Social aspects of low emission zones: Stockholm case study

This is one of a set of five city case studies prepared as part of a study by the Institute for European Environmental Policy for the Clean Air Fund. The study investigates the social impacts of low emission zones (LEZ) and looks at how they can be deployed in a socially acceptable way, gathering support from the local population. The other case studies cover Milan, the Brussels-Capital Region, Warsaw and Sofia.

Publication date:
June 2024

Author:
Emma Bergeling

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About Stockholm City

Stockholm is the capital of Sweden, located in northern Europe and home to around 980,000 inhabitants (Stockholm city, 2023a). The city covers an area of 21,5 thousand hectares, giving an average of 52 inhabitants per hectare. Turning to demographics, 16.7% of the population is between 0-14 years old, 67.8% between 15-64, and 15.5% are 65 years or older (ibid). The average age is 39.9 (Statistics Sweden, n.d.). The average gross income for people between 20 and 64 years is EUR 3,200/month: higher than the national average of EUR 2,700/month[1]. GDP per inhabitant in the Stockholm region is 171% of

[1] December 2023's values converted. In SEK, the average income is 36 283 in Stockholm and 30 842 in Sweden.

the EU-27 average (Eurostat, 2020). In 2015, 9% of trips to Stockholm City were made by car, while the majority were made by public transport (57%), by foot (21%), or bike (10%) (Stockholm city transport department, 2023).

LEZs in Sweden and Stockholm

Sweden has national frameworks for LEZs (Holman, Harrison, and Querol, 2015). LEZs are known under the name "miljözon" (translates to "environmental zone") and are regulated by the traffic regulation (SFS 1998:1276), which divides LEZs into three different classes: 1, 2, and 3 in rising order of strictness. Stockholm is a multifaceted case study as the city has implemented - or is about to implement – one in each class. In this report, the first LEZ is referred to as LEZ1, the second LEZ2, and the third ZEZ (Zero Emission Zone). The locations of the zones are illustrated in *Figure 1*.

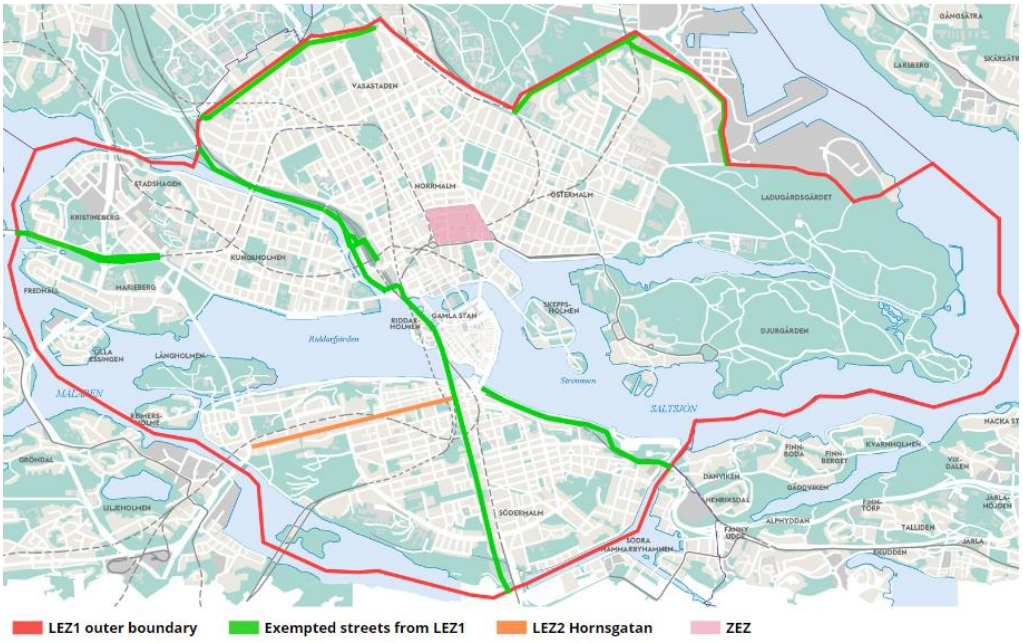

Figure 1: Map illustrating the locations of LEZ1, LEZ2, and ZEZ in Stockholm. The red line marks the outer boundary of LEZ1. The green lines mark the exempted streets from LEZ1. The orange line marks the location of LEZ2. The pink area marks the Zero Emission Zone (ZEZ). Author's figure adapted from Stockholm city (2023b; 2023c; 2023d).

