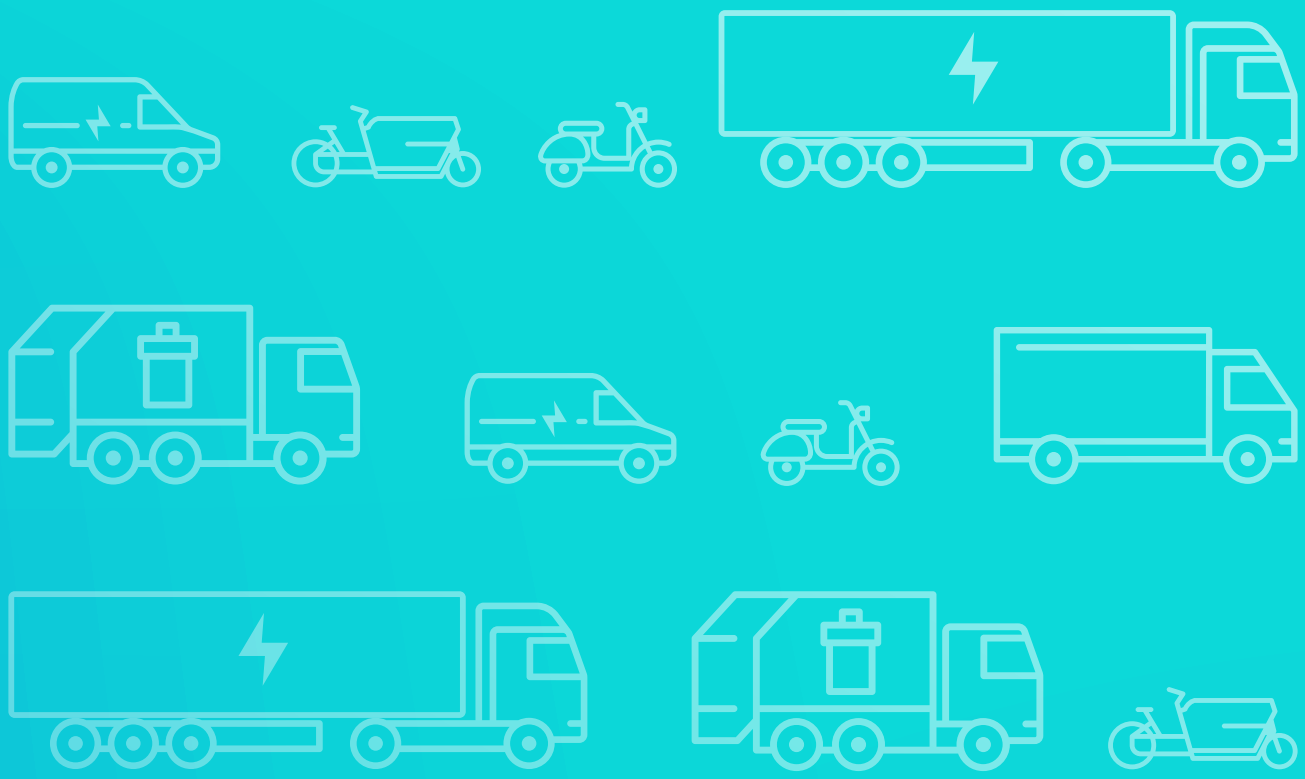

The pioneers of zero-emission logistics in European cities

Annexes

CleanCities

Annexes

A. Organisations interviewed for the report

Government authorities	▸ Ministry of Infrastructure and Water Management of The Netherlands ▸ City of Amsterdam ▸ City of Stockholm ▸ Brussels Capital Region ▸ Oxfordshire County Council
Branch organisations	▸ Transport Logistics Netherlands - TLN (NL) ▸ Asociación de Fabricantes y Distribuidores - AECOC (ES) ▸ CoopCycle (ES)
Civil society organisations	▸ Bond Beter Leefmilieu (BE) ▸ Natuur & Milieu (NL) ▸ Ecodes (ES) ▸ Rådet for Grøn Omstilling (DK) ▸ Cross River Partnership (UK)
Companies	▸ DHL Group ▸ Ingka Group (one of the 12 franchises of the IKEA brand) ▸ VPD (BE) ▸ Austrian Post (Österreichische Post AG) (AT) ▸ bpost (Belgian Post Group) (BE)

B. Questionnaire used for the interviews

The interviews conducted by the Clean Cities team followed a semi-structured format, using these guiding questions:

