



Report on Research Line 8

# Toward a Just Mobility Transition: Responses of Vulnerable Groups to Car-Restrictive Policies

Insights from ACCTING's Experimental Research

Research Cycle 2

**Authors:** Francesca Pugliese, Marina Cacace, Federico Marta (K&I)

**Contributors:** Claudia Aglietti, Luciano d'Andrea (K&I), Maria Lucinda Fonseca, Alina Esteves, Daniela Ferreira (IGOT), Giuseppe Pellegrini Masini, Erika Löfström, Kenneth Vilhelmsen, Franziska Gehlmann (NTNU), Dag Balkmar (ORU), Lina Sandström (UGOT), Christos Stergiadis, Vassilis Chatzibirros (SEERC), Andrei Holman, Simona Popușoi (UAIC)

**Reviewers:** Gabor Szudi (ZSI), Carolin Zorell (ORU), Sofia Strid (UGOT)

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# The ACCTING project

It is acknowledged by now that the global climate crisis is not only an ecological crisis but also an economic, social and political crisis, with devastating effects on individuals and societies. These negative effects are not evenly distributed within societies. It is the poorer, marginalised and vulnerable groups who are the most acutely affected, exacerbating existing socio-economic inequalities. The European Green Deal foresees efficient use of resources for a circular and clean economy. However, inequalities emerge in the context of its policy and interventions.

The EU-funded ACCTING project takes these considerations as a starting point for a complex series of research and experimental activities aimed at identifying, analysing and testing policies and initiatives capable of responding to this crisis, mitigating its effects on the most vulnerable and helping them play a significant role in the pursuit of greater environmental sustainability.

The project mobilises research experimentation and innovation to promote an inclusive and socially just European Green Deal focusing on the inequalities produced by its policies and supporting behavioural change at individual and collective levels.

ACCTING explores the impact of Green Deal policy initiatives on individual and collective behaviours, provides evidence, and empowers policymakers and stakeholders to anticipate policy responses and potential negative influences, and mitigate such impacts in decision-making. The project collects new data on Green Deal policy interventions and co-designs and implements pilot actions to reduce or prevent policy-related inequalities and advance behavioural change for an inclusive and equal European Green Deal.

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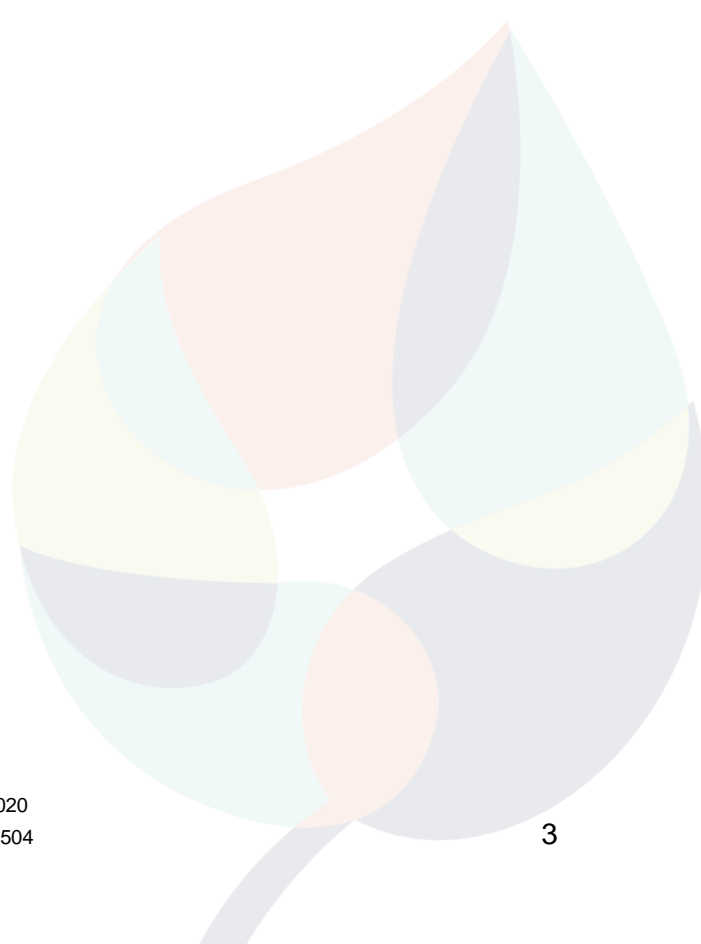
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# Introduction and methodology

## 1. Introduction

This report presents a summary of findings from Research Line 8 of ACCTING's second cycle of experimental studies, which draws on data gathered from 87 quasi-experimental case studies conducted across thirteen countries between December 2023 and August 2024. Each research line explores sustainability and behavioural change within the framework of a specific European Green Deal policy area—including climate change, biodiversity, energy, food, and transport. This report focuses on transport policies *and more specifically car-free measures*, examining how policies can support more inclusive and environmentally responsible mobility.

All reports are available at <https://accting.eu/project-deliverables/>

### 1.1. Sustainability, transformation and behavioural change in context

This report examines how a more sustainable transport system can be achieved in the context of the European Green Deal by looking at how to encourage changes in individual behaviour towards more sustainable mobility. In the second cycle, RL8 addressed one of the key questions of ACCTING, namely the impact of Green Deal policies in transport on intersectional vulnerable groups, taking into account their agency and activism.

In particular, RL8 focused on the responses – both individual and collective – of vulnerable and disadvantaged social groups living in deprived urban neighbourhoods to policies that discourage car use and/or promote sustainable transport.

#### 1.1.1. Tackling air pollution through modal shift

In the context of the EU's stated ambition to reduce net greenhouse gas emissions by at least 55% by 2030, a significant challenge is to tackle the European transport sector, which accounts for around a quarter of the EU total greenhouse gas emissions. The plan aims to create a more efficient, greener and inclusive mobility system, while reducing dependence on fossil fuels. To achieve this, changing the modal split – the share of different modes of transport per traveller or per number of trips – is crucial, as passenger cars are still the preferred mode of transport and responsible for more than 75% of transport activity in Europe<sup>1</sup> (EEA, 2024),

Promoting sustainable alternatives such as electric vehicles, clean energy sources and improved public transport system, alongside improving infrastructure for cycling and walking, is not only environmentally beneficial but also makes a significant contribution to public health and citizens' quality of life. Indeed, the health of the general population, and particularly that of the most vulnerable, is harmed by the markedly negative impact of air pollution caused by fossil-fuelled mobility, leading to 300,000 premature deaths annually in the EU and increasing chronic diseases like stroke and cancer (EC, 2022). It is also expected that other public health benefits will ensue, given that the use of public transport (Martins, Lopes, Diniz & Guedes, 2021), especially in conjunction with walking or cycling, will result in a less sedentary lifestyle than that which would result from the use of a car.

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<sup>1</sup> Measured in passenger kilometres.

For these reasons, reducing one of the main sources of air pollution by shifting to sustainable, low-emission transport alternatives, has become a priority for most European countries. In some cases, EC Member States have also been subject to infringement procedures by the European Commission for failing to ensure that air quality in their major cities meets the requirements set out in European legislation, forcing them to develop or accelerate the introduction of measures aimed at transforming mobility.

### 1.1.2. Car dependency and car culture

This transformation would have a positive impact on several aspects of citizens' lives, particularly in those societies that rely on frequent car use or car dependency. In these cases, in addition to air pollution, the well-being of the population is negatively affected by several externalities, including noise pollution, congestion, energy dependency, road and parking costs and accidents. Different components that contribute to car dependency can be identified (Mattioli, Anable, & Vrotsou, 2016).

At the macro level, car dependency refers to structural factors shaping space, infrastructure and transport services. It is reinforced by political and economic systems, including the car industry, road construction and driving laws, making alternative transport development challenging (Mattioli, Roberts, Steinberger, & Brown, 2020).

At the micro level, car dependency refers to psychological, cultural and social factors that sustain individual car use. At this level, individual agency plays an important role, but macro-level structures (in sociological and cultural terms) shape a 'car culture' that links cars to values like freedom and self-expression (Hasenkopf & Steiner, 2021). For example, car culture is often associated with masculinity, with men displaying it more than women (Hasenkopf & Steiner, 2021; Roos et al., 2020).

Finally, at the meso level, car dependency can be attributed to the concrete social practices related to mobility, such as single trips with the car. At this level, other factors may come into play, starting with the actual purpose of each trip or the sequence in which they are organised, the timing, the need to carry objects or the skills and competencies of individuals (Mattioli, Anable & Vrotsou, 2016).

In different ways, these factors at different levels contribute to an overall car dependency intended as 'the lack of an adequate transport mode alternative' (Jeekel, 2016).

### 1.1.3. Modal shift, gender and inequality

Car dependency and mobility behaviour cannot be seen as a homogeneous phenomenon. Rather, apart from the components discussed above, a variety of other variables strongly influence both mobility cultures and mobility practices.

Gender is one of them. Various studies (e.g., Miralles-Guasch, Melo, & Marquet, 2016; Sansonetti & Davern, 2021) show that women tend to use public transport more than men (31% against 24% of men in the European Union). This also reflects unbalanced economic conditions (still more men than women own private cars) and role allocation (women's mobility patterns are more complex than men's due to their generally greater load of care responsibilities). However, masculinity norms have historically dominated transport planning (Kronsell et al., 2023).

Other variables concern various forms of social vulnerability, such as those related to health status, age, disability and social exclusion, starting with poverty. On the one hand, vulnerable groups are often forced to adopt specific mobility-related behaviours, for example, because of isolated locations, high fuel costs and limited access to public transport (Boucasse, Blandin, & Mathy, 2023; Boadi Kusi et al., 2024). This often means, they become dependent on using a car. On the other hand, shifting mobility towards more sustainable forms of transport can have serious implications for vulnerable groups, exacerbating already limited mobility options. For example, the literature shows how the



introduction of low-emission zones in urban areas significantly affects vulnerable households more than other households, often leaving the former no alternative but to buy a new car (Blandin, Boucasse, & Mathy, 2024).

## 1.2. Case study selection

### 1.2.1. Car-free visions and policies

To tackle these diverse issues, modal shift policies are being designed to transform the modal split, with the aim of promoting social and environmental sustainability. One strategy is to address, i.e., reduce car dependency. In a classification developed by Jones (2014), these policies would correspond to “Stage 2” and “Stage 3” urban transport policies, as briefly explained below (Ortegon-Sanchez et al., 2017).

**Stage 1** policies focus on car movement and are characterised by a ‘predict and provide’ approach in a time when rapid growth in car ownership was seen as an indicator of a thriving economy and society. Policies in this stage supported investment in the expansion of road capacity and the allocation of existing urban spaces to automobile traffic.

**Stage 2** transport policies respond to problems such as congestion, pollution, and accidents by shifting focus to people’s mobility rather than just vehicle movement. It promotes public transport and active travel modes (like walking and cycling) while implementing measures like congestion charges and parking regulations to deter car use.

**Stage 3** transport policies focus on ensuring people’s accessibility and mobility and improving the quality of life. Stage 3 approaches acknowledge the multiple functions that streets have, both as part of public transport systems (for traffic, cycling, walking and door-to-door access) and in terms of enabling urban life. Hence, disruptive road infrastructure is removed, and space used for car traffic or parking is reallocated to street activities and sustainable transport modes. Moreover, at this stage, transport policies address the interrelations of transport with economic, social and environmental objectives.

The mobility scenario inherent in Stage 2 and 3 policies is conceptualised by some as a ‘car-free city vision’. Crawford (2000) describes the vision of the car-free city in terms of how lifestyles and aspects such as streets and public spaces, passenger transport, freight delivery, civic buildings and housing are designed to be people-centric and enable urban life and not to facilitate car functioning.

Melia, Parkhurst and Barton (2011) define car-free areas, based on examples from around Western Europe, as residential or mixed-use developments which:

- i) Provide a traffic-free or nearly **traffic-free immediate environment**
- ii) Are designed to facilitate movement by **non-car means**
- iii) Offer no **parking** for residents or limited parking separated from the dwellings (limited peripheral parking).

### 1.2.2. Responses to car-free policies and behavioural change

Car-free policies bring about social tensions and are often met with fierce opposition and criticism, making them particularly difficult to implement. In fact, while modal shift policies’ ultimate goal is to benefit everyone and, to a greater extent, contribute to the health of the most disadvantaged people, the processes involved in achieving a more efficient and low-emission transport system have often a

detrimental impact on the lives of citizens, with those in vulnerable circumstances being particularly affected.

These groups often live in peripheral areas where efficient public transport may be lacking or inadequate, resulting in heightened reliance on private vehicles. The need for private transport, especially cars, is particularly strong in the case of disabled people or caregivers, as well as for people who work at night or are more susceptible to harassment or violence. Freedom of movement is a right that is very difficult to give up and whether a car-free policy will be accepted from an individual or collective point of view is not so easily predictable. Indeed, as noted in Section 1.1.2., the importance of moving by car carries with it various meanings and cognitive aspects that cannot be directly explained by the mere absence of alternative transport options.