LEZ1 dates to 1996, making Sweden the first European country to implement one (Holman, Harrison, and Querol, 2015; Stockholm city, 2022; 2023b). LEZ2 was introduced in 2020 at a single street called Hornsgatan (Stockholm city, 2023c). Thirdly, the ZEZ will be implemented at the end of 2024 (Stockholm city, 2023d). After reviewing whether the ZEZ hinders the free movement of trade in fossil-fuelled vehicles, the European Commission gave the green light to proceed with the implementation in April 2024 (Stockholm City, 2023d). Some key design aspects of the two LEZs and the ZEZ are summarized in Table 1.

Table 1: Key design features of Stockholm's LEZs and ZEZ (from Stockholm city, 2018; 2021; 2023b-e; Stockholm city transport department 2023, 2024).

	LEZ1	LEZ2	ZEZ
Date of implementation and changes	1996, successive strengthening of requirements. Latest strengthening of requirements in 2021.	2020, strengthening of requirements in 2022.	Decision made in 2023, implementation starting 31 December 2024. An expansion of the zone to be investigated during 2024 and decided upon in 2025. Full implementation in 2026.
Vehicles included	Heavy buses and trucks over 3.5 tons.	Older private vehicles, light buses, and light trucks.	Private vehicles, light trucks and buses, and heavy trucks and buses.
Requirements	Euro 6 standard for heavy vehicles over 3,5 tons.	Euro 6 standard for diesel vehicles. Euro 5 standard for petrol, gas, and light ethanol vehicles.	Pure electric vehicles, gas vehicles with emission class Euro 6, and fuel cell vehicles are allowed for all vehicle types. Plug-in hybrids with emission class Euro 6 are allowed for heavy trucks and buses but not for private vehicles nor light buses and trucks.
Compliance and sanctions	86-89% compliance (2017 estimate). 1000 SEK (approx. EUR 90) fine and risk of vehicle being towed out of the LEZ.	83% compliance in 2020 and 79% compliance in 2022. 1000 SEK (approx. EUR 90) fine and risk of vehicle being towed out of the LEZ.	1000 SEK (approx. EUR 90) fine and risk of vehicle being towed out of the LEZ.
Financial costs and gains	N/A	Personnel costs around EUR 47k[2], costs for measurements EUR 31k and communication: EUR 77k totalling approximately EUR 155k.	Around EUR 400k for personnel costs, measuring, communication, implementation, signs etc. for 2023 and 2024.
Environmental impact	See evaluation for 1997 and 2000 in Figure 2.	2% NOx reduction. Would be 11% reduction at full compliance, and 3% reduction of CO2.	99% NOx reduction, 90% CO2 reduction. Estimates for the annual mean 2025 at full compliance. Less noise.

There are 11 exemptions from the zones regulated by the traffic regulation (SFS 1998:1276). These include emergency and veteran vehicles. Additionally, vehicles used or owned by disabled people, the Swedish armed forces and defence, or in the prison and probation service is exempted (see detailed list in Annex 1). Additionally, the possibility exists to apply for vehicle dispensation from the municipality (Stockholm city transport department, 2023).

[2] Rounded figures converted from SEK based on 2024-01-22 values. Numbers derived from Stockholm city (2021a).

Social Aspects – Investigations and Stakeholder Consultations

The three zones had different processes of consequence analyses, consultations, and evaluation. Below follows a description of said investigations for the three zones in chronological order, starting with LEZ1. For this case study, an interview was conducted with the project manager for LEZ2, the project manager for ZEZ, and the stakeholder coordinator for ZEZ. The interview was held online with the case study authors on February 2nd, 2024, and the input from the interview is referred to as Stockholm city transport department, 2024.

LEZ1

In 2007, the Stockholm City Transport Department (2007) evaluated the compliance and environmental impact of Stockholm's first LEZ. Between 1997 and 2007, compliance ranged between approximately 96 and 86%. The effects on emissions of particulate matter, hydrocarbons, and nitrogen oxides are illustrated in Figure 2. The evaluation report highlights the adverse health impact of the three: respiratory problems for people with asthmatic problems and increased risk of cardiovascular disease (particulate matter), carcinogenic effects (hydrocarbons), and irritated mucous membranes (nitrogen oxides).

