

Helsinki

Recommendations for Reducing Urban Logistics Emissions in Helsinki

MADLESS – Meta-Analysis Driven Logistics Emission Solutions through Stakeholder Collaboration

Key findings of the project



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**Funded by
the European Union**

Recommendations for Reducing Urban Logistics Emissions in Helsinki

MADLESS – Meta-Analysis Driven Logistics Emission Solutions through Stakeholder Collaboration. Key findings of the project.

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Use of Artificial Intelligence

This publication was translated using Microsoft Copilot, a generative AI tool. The authors reviewed and edited the translation and are fully responsible for the content of this publication.

Photos

Veikko Somerpuro / City of Helsinki Media Bank

Year of publication

2026

Summary

Helsinki has committed to ambitious climate targets in the 2025 City Strategy. Transport accounts for approximately 45% of the city's total carbon dioxide emissions and is therefore the single largest source of emissions. The share of freight and delivery transport in the city's overall emissions is increasing significantly. Consequently, emissions associated with logistics must be reduced if Helsinki is to achieve its climate objectives.

To identify the most effective logistics emission reduction measures and those best suited to Helsinki, the City of Helsinki's Traffic and Street Planning Service and the Tampere University Transport Research Centre Verne, implemented the EU-funded MADLESS project (*Meta-Analysis Driven Logistics Emission Solutions through Stakeholder Collaboration*). Based on the project findings, the project team presents ten recommendations for reducing emissions from urban logistics in Helsinki. The recommended measures are based on research conducted during the project and on extensive dialogue with stakeholders. The measures focus on aspects of urban logistics over which the city has the greatest influence.

Zero-emission urban logistics cannot be achieved through individual measures alone. Reaching the established climate targets requires close cooperation with stakeholders across the sector. The city's key roles in evolving urban logistics were identified as those of an enabler and a provider of a predictable operating environment.

The measures recommended by the project team for developing urban logistics and reducing emissions are presented in Table 1. To support implementation, detailed action cards outlining practical steps have also been prepared (page 16).

Table 1. Recommended measures in thematic groups.

Helsinki must act predictably and with a long-term perspective	Urban environment supports sustainable urban logistics	Extensive charging infrastructure enables fleet renewal
- Regular and transparent stakeholder cooperation - Establishment of a zero-emission zone for logistics - Utilisation of data in the development of urban logistics - Procurement criteria for vehicles and transport services	- Sufficient and appropriately designed loading and unloading bays - Allowing off-peak deliveries by zero-emission vehicles - Use of public transport lanes and streets as an incentive for zero-emission freight transport - Establishment of an urban consolidation centre in or near the city centre	- Expansion of public charging facilities - Shared charging infrastructure models and incentives

1 The importance of logistics in achieving Helsinki's climate targets

Helsinki aims to reduce its direct carbon dioxide emissions by 85% from 1990 levels by 2030. A net-zero target has been established for 2040, meaning that the city's carbon emissions and carbon sinks will be in balance. Greenhouse gases will therefore be generated only to the extent that they can be absorbed by natural sinks or removed through other means, such as technological and biological carbon removal solutions.

Logistics emissions must be reduced if Helsinki is to achieve its climate objectives

The city's direct greenhouse gas emissions have decreased by a total of 67% compared with 1990 levels, and emissions have fallen by approximately 50% during the 2020s alone. At the same time, Helsinki has continued to grow, and direct emissions per capita have declined by 76% since 1990. The most significant reductions have been achieved in energy production. In 2025, transport became the largest source of direct carbon dioxide emissions in Helsinki. Although transport emissions have also declined, progress has been considerably slower than in other emission sectors. In particular, emissions from freight transport should be reduced further.

According to current projections, the city will be able to reduce its emissions by approximately 83% by 2030 without additional measures. Helsinki's Climate Action Plan, which is being updated in 2026, has identified further actions that could enable the city to reach its 85% reduction target. Achieving the 2040 net-zero target is expected to become a major challenge during the 2030s.

The electrification of heavy goods vehicles and vans, together with supporting measures such as the expansion of charging infrastructure, can significantly accelerate emission reductions in logistics. The share of electric passenger cars in Helsinki has increased considerably, but the transition to alternative vehicle technologies among vans and lorries is only beginning. In 2025, plug-in vehicles accounted for approximately 26% of passenger cars registered in Helsinki. The corresponding figures were only 7% for vans and 1% for lorries. In the coming years, logistics is likely to account for an increasing proportion of transport-related emissions.

2 Background to the recommendations: research and collaboration

The MADLESS project team examined methods for reducing emissions from urban logistics through scientific research and extensive stakeholder engagement. In this context, urban logistics was defined as freight transport taking place within urban areas. Long-distance freight transport was excluded from the scope of the project. Alongside emission reduction measures, the project also identified key drivers and barriers associated with their implementation. The project results demonstrate that cooperation and the identification of a shared portfolio of solutions can help all stakeholders accelerate the transition towards zero-emission urban logistics.

2.1 Research

Research played a central role in the project and provided the foundation for developing Helsinki's urban logistics emission reduction measures. Three master's theses were completed during the project, and a fourth was scheduled for completion before the project concluded. Research articles based on the project findings are intended for publication in peer-reviewed scientific journals.