Research has already focused on the factors associated with citizens' support (or lack of support) for policies inspired by environmental and car-free visions (see Huber, 2020). In some cases, the focus is also on disadvantaged groups, particularly in relation to the Yellow Vests movement (Martin & Islar, 2020; Tathars & Peters, 2023).

In ACCTING, we focused the RL8 second research cycle (RC2) questions on the individual and collective responses of vulnerable groups to policies discouraging car use, thus including three relevant and interrelated areas of analysis:

- The unequal/unequalising **impact of the policies** from an intersectional perspective that motivates the reactions of vulnerable groups
- **Activism/mobilisation** of (different) vulnerable groups, whether for or against the policies (collective level)
- Possible **behavioural change** in transport habits associated with the policies (individual level).

Responses were classified according to a tailored version of Hirschman's Exit, Voice and Loyalty analytical framework (Hirschman, 1970 and 1978) with the addition of the Neglect category (Farrell, 1983). Neglect has been preferred to Exit because in mobility policy, Exit is a more difficult option to exercise, as many people are forced to stay in their area and 'suffer in silence' (Dowding & John, 2012).

It is important to note that **responses do not directly correlate with behaviour change**. However, they provide important insights: Strong and active opposition (**voice**) can in some cases lead to the delay, withdrawal or failure of sustainable transport policies. Passive **neglect** outcomes, in turn, are not conducive to behavioural change, apart from forced and superficial adaptation. While not a direct precursor to individual behaviour change, **loyalty** outcomes support the implementation of policies (in this case, car-free policies) and therefore potentially have an impact on the sustainability of transport in the areas concerned.

In line with the focus of RL8, cases in the second cycle have been identified as (1) policies inspired by the car-free approach (2) that have affected deprived neighbourhoods ('deprived' according to local standards) and/or people in vulnerable conditions in urban areas. This way, the cases allow for keeping focus on both the policy and its context of implementation. The selected policies either concerned a specific neighbourhood or an entire city, but their impact and reception were nevertheless analysed at the neighbourhood level.

The research cases were identified taking into account the examples of policies provided in Table 1. It outlines some of the most pertinent rationales for car-free initiatives (Sanchez et al., 2017).

*Table 1 – Example of car-free initiatives relevant for RL8, based on their prevalent rationale*



Rationale	Examples
<b>Making cars more expensive or less convenient</b>	'Congestion charges' for entering car-free or car-restricted areas
	Parking restrictions/regulations/cost increase
	Reduced space allocated to cars on the road
	Restrictions for driver licenses
	Traffic calming (narrow roads, speed humps, etc.)
<b>Increasing the convenience of alternative modes of transport</b>	Bicycle lanes/services improvement
	Convenient bicycle share scheme
	Car-sharing for residents
	Facilitate intermodality linking individual modes and public transport
	Improve public transport
<b>Revive the social functions of streets (reducing car space)</b>	Alternative use of space for leisure activities
	Alternative use of space for recreational walking and cycling
	Alternative use of space for green areas and public amenities
<b>Reduce air pollution by limiting car use</b>	Car-free areas
	Car-free hours/days
	Banning cars (e.g., based on plate numbers) from circulating for a certain number of hours on given days
	Restricted access based on emission levels

All the selected policies were in the process of being implemented in deprived areas and none of them had been fully finalised at the time of the RC2 fieldwork. This was a methodological choice necessary to observe reactions and mobilisations. However, this also meant that changes in individual transport behaviour resulting from the policy could not be observed, as its full effects would only become clear several years after implementation. Therefore, as approximation for this aspect, the RL measured citizens' intentions to change their mobility habits in response to the policy.

The condition was also that projects needed to be in the process of implementation and reasonably well-known to citizens. This was considered necessary to be able to analyse reactions. However, it introduced a significant degree of complexity in the selection of policies. Nevertheless, eventually, the six ACCTING partners involved in RL8 (Greece, Italy, Norway, Portugal, Romania and Sweden) were able to identify different ongoing policies in their respective countries that address a diverse range of motivations. Table 2 provides an overview of the eventually selected cases.

Table 2 – Selected cases

Country	Policy	Rationale	City
<b>Greece</b>	Construction of a new flyover	Reducing traffic in the city centre	Thessaloniki
<b>Italy</b>	Low-emission zone	Limiting the circulation of polluting cars	Rome
<b>Norway</b>	Bike lane	Encouraging active mobility	Oslo
<b>Portugal</b>	Paid car parking	Reducing car occupation of space	Lisbon



<b>Romania</b>	Dedicated bus lane	Incentivising public transport	Iași
<b>Sweden</b>	New Bus Rapid System (BRT)	Incentivising public transport	Örebro

It can be noted that, while car-free policies in Greece, Italy, Norway and Portugal were specifically developed to have a direct impact on car use in specific urban areas, policies in Sweden and Romania were designed to improve the convenience of the bus system, thus indirectly discouraging the use of private vehicles.

Regarding the context of the implementation of the policies, all RL8 partners selected urban neighbourhoods, mostly peripheral and affected by different types of vulnerability. The latter mainly related to socio-economic challenges and migration-related difficulties, and to a lesser extent to the presence of older people and people with disabilities. The Romanian case of Iași was the only one where the policy focused on a semi-central area.

The following paragraphs outline the different policies and the specificities of the areas in each country.

### 1.2.3. Greece

In Greece, it turned out to be particularly difficult to find relevant car-free policies in the country. This led the SEERC team to choose the “Flyover”, which is a heavily discussed case in the city of Thessaloniki. The project consists of a 7.6 km elevated expressway that is being built above the current eastern ring road of Thessaloniki. This will include a 4 km long bridge. The elevated expressway will serve through traffic and will not have intermediate nodes. During the four-year construction period of the project, which is popularly known as the “Flyover”, interventions will also be made on the western inner ring road of Thessaloniki. According to the local authorities, once the project is completed, the city's residents will enjoy a modern, safe, regional road axis. The upgrading of the existing ring road is projected to significantly improve road safety, reduce the environmental impact of the road, and unite the city with a large suburban forest surrounding Thessaloniki.

The regional road axis will connect an area on the north-western side of the city which covers 3,521 hectares and has a permanent population of 55,000. The area's most vulnerable groups include older individuals, low-income residents, and a significant immigrant population, primarily from Armenia, Albania, Georgia and Russia. Additionally, the area is home to the Thessaloniki Psychiatric Hospital and the Thessaloniki Drug Rehabilitation Centre. As for the mobility situation in the area, the lack of public transport, combined with an ongoing 20-year metro construction project, has created significant transport difficulties, resulting in a high use of private cars by residents. Lack of frequent bus services (1 bus every ~15-20 minutes), overcrowded buses, heavy traffic and the lack of cycle lanes are the main problems faced by people living in the area. There are plans to extend the metro system to reach the neighbourhood, but this is still a work in progress, mostly due to bureaucratic reasons.

### 1.2.4. Italy

The case chosen in Italy is a traffic ban in Rome known as ‘ZTL – Zona a Traffic Limitato’ (limited traffic zone) or ‘Fascia Verde’ (Green Belt) – commonly known in Europe as a low emission zone. As a response to sanctions against Italy by the European Court of Justice for excessive pollution, the policy was already in place in a mitigated version since 1999 and became permanent since 2015. The conditions of access to the zone are reviewed every year and, starting in November 2024, the rules will exclude other types of vehicles and become increasingly strict to ensure that only low-emission vehicles can circulate in the area. To enter the zone, vehicles will have to pass through one of the 51 access gates where cameras have been positioned to track and fine vehicles that do not meet the



access criteria. Currently, the Green Belt is an area within the Grande Raccordo Anulare (Rome's ring road) that includes the historic centre and the railway ring, but from November 2024, this area will be expanded to include suburban areas. However, given the protests, petitions and meetings organised by cross-party groups calling for the restrictions to be lifted, it is not certain that the policy will not be delayed further, as it happened in 2023.

The areas selected as case studies are two non-central Roman neighbourhoods, located in the south-west quadrant of Rome, that will be included in the Green Belt. The two bordering districts are both residential and working-class neighbourhoods, with similar populations between 20 and 30 thousand. One neighbourhood is more centrally located, with a very high population density of 132.0 inhabitants/hectare compared to 43.4 inhabitants/hectare in the other (December 2019). Both neighbourhoods are exposed to social and employment criticalities compared to the Roman average, with an unemployment rate of around 10%. In recent years, both areas have become increasingly multi-ethnic, with residents of foreign nationalities making up 14.3% of the population in one neighbourhood and 13.5% in the other.

As is the case with other peripheral areas of Rome, the neighbourhoods are poorly served by public transport. There is considerable dissatisfaction with the buses that do not adhere to timetables, are often overcrowded, and are unsuitable for the needs of people with reduced mobility. Despite the presence of suburban railway stations in the area, issues emerge particularly after 6 p.m., when train services become infrequent and the limited frequency of bus services has a significant impact on individuals with demanding jobs who are required to travel during night hours, as well as on women who prefer not to wait at bus stops in the dark. This leads to an extensive use of private transport, with congestion also caused by double-parked cars.

### 1.2.5. Norway

The selected policy in Norway involved replacing 110 parking spaces in a neighbourhood of Oslo with the objective of constructing a bike lane and facilitating the use of bicycles. The policy was proposed by the Green Party (MDG), which holds a majority in Oslo. However, in January 2023, residents collectively demonstrated against these plans, asserting that the construction of cycling lanes was intended to fulfil the city council's objective of 100 km of lanes without a real need. Citizens also stated that parking spaces are scarce and that their removal would result in the need to use paid parking spaces after 4 p.m. for a fee between 5 and 7 euros for two hours. Alternatively, free parking outside the affected area was available, but this is a considerable distance from many citizens' homes. In consequence of the protest and the ensuing media coverage, the Green Party resolved to halt the policy and to enter into further discussions.

The neighbourhood selected as a case study has a total population of 10,345 and a high proportion of residents with a migratory background, including 19.7% immigrants and 4.7% Norwegian-born children of immigrants, primarily from Somalia, Sweden, and Poland. Despite the area currently undergoing gentrification, it still comprises a significant proportion of low-income families (approximately 17.7%), as evidenced by a relatively low median income compared to the national median (€36,636 in 2020, considerably below the Norwegian median of €48,223) and the fact that 15.2% of the population receives over half of their income from social support.

With regard to the mobility situation, the principal modes of transport are private cars and buses. However, both modes of transport are subject to certain difficulties, namely a lack of parking spaces for cars and bus fares that exceed the national average. Furthermore, individuals with disabilities report a lack of comfort when utilising public transportation, citing personal needs such as work, personal travel and shopping as reasons for requiring a personal vehicle.

### 1.2.6. Portugal

The selected case study in Portugal focuses on a car parking payment policy implemented in Lisbon, aimed at curbing chaotic and disorderly parking throughout the city. Under this policy, each household is entitled to one free parking permit for their residential zone and an adjacent zone. Additional parking permits for second and third vehicles within the same household are available for purchase at progressively higher prices.

In 2019, there were plans to expand the paid parking zone within the civil parish of Benfica, where the studied neighbourhood is located. However, due to protests from residents and local associations, a local referendum was held on 12 February 2023, in which the majority of voters rejected the expansion of paid parking in Benfica civil parish. As a result, the implementation of the policy, by expanding the paid-parking area, in this civil parish was cancelled.

The neighbourhood chosen to be studied is situated in a peripheral location within the city of Lisbon. The resident population is considered to be highly vulnerable and disadvantaged in socio-economic terms. The area is home to an estimated 6,000 individuals in a total of 1,559 housing units. In this council housing estate, approximately 20 families identify as Roma, while an estimated 30 to 35 families have an African background. In general, the population has a low level of educational attainment and an average income that is below the national average, indicating a high level of economic deprivation. A significant proportion of the population is comprised of individuals who are either retired or employed in temporary positions, the majority of which are related to the construction industry, hospitality and housekeeping services (cleaning). It is thought that illicit activities may also be taking place. Since 2011, the neighbourhood has been designated as a Priority Intervention Neighbourhood—a geographic area identified by local authorities as needing targeted support due to challenges such as limited infrastructure, social services, or economic opportunities—granting its local associations the right to submit projects for municipal funding.

The mobility situation is also complex, with residents citing a lack of bus frequency and the inconvenient location of bus stops as particular issues. In particular older residents have to walk long distances to reach the nearest bus stop, which is a cause of concern. The area lacks dedicated bicycle lanes and a cycling culture. Furthermore, the municipal GIRA (shared bikes) cannot be operated within the neighbourhood due to concerns about vandalism to their mechanisms. Residents also complain about the lack of parking for their vehicles, particularly around the public swimming pool during certain times of the day.