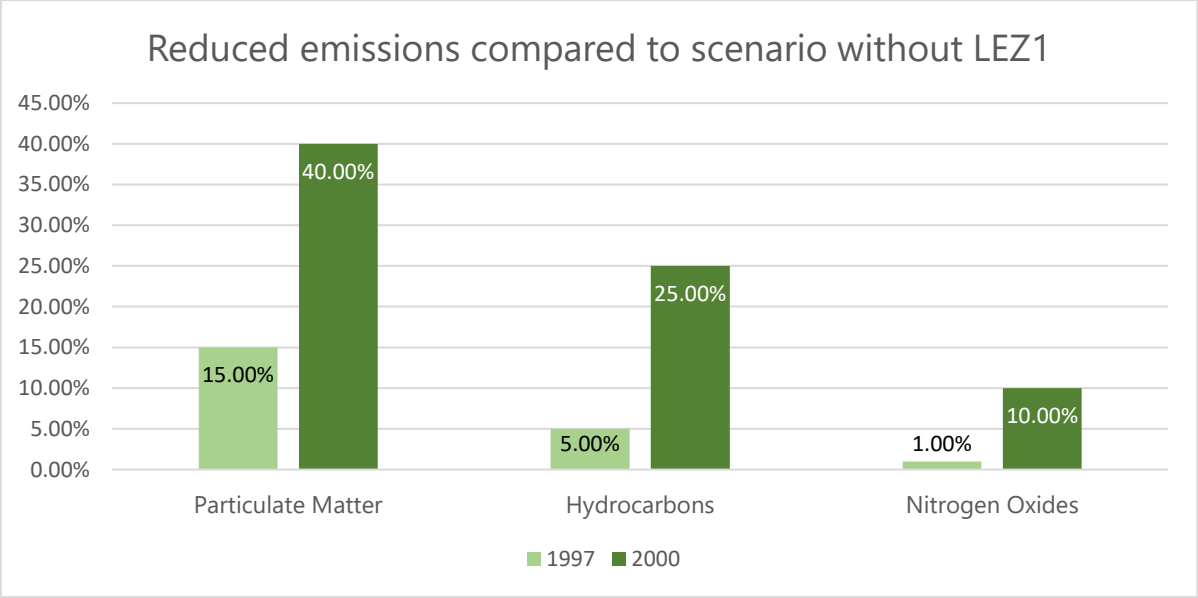

Figure 2: Reduced emissions of particulate matter, hydrocarbons, and nitrogen oxides due to the LEZ1 in years 1997 (light green) and 2000 (dark green). Author's own figure adapted from Stockholm City Transport Department (2007).

LEZ2

According to the project manager for LEZ2, the transport department relied on national studies for the implementation (Stockholm city transport department, 2024). In connection to introducing an updated national regulation in 2018 (SFS 2018:1562), allowing municipalities to implement LEZ class 2 and 3 in addition to class 1, the Swedish Transport Agency (2017) conducted a study commissioned by the government where Stockholm was used as a case study. The investigation outlines potential consequences on businesses, citizens, the state, regions or county councils, and municipalities, as well as external effects in terms of traffic security, noise, climate impact, health, and air quality.

The effects of different designs of a LEZ class 2 in Stockholm were investigated by the city management office (Stockholm city, 2018). Additionally, a government commissioned study on attitudes, norms, and legal compliance surrounding environmental zones in Sweden was used to support the implementation (Svensson and Björkenfeldt, 2019, Appendix 1 to Swedish Transport Agency, 2019). Svensson and Björkenfeldt (2019, p. 52) found strong agreement among Swedish driving licence holders to the statement "I think that tough environmental standards for cars in urban areas with heavy traffic is justified" (5.1 on a scale of 1 to 7, where 7 is "completely agree").

Facts about the vehicles allowed in the LEZ2, time plan, area covered, and alternative routes were communicated via press releases and media interviews, city websites, newspaper ads in local papers, information boards, radio, social media, via direct contact with the city's service centre (whose personnel was trained in the matter), email to stakeholder organizations, letters, intranet, staff day, in the traffic office employees' email signatures, and on signs (Stockholm city, 2019). Stockholm city (2019) concludes that actively communicating the positive impacts of the LEZ while strengthening monitoring for compliance is key for social acceptance (ibid). Stockholm city is currently investigating the possibility to have immediate feedback on whether the vehicle is allowed in the LEZs and upcoming ZEZ using automatic scanning of number plates (Stockholm city transport department, 2024). This could increase compliance, as the immediacy and likelihood of discovery of breaking rules are more important factors for compliance than the level of severity of the sanction (Svensson and Björkenfeldt, 2019).

The ex-post report of LEZ2 (Stockholm city, 2021) outlines changes of vehicle composition, air quality, traffic, and quality assurance of the legal process, and does thus not directly assess socioeconomic impacts, although the improved air quality, by extension, has a positive health impact.

ZEZ

At the time of our interview (February 2024) the traffic department estimated to have met with around 150 people for stakeholder consultation. They described it as a constantly ongoing process of dialogue and adaptation, "trying to bring everything to the table and trying to solve the questions and problems" (Stockholm city transport department, 2024a).