The vehicle fleet transition, namely the replacement of fossil fuel vehicles with lower-emission alternatives, is a prerequisite for achieving the city's emission reduction targets. High-quality and comprehensive data are also required to support decision-making. However, a successful transition to low-emission urban logistics cannot rely solely on technological solutions. Equally important are long-term decision-making processes and effective stakeholder collaboration. Those cities examined during the research that had successfully reduced emissions emphasised the importance of early involvement of logistics companies and other stakeholders, open communication, and predictable policy-making. Industry stakeholders likewise stressed that future requirements and the investment environment must be sufficiently predictable to support decisions regarding fleet renewal and charging infrastructure investments.

Fleet electrification and zero-emission zones are the most important measures for reducing logistics emissions

The research reviewed measures and practices implemented across Europe to promote zero-emission urban logistics. Based on the literature review and international expert interviews, vehicle electrification emerged as the primary prerequisite for reducing emissions from urban logistics. However, the uptake of

electric freight vehicles depends heavily on the availability of adequate charging infrastructure and suitable financial incentives. Electric vehicles currently have higher purchase costs than conventional vehicles, while electricity prices influence operating costs.

Zero-emission zones emerged as one of the most promising regulatory instruments for reducing emissions from freight transport. Experiences from Dutch cities demonstrate that successful implementation requires clear timetables, phased introduction and predictable regulation. In many cities, major regulatory changes affecting urban logistics were announced more than three years before their entry into force.

According to the research findings, electrification of the freight vehicle fleet represents the most important measure for reducing urban logistics emissions in Helsinki. The role of the City of Helsinki is to act as both facilitator and coordinator by supporting stakeholder cooperation, advancing infrastructure development, providing information and guidance, incorporating logistics needs into urban planning and leading by example through sustainable procurement practices.

Because fleet electrification was identified as one of the most significant emission reduction measures, the project evaluated the impacts of different electrification scenarios and supporting urban logistics measures (zero-emission zones and megawatt charging systems) on freight transport and emissions in the Helsinki region. A regional freight transport model for the Helsinki metropolitan area was developed using the Simulation of Urban Mobility (SUMO) platform. The results demonstrate that accelerated fleet electrification significantly reduces freight transport emissions while increasing the utilisation of charging infrastructure. The introduction of zero-emission zones was also found to reduce emissions, while additional megawatt charging stations improve the operational efficiency of electric lorries.

Decision-making must be based on reliable information. Consequently, data utilisation has become increasingly important in the development of urban logistics. From the City of Helsinki's perspective, up-to-date information is needed on transport routes, key loading and parking locations, the urban logistics vehicle fleet, freight volumes and delivery schedules, as well as empty vehicle mileage. Identified data sources include open datasets and statistics, traffic monitoring and counting systems, companies operating within the urban logistics sector, and commercial providers of large-scale data packages. The city should allocate sufficient resources to data collection and utilisation and adopt a systematic data management process. This process may include setting objectives, defining information needs, identifying data sources, collecting and processing data, utilising data effectively, and ensuring appropriate data sharing and storage. Successful data-driven management also

requires trust and collaboration between the city and stakeholders involved in urban logistics.

Stakeholder perspectives were examined through dedicated workshops. The workshops revealed differences in stakeholder views regarding the effectiveness and feasibility of various measures. The aggregated workshop results were compared with the findings of the literature review. This comparison showed that stakeholders particularly favoured measures that fall within the city's sphere of influence and have a clear implementation pathway. Measures related to charging infrastructure, procurement criteria and stakeholder communication were generally considered both impactful and feasible. This finding is consistent with previous research identifying infrastructure development, public-sector leadership and collaboration as key enablers of emission reductions in urban logistics. Workshop participants generally placed greater value on measures that can be implemented in the short term than on solutions whose benefits depend on broader system-level change or long-term behavioural shifts.

Urban consolidation centres, cargo bike deliveries, off-peak delivery schemes, and zero-emission zones have been consistently associated in the literature with substantial emissions reductions when implemented under favourable conditions. Nevertheless, many workshop participants regarded these measures as difficult to implement or as having comparatively limited impacts. This discrepancy suggests that stakeholders evaluate such measures not only in terms of their environmental benefits but also through the lens of the local challenges associated with their implementation. These challenges include, for example, the investments and tangible business adjustments required from companies, limited stakeholder commitment, concerns related to information sharing, and the political feasibility of implementation.

Study visits demonstrated the implementation of multiple emission reduction measures

During the project, the team explored practical urban logistics solutions through study visits to Gothenburg, Stockholm and Hamburg. In these case-study cities, low-emission freight transport has been promoted through measures including the expansion of charging infrastructure, the establishment of urban consolidation centres, the implementation of digital solutions and the development of new forms of cooperation between the public and private sectors.

In all three cities, promoting the electrification of logistics was identified as one of the most important measures alongside other emission reduction initiatives. However, the deployment of charging infrastructure revealed significant differences from prevailing assumptions. In each city, fleet vehicles were charged primarily at logistics companies' own terminals and depots rather than at public charging stations. Logistics operators considered public charging less attractive due, among other

factors, to higher charging costs. Furthermore, identifying suitable locations for charging stations can be challenging in densely developed urban areas. Terminal-based and semi-public charging solutions were regarded positively because they can also support cooperation between companies.