### 1.2.7. Romania

In Romania, the UAIC team selected a policy comprising the introduction of a bus lane on a boulevard crossing a densely populated residential area of Iași. The area is also home to a significant farm market, as well as to other local institutions and commercial establishments. The boulevard in question partially circumvents the city centre, situated at an approximate distance of 1 km, and experiences high levels of traffic congestion. A considerable number of individuals regularly commute to the neighbourhood from other parts of the city, with private vehicle use representing a substantial proportion of the transportation mode. Therefore, parking is in short supply and traffic is congested, with the majority of streets in the neighbourhood frequently at full capacity. The policy is part of a larger set of actions implemented by the municipality (the Plan for Sustainable Mobility), and it extends the bus lanes that were implemented three years ago to other segments of Iași boulevards. The objective is to enhance the quality of public transportation and reduce reliance on private vehicles by encouraging the use of public transportation and other alternative transportation options. Furthermore, the policy considers the needs of individuals with impaired mobility, including older individuals and those with health issues, who rely on public transportation.





The neighbourhood is situated between the city centre and the margin of the city, representing a typical working-class area with apartment buildings constructed during the communist era. The socioeconomic status of residents is predominantly low to medium, with a high proportion of elderly individuals. Consequently, the primary vulnerability factors are age (elderly people) and the low socioeconomic status.

The area lacks the necessary infrastructure for bicycles. However, residents can utilise the bus and tram lines that run along one of the two avenues, in addition to personal vehicles that remain the most common mode of transport. The area is characterised by significant transport issues. The lengthy waiting times for public transportation, which results in overcrowded vehicles, slow-moving times (especially before the introduction of the bus lane), and the ageing public transportation vehicles (which expose passengers to discomfort) present particular challenges for the older individuals and those with health conditions.

### 1.2.8. Sweden

The case study selected in Sweden is a Bus Rapid System (BRT) installed in the city of Örebro to make room for dedicated bus lanes and significantly reducing car space. The current system is the slowest urban transport system in Sweden, with an average speed of 15km/h, which makes it difficult for buses to compete with cars as the preferred mode of transport. The policy is about improving public transport by updating the bus line network and introducing new improved bus shelters and electric buses. The new network will reduce the total number of bus lines from twelve to seven and some bus stops will be removed. The rationale behind the policy is to speed up the bus services and, thereby, make public transport more attractive and available to more people. This includes connecting disadvantaged areas, like the neighbourhood studied, to the city centre. The level of collective action against the project is high as many see the policy as unnecessary and too expensive, with costs outweighing potential benefits. Some people also claim that the BRT will slow the flow of traffic and make the transport situation worse for car drivers.

The fieldwork was conducted in a disadvantaged neighbourhood in Örebro, with a population of around 3500. The area is popular with families with young children and, to a lesser extent, students, due to its proximity to the university. The average income in the area is considerably lower than in the municipality as a whole, and in 2023, the unemployment rate was more than twice as high. In 2022, a quarter of the population in the area spent a maximum of nine years in education (10.3% in Örebro), and less than a third had obtained some third-level education (47.6% in Örebro). In 2022, around two-thirds of the residents were either born abroad or had at least one parent born abroad (compared to 19.5% and 7.9% respectively in Örebro).

The neighbourhood lies in the city periphery on a top of a hill. Its infrastructure is designed for car accessibility, with car traffic separated from pedestrian and bicycle paths by a tree-lined embankment. Less than half of the households in the area own a car, while about one in three households have no access to a private car. This suggests a higher degree of bus dependency in the area – especially for younger generations – compared to other areas of the city. Even for shorter journeys, the geographic location of the neighbourhood makes car or bus the preferred options as cycling/walking from the city centre requires making it up a substantial hill. In general, the public transport system (bus) in Örebro is well developed with reasonable connections to different parts of the city, including the area studied. However, the high costs of using the bus system can be problematic especially for families in vulnerable economic conditions.

### 1.2.9. Gender+ in the case study context

As we can see from the case descriptions, all teams focused their research on particularly disadvantaged areas where the ACCTING target population was likely to be present, according to a





preliminary contextual analysis. All the selected areas are characterised by socio-economic challenges, and some are also peripheral areas suffering to varying degrees from geographical remoteness, as in the case of Italy, Portugal and Sweden.

In selecting the car-free policies, consideration was given to two criteria: their **potential impact** on individuals in vulnerable or marginalised circumstances; as well as the level of **mobilisation/reaction** triggered by the communication or early implementation of the policy within specific disadvantaged neighbourhoods. In certain instances, the ACCTING teams encountered challenges in identifying a policy that satisfied both criteria, leading them to prioritise one aspect over another.

Based on the contextual analysis, selected car-free policies were expected to have different (levels of) impacts on groups of people in vulnerable situations. As mentioned above, the overall rationale and long-term effects of modal shift policies would have beneficial effects, especially on the health of people, but in the short-term, individuals in disadvantaged or vulnerable conditions could experience negative consequences in their daily lives due to the measures.

In general, **policies designed to improve public transport** were chosen because they tend to provide more direct benefits to vulnerable individuals who rely on it as their primary mode of travel but may potentially disadvantage those who primarily use personal vehicles. This is the case in Romania, where the new bus lane takes into account the needs of people with reduced mobility (the elderly or people with health problems) who use public transport, providing them with a more consistent and reliable timetable and shorter waiting times. At the same time, it also has negative effects on residents who work for local businesses and have to travel by car on a reduced and often congested lane. To a lesser extent, the rapid bus system in Sweden, with a faster and more reliable bus service, could also be beneficial to the inhabitants of the neighbourhood studied. However, the bus connections were already considered to be of a good standard, and the potential for improvement was considered minimal. Moreover, the removal of certain bus stops could have an adverse effect on some individuals, as they would be compelled to walk longer distances to reach the nearest bus stop.

Conversely, **policies that directly hinder the use of private vehicles** were selected because they are perceived to impact individuals in vulnerable conditions mostly in adverse ways. More specifically, in Norway, people with physical or mental health issues felt that their daily life would have been negatively impacted if they could no longer park nearby and therefore could no longer rely on personal vehicles for their daily commute. Similarly, in Italy, the main criticism was that the Green Belt/low emission zone did not take into account the economic and social vulnerability aspects of the population. Instead, it ended up affecting precisely the most vulnerable groups who cannot afford to change their cars and, without improved public transport, would face direct consequences on their daily lives. The expected impacts of the chosen measures in Greece and Portugal are less evident than in the other cases. In Thessaloniki, the impact of the flyover on residents is not of particular concern, but people are strongly affected by the traffic caused by the construction of the new road axis, experiencing high levels of stress due to commuting delays, and women and people with reduced mobility suffering from waiting for public transport or in overcrowded vehicles. Differently, in the neighbourhood chosen to be studied in Portugal, the expected impact of paid car parking was controversial and polarising, with some people in favour of it to keep external cars out of the neighbourhood, and others strongly against, as it would have made owning extra cars too expensive for a family.

Overall, the different cases selected served to explore the different factors and contextual aspects that make people in vulnerable situations feel affected by the impact of a particular policy and, in some cases, lead them to mobilise against or in favour of it.

### 1.2.10. Gender+ among study participants



Considering the selected case studies, it is not surprising that in all the neighbourhoods, the most relevant kind of vulnerability found among the study participants was the one linked to socio-economic status, often intersected with gender, having a migrant background or being from a minority ethnic, racial and/or social origin, as it was the case for some Italian, Romanian and Swedish interviews. The Swedish team also recruited participants vulnerable in terms of their age and socio-economic status. Due to the characteristics of the research areas, Italian and especially Portuguese teams found profiles that intersect the vulnerable socio-economic status with the disadvantaged geographic location. Finally, the intersection between age and disability grounds of vulnerabilities was explored particularly within the Portuguese and Romanian samples and to a lesser extent, in the Italian and Swedish cases. Despite the choice of a fairly low-income area in Oslo, the Norwegian team did not manage to find profiles with intersecting vulnerabilities among the research participants. Thus, the sample of the Norwegian case consists of individuals with a single type of vulnerability, such as being single parents, having disabilities, or having a low socio-economic status.

Table 3 summarises the different grounds of vulnerabilities expressed by study participants (Subjective inequalities). People could express that they feel discriminated for different reasons, so the total number does not represent the total number of people, but only the various types of vulnerability that people identified as subjective inequalities. In some cases, the researchers' assessment could differ from the subjective opinion of the participants, who might avoid mentioning or not recognising a specific type of vulnerability relevant to them. The table with the different types of vulnerability identified by the researchers is instead presented in the sample description, Section 3.1. – Table 12.

Table 3 – Subjective inequalities

	Greece	Italy	Norway	Portugal	Romania	Sweden	Total
<b>No subjective inequality</b>	1	4	5	-	-	5	<b>15</b>
<b>Gender</b>	6	1	1	2	7	1	<b>18</b>
<b>LGBTQ+ status</b>	-	-	-	-	1	-	<b>1</b>
<b>Age</b>	-	1	-	2	6	2	<b>11</b>
<b>Disability</b>	2	1	2	3	2	-	<b>10</b>
<b>Nationality and/or migrant status</b>	3	-	1	-	3	4	<b>11</b>
<b>Religion/belief</b>	-	-	-	-	-	1	<b>1</b>
<b>Language</b>	-	-	-	-	-	2	<b>2</b>
<b>Ethnic, racial, and/or social origin</b>	-	1	-	-	-	3	<b>4</b>
<b>Social class/Socio-economic background</b>	3	3	1	11	7	-	<b>25</b>
<b>Geographic location</b>	-	2	-	10	-	1	<b>13</b>
<b>Other</b>	1	2	-	4	1	-	<b>8</b>

### 1.2.11. Case diversity and comparability



The variation in respondents' reactions to the selected car-free policies is not only due to the different individual profiles, but also to the diverse case studies in terms of countries, neighbourhoods and policies selected.

Efforts have been made to provide a degree of diversity in the cases that would make the comparison meaningful and informative, while still ensuring comparability. The main elements of diversity between cases and some limitations to full comparability can be highlighted.

Although all policies fall under the car-free rationale, there are important differences between them. The cases in Italy and Portugal focus on policies that directly target and discourage car use. The cases in Sweden, Romania and Norway support public transport or active mobility with a more or less severe impact on car circulation and use. The last case, in Greece, where the policy causes great inconvenience to citizens due to the construction of the flyover, is less consistent with the selected cases because the reactions of individuals are not to the policy measures but to the construction works. In addition, the fact that the Greek case involves major infrastructure works has a specific impact on reactions that is not present in the other cases. The selected areas also show significant differences in terms of socio-economic situation. The neighbourhood in Portugal has a very high level of socio-economic deprivation, while other selected areas, e.g., in Norway or Greece, are inhabited by people who are not as disadvantaged.

However, not all of these differences can be seen as limitations, as some of them provided important insights into the dynamics of citizens' response to car-free policies and the factors that mostly account for it.

### 1.3. Recruitment procedures

A purposive sampling strategy was adopted to build the qualitative panel of respondents. This included relying on the research team's judgment to identify informants who would be appropriate to meet the purpose of the study (Campbell et al. 2020). Samples in each country were therefore built around the need to include people with different vulnerabilities who might be affected by the car-free policy in question.

The choice of areas with different socio-economic criticalities already helped to ensure the selection of specific individuals in vulnerable situations. However, to access the ACCTING target population and thus bring a gender+ intersectional perspective to the research, each team actively took specific measures. The Greek team organised initial meetings in the area and used snowball sampling, while the Norwegian team carried out extensive recruitment, visiting cafes and shops to ask citizens with different profiles if they would be interested in participating in the project. Some people were also contacted through the intermediary of leaders in Facebook groups concerning protests or discussions on the policy. In the Romanian case, the researchers took time to examine the social environment of the neighbourhood and only approached (with an invitation to participate in the study) individuals who had the potential to match the characteristics of the ACCTING study. In the cases of Italy, Portugal and Sweden, recruitment was carried out by diversifying access points and contacting different organisations and personal networks. In particular, in Rome, research participants were selected by contacting and attending places/associations or events where opportunities had arisen to meet people with more pronounced vulnerability profiles. For example, the Italian team contacted a disability association in the neighbourhood, went to a food parcel distribution and actively sought out shops owned by immigrants or where immigrants work, or areas where foreign people congregate. The local mosque was also contacted to find members of the country's religious minorities. The Portuguese team approached the residents' association and a neighbourhood-level youth project to secure different types of older and younger respondents, from different national backgrounds. The main strategies used by the Swedish team were the snowball technique, starting with personal contacts,

and contacting the local church and various organisations based on ethnic or national background. An attempt was also made to find relevant research participants by putting up recruitment posters in the community centre.