	For companies, branch organisations and civil society organisations	For authorities
Part 1: Understanding the context and the strategy	▸ Could you describe your strategy on zero-emission deliveries in cities, and how you are implementing it (including specific targets)? ▸ Why do you pursue this strategy? ▸ What progress have you made to date? ▸ Would you take the same actions in other cities? What is missing in them to start transitioning to zero-emission deliveries?	▸ Could you describe your strategy on zero-emission deliveries in cities, and how you are implementing it (including specific targets)? ▸ What progress have you made to date?
Part 2: impact of and involvement in zero-emission deliveries policies	▸ What impacts will a zero-emission zone and similar policies have on your business? ▸ How do zero-emission zones and similar policies impact small versus larger businesses? Should more be done to address small business concerns? ▸ Does the zero-emission zone affect your freight electrification plans? ▸ What is your involvement with the zero-emission zone policy in the cities concerned? Have city officials engaged you in policy development? ▸ Are you tracking the cities considering policies like zero-emission zones, which might affect your business? ▸ How are you supporting the roll-out of zero-emission zone regulations and similar policies?	▸ What has the impact on businesses been in your view? ▸ How do zero-emission zone regulations and similar policies impact small versus larger businesses? Should more be done to address small business concerns? ▸ Do zero-emission zone regulations and similar policies affect the freight electrification plans of companies? ▸ How have you involved companies in the design of your policies? ▸ Are you tracking what other cities are doing?
Part 3: hurdles, solutions and lessons learned	▸ What are the main remaining challenges of switching to electric vehicles and alternative delivery modes (e.g. cargo bikes)? ▸ If you could influence the design of zero-emission zone regulations and similar policies, what features and supportive policies would you want to include? ▸ Are there any important insights or lessons learned from your work that others should know for the roll-out of zero-emission deliveries?	▸ What are the main remaining challenges of switching to electric and alternative delivery modes (e.g. cargo bikes)? ▸ What features and supportive policies do you think should be added to your current policies? ▸ Are there any important insights or lessons learned from your work that others should know for the roll-out of zero-emission deliveries?

C. Examples from each coordination approach

C.1 "Soloists": Individual companies delivering decarbonisation

Companies	Which countries/ cities	Overall goals & timeline	Type of commitments	Monitoring	Progress to date
Austrian Post (Österreichische Post AG)	Shift to zero-emission last mile logistics Graz (since Oct. 2021), Innsbruck (since Feb. 2024), Salzburg (since Feb. 2024), Vienna (foreseen for 2025) The whole of Austria is to be covered by 2030.	CO_2-neutral last-mile delivery by 2030	Zero-emission last-mile deliveries in selected cities (gradual roll-out) through ▸ a modern vehicle fleet and the energy optimization of buildings ▸ expansion of the e-fleet, renewable energy ▸ Compensation for unavoidable CO_2 emissions	City-level monitoring with estimations of emissions savings. Monitoring and reporting at the company level through the Carbon Disclosure Project (CDP).	3 major cities have already achieved zero-emission last-mile deliveries Ca. 40% of all vehicles (ca. 4,000) are already zero-emission.
bpost (Belgian Post Group)	Set up of so-called "Ecozones" in the 25 largest cities by 2025, delivering without emissions in covering the whole of Belgium by 2030.	Impact analysis results highlighted a reduced greenhouse gas emissions of 97% and particle emissions of ca. 80-85%. Use of 100% renewable energy.	Setting up "urban zero carbon emission parcel and letter delivery zones" through ▸ 100% emission-free deliveries using e-bikes, cargo bikes and e-vans. ▸ A dense network of pickup points and parcel lockers that can be reached within 'slipper distance' from every home or workplace; ▸ and a range of services for the local communities.	The Free University of Brussels (VUB) has been monitoring the impact of selected "ecozones".[42]	"Ecozones" have been set up in 15 Belgian cities as of April 2024.[i] "Zero-emission deliveries are the norm in the city centre [of Leuven] and carbon emissions per parcel have been slashed by 88% compared with 2018.[44]
DHL Group	More than 220 countries and territories	Global: Reduce annual GHG emissions to under 29 million metric tons[45]	Global ▸ Electrify 60% of last-mile delivery vehicles	Internal by Sustainability Steering Board. Use GHG Protocol Corporate Standard to calculate and in accordance with ETS, ISO Standards 14083 and 14064, and follow GLEC accounting methodology.46	38 % of DHL Groups PUD fleet (incl. DHL Express) fleet already electrified
Ingka Group (IKEA)[47]	31 countries	Becoming a circular business by 2030 Reducing CO_2 emissions by 70% by 2030 in relative terms compared to 2017	100% fleet electrification by 2025	Internal by the Strategic Sustainability Council	Fleet electrification: non-disclosed 28% reduction in CO_2 emissions compared to baseline year 2017
VPD[48]	Belgium	80% of the fleet will be emission-free by 2025.	Developing a network of hubs to start the last mile journey as close as possible to the end customer	Internal, but they have signed City Green Deals. Supported by the Sustainability Leadership Program at KU LEUVEN	30% of the fleet is emission-free