An explicit and predictable operating environment emerged as one of the key prerequisites for success. Logistics companies require a long-term view of forthcoming regulatory changes to plan investments in vehicles and infrastructure. Continuous dialogue between city authorities and businesses was promoted through collaborative networks such as the Gothenburg Freight Network and Hamburg's Logistics Initiative. Members particularly valued the long-term and permanent nature of these forums, as well as the appointment of dedicated logistics contact persons within city administrations.

During the study visits, discussions also addressed the potential of off-peak and quiet-time deliveries to improve the efficiency and sustainability of urban logistics. Experiences from the case-study cities indicated that deliveries taking place outside peak traffic periods are particularly suitable for business-to-business and public-sector deliveries where reception arrangements can be organised with limited staffing requirements. Examples include school food deliveries in Gothenburg and hotel deliveries in Stockholm. Off-peak deliveries have been shown to reduce congestion and improve vehicle utilisation rates, while noise impacts can be effectively managed through careful planning and operational practices.

2.2 Stakeholder engagement

Stakeholder engagement and face-to-face interaction played an important role throughout the project. Meetings organised as part of the project helped establish and strengthen urban logistics stakeholder networks both within Helsinki and among EU's Mission Cities across Finland and Europe.

Three stakeholder workshops were conducted during the project, in which the research findings were examined and discussed collaboratively from the perspective of Helsinki. Participants included a wide range of key stakeholders from both the public and private sectors, including logistics companies, organisations procuring transport services, associations, municipal organisations, the Helsinki City Executive Office and various departments within the City of Helsinki Urban Environment Division. The workshops explored a broad range of potential emission reduction measures identified through research. Emphasis was, however, placed on those measures that the City of Helsinki can influence directly or support through its policies and actions. Measures were assessed based on their feasibility and

emission reduction potential. Feasibility referred to the practical ease or difficulty of implementation, including the need for substantial investments or regulatory changes. Given the complexity of these assessments, stakeholder perspectives differed substantially for certain measures.

In addition to the workshops, the project team organised meetings and interviews with diverse stakeholder groups and collaborated with urban logistics projects in other cities. Feedback on both the workshops and the wider collaboration activities was positive. Representatives of the private sector expressed an interest in continuing cooperation beyond the project. Active participation demonstrated a shared recognition that addressing urban logistics challenges requires collective action and a willingness among stakeholders to contribute to the development of solutions. Going forward, particular attention should be given to ensuring that the perspectives of a broad range of actors are considered and that small and medium-sized enterprises are effectively represented through diverse engagement approaches.

As a result of the workshop discussions and research activities, the project team identified ten urban logistics measures recommended for implementation to support emissions reductions in Helsinki. For each measure, an action card was prepared including the proposed implementation timetable and the stakeholders responsible for its delivery (see page 16).

During the first workshop, participants collaboratively developed a vision for good urban logistics in 2040. The vision reflects the shared aspirations of the project's stakeholders from the public sector, private sector and research community regarding the future direction of urban logistics development in Helsinki. The vision served as a guiding framework for the project, and the recommendations were selected to support this vision.

In 2040, urban logistics in Helsinki is nearly zero-emission. Environmentally sustainable vehicles are the standard for delivery fleets, supported and guided by intelligent infrastructure and real-time situational awareness. Functional urban space accommodates the spatial requirements of different logistics activities. The efficiency of urban environment is enhanced by real-time information on loading bays and the possibility to reserve them. Quiet night-time deliveries and various types of consolidation centres are a part of the zero-emission distribution system. The operating environment for urban logistics is predictable. Urban logistics is shaped by a business-friendly and collaborative culture in which sustainable solutions are developed jointly with key stakeholders, drawing on the practical needs of everyday operations.

3 Recommendations for reducing urban logistics emissions in Helsinki

3.1 Helsinki must act predictably and with a long-term perspective

Open dialogue and proactive communication encourage stakeholders to commit to emission reductions

The City of Helsinki can directly influence only a portion of the emissions generated within its territory. Constructive and regular cooperation between stakeholders, supported by a shared vision, is therefore essential for achieving the city's emissions reduction targets. The city should establish clear targets for reducing logistics-related emissions and communicate them transparently. Open and proactive communication is essential to ensure that stakeholders understand and accept these objectives, have sufficient time to adapt their operations, and commit to their implementation. Stakeholders should be actively engaged in discussions on the most effective solutions, and the role of the city is to remove barriers to their implementation. A dedicated contact point for urban logistics matters should be assigned to ensure that cooperation with stakeholders is as efficient, seamless and direct as possible. Close collaboration between actors in the Helsinki metropolitan area and other major cities would benefit all parties. It can contribute to the creation of a more coherent operating environment for businesses across Finland's urban regions, facilitate a more balanced allocation of resources, and strengthen cities' ability to influence both their own activities and the regulatory conditions affecting businesses within their territories.