The samples have several limitations, mostly connected to the utilised recruitment channels that have in some cases limited diversity. Furthermore, some of the most vulnerable groups may not have been included in the sample due to difficulties in the recruitment phase. In the Swedish and Portuguese cases, for example, the national researchers highlighted the limitations of recruiting through personal contacts and local associations in contact with only a few specific groups of people in the neighbourhood. In Lisbon, the national team did not manage to include respondents from the Roma community, while in Örebro, the migrant community was only marginally included in the sample, despite their (numerical) relevance in the local community. In Rome, national researchers also faced difficulties in recruiting representatives of foreign communities, mainly due to the language barrier, which contributed to people being unaware of the policy and therefore not being interested/able to share their views on it. In general, the sample is biased in a way that people who were more involved in protesting against the policy were more accessible and willing to participate in the study. This was also a limitation for some teams, as in the Norwegian case, who struggled to find people who were more accepting of the car-free measure.

Another reason why some groups were not included in the sample may be related to issues of researcher positionality. Being an insider or an outsider researcher in a particular area may lead to different results in terms of citizen participation: some people may feel more comfortable talking to interviewers who are used to the dynamics within the area, while others may be more open to sharing their opinions with more distant and “authoritative” researchers who do not have close contacts with people in the neighbourhood. The gender of the researcher was also an issue in some interviews (e.g., for people belonging to certain religious groups in Rome).

## 2. Methodology and study materials

In RC2, RL8 adopted a qualitative approach and methodology, i.e. field observations and open-ended questions using a semi-structured interview guide, with data collection involving interviews with policymakers, representatives of civil society organisations and residents of the neighbourhoods, preferably belonging to intersectional vulnerable groups. The questions focused explicitly on RL8 topics and were inspired by RC1 results and the literature specific to Hirschman's framework.

As a first methodological step, each team had to identify a case study in their country to analyse the impact and reception of a car-free policy at an individual and collective level in a specific neighbourhood, designated as the area where the fieldwork would be carried out. Once the case study was selected, the researchers started desk research, to be carried out before and during the fieldwork.

The details of each methodological step are described in the following sections.

### 2.1. Desk research

Desk research was mainly used to identify and gather background information on both the policy and the area, namely:

- Urban and socio-demographic factors related to the target neighbourhood



- Characteristics of the policy (e.g., rationale/s, consideration of vulnerable groups, level of ambition, degree of flexibility) and the process leading to its adoption (e.g., consultations, participatory processes)
- Studies on the beneficiaries/users of the policy, on attitudes towards environmental issues, on mobility/transport patterns
- Policy uptake, compliance levels
- Presence of groups/associations leading demonstrations/protests for or against the car-free policy in the area.

All this background information was included in a Contextual Analysis document, based on a Contextual Analysis Template that guided researchers in gathering these data about the area. This document was intended to be revised and improved throughout the fieldwork as relevant data emerged, including from the fieldwork interviews. The desk research also included the observation of discussions on social networks as a preliminary search for public, individual or collective reactions to the policy in the online world.

## 2.2. Field observations

Most of the data was collected through fieldwork, consisting of both field observations and interviews. Each team visited the area on different occasions to take photographs and ensure an in-depth description of the context of each case study. The ACCTING teams were also encouraged to keep a diary of their observations, which they updated throughout the project, providing first-hand information to complement the data collected through interviews and contextual analysis. Observation notes proved useful in forming an information base for the country report.

Depending on the case, observation included:

- Information about the site, how it looks (polluted, crowded, dirty, clean, green, etc.)
- The commuter flows it is affected by and its peak times
- The vulnerability of people travelling in the area (migrants, elderly, children, etc.)
- Which current mobility services seem to be widely used (public transport, walking, cycling)
- Comments and impressions of the case study, gathered from informal discussions with the local population.

In some cases, researchers attended neighbourhood assemblies or meetings organised by local associations or activist groups, where it was also possible to recruit some research participants willing to share their views. Field observations were also useful in reaching out to small networks in the area.

## 2.3. Semi-structured interviews

The aim of RL8 in RC2 was to gain an in-depth understanding of the factors influencing the reception of policies to make spaces car-free and/or promote sustainable transport by vulnerable groups and individuals. To this end, in-depth interviews were considered the most appropriate tool to explore people's opinions and the reasonings behind them.

Each team was required to conduct 12 interviews, of which 10 were with citizens living in the neighbourhood, preferably with an intersectional vulnerability profile; and 2 with policymakers and/or representatives of civil society organisations involved in policy design or implementation. Two different interview grids were provided to the ACCTING partners, with ad hoc questions differentiated for the two categories of respondents.





### **2.3.1. Interviews with policymakers and representatives of civil society organisation**

During the fieldwork, interviews with local policymakers and civil society organisations served to inform about the evolution of the policy, its origins, funding lines and future developments. The questions also sought to explore what policymakers and activists saw happening in the area, the actors/groups most in favour and those against, whether the policy design process was co-creative or more top-down, and their concerns and awareness of the impact on vulnerable intersectional groups.

Identifying and recruiting key decision-makers was a challenge for many teams. In some countries, such as Romania and Portugal, political representatives proved to be rather elusive when it came to scheduling interviews. However, in a few cases, the more accessible representatives of civil society organisations or informal groups supported access to policymakers.

### **2.3.2. Interviews with participants from vulnerable or disadvantaged groups**

Interviews with residents of the neighbourhoods were key to answering the research question. The teams were asked to recruit at least 10 people specifically living in the selected area and to include people from marginalised and disadvantaged groups in the sample. As far as possible, it was advisable to maintain a balance between citizens who were in favour of the policy and those who were opposed to it, in order to gain a full understanding of the situation.

To get a clearer picture of those who might be in favour and those who might not, it was suggested that representatives of local authorities and civil society organisations should be approached to possibly assist in the recruitment phase. In very few cases, recruitment took place directly at the places where the mobility service was used (e.g., at stations or bus stops in the neighbourhood itself, near the paid car park or along the relevant cycle paths).

For some teams, particularly in Italy and Portugal, CSOs proved very useful in approaching citizens from vulnerable groups to participate in interviews, thanks to pre-existing relationships of trust.

## **2.4. Harmonising data collection**

During the fieldwork, each ACCTING team used similar methodological approaches, adapted to their country context. In particular, for recruitment, the different teams relied on strategies that proved to be more productive in their case, with a different prevalence of random identification of participants on the street (e.g., at bus stops), support from local groups and associations, participation in local events, etc.

All topics included in interview templates (see 3.2.1.) had to be covered during the interviews to ensure consistency across cases. However, the ACCTING teams were free to use the interview grid as a guide and to adapt the questions to their research contexts in order to enable research participants to understand and feel comfortable talking about the different topics. For the more sensitive questions, e.g. related to subjective vulnerability, specific wording was suggested at consortium level, but national researchers could decide not to ask specific questions directly and to include them in a broader discussion. Adaptation was also inevitable given the different languages spoken in the research areas.

## 2.5. Data protection and ethical issues

An updated RC2 version of the RL8 consent form was available to the national research teams to be adapted for each country. Each research participant was informed of the anonymisation procedures in the transcription and the possibility of withdrawing from the research at any time. They were also encouraged to read the document, ask questions if anything was unclear, and accept the conditions by signing or verbally consenting at the start of the recording. The interview had to be recorded. However, if it was not possible or the participant did not consent to be recorded, the interview was fully documented with comprehensive notes.

In general, the process of obtaining the consent form did not pose many challenges to the teams that took various measures to ensure a personal relationship of trust between researchers and study participants. In the cases of Romania and Greece, the national researchers were residents or accustomed to the neighbourhood and thus familiar with navigating their surroundings and interacting with people living there. Therefore, trust was achieved through previous knowledge of the area or personal contacts. The Swedish national researcher also based her recruitment and trust strategy on personal networks, as she used to live in the area in the past. However, to gain access to other groups of people, she relied on various organisations that could act as intermediaries. A similar strategy was adopted in some cases by the researchers analysing the Italian, Norwegian and Portuguese cases. They turned to already trusted people from Facebook groups or local organisations who could introduce them to potential interviewees. Moreover, in the Italian case, most of the people contacted were particularly eager to explain their position in relation to the policy. Even without intermediaries, many citizens were very willing to participate in the project to be heard by policy makers, and did not require specific trust-building strategies.



# Analysis and results

## 3. Data collection and analysis

Depending on the case, data collection in the various countries was spread out over a slightly longer period of time than expected. Contextual and policy data were originally scheduled to be collected between September and November 2023, while fieldwork was planned to take place between November 2023 and April 2024. There were several reasons for this delay: for example, the Norwegian team encountered difficulties due to changes in the employment contracts of the national researchers, while the Greek partner decided to change the case study when they realised that the previous one concerned a car-free policy that was not sufficiently known by the citizens. For both teams, the fieldwork started in March and ended in late June/July 2024. The Swedish team, on the other hand, had difficulties in recruiting people with a migrant background, so they had a long period of fieldwork from January to May 2024. Fieldwork for the Portuguese, Romanian and Italian cases ended in mid-June, mainly due to difficulties in scheduling interviews with policy makers and CSO representatives.

### 3.1. Sample description and vulnerability factors

Overall, the ACCTING teams interviewed 64 citizens and 9 people from among policymakers and representatives of civil society organisations. The latter contributed to the understanding of the context and provided relevant information on policies and their reception. However, the research outcomes are primarily drawn from the 64 interviews with citizens.

The main characteristics of the sample of citizens (for policymakers, see Section 3.2.5.) are described in the tables below. It is important to note that the data presented in this section are based on information collected through the socio-demographic part of the questionnaire and do not correspond to the respondents' perceptions of the inequality grounds to which they are exposed (reported in Table 3 in Section 1.2.8., above).

Table 4 shows the composition of the RL8 sample by country and gender, based on citizens' answers to standardised questions across RLs concerning their demographic information. As can be seen, the gender ratio is slightly in favour of women respondents (36 out of 64) and there are no people in the sample who identify as nonbinary.

Table 4 – Sample by gender and country (absolute values)

	Men	Women	Other	Total
Greece	3	7	-	10
Italy	5	5	-	10
Norway	5	4	-	9
Portugal	7	6	-	13
Romania	3	7	-	10
Sweden	5	7	-	12
<b>Total</b>	<b>28</b>	<b>36</b>	<b>-</b>	<b>64</b>



As regards the age groups shown in Table 5, persons aged 45-64 are most present in the overall sample, and particularly in the Italian, Norwegian and Swedish cases. People aged between 25 and 44 were mainly interviewed in Greece, while persons aged 65 and over were particularly present in the Portuguese and Romanian samples.

Table 5 – Sample by age group and country (absolute values)

	18-24	25-44	45-64	65+	n.a.
<b>Greece</b>	1	5	4	-	-
<b>Italy</b>	-	1	5	4	-
<b>Norway</b>	-	3	5	-	1
<b>Portugal</b>	3	3	2	5	-
<b>Romania</b>	3	2	-	5	-
<b>Sweden</b>	1	2	6	3	-
<b>Total</b>	<b>8</b>	<b>16</b>	<b>22</b>	<b>17</b>	<b>1</b>

People with any form of disability that may affect their mobility represent one third of the total sample (Table 6), with a lower representation in the Italian and Romanian cases. This sample is predominantly female, with 16 out of 22 persons with disabilities being women.

Table 6 – Sample by disability and country (absolute values)

	Yes	No	Prefer not to say/ Not asked	Total
<b>Greece</b>	5	5	-	10
<b>Italy</b>	1	9	-	10
<b>Norway</b>	4	5	-	9
<b>Portugal</b>	5	4	4	13
<b>Romania</b>	2	8	-	10
<b>Sweden</b>	5	7	-	12
<b>Total</b>	<b>22</b>	<b>38</b>	<b>4</b>	<b>64</b>

A further question concerned the presence of children and/or care responsibilities among the respondents. Of the total sample, 30 individuals responded in the affirmative, representing approximately half of the overall sample. Among these, 17 were women and 13 were men.

Respondents were also asked about their national background. In this case, the vast majority of people were born in the country where the interviews were conducted, while 20% of people in the total sample were born abroad (Table 7).

Table 7 – Sample by national background and country (absolute values)

	Born in the country	Not born in the country	Total
<b>Greece</b>	7	3	10
<b>Italy</b>	8	2	10
<b>Norway</b>	8	1	9
<b>Portugal</b>	13	-	13
<b>Romania</b>	7	3	10
<b>Sweden</b>	7	5	12
<b>Total</b>	<b>50</b>	<b>14</b>	<b>64</b>

Table 8 shows the migration background of the research participants, i.e. if neither parent was born outside the country in which the interview was conducted, if only one parent was born abroad or if both parents were born abroad. Partially reflecting the national background situation, the proportion of people with both parents born in the country where the interview was conducted was around 70%. People with a migrant background were particularly present in the Swedish and Greek samples.

