2.6 Urban decongestion through public transport infrastructure enlargement and park & ride facilities

[PR16] Introduce peri-urban mixed public transport infrastructures. In order to contribute to urban decongestion (in parallel with freight options), city councils should investigate the option of enlarging public transport infrastructure to peri-urban intensive residential areas (from where a high number of vehicles would create an inbound to the city centre). By providing bus/rail options (in combination with biking carrying/parking facilities) a high amount of vehicles could be reduce. Of course, incentives should be provided for the use of such system (see PR13).

[PR17] Introduce park & ride facilities. By introducing (convenient in terms of location and price) park & ride infrastructures at the edge of public transport lines (as it is common in many European cities) would help to reduce the number of vehicles that enter the city centre. This option works very good in practice as peri-urban park & ride facilities are much cheaper (in terms of parking cost) as well as much more convenient (faster transit to the city centre via public transport).

2.7 Local, regional & national policy making

[PR18] Decouple & provide enhanced financial autonomy to cities and regions. Unlike policy initiatives, decoupling as a policy strategy can only be pursued as a national or supranational strategy mechanism and therefore excludes independent interventions at local council levels. Decoupling strategies established as national or supranational policy approaches, aimed at separating economic growth from freight as a measure of curbing externalities from freight. Traditionally, decoupling measures have focused





on freight intensity (tonne-km), using modal split, vehicle utilisation and emissions as metric units for GDP comparisons, economic planning and forecasting.

[PR19] Advocating for a “new stakeholder” approach. In order to better facilitate policy making in urban freight, a new stakeholder (or hybrid organization) should be introduced. This new actor would be aimed at facilitating the cohesion and goal alignment of the involved stakeholders (which in most cases have conflicting goals). Whether independent or integrated within local council governance, this actor should be budgeted in a public-private business model.

[PR20] Implement better monitoring (through digital approaches) at the city level. In order to properly monitor improvements at the urban level, local councils should invest in the implementation of IoT infrastructures that would increase the amount of collectible data to be used for decision making. Regardless of the chosen solutions, the required technological infrastructure is a must to properly influence policy making and investment decisions.

[PR21] Policy makers should go beyond optimising resource consumption to actually reducing the demand. A fundamental mindset shift is required across all levels of policy making when it comes to reducing congestion and pollution in urban areas. Whether investments in optimising resource consumption and reducing pollution are indeed helpful, there is a need (more than ever) to facilitate radical solutions dealing with removing the need for intense motorized mobility (in central urban locations). The increase transformation of roads to pedestrian areas, enlarging bike lane infrastructure, remote working, etc – can pose as promising solutions to re-shaping the city of the future.

[PR22] Adopt policy making tools. In order to facilitate the next-generation planning, one key contribution in this area include best practice collations, strategic planning tools, and incentivising approaches for sustainable urban freight transportation and cooperation amongst stakeholders.

[PR23] Urban Freight Transport indicators: Local authorities should promote and incentivise the identification, definition and utilisation of indicators to evaluate urban freight transportation performance measures.

2.8 Citizen education

[PR24] Conduct citizen education campaigns. In order to ensure that all of the proposed innovations will be utilized by the end-users, intensive citizen education campaigns should be organized to raise awareness of the necessity & benefits brought by these tools as well as to educate the consumers. Strategic behavioural approaches (through neuro-marketing) could be adopted (within the approved ethical frameworks) to adopt an innovative approach to public engagement and education.





Conclusion

This policy briefing comes as a result of the research work performed within the ProSFET project during 2016-2019. These recommendations are aimed to fit within the policy targets of EU and global initiatives in terms of reducing congestion and pollution in urban contexts. The proposed policies fall within the following directions:

- [PR1] Develop an Urban Multi-Stakeholder Platform focused on transportation.
- [PR2] Devise a strategy for a constant stakeholder appraisal.
- [PR3] Switch to electric & route-optimized waste collection vehicles.
- [PR4] Implement smart bins.
- [PR5] Handle seasonal waste flows.
- [PR6] Integrate reverse logistics flows in urban planning.
- [PR7] Promote the use of parcel lockers for commercial returns.
- [PR8] Promote the use of alternative urban freight shipments.
- [PR9] Ensure better urban planning.
- [PR10] Make lorry parking locations more useful and attractive for the drivers.
- [PR11] Develop the freight tram concept.
- [PR12] Facilitate the implementation of innovative last mile delivery options.
- [PR13] Introduce parcel lockers in urban transport stops.
- [PR14] Introduce congestion charges in central urban locations.
- [PR15] Facilitate incentives for the involved stakeholders.
- [PR16] Introduce peri-urban mixed public transport infrastructures.
- [PR17] Introduce park & ride facilities.
- [PR18] Decouple & provide enhanced financial autonomy to cities and regions.
- [PR19] Advocating for a “new stakeholder” approach.
- [PR20] Implement better monitoring (through digital approaches) at the city level.
- [PR21] Policy makers should go beyond optimising resource consumption to actually reducing the demand.
- [PR22] Adopt policy making tools.
- [PR23] Urban Freight Transport indicators.
- [PR24] Conduct citizen education campaigns.