Establishing a zero-emission zone is one of the most effective ways to reduce logistics emissions

International experience and research evidence indicate that the most effective emission reduction measure available to city authorities is restricting the operation of emission-producing vehicles within urban areas. Establishing a zero-emission logistics zone would send a strong signal regarding the city's strategic direction. The larger the designated zone, the greater its potential impact: a comprehensive zone is more likely to encourage companies to invest in zero-emission vehicles than a limited scheme covering only a few individual streets. Zero-emission zones must be developed in partnership with relevant stakeholders. Information regarding

anticipated impacts, geographical scope and implementation timetable should be communicated at an early stage to ensure that both transport service providers and transport purchasers have sufficient time to adjust their operations to the new regulatory framework.

Up-to-date data are essential for emission reduction efforts

Helsinki must be able to evaluate the direct and indirect impacts of measures aimed at developing urban logistics and reducing emissions across different time horizons. This requires access to timely and high-quality data. The transition towards data-driven process for urban logistics management remains at an early stage, and the city's role and requirements have not yet been clearly defined. Key issues include data availability, costs and responsibility for maintaining relevant datasets. Additional information is needed on the vehicle fleet, freight flows and transport routes, and the provision of loading, charging and parking infrastructure. Sufficient resources should also be dedicated to supporting these development efforts.

The impact of Helsinki's emission reduction actions extends beyond the city's own operations

As Finland's largest individual public procurer, Helsinki is uniquely positioned to serve as a national example in reducing emissions from urban logistics. The city is committed to sharing best practices and the results of pilot projects openly with stakeholders and other municipalities to accelerate the transition at both regional and national levels.

Procurement criteria for vehicles and transport services should become progressively more stringent, while emission reduction targets should remain ambitious.

Procurement requirements should also be harmonised across municipalities within the Helsinki metropolitan area, providing businesses with a clear and consistent operating environment. Longer-term procurement contracts can further reinforce the city's long-term policy direction and provide companies with greater certainty when investing in new vehicle fleets.

As the parent organisation, the City of Helsinki can also encourage members of the Helsinki City Group to reduce emissions associated with vehicles and transport operations. Where necessary, the city can support these organisations in developing roadmaps for phasing out fossil fuels. Many of the municipal entities are among the largest actors in their respective sectors in Finland and can therefore influence emission reductions well beyond their own operations through their procurement decisions.

3.2 Urban environment supports sustainable urban logistics

The operating environment must enable efficient deliveries

Sufficient, appropriately designed loading bays must be allocated to facilitate the safe and efficient movement of deliveries and service vehicles. Minimising vehicle mileage also reduces the environmental impacts of freight transport. When developing traffic arrangements, particularly in dense city-centre areas, the needs of varying types and sizes of vehicles must be considered and balanced with those of other street users.

The city should also assess options to make more effective use of bus lanes and public transport streets. Broader access rights for zero-emission freight and delivery vehicles could be introduced, which may be particularly beneficial during peak traffic periods. If access to such lanes is further extended beyond public transport users, enforcement should be strengthened through measures such as automatic number plate recognition (ANPR) cameras.

The utilisation of Helsinki's City Centre Service Tunnel should also be explored further to improve its effectiveness without increasing overall traffic volumes entering the city centre.

Extended delivery hours and urban consolidation centres offer emission reduction potential

Enabling deliveries by zero-emission vehicles outside peak periods may contribute to reducing congestion peaks and minimising potential conflicts with other user groups. However, such deliveries must not cause disturbance, particularly during night-time hours. Extended delivery windows could also be permitted for zero-emission vehicles at locations where delivery hours are currently restricted. This could provide an incentive for operators to invest in zero-emission vehicles.

The introduction of a zero-emission zone may increase the need for urban consolidation centres. Establishing such facilities could reduce heavy vehicle traffic in the city centre, decrease transport mileage, and consequently reduce emissions. The city could support businesses in testing this model by making suitable premises available and removing operational bottlenecks that may hinder their implementation.

3.3 Extensive charging infrastructure enables fleet renewal

The electrification of urban logistics will increase demand for charging infrastructure. Charging stations become more efficient when utilised by multiple operators. Reduced dependence on private charging facilities may also make investments in electric vehicles more attractive for smaller companies.

Going forward, Helsinki should require the inclusion of public charging infrastructure for vans and lorries in procurement processes relating to charging facilities in public spaces. The city should also review the duration of lease agreements for service stations located on municipal land, as longer-term agreements may encourage investment in charging infrastructure. Charging facilities should be located with rest areas and service amenities so that charging does not require operators to deviate significantly from planned delivery routes. The city should facilitate dialogue among stakeholders and help identify the most appropriate operating models for shared charging infrastructure. Helsinki should also examine the range of incentives available to accelerate the uptake of shared charging infrastructure across the city, including procurement requirements, land-use and land allocation conditions, and financial support mechanisms.

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5 Further information

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MADLESS – Meta-Analysis Driven Logistics Emission Solutions through Stakeholder Collaboration is a joint project of the City of Helsinki and Tampere University Transport Research Centre Verne. The project was coordinated by the City of Helsinki Transport and Street Planning Service. MADLESS received funding from the EU Horizon NetZeroCities Enabling City Transformation Programme and was implemented from March 2025 to September 2026.