Table 8 – Sample by migration background and country (absolute values)

	None of the two	Only Father	Only Mother	Both	n.a.	Total
<b>Greece</b>	5	-	1	4	-	10
<b>Italy</b>	8	-	-	2	-	10
<b>Norway</b>	7	-	-	-	2	9
<b>Portugal</b>	11	-	-	-	2	13
<b>Romania</b>	9	-	-	1	-	10
<b>Sweden</b>	4	2	-	6	-	12
<b>Total</b>	<b>44</b>	<b>2</b>	<b>1</b>	<b>13</b>	<b>4</b>	<b>64</b>

The main indicators used to determine the socio-economic situation of the respondents were level of education, income and employment status. The answers to these questions were closed-ended and people could choose the specific option that best described their situation (Tables 9, 10 and 11, below). Table 9 shows that 42% of the research participants had a university degree, while 29% and 25% had a primary or secondary school degree, respectively. In the Portuguese case, the sample consisted mainly of people who had not gone beyond primary school. Half of the people in the total sample worked full time and 15 out of 64 were retired (Table 10). Table 11 shows the respondents' answers regarding their income situation and, specifically, to the question: 'which description comes closest to how you feel about your household's income nowadays?'



Table 9 – Sample by education and country (absolute values)

	Elementary school	Secondary school	University degree	Professional degree	n.a.	Total
<b>Greece</b>	-	5	5	-	-	10
<b>Italy</b>	-	5	4	1	-	10
<b>Norway</b>	-	-	9	-	-	9
<b>Portugal</b>	10	2	-	-	1	13
<b>Romania</b>	1	3	6	-	-	10
<b>Sweden</b>	5	4	3	-	-	12
<b>Total</b>	<b>16</b>	<b>19</b>	<b>27</b>	<b>1</b>	<b>1</b>	<b>64</b>

Table 10 – Sample by employment status and country (absolute values)

	1	2	3	4	5	6	7	Total
<b>Greece</b>	8	2	-	-	-	-	-	10
<b>Italy</b>	5	1	-	-	1	3	-	10
<b>Norway</b>	7	2	-	-	-	-	-	9
<b>Portugal</b>	4	3	-	-	1	5	-	13
<b>Romania</b>	2	1	-	1	1	4	1	10
<b>Sweden</b>	5	-	3	-	-	3	1	12
<b>Total</b>	<b>31</b>	<b>9</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>15</b>	<b>2</b>	<b>64</b>

1=In paid work fulltime; 2=In paid work part-time; 3=Unemployed and actively looking for a job; 4=Unemployed, wanting a job but not actively looking for a job; 5=Permanently sick or disabled; 6= Retired; 7= In education/ student.

Table 11 – Sample by income and country (absolute values)

	1	2	3	4	5	6	Total
<b>Greece</b>	-	3	1	3	-	3	10
<b>Italy</b>	1	3	2	3	1	-	10
<b>Norway</b>	6	1	2	-	-	-	9
<b>Portugal</b>	-	11	2	-	-	-	13
<b>Romania</b>	-	3	6	1	-	-	10
<b>Sweden</b>	2	7	3	-	-	-	12
<b>Total</b>	<b>9</b>	<b>28</b>	<b>16</b>	<b>7</b>	<b>1</b>	<b>3</b>	<b>64</b>

1=Living comfortably on present income 2=Coping on present income 3=Finding it difficult on present income 4=Finding it very difficult on present income 5=Prefer not to say 6=Not asked.

As noted above, Table 9 is based on the respondents' assessment of their economic situation and its results are highly subjective and contextual, often differing from the researchers' assessment.

Given the importance of accurately representing respondents' vulnerability in ACCTING, and also to ensure consistency in comparative analyses of results across the sample, we found it useful to



reclassify the different respondents based on data from the entire interview. In addition, some related vulnerability grounds were combined in order to obtain less fragmented results.

The result of our reclassification is summarised in Table 12<sup>2</sup>, in which the different grounds of vulnerability are indicated. Each respondent may have no kind of vulnerability or more than one. So, the numbers are not mutually exclusive.

Table 12 – Sample by vulnerability factor (research team elaboration from the entire interview; absolute values)

	Gender	LGBTQ+	Age (65+)	Disability	Nationality /migrant status	Ethnic/ Racial	Religion or belief	Language	Socio-economic background
<b>Greece (10)</b>	2	-	-	3	2	-	-	-	4
<b>Italy (10)</b>	5	-	4	1	2	1	1	-	7
<b>Norway (9)</b>	1	-	-	2	-	-	-	-	3
<b>Portugal (13)</b>	3	-	5	5	-	-	-	-	13
<b>Romania (10)</b>	2	1	5	2	3	-	-	-	9
<b>Sweden (12)</b>	3	-	3	3	5	3	1	2	6
<b>Total (64)</b>	<b>16</b>	<b>1</b>	<b>17</b>	<b>16</b>	<b>12</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>42</b>

Based on this new classification of respondents from **a gender+ intersectional perspective**, 15 respondents had four to six vulnerability profiles, concentrated in the Swedish and Italian samples, and a further 11 had three.

The most covered vulnerability is that of socio-economic background, found in all countries and particularly pronounced in the Portuguese and Romanian contexts. The Lisbon, Iași and Rome case studies also present a relevant number of respondents (five in Portugal and three both in Romania and Italy) with a vulnerability profile that intersects advanced age with the socio-economic situation, while in Portugal, three respondents suffered also from a form disability that affects daily mobility. In Sweden and Portugal, disability and socio-economic grounds of vulnerability were found in three and five respondents respectively. Disadvantaged profiles related to nationality/migration status and ethnic/racial origin were found in the Swedish case and to a lesser extent in the Italian, Romanian and Greek samples. Of these, three respondents in both Sweden and Romania were considered to have a vulnerability profile that intersected their migrant status with their socio-economic situation. Half of the respondents in the Italian case study and, to a lesser extent, in the Greek, Portuguese, Romanian and Swedish samples, were identified to have an intersectional vulnerability profile due to gender inequalities intersecting with a disadvantaged socio-economic situation, while only one person in the Romanian sample was part of the LGBTQ+ community and was therefore more exposed to specific risks due to their sexual orientation.

<sup>2</sup> The results in Table 12 therefore differ from those in Table 3 (Section 1.2.8.) because in that case respondents were explicitly asked to give their subjective assessment of the vulnerability grounds to which they felt exposed.

## 3.2. Analysis

### 3.2.1. Respondent background and attitudes

The interview guide for RL8 included a series of closed and open questions to explore respondents' positions and attitudes on various issues. Analysis of these responses was crucial in delineating the respondent types and understanding the individual factors leading to a particular response. While the attitudes expressed in open-ended questions will be analysed later in relation to the analysis of the outcomes, here are the result from closed-ended questions.

As the first issue to be explored, respondents were asked a series of questions about their attitudes towards the environment, the European Green Deal and sustainable transport practices. As reactions to a car-free policy were under study, these questions were particularly useful in understanding the weight of environmental beliefs, values and actions in influencing those reactions. The sample shows a widespread knowledge of the general existence of pro-environmental policies (almost the entire sample) and a high percentage of people interested in changing their behaviour towards the environment in the broad sense, especially in Greece.

On the other hand, when asked about their more practical commitment to the environment, their reports are different. Regarding the two questions about being part of communities/ networks dealing with environmental issues and about having participated in protests/ demonstrations for or against environmental issues in the past, only 19% of people responded positively, mostly concentrated in Italy and Portugal, while none of the sample in Romania did so. Regarding sustainable transport, a high proportion of people are aware of policies to promote it, but only a third of the sample would be willing to change their everyday transport behaviour. This is particularly the case in the Greek sample, with six out of ten respondents stating their intention to change transport behaviour, while in the Portuguese sample only two people responded positively (Table 13). Interestingly, gender is particularly relevant to this question, with women accounting for 15 out of 21 research participants willing to change their mobility habits.

Table 13 – Respondents' knowledge and attitudes towards environmental issues, by country (absolute values)

	1. Aware of pro-env. policies	2. Intends to change env. behaviour	3. Part of communities or network	4. Mobilised on env. issues	5. Aware of policies on sust. transp.	6. Intends to change transp. behaviour
<b>Greece (10)</b>	10	10	2	1	5	6
<b>Italy (10)</b>	10	7	4	5	10	3
<b>Norway (9)</b>	9	5	2	-	8	4
<b>Portugal (13)</b>	8	6	2	5	8	2
<b>Romania (10)</b>	10	8	-	-	9	3
<b>Sweden (12)</b>	11	7	1	1	10	3
<b>Total (64)</b>	<b>58</b>	<b>43</b>	<b>11</b>	<b>12</b>	<b>50</b>	<b>21</b>

1. Aware of pro-environmental policies and recommended sustainable behaviours; 2. Intends to change behaviour to follow pro-environmental recommendations; 3. Is part of communities/networks dealing with environmental issues; 4. Participated in protests/demonstrations for or against environmental causes; 5. Aware of policies to promote sustainable transport; 6. Intends to change everyday transport behaviour.

Another relevant aspect is the respondents' involvement in neighbourhood life. Exploring this issue was useful in understanding the extent to which a person was already mobilised on other issues and whether they were already involved in local activist networks. Citizens in the Italian sample were particularly engaged in this respect, whereas most respondents in the Greek and Romanian case studies lower levels of mobilisation around local issues.

Table 14 – Respondents involved in neighbourhood issues, by country (absolute values)

	1. Participated in activities/initiatives addressing local issues	2. Participated in protests for or against local policies
<b>Greece (10)</b>	2	2
<b>Italy (10)</b>	8	7
<b>Norway (9)</b>	5	7
<b>Portugal (13)</b>	5	5
<b>Romania (10)</b>	2	1
<b>Sweden (12)</b>	8	3
<b>Total (64)</b>	<b>30</b>	<b>25</b>

1. Participated in activities/initiatives that specifically addressed local issues in the neighbourhood/area; 2. Participated in forms of protest/demonstration for or against local policies and initiatives that were proposed/implemented in the neighbourhood.

Further, respondents were asked a series of questions to reflect on the car-free policy under consideration. Almost the entire sample was aware of the policy, and many were interested in receiving more information about it (Table 15), with the exception of the Romanian sample and a few in Portugal. In addition, all the policies were considered to be non-inclusive of citizens' perspective by virtually all respondents, with little or no public engagement in both the design and implementation phases. Only in Portugal did citizens feel involved, as a consultative referendum was organised, which eventually led to the withdrawal of the policy in the neighbourhood.

Table 15 – Knowledge and interest in the policy concerned, and opinion regarding inclusive consultation and participation, by country (absolute values)

	1. Knowledge of the policy	2. Interest in receiving more information	3. Consultation or involvement of citizens	4. Inclusive process	5. Citizens' involvement in implementation
<b>Greece (10)</b>	8	7	-	-	-
<b>Italy (10)</b>	9	10	1	-	-
<b>Norway (9)</b>	9	9	-	-	-
<b>Portugal (13)</b>	13	5	6	5	4
<b>Romania (10)</b>	10	1	-	-	-
<b>Sweden (12)</b>	12	8	1	-	-
<b>Total (64)</b>	<b>62</b>	<b>41</b>	<b>8</b>	<b>5</b>	<b>4</b>

Number of positive answers to the following questions: 1) Do you know the policy? 2) Are you interested in receiving information about it? 3) Was there any consultation or involvement of associations, social groups or ordinary citizens? 4) Was the process inclusive of the different social groups in the neighbourhood? 5) Are you involved in the implementation of the policy?

The respondent's general opinion of the policy was summarised by the national researchers in the interview report by selecting one out of five possible options for the level of agreement with the policy's aims and measures (Table 16). Strongly disagreeing with the policy was the most common response for more than a third of the total sample, particularly in Norway, where 8 out of 9 respondents matched this description. Disagreeing with the policy also applied to a high proportion of the sample, with respondents in Greece very much represented. In the other countries there is more of a balance of positions. However, it is worth noting that the majority of positive opinions about the policy come from citizens in the Romanian and Swedish samples, where car-free measures were designed to have a less disruptive impact on car use. In terms of gender, male respondents were significantly more critical of the policies than female respondents. Negative opinions (Disagree and Strongly Disagree) were expressed by 79% of the male sample compared to 50% of the female sample.