i As of April 2024, the following "Ecozones" have been set up: Leuven, Bruges, Brussels, Hasselt, Mechelen, Ostend, Courtrai, Antwerp, Mons, Eupen, Louvain-la-Neuve, Namur, Verviers, Liège and Seraing.[43]

Companies	Which countries/ cities	Overall goals & timeline	Type of commitments	Monitoring	Progress to date
Hermes Germany[49]	Free and Hanseatic City of Hamburg (one of Germany's 16 federal states, approximately 756 km2)	Since Dec. 2023: only zero-emission last-mile deliveries in Hamburg By 2025, the parcel service will be delivering shipments in 80 German inner cities without any local emissions	"every single shipment in our home city of Hamburg, whether to a private front door or one of the 337 ParcelShops, without generating any local emissions" All locations for the Hamburg area, including those of the connected service partners, are supplied with 100 percent green electricity.	N/A	Hermes Germany has thus created the structures to deliver up to 12 million shipments a year in Hamburg purely electrically. The conversion saves an estimated total of 1,400 tonnes of CO_2 per year.
DACHSER[50]	City centre of Hamburg, Germany	Delivering unrefrigerated shipments to recipients in the city centre with zero local emissions. By 2025, this sustainable city logistics concept will be implemented in a total of 24 major cities in Europe.	DACHSER Emission-Free Delivery operates on a modular system tailored for inner-city deliveries. To meet local requirements, battery-electric vans and trucks, along with electrically assisted cargo bikes, are employed. The cargo bikes are specifically designed for general cargo and palletized goods. Using these zero-emission vehicles, all shipments are delivered locally without emissions within a designated area of the inner city. The fleet now includes four electric trucks ranging in weight from 7.5 to 16 tons. Additionally, a small inner-city transshipment warehouse, referred to as a microhub, is utilized at Gänsemarkt.	By the company	DACHSER Emission-Free Delivery has already been implemented in twelve European metropolitan regions across Europe: in addition to the German cities of Berlin, Dortmund, Freiburg, Munich and Stuttgart, also in Copenhagen, Madrid, Oslo, Paris, Porto, Prague and Strasbourg. After Hamburg, at least eleven more European cities are to follow by 2025.

C.2 “Singers”: Cities leading on zero-emission zone deployment

City	Which area	Overall goals and timeline	Which requirements	Monitoring	Progress to date
Amsterdam, The Netherlands[15,51]	From 2025, a ZEZ for freight will apply to the area within the S100 ring, in addition to the existing LEZ in the larger A10 ring.	Improve air quality, since air pollutants like particulate matter (PM) and nitrogen dioxide (NO_2) can cause health problems. Help meet targets for reducing carbon emissions. From 2025: ▸ Tightening of the current environmental zone for passenger cars to emission class 5 (diesel) ▸ ZEZ within the A10 ring for vans, trucks and taxis, pleasure boating and inland water transport ▸ ZEZ within all the built-up area for mopeds and scooters From 1 January 2030: ▸ Only zero-emission vans and trucks will be permitted in the zero-emission zone	From 2025, zero-emission zones will apply to taxis, vans, and trucks (within the S100 area), mopeds and scooters (within built-up areas), and pleasure boats (in the city centre). Vans and trucks registered after 2025 must be emission-free. Vans, emission class 5 will have access until 1 January 2027. Emission class 6 will have it until 1 January 2028. Transitional arrangements will also be applied for trucks	By the city. NO_2 emissions by vans are expected to drop 97% by 2028, compared to 2022 numbers. For trucks, the expected effect for medium and heavy weight is a 95% drop by 2030	The ZEZ for vans and trucks will start gradually from 2025 to 2030
Oxfordshire County Council, United Kingdom[52,53]	2022 ZEZ Pilot: nine streets in the city centre 2026 proposed ZEZ expansion: approximately 2.4 km^2, covering almost all streets of the city centre.	Reduce NO_2 emissions to the minimum possible level, reduce traffic volumes and contribute to delivering a net-zero transport network by 2040.	Under the pilot scheme, all petrol and diesel vehicles, including hybrids, incur a daily charge from £2 to £10 if they are driven in the ZEZ Pilot area between 7am and 7pm unless they have a 100% discount or exemption	By Oxfordshire County Council. The latest report was published in March 2024.	Monitoring of nitrogen dioxide (NO_2) showed a citywide decrease of 8% and greater reductions at key locations in the ZEZ Pilot area compared with the previous monitoring year despite traffic levels increasing on average by 8.2% in Oxford.