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Helsinki Urban Logistics Action Cards

The Helsinki urban logistics action cards present the measures identified through the MADLESS project (2026) that are recommended for implementation in support of the City of Helsinki's emissions reduction targets. The measures were selected based on project research and stakeholder engagement. In addition to outlining their anticipated impacts, the action cards describe the key initial steps required for implementation, identify the actors responsible for delivery, and indicate the implementation timeframe for each measure. The content of the action cards was reviewed, refined and validated in collaboration with stakeholders through a dedicated project workshop.

Content

1. Expansion of public charging facilities
2. Shared charging infrastructure models and incentives
3. Procurement criteria for vehicles and transport services
4. Use of public transport lanes and streets as an incentive for zero-emission freight transport
5. Sufficient and appropriately designed loading and unloading bays
6. Allowing off-peak deliveries by zero-emission vehicles
7. Establishment of an urban consolidation centre in or near the city centre
8. Establishment of a zero-emission zone for logistics
9. Regular and transparent stakeholder cooperation
10. Utilisation of data in the development of urban logistics

1. Expansion of public charging facilities

Description of the measure	Increase the number of public charging points serving vans and trucks in the city. This could be implemented, for example, as part of the procurement of public charging infrastructure, by requiring that some on-street charging points enable charging for delivery vehicles. The role of fuel stations from the perspective of logistics charging infrastructure will be examined, as well as the City's means to improve the conditions for charging infrastructure in other public areas.		
Current state	Helsinki has approximately 3,000 public charging points (none of which are officially dedicated to logistics or heavy-duty vehicles). Within the eCargo project: (1) the functionality of high-power charging stations for trucks and vans was tested (in Helsinki, for example, 13 charging locations suitable for 7-metre delivery vehicles were identified), and (2) a preliminary mapping of parking locations for trucks and vans with potential demand for charging infrastructure was conducted. The City is preparing the procurement of charging points as well as a new procurement model for future public charging infrastructure. At the regional level, key public charging locations for heavy-duty vehicles have been identified at rest areas for heavy traffic, mainly located outside Helsinki. At the Port of Vuosaari, infrastructure readiness for a heavy-duty charging station exists, awaiting a key user.		
Implementation steps	• Conduct a detailed assessment of charging demand and potential charging locations (building on the eCargo study and simulation done in the master's thesis) and integrate these into the planning and procurement of public charging infrastructure • Define and document permitting processes related to charging infrastructure • Fuel stations on city-leased plots: review lease agreements, as longer-term contracts may enable investments in charging infrastructure		
Roles of the City of Helsinki and stakeholders	• Transport planning and climate unit: planning and procurement of charging points • Building control: permitting process • Land unit: review lease agreements for fuel station plots • Transport companies: provide information on preferred locations (charging along routes), vehicle types, and charging needs		
Implementation timeline (☑)	Short (1-3y) ☑	Medium (3-5y) ☑	Long (>5y) ☐
Impact	• Supports and accelerates the transition to alternative power engines • Enables significant emission reductions • Encourages smaller transport companies to invest --> public charging infrastructure can play a decisive role		

2. Shared charging infrastructure models and incentives

Description of the measure	Shared charging refers to a model in which an organisation that has built charging infrastructure for its own use provides charging access to one or more other organisations. Shared charging may involve contract-based arrangements, operator-specific solutions, and time-based allocation of charging capacity, rather than simply being open to all users.		
Current state	In some cases, companies allow their subcontractors to use depot charging infrastructure. However, no shared charging infrastructure has yet been identified in Helsinki where any company could enter into an agreement to charge at a depot. Nobina and Posti have carried out a study on the shared use of charging points, the findings of which can be utilised in the future when there is a need for shared charging solutions. For example, shared charging infrastructure is more common in Norway and Sweden. Operational models (e.g. site access, scheduling) need to be developed and integrated into infrastructure planning. A key challenge is also related to the pricing and sale of electricity, as well as associated regulatory issues.		
Implementation steps	• Conduct a study on different operational models, as well as the City's role and potential incentives (procurement criteria, land allocation conditions, financial incentives) • Examine options related to the sale of electricity (selling electricity by kW is not possible without a separate operator) • Implement a potential pilot project to gain insights into the practical implementation and impacts of shared charging infrastructure • Enable the sharing of the City's own charging infrastructure		
Roles of the City of Helsinki and stakeholders	The City will explore the potential and implementation models for shared charging infrastructure. It will act as a frontrunner by piloting the sharing of its own charging infrastructure. The City also serves as a facilitator in discussions and information-sharing related to shared charging infrastructure. For charging infrastructure located at private depots, warehouses, and terminals, the primary responsibility for sharing lies with the operators themselves.		
Implementation timeline (☑)	Short (1-3y) ☐	Medium (3-5y) ☒	Long (>5y) ☒
Impact	Shared use improves the utilisation rate of existing charging infrastructure. It also increases charging opportunities, which can encourage the adoption of electric vehicles and enable fleet electrification for SMEs that may not have the capacity to invest in their own charging infrastructure.		