Table 16 – General attitude of the respondents about the policy and its impacts, by country (absolute values)

	Strongly agree	Agree with reservation	Neutral	Disagree	Strongly disagree	n.a.
<b>Greece (10)</b>	-	1	1	6	2	-
<b>Italy (10)</b>	1	-	1	3	5	-
<b>Norway (9)</b>	1	-	-	-	8	-
<b>Portugal (13)</b>	1	2	2	2	5	1
<b>Romania (10)</b>	4	2	-	3	1	-
<b>Sweden (12)</b>	-	6	1	3	2	-
<b>Total (64)</b>	<b>7</b>	<b>11</b>	<b>5</b>	<b>17</b>	<b>23</b>	<b>1</b>

In categorising the different reactions on the basis of Hirschman's theoretical framework (Sections 1.1.5. and 3.2.2.), it was crucial to assess the level of support or opposition to the policy, taking into account the different possible types of mobilisations. Not surprisingly, given the potentially relevant impact of these policies on the daily lives of citizens, the overwhelming majority of activism came from citizens opposed to the policy. They organised themselves by attending meetings or protests, or by speaking out in their inner circles or on social networks, and to a much lesser extent by contacting the municipal administration, sabotaging/ circumventing the policy or even moving out of the neighbourhood or planning to do so. Almost half of the sample participated in a petition, with the exception of citizens in Greece and Romania who only talked informally about the policy within their personal networks without the aim of actively preventing or changing the policy (Table 17).

This group also includes respondents who were in favour of the policy and who defended the reasons of the policy in their personal networks, live or online (eight people).

A total of 13 respondents did not take any action, not even discussing within their personal networks.



Table 17 – Level of support/opposition to the policy, by country (absolute values)

	1. Particip. in meetings/ demonst.	2. Contact municipal administr.	3. Signature collection	4. Speak with personal networks	5. (Considered) moving out	6. (Considered) sabotaging
<b>Greece (10)</b>	-	-	-	6	1	-
<b>Italy (10)</b>	8	5	6	6	1	2
<b>Norway (9)</b>	9	4	6	7	3	-
<b>Portugal (13)</b>	4	1	4	4	1	5
<b>Romania (10)</b>	-	1	-	6	3	-
<b>Sweden (12)</b>	3	2	4	7	1	-
<b>Total (64)</b>	<b>24</b>	<b>13</b>	<b>20</b>	<b>36</b>	<b>10</b>	<b>7</b>

1. Participated in meetings/demonstrations; 2. Contacted the municipal administration; 3. Organised or participated in a signature collection or street demonstration; 4. Advocated or spoke with relatives or friends or on social networks; 5. Moved out of the neighbourhood or considered doing so; 6. Sabotaged/circumvented the policy or considered doing so.

As mentioned above, all the policies were in the process of being implemented, with the exception of Portugal, where the policy was withdrawn as a result of protests. As it was not possible to assess the real future impact of the policy on people's lives, respondents were asked to reflect on whether or not they intended to change their transport behaviour specifically as a result of the policy. The vast majority of people did not intend to do so (82% of the total sample), while of the five citizens who were more likely to change their behaviour, only one felt that it was a positive opportunity for them rather than an enforced obligation with negative consequences on their life (Table 18).

It is noteworthy that, as shown in Table 13 above, 21 of the respondents were already willing to switch to sustainable mobility and the results of this specific question show that the reason was related to environmental reasons or values and that the policy did not have a strong influence on this choice. Four respondents rather expressed the intention to switch to less sustainable transport behaviours, starting to drive.

Table 18 – Intention of respondents to change transport behaviour as a result of the policy, by country (absolute values)

	Change towards MORE sustainable transport	Change towards LESS sustainable transport	No change	n.a.
<b>Greece (10)</b>	2	2	6	0
<b>Italy (10)</b>	1	-	9	0
<b>Norway (9)</b>	1	1	7	0
<b>Portugal (13)</b>	-	1	12	0
<b>Romania (10)</b>	-	-	9	1
<b>Sweden (12)</b>	1	-	10	2
<b>Total (64)</b>	<b>5</b>	<b>4</b>	<b>52</b>	<b>3</b>

### 3.2.2 Analysis of outcomes

The results of our analysis were elaborated by applying the adapted Hirschman's analytical framework (Section 1.1.5) to our case studies. As explained earlier, drawing on this literature, we identified three categories of reactions among respondents, defined as follows (Table 19).

**VOICE:** (ACTIVE attitude) refers to those reactions involving some form of **protest** to/engagement with the authorities, whether direct (collective, vertical, e.g., through a petition) or indirect/informal (through lobbying and/or advocacy activities, e.g., in social network groups). The explicit aim of these reactions is **preventing or modifying the policy**. This definition also applies to reactions of dissatisfaction that, during or after the expression of the VOICE, lead to outcomes or intentions to **EXIT**, such as changing neighbourhood.

**NEGLECT:** (PASSIVE attitude) characterises neutral or negative reception at the individual level, where individuals show a marked **lack of interest and/or 'suffer in silence'**, complaining about the policy only within their personal network without the aim of actively preventing or modifying the policy. People would regard the application of the policy as an **enforced obligation** and might try to circumvent the new rules or comply only to avoid the consequences. This definition also applies to some of the most vulnerable respondents, who are not particularly affected by the car-free policies, as they cannot afford a car.

**LOYALTY:** (PASSIVE attitude) would encompass reactions ranging from acceptance to **positive reception** at the individual level. Reactions that include engagement in any form of activism in favour of the policies (collective level) are included within this category.

Table 19 – Active and passive reactions

<b>Active attitudes</b>	VOICE (negative reaction)
<b>Passive attitudes</b>	NEGLECT (negative reaction)
	LOYALTY (positive reaction)

Each respondent was assigned to one of these reactions, based mainly on their answers to both closed and open-ended questions about their general attitude towards the policy (Table 16) and their level of support/opposition to the policy (Table 17). In particular, while the first question (Table 16) was useful in understanding whether the response to the policy was positive (LOYALTY) or negative (NEGLECT or VOICE), the second question (Table 17) was useful in determining whether the respondent who opposed the policy was to be categorised as NEGLECT or VOICE. As mentioned above, there was only one respondent out of 64 who intended to actively mobilise in favour of the policy at a collective level, by organising meetings or collecting signatures. On the other hand, the question about the respondent's intention to change behaviour as a result of the policy (Table 18) was fundamental in determining whether the person was to be considered in the NEGLECT or LOYALTY category. It allowed for assessing whether the policy was perceived as a positive opportunity for change or as an enforced obligation which the person suffered in silence.

The distribution of outcomes per country/car-free policy is presented in Table 20, which shows a greater presence of NEGLECT and VOICE reactions in the general sample. Respondents classified as VOICE are particularly present in the Norwegian sample and, to a lesser extent, in the Italian sample, while the NEGLECT category is attributed to 90% of the participants in the Greek case study. As can be seen in Table 17, the Romanian and Swedish samples have a prevalence of respondents

who answered the policies positively or with some reservations and are therefore mostly classified as LOYAL. A first explanation for this finding is that, in contrast to the policies in the other case studies, the policies in Iași and Örebro support public transport rather than hinder private transport and are therefore more likely to elicit fewer negative responses from citizens.

Table 20 – Outcomes by country (absolute values and %)

	Loyalty	Neglect	Voice	Total
<b>Greece</b>	1	9	0	10
	10,0%	90,0%	0,0%	100,0%
<b>Italy</b>	1	3	6	10
	10,0%	30,0%	60,0%	100,0%
<b>Norway</b>	1	0	8	9
	11,1%	0,0%	88,9%	100,0%
<b>Portugal</b>	2	7	4	13
	15,4%	53,8%	30,8%	100,0%
<b>Romania</b>	5	4	1	10
	50,0%	40,0%	10,0%	100,0%
<b>Sweden</b>	7	1	4	12
	58,3%	8,3%	33,3%	100,0%
<b>Total</b>	<b>17</b>	<b>24</b>	<b>23</b>	<b>64</b>
	<b>26,6%</b>	<b>37,5%</b>	<b>35,9%</b>	<b>100,0%</b>

In the overall sample, self-identified male respondents are more resistant to car-free policies and more inclined to vocally protest against them than women. Half of the male sample fell into the VOICE reaction, compared to 25% of the women (Table 21).

Table 21 – Outcomes by gender (absolute values and %)

	Loyalty	Neglect	Voice	Total
<b>Man</b>	5	9	14	28
	17,9%	32,1%	50,0%	100,0%
<b>Women</b>	12	15	9	36
	33,3%	41,7%	25,0%	100,0%
<b>Total</b>	<b>17</b>	<b>24</b>	<b>23</b>	<b>64</b>
	<b>26,6%</b>	<b>37,5%</b>	<b>35,9%</b>	<b>100,0%</b>

Based on the respondents' vulnerabilities shown in Table 12, it was interesting to assess the reception of the policy according to the type of vulnerability (Table 22). As the samples of individual vulnerabilities are small, it is risky to draw relevant conclusions from these results; however, it is noteworthy that among people with a migration background, defined as people born outside the EU

or with at least one parent born abroad, only one person actively opposed the car-free policy and was categorised as VOICE. Similar observations can be made with regard to the socio-economic ground of vulnerability: again, people falling into the VOICE reaction were the minority, while 50% were categorised as NEGLECT.

In line with existing literature (e.g., Adamson, 2007), it can be concluded that, in general, people with a migration background or in a particularly disadvantaged socio-economic situation are likely to be less interested in local issues and to display a more passive attitude towards policies, compared to local residents in more affluent conditions. Indeed, organising or participating in collective actions such as protests implies a higher level of commitment to and inclusion in neighbourhood issues and, above all, the availability of different resources, of which time is the most valuable. In support of this point, it should be noted that 6 out of 9 respondents with no vulnerability factors reacted with VOICE against the policies, demonstrating the privilege of showing a strong active attitude.

It can also be noted that people with disabilities display low LOYALTY, low NEGLECT and relatively high levels of VOICE, likely connected to the difficulty they encounter in some of the analysed areas in finding alternatives to the car for their travels. Older people, on the other hand, display a higher level of LOYALTY to the policies.

Table 22 – Outcomes by selected vulnerability factors (absolute values and %)

	Loyalty	Neglect	Voice	Total
<b>Gender + LGBTQ+</b>	6	6	5	17
	35,3%	35,3%	29,4%	100,0%
<b>Age (65+)</b>	7	4	6	17
	41,2%	23,5%	35,3%	100,0%
<b>Disability</b>	3	6	7	16
	18,8%	37,5%	43,8%	100,0%
<b>Nationality/ Migrant status</b>	5	6	1	12
	41,7%	50,0%	8,3%	100,0%
<b>Socio-economic background</b>	6	11	4	21
	28,6%	52,4%	19,0%	100,0%
<b>No vulnerability factors</b>	1	2	6	9
	11,1%	22,2%	66,6%	100,0%
<b>Total</b>	<b>17</b>	<b>24</b>	<b>23</b>	<b>64</b>
	<b>26,6%</b>	<b>37,5%</b>	<b>35,9%</b>	<b>100,0%</b>

A complementary set of information on respondents' reception of policies comes from their opinions on which elements may act as enablers or hindrances to positive reception. The results are summarised in Tables 23 and 24. The factors in Tables 23 a), b) and c) were common to all ACCTING research lines, while Table 24) includes factors specific to RL8, affecting the acceptance of car-free policies.