Apart from the project manager for the ZEZ, Stockholm has a dedicated employee for stakeholder coordination. These civil servants working with the implementation of the ZEZ meet with stakeholders included in the prospective and decided area of the LEZ, including the Royal Palace, real-estate owners, transporters including 70 truck owners from Scania, business and employers' associations such as the Swedish Commerce (representing 9,000 businesses), the Entrepreneurs (60,000 businesses and 250 local organisations), and the Swedish Confederation of Transport Enterprises (9,200 businesses), as well as taxi companies, and suppliers to the city. They also sent emails and mail to the identified relevant stakeholders with information packs, contact information, and a request to forward the information to other relevant people. Following this outreach, the transport department had – and continue to have - numerous meetings with stakeholders who contact them.

The truck owners were vastly positive to the implementation of the ZEZ. Out of 70 truck owners, only one person representing the tourist bus industry raised concern that there are not yet tourist buses fit for the ZEZs requirements. Interestingly, the business and employers' umbrella organizations were described to have a far more negative view towards the ZEZ than the impacted businesses they were working with. Moreover, the businesses who had already invested in ZEZ compatible vehicles were keen to have the zone implemented for more fair competition.

The direct stakeholder engagement and active communication was described as of utmost importance. The project manager for the ZEZ described how "I don't think I've ever had a meeting with someone being worried or angry and then we have a meeting with them, and they understand the process, and they understand what we are looking at, that they've always walked away more relieved and positive".

In addition to this direct interaction, Stockholm city has a citizens' panel with roughly 4,500 members that can be digitally consulted on matters of the city's development (Stockholm City, 2023f). Out of these, roughly 2700 answered a survey about the ZEZ (Stockholm City, 2024). The results from the survey to the citizens' panel for ZEZ show that 55% of respondents think that they will be either positively or very positively affected, 18% neither positively nor negatively affected, and 24% think they will be somewhat or very negatively affected (see Figure 2).

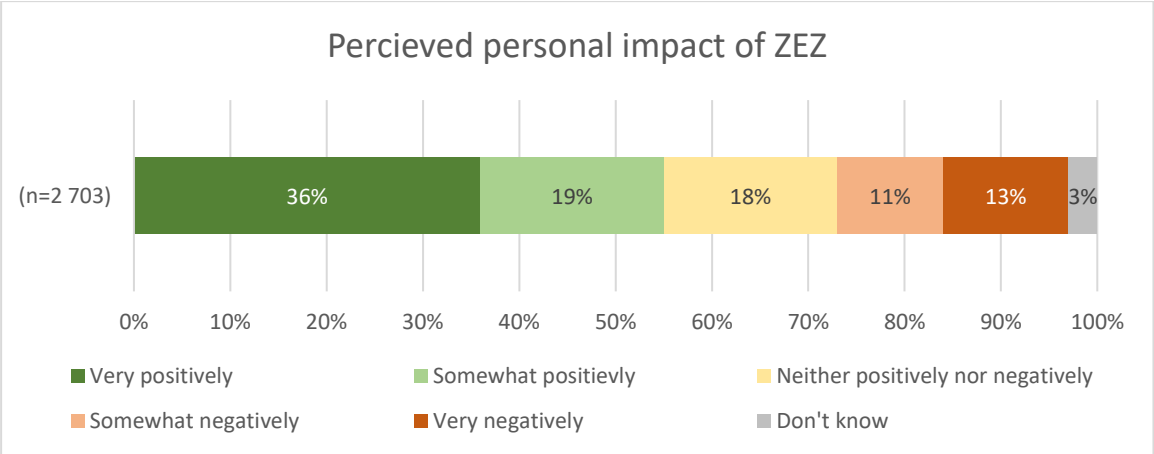

Figure 3: Answer to the question "Do you think that you will be positively or negatively affected by the Low Emission Zone?". Figure adapted and translated from Origo Group (2023).

The distribution of answers to the nature of impact (very positive to very negative) varies depending on the estimated degree of impact as illustrated in

Figure 4. The people who will be very impacted to a larger degree feel that they will be very positively or very negatively impacted (40 versus 38%) than the people who will be a little bit impacted (38 versus 2%).