3. Procurement criteria for vehicles and transport services

Description of the measure	The procurement criteria used in the City's tenders define, among other things, the minimum standards for the vehicle fleets used in transport services produced or commissioned by the City.		
Current state	The City regularly updates city-level procurement criteria for vehicles and transport services. The latest update is under decision-making in 2026. There have been challenges in implementing the criteria, and some procurement staff are not fully familiar with them. A phase-out timeline for the use of HVO will be defined as soon as feasible. The importance of market dialogue is emphasised, and procurement units are encouraged to apply more strict criteria where market conditions allow.		
Implementation steps	• Implementation of the updated procurement criteria, including their roll-out (e.g. training for procurement personnel) • Application of procurement criteria as guidance also in procurements where transport is only one component of the overall contract • Development of procurement monitoring to ensure compliance with the criteria and with the clean vehicles directive • Market dialogue in connection with procurements and stricter tender criteria where appropriate • Possible pilot procurement of electric heavy-duty vehicles • Updating and tightening procurement criteria in the coming years • Exploring service-based procurement models in cases where volumes and service levels are well defined --> may enable better optimisation compared to hourly-based purchasing • Introducing quality scoring or a small weighting in some procurements for vehicles exceeding minimum emission requirements		
Roles of the City of Helsinki and stakeholders	The Strategy Department and KYMP Environmental Services are responsible for updating the procurement criteria. Procurement is carried out by numerous City experts, making training in the application of the criteria essential. Active market dialogue with companies is crucial to ensure that tender requirements are both feasible and ambitious.		
Implementation timeline (☑)	Short (1-3y) ☑	Medium (3-5y) ☑	Long (>5y) ☐
Impact	City procurement can be an effective tool for influencing vehicle fleets and achieving emission reductions. These reductions can extend beyond the City's own contracts if the same vehicles are also used for other transport operations. However, very strict procurement criteria may limit companies' ability to participate in tenders. Vehicle availability and exceptional circumstances should be taken into account. For example, gradually introduced requirements can increase companies' ability to participate. Sufficiently long contract durations are a prerequisite for enabling investments.		

4. Use of public transport lanes and streets as an incentive for zero-emission freight transport

Description of the measure	The measure would grant zero-emission trucks and vans the right to use public transport lanes or streets that are otherwise reserved exclusively for public transport. The privilege could apply to selected existing bus lanes or streets, or it could involve the introduction of new lanes dedicated solely to public transport and zero-emission freight traffic.		
Current state	On most of Helsinki's main inbound routes, trucks and vans are permitted to use bus lanes outside weekday peak hours (7:00–9:00 and 15:00–18:00). In addition, there are numerous other bus streets and lanes in Helsinki where trucks and vans are allowed either at all times or outside peak hours. These permissions are not differentiated by vehicle propulsion type. Enforcement of the current lanes is limited, and misuse is common. Helsinki Region Transport (HSL) is currently analysing delays caused by stopping/parking in bus lanes and by driving in them. This information can be utilised when planning the use of public transport lanes and streets by zero-emission freight vehicles.		
Implementation steps	• Strengthening enforcement, for example by using ANPR (Automatic Number Plate Recognition) cameras • If necessary, conducting a survey among logistics operators to identify bottlenecks: which lanes or streets most require improved traffic flow • Piloting the measure and assessing its impacts on traffic and vehicle technologies • If required, applying for exemptions related to traffic signage • Updating traffic management plans • Communication		
Roles of the City of Helsinki and stakeholders	More detailed measures can be developed within the City's transport planning processes. Effective enforcement of both existing lanes and any future privileges is essential, with the police playing a key role. Designated contact points within the City and companies ensure that rules and privileges are clearly communicated to drivers.		
Implementation timeline (☑)	Short (1-3y) ☑	Medium (3-5y) ☐	Long (>5y) ☐
Impact	The measure can encourage the uptake of zero-emission vehicles if it provides a significant operational advantage. However, in the current operating environment, it is unlikely to be highly effective on its own and should therefore be implemented in combination with other measures.		

5. Sufficient and appropriately designed loading and unloading bays

Description of the measure	Well-designed loading zones enable efficient and safe deliveries as well as service traffic operations. Developing loading zones involves assessing both their quantity and their functionality. In addition, the aim is to evaluate the impacts of allocating loading zones specifically for zero-emission vehicles or providing other incentives, such as extending delivery time windows.		
Current state	Loading and unloading in street space is permitted in various ways; however, the lack of suitable loading zones can undermine safety and driver well-being. In Helsinki, the majority of designated loading zones are located in the inner city. Based on a loading zone development plan completed in 2025, the objective is to prepare a more detailed master plan for the inner city and to identify approximately 100 new potential locations based on demand. Traffic arrangements, such as one-way streets, may increase the need for loading zones.		
Implementation steps	• Loading zone development plan → Preparation of a more detailed inner-city master plan • Utilisation of data from the DISCO project and logistics accessibility studies in loading zone development • Recommendations for construction (zoning and building control) to ensure consideration of loading zones • Assessment of incentives for zero-emission vehicles, e.g. extending delivery hours from 18:00 to 20:00		
Roles of the City of Helsinki and stakeholders	• Transport planning: development of loading zone plans, taking into account zoning, building control, environmental management, and waste management perspectives, as well as vehicle lengths and potential lower ground clearance requirements • Needs-based planning: cooperation with companies (locations, sufficient loading/unloading time, parking enforcement, etc.)		
Implementation timeline (☑)	Short (1-3y) ☑	Medium (3-5y) ☐	Long (>5y) ☐
Impact	• Improved delivery efficiency and traffic flow reduce environmental impacts: fewer detours and stops → reduced fuel consumption, emissions, and noise • Traffic safety and the functionality of urban space improve when vehicles stop in designated areas → fewer conflicts • Loading zone incentives targeted at zero-emission delivery vehicles could encourage fleet investments in certain vehicle segments • Impacts on the uptake of urban consolidation centres and light delivery vehicles should also be taken into account		