Table 23 – Respondents' opinion on the enablers (E) and hindrances (H) to the positive reception of the policy, by country (absolute values)

Individual resources														
	Greece		Italy		Norway		Portugal		Romania		Sweden		Total	
	E	H	E	H	E	H	E	H	E	H	E	H	E	H
Time	-	6	5	4	-	5	7	6	5	4	12	9	29	34
Money	-	4	4	5	-	3	1	12	5	2	3	12	13	38
Knowledge	1	2	3	-	2	3	8	5	2	1	2	8	18	19
Education	-	-	2	-	-	1	5	8	1	-	-	-	8	9
Perceived self-efficacy	1	-	3	-	1	3	3	4	3	4	-	-	11	11
Access to equipment	-	-	2	1	-	2	6	7	-	-	-	1	8	11
Access to political and social actors	-	-	2	-	1	2	11	1	-	-	-	2	14	5
Other resources	-	-	-	-	-	-	-	-	-	1	2	1	2	2
Social dynamics														
	Greece		Italy		Norway		Portugal		Romania		Sweden		Total	
	E	H	E	H	E	H	E	H	E	H	E	H	E	H
Part of community or social networks	1	1	1	5	1	5	12	2	4	4	-	1	19	18
Significant relationships	-	-	-	5	1	1	12	1	1	1	-	1	14	9
Belief/values	2	-	3	4	2	1	6	4	8	1	1	3	22	15
Social appreciation	-	-	-	3	-	1	5	7	1	3	-	6	6	23
Other social dynamics	-	-	1	-	-	1	-	-	-	-	-	-	1	-
Social conditions														
	Greece		Italy		Norway		Portugal		Romania		Sweden		Total	
	E	H	E	H	E	H	E	H	E	H	E	H	E	H
Physical geography and environment	-	1	-	4	1	6	1	12	1	3	-	1	3	27
Infrastructure	-	-	1	-	1	-	1	-	3	-	2	-	8	-
Socio-economic conditions	-	-	2	-	-	-	-	4	1	-	-	-	3	4
Policies / politics	-	3	2	3	-	1	4	7	2	1	-	8	8	23
Events and developments	-	-	-	5	-	5	4	12	-	2	-	8	4	32
Other	-	5	-	7	-	8	-	12	-	8	-	4	-	44





Table 24 – Respondents' opinion on RL8-specific enablers (E) and hindrances (H) to the positive reception of the policy, by country (absolute values)

	Greece		Italy		Norway		Portugal		Romania		Sweden		Total	
	E	H	E	H	E	H	E	H	E	H	E	H	E	H
Safety on the roads	4	2	1	-	1	4	6	7	4	-	1	4	17	17
Facilitating mobility for people with special needs	-	-	1	2	2	7	1	9	1	2	1	4	6	24
Improving physical and mental wellbeing	-	-	4	-	1	1	1	9	4	-	1	2	11	12
Changing customer turnout	-	-	1	2	-	-	1	10	-	-	-	1	2	13

By far, **individual resources**, and specifically travel time and transportation costs, are seen by respondents as the most important factors that come into play when people take a stance on the policy. Overall, travel time is mentioned 63 times in the interviews (as an enabler, a hindrance, or both), and transportation costs are mentioned by 38 respondents as a primary hindrance to policy acceptance. These two factors appear to define what citizens expect most from mobility policies, namely the ability to travel in a reasonable time and at an affordable cost. They are the aspects of mobility where there seems to be limited room for negotiation and trade-offs while moving towards more sustainable forms of mobility. Knowledge of the policy also influences its reception in both positive and negative ways. People may feel well-informed about the policy or, as is the case for the vast majority of respondents, less so, which has an impact on their understanding and, ultimately, their judgment.

**Social dynamics**, especially being part of a community, having certain beliefs and values, and feelings of social appreciation, play another large role in shaping respondents' perceptions towards either positive acceptance or rejection of the policy. Many respondents in our sample belonged to groups or communities engaged in various social issues, where opposition to the policy became part of their agenda at a later stage. This likely influenced group members who might not have held strong views on the policy otherwise.

**Structural conditions** are mostly perceived as an obstacle to the positive reception of the policies, with physical geography and environment, policies and politics, and events and developments having a particular weight in influencing respondents' opinions.

As for the **specific factors** affecting the positive reception of car-free policy, road safety is of some importance to respondents, mentioned by 30 out of 64. The other three elements are mostly mentioned as hindrances and seem to be less relevant to the core population and of greater interest to specific groups, namely people with special needs (28 out of 64 respondents, or 43.7%, mentioned this aspect), people who associate mobility with an improvement in well-being (23 respondents, or 35.9%) and people with commercial activities who are worried to be losing customers as a result of the policies (14 respondents, or 21.9%).

### 3.2.3. Analysis of factors associated with outcomes: contextual and policy-related factors

This section considers how the contextual factors locally characterising urban mobility and those related to the features of the policy may influence individual respondents' reactions towards the policy (LOYALTY, NEGLECT and VOICE).

Five factors are considered:

- **Active mobility** – the share of people who adopt active mobility (biking and walking) at the city level
- **Public transport** – the share of people who use public transport (buses, metro lines, trains) at the city level
- **Car use** – the share of people who use private cars
- **Car use limitation** – whether the policy is mainly aimed at limiting the use of cars or at pursuing other objectives (promoting the use of alternative transport means or reducing traffic jams).
- **Infrastructural/regulatory policy** – whether the policy has a dominant infrastructural component or a dominant regulatory component.

The first three factors refer to the modal split (i.e., the percentage share of each mode of transport in total) of the analysed cases and were assessed based on different sources, as there is no single source bringing together data for the six cities. Table 25 reports the sources that were selected as the most recent and reliable about the modal split of the six case studies. The third and fourth factors refers to the policy and were assessed based on a direct analysis of the six policies by the team and the national researchers involved.

Table 25 – Modal split in the six case studies (all data in number of trips given in %) and related sources

CITY	Public transport	Active mobility		Private motorised mobility	Mode not defined	TOT	Year the data refer to	Source
		Walking	Cycling					
Örebro	9	12	25	53	1	100	2017	POLIS. (2021) <a href="#">Invest in the Future: Örebro's mobility models</a> .
Rome	14	22	2	60	2	100	2020	Comune di Roma. (2023). <a href="#">Rapporto sulla mobilità di Roma 2023</a> . Rome (page 72).
Thessaloniki	32	14	3	47	4	100	2018	City of Thessaloniki. (2022). <a href="#">2050CliMobCity – 2050 Climate friendly Mobility in Cities Interregional Learning Report</a> , (page 15).
Lisbon	27	21	1	50	1	100	2021	Câmara Municipal de Lisboa. (2024), <a href="#">Mobility in Lisbon</a> , Survey 2021.
Oslo	31	32	6	29	2	100	2021	UPPER Project. (2023). <a href="#">Overview of the current situation in Oslo</a> .
Iași	38	11	7	44	0	100	2023	Harpalet, O.L. (2023). <a href="#">Estimating Travel Demand with a Multimodal Transport Model Including E-Scooters in Iași</a> , Romania. <i>Promet-Traffic&amp;Transportation</i> , 35(3), 349-363.



### a. Active mobility

**Description.** The factor “Active mobility” refers to the attitudes of the residents in the concerned cities to adopt an active form of mobility, i.e., biking and walking, as their main mobility means. Two groups of cities can be identified: those where the share of active mobility is equal to or lower than 30% of the population and those where this share is over 30%. This threshold is relatively low (Polis 2021) but adapted to the characteristics of the sample. The cases of Lisbon, Rome, Thessaloniki and Iași fall into the first group while those of Örebro, and Oslo are in the second group.

**Relationship with the outcomes.** Although the number of cases does not allow meaningful trends to be identified, there seems to be an **association between “neglect” and lower levels of active mobility** (95.8% compared to an average of 67.2%).

### b. Use of public transport

**Description.** This factor concerns the share of daily trips made by people using public transport (train, bus, metro). Two groups of cities have been identified: those in which the share is up to 30% of total trips and those in which the share is above 30%. This threshold is relatively low and was adapted to the cities considered. It is important not to confuse the use of public transport with the quality of public transport. A higher use of public transport does not necessarily mean a higher quality of public transport. This factor only concerns the relevance of public transport in the mobility of citizens which can depend on many factors, of which the quality of public transport is only one. Applying the threshold, two cities (Örebro and Rome) fall in the first group (up to 30%) and four (Oslo, Thessaloniki, Iași and Lisbon) in the second group (more than 30%).

**Relationship with the outcomes.** There is a fairly clear **link between the attitude of “neglect” and the use of public transport**: those who live in areas where the use of public transport is higher tend not to be involved in the policy (83,3% of those with the “neglect” attitude are residents in cities where the use of public transport is higher, against 65.6% of the whole sample). There are also weaker associations between the other two outcomes and this factor. Indeed, **“loyalty” and “voice” are slightly more prevalent among those living in the two cities where the share of public transport is lower** (47.1% and 43.5% against 34.4% of the sample). These data suggest that where the share of public transport is higher, the interest or tendency to get involved in transport-related policy decreases, whereas, where the weight of public transport is lower, the interest or tendency to get involved in transport-related policy somehow increases.

### c. Car use

**Description.** The third factor is the proportion of daily trips made by private car. Two groups of cities can be distinguished: those where car use is equal to or lower than 48% of the population, and those where this share is higher than 48%. This threshold is based on Polis (2021). Iași, Oslo and Thessaloniki are in the first group, while Lisbon, Örebro and Rome are in the second.

**Relationship with the outcomes.** No relevant trends can be observed for LOYALTY and VOICE, whose values are quite close to those of the whole sample. A slight tendency can be observed for the **presence of respondents expressing NEGLECT, which is higher in the cities where car use is lower** (54.2% against 45.3% of the whole sample).

### d. Car use limitation

**Description.** This factor relates to the impact of the policy on car use. The focus here is on the extent to which the policy actually restricts car use, whether intentionally (limited traffic zone) or unintentionally (drastically eliminating car parking in an area by building a bike lane). The six policies have been divided into two groups: those that restrict car use moderately (for example, by creating new bus lanes, which reduce the number of lanes dedicated to cars) and those that restrict car use

directly (for example, by creating a zone that restricts access to cars, or by introducing paid car parking). The cases of Iași, Örebro and Thessaloniki are in the first group, while those of Lisbon, Rome and Oslo are in the second.

Relationship with the outcomes. Not surprisingly, the "loyalty" attitude seems to be more associated with policies that do not significantly constrain car use (76.5% compared to 51.6% of the total sample). On the contrary, "voice" is more likely to occur when the impact on car use is stronger (78.3% against 48.4% of the sample). The "neglect" attitude does not seem to be significantly associated with this factor.

### e. Infrastructural/regulatory policy

**Description.** This factor considers another feature of the policy, i.e., whether the policy has a dominant infrastructural component (i.e., the core of the policy is building some new infrastructure) or a dominant regulatory component (i.e., the core of the policy is introducing new rules that limit the use of cars or favour the use of more sustainable transportation means). Therefore, the six policies have been divided into two groups: those with a dominant infrastructural component and those with a dominant regulatory component. The cases of Iași, Örebro, Oslo and Thessaloniki fall into the first group, while those of Lisbon and Rome into the second.

**Relationship with the outcomes.** The only **relationship** that strongly emerges is **between the attitude of 'loyalty' and the infrastructural nature of the policy** (82.4% compared to 51.6% of the whole sample). In other words, people seem to be more supportive of the policy if it brings about visible infrastructural changes. On the contrary, regulatory policies are less likely to trigger a loyalty orientation, probably because they aim to address citizens' behaviour more directly and are therefore more controversial. There are no notable associations between this factor and the other two outcomes, "neglect" and "voice".

## 3.2.4. Analysis of factors associated with outcomes: individual attitudes and exposure to vulnerability

This section looks at factors related to the respondents' attitudes and their exposure to vulnerability. In particular, based on the qualitative analysis of the interviews<sup>3</sup>, the following factors are considered in connection to outcomes:

- Level of exposure to the negative effects of the policy
- Involvement with environmental issues
- Activism in the neighbourhood
- Distrust in the policy promoters
- Intention to adopt more sustainable transport behaviours
- Perceived impact of the policy on vulnerable groups
- Perceived level of involvement in the policy process.

### a. Level of exposure to the negative effects of the policy

**Definition.** This factor concerns if and to what extent respondents are negatively affected by the policy. This factor is not simply assessed based on the perceived severity of the impact on respondents' lives, but it takes into account various variables (e.g., the nature of the impact of the policy, the severity of that impact, the possible behaviours of the respondents in dealing with it) as they emerged from the interviews, to make the assessment as balanced as possible.

<sup>3</sup> The analysis has been conducted coding the open-ended questions using Atlas.Ti.



**Description.** Two groups are considered: those who are not affected by the policy and those who are. Within the two groups, different subsets of people can be identified depending on how and to what extent the policy impacts their daily lives.

**Analysis.** i. Not affected by the policy. This group includes two main profiles: those who are 'naturally' not affected by the new policy (for example, people who do not own a car are not affected by the introduction of the low emission zone in Rome or the paid parking policy in Lisbon); those who adopted a coping strategy not to be affected by the policy (for example, the purchase of a new low-emission car before the introduction of the low-emission zone). ii. Affected by the policy. Three main profiles can be identified, based on the severity of the impact: those who are only affected for some specific aspects of their lives (*"We use our car to go to our cabin. This would not be possible with an electric car"*, NO04); those whose lives are significantly affected by the policy (*"Due to its construction [of the flyover], we daily have to deal with huge delays and traffic in the ring road"*, GR06); those whose lives have changed or are at risk of changing because of the policy (*"With a wheelchair, it is difficult for me to use public transport. [...] I have to move if the policy comes into effect"*, NO03).

### Distribution.

- There are no significant differences between women and men: 52.8% of women and 53.6% of men are negatively affected by the policy.
- The exposure of the respondents to vulnerability factors also seems to have little influence on the impact of the policy. **The vulnerable groups least affected by the policy are the elderly and people with a migrant background** (64.7% and 66.7% against 46.9% of the total sample), probably because they are the ones who use cars less.
- Data show a slight tendency for **those exposed to two or more vulnerability factors to be less negatively affected** by the policy than others (58.8% against 46.9% of the whole sample). This suggests that mobility policies tend to have a greater impact on those who belong to neither the most vulnerable groups nor the most affluent ones. Indeed, the most vulnerable groups tend to have more limited access to cars than others (and are therefore less affected by car restrictions); while the more affluent are able, at least to some extent, to find alternative solutions to cope with the impact of the policy.