City	Which area	Overall goals and timeline	Which requirements	Monitoring	Progress to date
Stockholm, Sweden[28,54]	A central area of around 20 blocks within the Kungsgatan, Birger Jarlsgatan, Hamngatan and Sveavägen streets. This ZEZ will initially serve as a pilot project with plans for expansion and new phases to be discussed by the summer of 2025.	The ZEZ is intended to contribute positively to several of the city's goals: ▸ reduce the levels of air pollution to the guideline values recommended by the WHO ▸ reduce emissions from the transport sector by 80 percent by 2030 ▸ speed up electrification ▸ emission-free inner city in 2030.	Only these vehicles will be allowed in the area: Passenger cars, light trucks and light buses: ▸ pure electric vehicles ▸ gas vehicles with emission class Euro 6 ▸ fuel cell vehicles. ▸ Plug-in hybrids are not permitted. Heavy trucks and heavy buses: ▸ pure electric vehicles ▸ gas vehicles with emission class Euro 6 ▸ fuel cell vehicles ▸ plug-in hybrids with emission class Euro 6.	Monitoring of the regulation is conducted by the police. The City of Stockholm is monitoring the air quality and traffic movements. The city will also do measures of the regulation but we have now power to fine drivers who break the law. For the existing LEZs, there are public boards showing air data in real-time regarding nitrogen dioxide and particle levels. There is also a dedicated webpage A 2023 Survey conducted by the city showed that 55 % of the participants assess that they will be positively affected by the environmental zone. On 17 April 2024, the EU Commission gave the ZEZ a green light, after reviewing whether the regulation would hinder the principle of free movement of trade.	The ZEZ will start on 31 December 2024
Brussels Capital Region, Belgium[29,55,56]	The current low-emission zone covers all 19 municipalities of the Brussels-Capital Region. The Ring and access roads to transit car parks are excluded.	As of 2035, vans with internal combustion engines, incl. hybrids, will no longer be allowed to circulate in the low-emission zone. This does not apply to heavy-duty vehicles according to current plans.	Compliance with the requirements of the low-emission zone	Video enforcement of the LEZ, annual progress reports	Air quality improvements, next step of the LEZ to come into force in 2025