6. Allowing off-peak deliveries by zero-emission vehicles

Description of the measure	The objective is to shift part of freight transport from congested daytime periods to evening, night, and early morning hours by utilising zero-emission vehicles and low-noise delivery practices. The suitability and feasibility of the measure depend on the delivery location.		
Current state	Most freight deliveries take place in the morning (approximately 6:00–10:00), which increases congestion, particularly in city centres. In Helsinki, deliveries during quiet hours are restricted by noise limits set in national health regulations and the City's environmental protection regulations. These prohibit activities causing particularly disturbing noise near residential, accommodation, and care facilities between 22:00 and 07:00, limiting the feasibility of night-time deliveries in residential areas. In addition, customer preferences regarding delivery times influence how transport operations are carried out.		
Implementation steps	• Assessment of the current situation: examine existing delivery time practices in city-procured transport services and identify suitable pilot locations (e.g. schools, day-care centres, hospitals, libraries, and other public buildings). • Pilot and monitoring: carry out a short-term trial using zero-emission vehicles and monitor noise levels, disturbances, and operational impacts → Further development and scaling of the measure.		
Roles of the City of Helsinki and stakeholders	City procurement units: enable off-peak deliveries in their procurement processes. Environmental and noise experts: support the assessment and monitoring of noise impacts. Transport and service companies: carry out deliveries using zero-emission vehicles and low-noise practices. Property owners and users: agree on delivery reception arrangements (e.g. keys, alarms, unattended access)		
Implementation timeline (☑)	Short (1-3y) ☑	Medium (3-5y) ☐	Long (>5y) ☐
Impact	• Night-time and early morning deliveries to schools, day-care centres, museums, and hotels can reduce disruption to daily operations while improving safety and delivery reliability. • International studies and pilot projects indicate that off-peak deliveries can significantly reduce transport-related emissions.		

7. Establishment of an urban consolidation centre in or near the city centre

Description of the measure	The City supports the establishment of an urban consolidation centre or establishes one in cooperation with key stakeholders near the city centre. The aim is to reduce vehicle kilometres, the volume of heavy traffic in the city centre, and emissions, while enabling deliveries by electric and light-duty vehicles. Various operational models are possible: a third party may handle distribution, companies may carry out deliveries themselves using smaller vehicles, or companies may utilise shared transport resources.		
Current state	The City of Helsinki is not currently directly involved in an urban consolidation centre; however, a pilot was carried out in Ruoholahti in 2024 as part of the DISCO project. In the pilot, shipments were delivered to the Ruoholahti consolidation centre using larger vans, from where they were distributed to city centre destinations using cargo bikes, electric vans, and delivery robots.		
Implementation steps	• Preliminary study: analyse the need and identify potential locations • Definition of cooperation model: clarify the City's role (enabler, client, pilot partner, provider of space, facilitator of long-term operations) • Pilot phase → Evaluation and further development		
Roles of the City of Helsinki and stakeholders	Companies play a key role in identifying suitable locations. The City enables operations and facilitates the launch of potential pilot projects. The consolidation centre operator is a dedicated management and operating entity responsible for daily operations, customer relations, and financial viability. Typically, such operations do not emerge without a clearly defined responsible entity for whom the consolidation centre constitutes an independent business activity. Companies require strong regulatory measures or incentives to shift from their current logistics practices.		
Implementation timeline (✓)	Short (1-3y) ☐	Medium (3-5y) ☐	Long (>5y) ☒
Impact	• The attractiveness and impact of the measure depend strongly on the level of implementation of other measures and on the urban structure. • Simulation and case studies indicate that urban consolidation centres can reduce vehicle kilometres by approximately 10–50% and CO₂ emissions by up to 70–80% when combined with zero-emission last-mile distribution.		