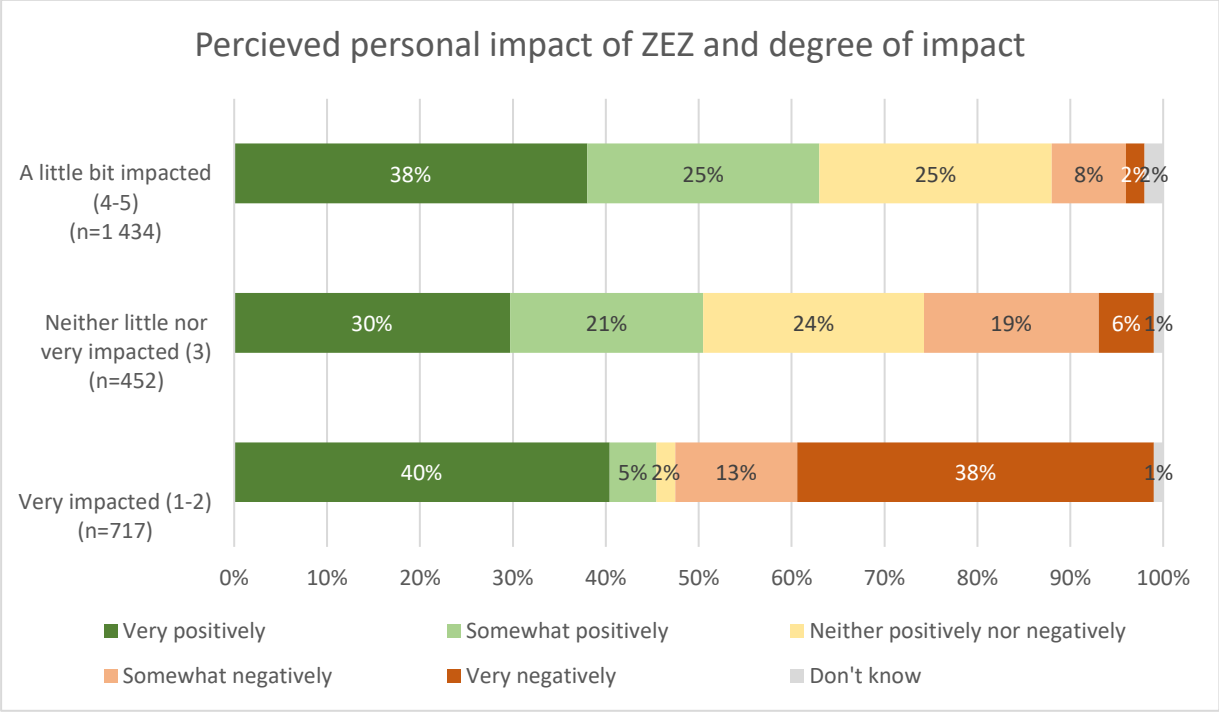

Figure 4: Answer to the question "Do you think that you will be positively or negatively affected by the Low Emission Zone?" sorted after estimated degree of impact ranging from "a little bit impacted" to "very impacted". Figure adapted and translated from Origo Group (2023).

The estimated impact varies with gender, geographical location, and age, with a larger share of men thinking they will be negatively affected than women (15 versus 10%), and a significantly larger share of people aged under 50 thinking they will be very positively affected (approximately 43.5% for people under the age of 50, and between 21-28% for people aged over 50).

The most prominent perceived positive impacts were 1. cleaner air, 2. less traffic, and 3. less noise. The most prominent perceived negative impacts were 1. a need to take a detour around the ZEZ, 2. Increased difficulty to drive to and in the City and Old town, 3. a too high cost to change to a vehicle that is accepted within the ZEZ, and 4. more expensive transport to and in the area. The full survey results can be accessed at Origo Group (2023).

Finally, a consequence analysis was conducted by the traffic department (Stockholm city transport department, 2023). The results are presented in *Table 2*.

Table 2: Projected socioeconomic consequences of the ZEZ as identified by the Stockholm city transport department (2023).

Consequence	Contextualization
Improved public health and reduced healthcare costs due to better air quality, less noise pollution, and increased physical activity.	Particularly positive health impacts for children, young people, pregnant women, elderly, and people with poor health. There is also a gender equality aspect as men contribute more to air pollution but are to a lesser extent exposed to it. The ZEZ is deemed to have a positive equality impact.
Increased attractiveness following less noise and air pollution, increasing revenue for business in the area.	
Competitive advantage and faster return on investment for companies who have already switched to ZEZ-compliant vehicles.	The civil servants are working to allow transport during the night to speed up the return on investments. Ensuring compliance is important for a level playing field. Some actors retain the risk of skewed competition with actors outside the zone.
Technological development, charging infrastructure, new business models in logistics and transport, co-loading solutions, companies renting, selling, or manufacturing ZEZ-compliant vehicles, and companies providing services for shared mobility are projected to be favoured by the ZEZ.	Stockholm city is working on innovation projects with various actors to find and enable solutions and new business models. It is estimated that the ZEZ will generate a higher share of ZEZ compatible vehicles also outside the zone.
Initially improved accessibility following a lower number of vehicles in the area. Initial increase in traffic on the roads outside the zone. Shift to other modes of transport.	