C.3 "Bands": Cities and companies forming alliances

Cities	Which members	Overall goals & timeline	Type of commitments	Monitoring	Progress to date
Brussels Green Deal for low-emission logistics[6,57]	63 signatories as of April 2024, including Brussels Capital Region and its agencies, City of Brussels, Port of Brussels, various public and private companies (incl. AB Inbev, bpost, CHIREC hospitals, Colruyt, GLS, IKEA Belgium, VPD Logistics), POLIS city network	"The objective of the Green Deal is to accelerate the transition towards low-emission urban logistics in the Brussels Capital Region, by creating a community of pioneers eager to commit, exchange and cooperate to achieve this common goal." 3 editions are foreseen: First cycle with commitments for 2023 to 2025 Second cycle with commitments for 2025-2027 Third cycle with commitments for 2028-2030	Signatories need to commit to at least one activity that will accelerate the transition to low-emission urban Logistics. These commitments are listed in the annex of the agreement that was signed. These commitments must ▸ Go beyond existing legislation ▸ Be achievable by January 2025 (for the first edition) ▸ Be SMART ▸ Contribute to the acceleration of the transition to zero-emission urban logistics through 4 types of activities: awareness, avoidance, act and shift, anticipation of new technologies	"In order to follow the evolution of the Green Deal, the secretariat will carry out an annual assessment of the progress of the actions undertaken, based on the results of a survey it will conduct among stakeholders. This will be an opportunity to monitor each individual action and, if necessary, to make recommendations. This annual assessment will be the subject of a report that will be made public." An evaluation of the impact on greenhouse gas emissions is foreseen by the end of the first cycle.	An intermediary progress report has been published in April 2024. It shows that 68% of commitments made by the signatories are being implemented. For each signatory, a progress update is provided.
Flemish Green Deal[30,58,59]	Initiated in 2019 by 4 Flemish ministers, 6 initiators, such as Bond Beter Leefmilieu, and 29 participants. Now it encompasses 49 participants, including companies such as DHL, BPost, ASX-IBECO and the cities of Mechelen, Leuven, Ghent and Antwerp	The first Green Deal was signed in 2019, a second one will be signed in 2024, including indicators to monitor the performance of the region	Each signatory party has unique commitments to perform, all oriented to deliver on four areas: networking, knowledge sharing, vote in policy formulation and inspire.	Each participant has specific goals, set and monitored by themselves. The actions are organised into five categories: avoid, shift, change, connect, and support.	
Lisbon Corporate Mobility Plan[31]	Coordinated by the WBCSD, the Plan is comprised by 50 initial stakeholders, with an additional 70 leading organizations joining since its inception in October 2019.	The main environmental goal is to contribute to the reduction of CO_2 emissions (at least 50% reduction in 2030 compared to 1990 levels) while also reducing pollutants and improving air quality.	Each adherent company could commit to up to 20 actions to improve the City's mobility, from improving parking to investing in electrification of vehicles.	By the WBCSD	
Rotterdam Zero-Emission City Logistics Covenant[32]	57 members from all segments of urban logistics, and also branch organisations, universities and banks.	Since 2019, with the adoption of The Roadmap for Zero Emission City Logistics (ZECL), the City established a goal of The effect of the Zero Emission Zone for city logistics within the Rotterdam Ring Road is estimated to be a 186 kilotonne reduction in CO_2 emissions	The city coordinates the implementation of the covenant and its programme. It also adopts the ZEZ and provides financial resources for infrastructure and support schemes. Companies have a varied range of commitments, from participating in the Logistiek 010 events to piloting alternatives for zero-emission urban transport	By the Secretariat of the Covenant	

Cities	Which members	Overall goals & timeline	Type of commitments	Monitoring	Progress to date
Vienna Zero-Emission Transport [33]	32 companies, encompassing large logistics companies to small tradesmen	The companies have committed to carrying out their journeys in the City's first and second districts largely with emission-free vehicles from summer 2024.	The goal is that 100% of journeys per participating company are CO^2-free	The BFI Vienna University of Applied Sciences is evaluating the ongoing project operations. Before the project started, the companies were asked about their motivation and the extent of environmentally friendly transport.	The ZET was adopted in June 2024

C.4 "Orchestras": National frameworks

Level of regulation	Which area and vehicles	Overall goals and timeline	Which requirements	Monitoring	Progress to date
The Netherlands	Thirty-three cities will have ZEZs by 2030. Twenty of them -including Amsterdam, Rotterdam, and Utrecht- will start implementing zero-emission zones for freight by 2025. Six cities will follow in 2026, two in 2027, and one in 2028. Four are in the research stage and will likely start before 2030. Other municipalities can join along the way.	The 2019 National Climate Agreement has a goal of a 49% reduction in greenhouse gas emissions by 2030 and 95% by 2050 (compared to 1990). 100% ZE transport by 2050	The Ministry of Infrastructure and Water Management established guidelines in 2020 for municipalities to implement Zero Emission Zones for Urban Logistics (ZECL). Key points include: ▸ Municipalities must announce ZECL locations and extents at least four years in advance for clarity. ▸ All new delivery vans and lorries registered after January 1, 2025, must be emission-free in ZECL zones. ▸ Existing trucks are allowed in ZEZ until 2030 only when registered after 1/1/2027. There is a number of exemtions documented, co-ordinated via a unique portal with nation-wide coverange	By each city. The Ministry, with the support of Transport Logistics Netherlands, has a centralised webpage providing information for users, businesses and municipalities on the regulations, conditions, and available subsidies.	Since ZEZs will start its implementation in 2025, there is no data available.

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Find out more

The Clean Cities Campaign is a European coalition of organisations hosted by Transport & Environment. Our mission is to transform the way we move in cities by influencing decision makers and empowering communities so everyone can enjoy healthy and liveable streets.

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