8. Establishment of a zero-emission zone for logistics

Description of the measure	Zero-emission zones refer to urban areas or streets where efforts are made to reduce road transport emissions by restricting the use of vehicles that generate emissions. These restrictions may apply to all road traffic or, for example, only to heavy-duty vehicles. Previous studies have identified zero-emission zones as the most effective emission reduction measure within the scope of municipal authority. The extent of the zone is critical for its impact: a larger area provides a stronger incentive for fleet renewal than isolated streets.		
Current state	At present, the inner city of Helsinki has an environmental zone guiding the vehicle fleets of HSL and HSY, implemented in practice through procurement requirements and contractual arrangements. The current environmental zone excludes the oldest vehicle fleets from these contracts.		
Implementation steps	• Updating the existing environmental zones • Assessing the feasibility of implementing a zero-emission zone for logistics • Decision to initiate the planning • Detailed planning of the measure in an interactive (participatory) manner • Phased implementation of the zone		
Roles of the City of Helsinki and stakeholders	Cooperation between the City and stakeholders is essential in defining and potentially planning the measure. City decision-makers play a key role in determining whether the measure proceeds to more detailed planning. The City should communicate a clear direction to residents and businesses as early as possible, allowing sufficient time for adaptation and providing a predictable outlook for the future.		
Implementation timeline (✓)	Short (1-3y) ☐	Medium (3-5y) ☒	Long (>5y) ☐
Impact	The measure has significant potential for reducing CO ₂ emissions and sends a strong investment signal. Other impacts on residents and businesses will depend largely on how the zone is implemented. Benefits are expected particularly in terms of improved urban environment quality and public health. Potential drawbacks include reduced transport flexibility and increased costs.		

9. Regular and transparent stakeholder cooperation

Description of the measure	Representatives of logistics stakeholders in the Helsinki metropolitan area engage in regular dialogue on the implementation of measures aimed at improving the operating environment (including emission reduction measures), as well as on upcoming development needs, broader industry trends, and regulatory developments. The discussion is complemented by thematic sessions covering specific topics such as delivery locations, parking, enforcement, EU regulation, and individual target areas.		
Current state	The City Logistics cooperation group meets every 2–3 months. The group includes representatives from municipalities in the Helsinki metropolitan area as well as organisations representing the interests of the logistics sector. The group is coordinated by the Service Sector Employers Palta. Once a year, the group organises a City Logistics Forum, bringing together a broad range of participants to discuss current topics in urban logistics. The current cooperation model does not necessarily reach all stakeholders. Business representation is not comprehensive: small companies, as well as operators active in Helsinki but based elsewhere, may be excluded.		
Implementation steps	• Defining suitable communication formats (e.g., regular panel discussions, workshops) • Identify key topics for discussion • Appoint coordinators • Recruitment of a city logistics specialist to the City of Helsinki • Continued cooperation of the projects → Shifting from the project experiences and learnings to long-term operations		
Roles of the City of Helsinki and stakeholders	The City communicates regularly about measures affecting logistics and provides information on upcoming plans and draft proposals as early as possible. The perspectives of operators of different sizes are taken into account in these measures. The views of logistics stakeholders are considered in the development of urban space. The City's procurement practices are developed through market dialogue. Communication is also extended to actors beyond the existing stakeholder network.		
Implementation timeline (☑)	Short (1-3y) ☑	Medium (3-5y) ☐	Long (>5y) ☐
Impact	• Improves predictability for investments (view of fleet types, infrastructure and regulations) • Enhances interactive operating culture – looking for functional solutions in collaboration • As uniform and compatible operating methods as possible across municipal borders • Open discussion and proactive communication increase the acceptability of changes in the operating environment		

10. Utilisation of data in the development of urban logistics

Description of the measure	The objective is to support the development of zero-emission urban logistics by collecting and utilizing high-quality logistics data to support decision-making, planning and impact assessment. The city can acquire data by combining data from open data sources and statistics, traffic monitoring data, private companies' data and commercially available datasets. Key information needs include urban freight transport volumes, vehicle fleet, delivery routes and locations of the most important loading areas. From the city, implementation requires sufficient resources, a systematic approach to the processes and active stakeholder collaboration.		
Current state	The City of Helsinki does not currently collect logistics data in a systematic manner. The state of urban logistics has been examined through individual studies and reports, providing a general understanding of freight flows within the city. However, a need for more detailed logistics data has been identified. A more precise picture of, for example, the movement of freight vehicles within the urban area and last-mile delivery operations is needed.		
Implementation steps	• Defining clear objectives for data use and indicators for monitoring progress. Identifying key information needs. • Identifying appropriate data sources for data collection and the resources required for data management. • Developing a plan for data utilization, sharing and storage. • Collecting and refining data into actionable knowledge. • Ensuring the continuity of the processes by allocating sufficient resources (incl. personnel and budget)		
Roles of the City of Helsinki and stakeholders	Responsibility for defining objectives, indicators and information needs with the departments responsible for logistics development and environmental impact mitigation, such as Transport Planning, Climate Unit, and Environmental Services. Responsibility for the actual data collection and processing with the Traffic Management Unit. Companies play a key role as data providers. The city should negotiate data-sharing with companies through comprehensive agreements and incentive mechanisms. Ensuring companies' competitive position and data security are essential considerations.		
Implementation timeline (☑)	Short (1-3y) ☑	Medium (3-5y) ☐	Long (>5y) ☐
Impact	• Data supports the selection of the most effective emission reduction measures, as well as monitoring their impacts. • Data increases understanding of logistics activities within the city and supports decision-making. • Data enables the development of new tools and operating models, e.g. loading areas' reservation systems		

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