Consequence	Contextualization
Stakeholders who are unable to choose other modes of travelling will need to either i) invest in vehicles compliant with the ZEZ, ii) change their travel habits, iii) change modes of transport or logistics patterns. The magnitude of the consequences will depend on the stakeholder's purchasing power, as well as what vehicle is invested in (gas or electricity, new or previously utilized).	The impact will be largest on households with small economic margins. The middle income in the ZEZ is 30% higher than the Stockholm average.
People living in the area who are unable to change their car to a ZEZ compatible one is deemed to have decreased accessibility to their home.	There are 400 registered residents in the area and approximately 50 cars. Limited accessibility to charging infrastructure could be a hinder.
Depending on how the logistics efficiency of transport companies develops, the cost of transport to the area may rise with a risk of transmitting to higher costs for the end consumer.	There is room for efficiency improvements starting from a low utilization rate of the vehicles passing through the zone (650 of 2,800 trucks passing through during a day has an errand in the area). The transport costs are deemed to be higher for businesses whose transport is done with vehicles that have few deliveries in the area. There are ZEZ compatible vehicles to order, but a challenge may be long delivery times. The office is looking into possibility for exemptions in cases where ordered vehicles do not arrive in time for the implementation.
Initially, decreased revenue for parking providers within the area, and increased revenue for parking providers outside the area.	

The ZEZ has given rise to political debate. In May 2024, the opposition party Moderaterna declared that they will appeal the decision to implement the ZEZ. Moderaterna argue that the zone is "tokenism", that the zone will be too costly for shops, and that the pace of implementation is too fast (Moderaterna, 2024). They also argue that no proper consequence analysis has been presented (Dagens Nyheter, 2024a). These views are not shared by the governing parties, who highlight the consultation processes and investigations made, and that there will have been over 2 years between the notification and actual implementation of the ZEZ, allowing actors to adapt (Dagens Nyheter, 2024b).

Transferable lessons and recommendations

While every European country, region, and even municipality has different prerequisites and contextual circumstances that should be considered in the implementation of a LEZ/ZEZ, the Stockholm case offers some valuable insights that can be useful also in other contexts. The

key lessons and recommendations emerging from the Stockholm case study with regards to the social impacts and social acceptability are the importance of:

1. **Extensive, granular, and continuous stakeholder consultation and outreach processes**

There have been clear developments in the stakeholder consultation process, particularly relating to socio-economic impacts, between Stockholm's three zones. In particular, the stakeholder consultation process for the ZEZ illuminates benefits in terms of understanding the affected stakeholders' concerns and finding ways to address them without compromising air quality targets. Specifically, a few good practices from Stockholm under this point include:

a. **Have a dedicated employee for stakeholder consultation** as it is, and should be, a time-consuming process,

b. **Survey a citizens' council with granular questions** to get an understanding of what groups of the population (in terms of gender, age, income, etc.) will be impacted in which ways.

c. **Consult impacted business and citizens, not just umbrella organisations** as they may have diverging opinions and approaches. Here, it is important to consider the power dimension: the loudest voices may not always be the most representative of the population.

d. **Start the consultation process as early as possible** to create room for addressing stakeholders' concerns.

2. **A solution-oriented approach**

Importantly, the stakeholder engagement should be the starting point for action and a solution-oriented approach. A few good practices from the Stockholm case under this point include:

a. **Bring together different stakeholders that can make use of each other's services** as done in Stockholm by connecting ZEZ compliant transporters with businesses in the zone.

b. **Innovate together with key stakeholders where novel solutions are needed.** For example, by engaging actors in innovation projects to find and enable new business models and making more efficient use of trucks' loading capacity.

c. **Make sure that there are, or create, accessible and affordable alternatives** for cleaner mobility to and within the zone. Here, distributional impact is important to consider.

3. **Focus on efficacy and clear communication.**

It is key to have good communication and decisions to maximize the efficacy of the zone. A few good practices from Stockholm under this point include:

a. **Communicate the health impacts of air quality,** and the positive impact of the zone. Choose the location of the zone to maximize positive health impacts.

b. **Communicate in a wide range of channels and media** to increase the reach to more relevant stakeholders (e.g., post, radio, social media, mail). Have direct contact information so that citizens with questions can set up meetings.

c. **Compliance is important for effectiveness and acceptability.** Here, the risk of getting caught has a bigger impact on compliance than the size of the fee/sanction.

References

Dagens Nyheter (2024a). *M will appeal the decision on the ZEZ [M tanker överklaga beslut om miljözoner].* Available at: https://www.dn.se/sverige/m-tanker-overklaga-beslut-om-miljozoner/ [2024-05-28].

Dagens Nyheter (2024b). *Political dispute around Stockholm's new ZEZ. [Politiskt bråk om Stockholms nya miljözon].* Available at: https://www.dn.se/sverige/politiskt-brak-om-stockholms-nya-miljozon/ [2024-05-28].

Eurostat (2020). *Statistics Illustrated – Quick facts on European Regions.* Available at: https://ec.europa.eu/eurostat/web/regions/statistics-illustrated-tbd [2023-12-12].

Fastighetsägarna Stockholm, Företagarna, Svensk Handel, Transportföretagen, Sveriges Bussföretag, Visita (2023). Available at: https://via.tt.se/files/1718444/3389590/26072/sv [2024-02-09].

Holman, C., Harrison, R., & Querol, X. (2015). Review of the efficacy of low emission zones to improve urban air quality in European cities. *Atmospheric Environment (1994)*, *111*, 161–169. https://doi.org/10.1016/j.atmosenv.2015.04.009

Moderaterna (2024). *Moderaterna say no to ban and tokenism in the form of the ZEZ. [Moderaterna söger nej till förbud och symbolpolitik I form av Miljözon klass 3].* Available at: https://moderaterna.se/stockholm/artikel/moderaterna-sager-nej-till-forbud-och-symbolpolitik-i-form-av-miljozon-klass-3/ [2024-05-28]

Origo Group (2023). *Low Emission Zone – Stockholm city citizens' panel [Miljözon – Stockholms stads Medborgarpanel].* Available at: resultat-miljozon-medborgarpanelen.pdf (vaxer.stockholm) [2024-02-07].

SFS 1998:1276. *The Traffic Regulation [Trafikförordningen].* Available at: https://www.riksdagen.se/sv/dokument-och-lagar/dokument/svensk-forfattningssamling/trafikforordning-19981276_sfs-1998-1276/ [2023-12-19].

SFS 2018:1562. *Regulation amending the Traffic Regulation (1998:1276) [Förordning om ändring i trafikförordningen (1998:1276)].* Available at: https://svenskforfattningssamling.se/sites/default/files/sfs/2018-09/SFS2018-1562.pdf [2024-02-13].

Statistics Sweden (2022). *Municipalities in numbers [Kommunen i siffror].* Available at: https://kommunsiffror.scb.se/?id1=0180&id2=null [2023-12-12].

Stockholm city (2018). *Effects of low emission zones in Stockholm city December 2018 [Effekter av miljözoner I Stokcholms stad December 2018].* Available at:

https://start.stockholm/globalassets/start/om-stockholms-stad/utredningar-statistik-och-fakta/utredningar-och-rapporter/klimat-och-miljo/effekter-av-miljozoner-i-stockholms-stad.pdf [2024-01-12].

Stockholm city (2019). *Annex 3 – Consequence evaluation of LEZ class 2 on Hornsgatan [Konsekvensutredning Miljözonklass 2 Hornsgatan].* Available at: https://insynsverige.se/documentHandler.ashx?did=1999799 [2024-02-14].

Stockholm city (2021). *Introduction of a class 2 environmental zone on Hornsgatan. Final report and evaluation of effects. Response to assignment from the City Council. [Införande av miljözon klass 2 på Hornsgatan. Slutrapport och utvärdering av effekter. Svar på uppdrag från kommunfullmäktige.]* Available at: https://insynsverige.se/documentHandler.ashx?did=1999789 [2024-01-22]

Stockholm city (2023a). *Statistical Year-book of Stockholm 2023.* ISBN 91–89311–01–9 ISSN 0349–4314. Available at: https://start.stockholm/globalassets/start/om-stockholms-stad/utredningar-statistik-och-fakta/statistik/arsbok/statistisk-arsbok-for-stockholm-2023.pdf [2023-12-11].

Stockholm city (2023b). *LEZ class 1 – requirements for heavy vehicles [Miljözon klass 1 – krav på tunga fordon].* Available at: https://tillstand.stockholm/tillstand-regler-och-tillsyn/transporter/miljozon--krav-pa-tunga-fordon/ [2023-12-23].

Stockholm city (2023c). *LEZ class 2 at Hornsgatan [Miljözon klass 2 på Hornsgatan].* Available at: https://trafik.stockholm/trafiksakerhet-trafikregler/miljozoner/miljozon-hornsgatan/ [2023-12-19].

Stockholm city (2023d). *LEZ class 3 [Miljözon klass 3].* Available at: https://trafik.stockholm/trafiksakerhet-trafikregler/miljozoner/miljozon-klass-3/ [2023-12-19].

Stockholm city (2023e). *LEZ class 1 and 2 at Hornsgatan – vehicle composition, compliance and air emissions [Miljözon klass 1 och 2 på Hornsgatan - Fordonssammansättning, regelefterlevnad och utsläpp till luft].* Available at: https://miljobarometern.stockholm.se/content/docs/tema/luft/Miljözon%20kl%201%20och%202_Hornsg.pdf [2024-01-23].

Stockholm city (2023f). *Citizens' panel about the city development [Medborgarpanel om stadsutveckling].* Available at: Medborgarpanel om stadsutveckling - Stockholms stad (vaxer.stockholm) [2024-02-07].

Stockholm city transport department (2007). *Low emission zone for heavy traffic in Stockholm, 1996-2007 [Miljözon för tung trafik i Stockholm 1996-2007].* Available at: https://insynsverige.se/documentHandler.ashx?did=103978 [2024-05-27].

Stockholm city transport department (2023). *Consequence analysis of Low Emission Zone class 3 in an area inside Kungsgatan, Birger Jarlsgatan, Hamngatan och Sveavägen. [Konsekvensanalys av miljözon klass 3 i ett område innanför Kungsgatan, Birger Jarlsgatan, Hamngatan och Sveavägen].* Available at: https://insynsverige.se/documentHandler.ashx?did=2045659 [2024-02-09]

Stockholm city transport department (2024). *Stakeholder interview conducted with the project manager for the implementation of ZEZ, the stakeholder coordinator for ZEZ, and the project manager for LEZ2. The interview was held online with the case study authors on February 2nd, 2024.*

Stockholm city (2024). *Results – LEZ class 3 [Resultat - Miljözon klass 3].* Available at: Resultat – Miljözon klass 3 - Stockholms stad (vaxer.stockholm) [2024-02-07].

Svensson, M., & Björkenfeldt, O. (2019). New Environmental Zones for Passenger Cars: Attitudes, Norms and Legal Compliance. Available at: *Rapport_2019_2_Oscar_web.pdf (lu.se) [2024-02-14].

The Swedish Transport Agency (2019). *How to ensure compliance with the low emission zone regulation? Expanding municipal parking enforcement. [Hur ska regelefterlevnaden av miljözonsbestämmelser säkerställas? En utökad kommunal parkeringsövervakning].* Available at: https://www.transportstyrelsen.se/globalassets/global/publikationer-och-rapporter/vag/rapport---hur-ska-man-sakerstalla-regelefterlevnaden-av-miljozoner.pdf [2024-02-13].

Annex 1 – Exemptions from LEZs from SFS 1998:1276, chapter 11 paragraph 4

Author's own translation from Swedish:

(1) Vehicles used in the professional capacity of a police officer, or any other official employed by the Police Authority or the Security Police, a customs officer, a coastguard officer, a doctor, a nurse, a midwife or a veterinary surgeon.

(2) Vehicles used for the transportation of sick persons to a doctor or medical institution.

(3) Vehicles used in emergency services.

(4) Vehicles used in other comparable emergencies.

(5) Emergency vehicles in cases other than those referred to in 1 to 4.

(6). Vehicles defined as veteran vehicles in Chapter 2, Section 2 of the Road Traffic Tax Act (2006:227). However, veteran vehicles may not be driven in a class 3 environmental zone.

(7). Vehicles used by staff in the Prison and Probation Service for the transportation of persons deprived of their liberty or for urgent professional practice.

(8). Vehicles belonging to or used by the Swedish Armed Forces, the Swedish Defense Materiel Administration, the Swedish Defense Radio Establishment or the Swedish Defense Research Institute.

(9). Vehicles used for specially arranged transport as referred to in the Act (1997:736) on transport services for people with disabilities.

(10). Vehicles whose drivers or passengers hold a parking permit for the disabled in accordance with Chapter 13, Section 8 of this Ordinance. Section 8 of this Ordinance.

(11). Vehicles for which car allowance has been provided under Chapter 52 of the Social Insurance Code for disabled people and/or their care takers. Ordinance (2018:1562).

This work has been produced with financial support from the Clean Air Fund.

This work has been produced with the financial support of the LIFE Programme of the European Union. The paper reflects only the views of its authors and not the donors.