### Relationship with the outcomes.

- As expected, **those who are not affected by the policy are much more likely to be loyal** to the policy than others (88.2% against 46.9% of the whole sample) and much less likely to adopt a "neglect" attitude (29.2%) and, to a lesser extent, a "voice" attitude (34.8%).
- Conversely, **those affected by the policy** are more inclined to adopt a "neglect" attitude (70.8% compared to 53.1% of the total sample) and, to a lesser extent a "voice" attitude (65.2% against 53.1%).

### b. Involvement with environmental issues

**Definition.** This factor focuses on the level of involvement of the respondents in environmental protection regardless of the car-free policy considered in the study. Three different aspects have been considered: a) respondents' perception of their level of knowledge about environmental issues and policies; b) adherence to environmental protection practices (e.g., energy saving, waste recycling, use of polluting means of transport); c) participation in environmental initiatives or groups.

**Description.** Two groups have been identified. i) *Zero or low environmental involvement.* This first group includes those who are indifferent or even hostile to environmental issues and those who believe they are aware of environmental issues but, for various reasons, this has little (if any) impact

on their daily practices and behaviours. ii) *Medium or high environmental involvement*. The second group includes those who say they have adopted or are trying to adopt environmentally friendly behaviour with a more influential impact on their daily lives and those with environmental activism experience.

**Analysis.** i). Zero or low environmental involvement. In the first group, some have a negative, mainly political attitude towards European environmental policy (*"The solutions imposed by Europe to mitigate climate change sometimes make no sense"*, IT02), while others define themselves as "environmentally aware" but do not adopt environmentally-oriented practices for different reasons such as socio-economic or health conditions, lack of knowledge, different priorities, or difficulties *"to live according to one's beliefs"* (SE10). ii) Medium or high environmental involvement. This group includes different profiles, e.g.: those who seek to introduce changes in their behaviour, even if not in a systemic way: those who express a strong and politically motivated concern about environmental issues and try to change their lifestyle, for example by using their car less and public transport more or cycling or walking more; those who are 'environmental activists', involved in changing the behaviour of others and influencing local or national policy.

### Distribution.

- The first group (Zero or basic environmental involvement) includes 40 respondents (62.5%), while the second group (Medium or high environmental involvement) includes 24 respondents (37.5%).
- Women are more concerned about the environment than men. Among the female respondents, 16 out of 36 (44.4%) belong to the second group, while among the male respondents only eight out of 28 (28.6%).
- A slight tendency can be observed that people exposed to socio-economic vulnerability and, to a lesser extent, to disability-based and migration-based vulnerability are less involved with environmental issues. Those exposed to gender vulnerability show higher levels of environmental involvement (47.1% against 37.5% of the whole sample). However, this is easily explained by the fact that this group is made up entirely of women, who are generally more concerned about the environment than men.
- This same trend can also be observed considering the cumulation of vulnerability factors. The people exposed to more than one vulnerability factor are overall slightly less involved in environmental issues (29.4% against 40.0% among those who are not exposed). This suggests that those exposed to strong vulnerabilities have less ability/capacities, means and/or time to deal with environmental issues in their daily lives. At the same time, however, it should be noted that attention to environmental issues remains quite high also among them.

### Relationship with the outcomes.

- Respondents with zero or low environmental involvement tend to be slightly more oriented towards the "neglect" outcome (70.8% against 62.5% of the entire sample) and less towards the "loyalty" outcome (53.0% against 62.5%).
- Conversely, those displaying medium or high environmental involvement are slightly more oriented towards the "loyalty" outcome (47.0% against 37.5% of the whole sample) and less towards the "neglect" outcome (29.1% against 37.5%).
- No notable differences can be observed for the "voice" outcome.

### c. Activism in the neighbourhood

**Definition.** This factor refers to the respondent's participation in any form of activism, especially at the neighbourhood level, that is not related to the policy, i.e. that took place before the policy started to be discussed and implemented. This factor is relevant to the analysis of respondents' attitudes towards the policy, as experiences of activism contribute to shaping people's general orientation towards public issues like mobility.

**Description.** Two groups are identified: those who did not participate in forms of activism and those who did.

**Analysis.** i) No experience of activism. This group includes two main profiles: those who neither participated nor were interested in getting involved in activism experiences (*"When it comes to political stuff, I don't really get involved"*, SE04) and those who should be interested in getting involved, but for some reason prefer not to do so (*"I follow the neighbourhood committee on Facebook to get information or to report some problem. But I never participated in neighbourhood protests"*, IT07). ii) Experience of activism. Three different profiles can be identified: the "occasional activists", with limited experience in forms of activities; those who regularly participate in activist initiatives, either as a member of a specific organisation or through different separate experiences, and; those who are "activism promoters", e.g., by founding new associations or playing a leading role in existing ones (*"I belong to the Neighbourhood Residents Association [...]. I try to mobilise people to participate too. This involvement with the association is very important to me"*, PT03).

#### Distribution.

- Respondents with an experience of activism are numerous in the sample (53.1%). This can be explained by the fact that to gather qualified opinions on the policy, the researchers focused their attention on those who publicly expressed their opinions or promoted specific initiatives on the policy.
- There are no notable differences between women and men. 18 out of 36 female respondents (50.0%) and 15 out of 28 male respondents (53.6%) have experience with activism.
- There are no significant differences across the vulnerable groups considered. The only exception is the higher percentage of those exposed to **age vulnerability** who have experiences of activism (76.5% against 53.1% of the entire sample).
- There are no particular trends in the cumulation of vulnerability factors.

#### Relationship with the outcomes.

- There are **significant differences in the presence of people with an activist background in the three groups based on outcomes**. In the group of those with a "voice" attitude, the proportion of people with an activist background is almost 80% (compared to an average of 53.1% for the whole sample). This is not surprising as 'voice' is an "active" attitude, whereas "loyalty" and "neglect" are passive.
- However, even those who express a "loyalty" attitude are more likely to have had an experience of activism than the overall sample (64.7% vs. 53.1%).
- Finally, among the group expressing a "neglect" attitude, only one in five has experience in activism.

- Overall, **activism is strongly associated with “voice” and, to a lesser extent, “loyalty”**. Those who express a “neglect” attitude tend not to be associated with activism.

#### d. Distrust in policy promoters

**Definition.** This factor relates to the degree of distrust that respondents have towards the initiators and implementers of the policy. Distrust is an important factor as it influences how the policy is framed by respondents.

**Description.** Two groups are identified: those who do not feel distrust towards the initiators and implementers of the policy, and those who do.

**Analysis.** i. No feeling of distrust. This group includes those who, when talking about their orientation towards and experience of the policy, do not express any opinion, positive or negative, about the promoters and implementers. ii. Feeling of distrust. This group includes various profiles: those who mainly see politicians and local administrators as simply incapable of developing the policy effectively (*“The municipality has a habit of spending large sums of money on vanity projects with unclear benefits”*, SE10); those who see the promoters of the policy as insensitive to the needs and expectations of vulnerable groups; those who think that the promoters adopt a top-down, centralised, poorly communicative approach which leads to citizens’ needs and expectations be ignored; those who see the promoters as ideological and with hidden agendas (*“Politicians are proposing solutions to citizens that have been developed by private companies”*, IT02); those who express distrust of politicians in general, beyond the specific scope of the policy; those who feel the policy is not appropriate for the area in which they live anyway (NIMBY effect).

#### Distribution.

- Respondents were evenly distributed between the two groups (32 in each group).
- **Women are less likely to express distrust** towards the promoters and implementers of the policy. 14 out of 36 female respondents (38.9%) and 18 out of 28 male respondents (64.3%) express distrust.
- There is a slight tendency for those exposed to gender and age vulnerability (in both cases, 58.8% against 50.0% of the whole sample) not to express distrust and for those exposed to migration vulnerability to express distrust.
- Considering the cumulation of vulnerability factors, those exposed to more than one of them are slightly less likely to express distrust than others (55.8% against 44.2%).

#### Relationship with the outcomes.

- As might be expected, outcomes are very polarised. Those who are more likely to express distrust of politicians are also more likely to have a “voice” attitude (73.9% against 50.0% of the whole sample).
- Conversely, **those who do not express distrust are more likely to have a “loyal” attitude** (82.3% against 50.0% of the whole sample). It should be noted that in a few cases the attitude of “loyalty” is combined with distrust of the promoters.
- The two groups are evenly split about the “neglect” attitude.



### e. Intention to adopt more sustainable transport behaviours

**Definition.** This factor focuses on respondents' intentions to adopt more sustainable transport behaviour. Intention to change is considered here rather than actual behavioural change as the six policies have been deliberately selected from those that are ongoing rather than those already completed. This choice was made because the focus of the analysis is on respondents' attitudes towards the policy (voice, loyalty, neglect), which are mainly manifested during the design and launch phases of the policy. However, this choice also made it difficult to analyse the impact in terms of behavioural change, which can only be fully observed some years after the policy has been implemented.

**Description.** Four main groups are identified. i) *Increasing unsustainability*. This group includes those who want to change from more to less sustainable transport behaviour. ii) *Maintaining unsustainability*. This group includes those who already favour car use and do not want to change this behaviour. iii) *Increasing sustainability*. This group includes those who favour car use and want to change to more sustainable transport behaviour. iv) *Maintaining sustainability*. This group includes those who already have sustainable behaviour and do not want to change it.

**Analysis.** i) Increasing unsustainability. This group includes three main profiles: respondents who are eager to get a driving licence and start driving without connection with the policy; those who intend to buy a car or get a driving licence as a consequence of the policy; those who do not believe that the policy will enable them to use public transport more. ii) Maintaining unsustainability. Two main profiles can be identified: those who think that, given the context and their needs, it is impossible not to use the car (*"Look, even if I wanted to, I cannot change the way I move around"*, GR04); those who consider themselves unable to travel by public transport for health or safety reasons even if they would like to. iii) Increasing sustainability. This group includes mainly those who think or hope that the policy could create the conditions for shifting from private to public transport (*"If buses depart more frequently, it might be possible that I will take the bus instead of the car going to work"*, SE08). iv) Maintaining sustainability. Two main profiles can be identified: those who made an environmentally motivated choice to use more sustainable means of transport before the policy was designed; and those who already use public transport because of their economic conditions or lack of alternatives (*"I use the buses. At this moment I feel regret for not taking a car license"*, PT04).

#### Distribution.

- The "Increased unsustainability" group includes eight respondents (12.6%), the "Maintaining unsustainability" group includes 20 respondents (31.2%), the "Increasing sustainability" group only five (7.8%) and the "Maintaining sustainability" group 31 (48.4%).
- **Women are more likely to adopt or want to adopt sustainable transport behaviour.** Among female respondents, 24 out of 36 (66.7%) fall into the third (Increasing sustainability) or fourth (Maintaining sustainability) group, compared to 12 out of 28 (42.8%) male respondents. The proportion of women in the second group (Maintaining unsustainability) is almost half that of men (42.4% of men and 22.2% of women). This is probably also because women's access to the family car is in some cases more limited than men's.
- Those exposed to gender and age vulnerability are slightly more inclined to maintain sustainable transport behaviours (58.5% and 64.7% respectively against 48.4% of the entire sample). As for **those exposed to disability-based vulnerability**, the majority maintain their **unsustainable transport behaviour** (37.5% against 31.2% of the whole sample) or even intend to change to more unsustainable behaviour, likely because of the problems they face in accessing public transport, especially when the quality is low. For the other vulnerability groups, no specific trends can be identified.



- Looking at the cumulation of vulnerability factors, those exposed to more than one of them seem to fall mainly into the “Maintaining sustainability” group (58.8% against 36.7% for those exposed to no or only one of the vulnerability factors). This suggests that **vulnerability is somehow related to the adoption of sustainable transport behaviours**, whether adopted by choice or due to a lack of alternatives.

### Relationship with the outcomes.

- The great majority of those who express an attitude of “**loyalty**” to the policy **had already adopted sustainable transport behaviour before the policy was introduced**. In this group, those who belong to the “maintain sustainability” group represent 82.3%, compared to 48.4% for the whole sample. Conversely, those with a “**neglect**” or “**voice**” attitude are more likely to **maintain their unsustainable transport behaviour** (37.5% and 43.5% against 31.2% of the whole sample or even shift to more unsustainable transport behaviour).

### f. Perceived impact of the policy on vulnerable groups

**Definition.** This is the only factor based on an opinion expressed by respondents rather than on facts they report. It concerns the perceived (actual or potential) impact of the policy on vulnerable groups (women, disabled people, elderly people, people exposed to socio-economic risks, etc.). This factor is important for understanding the link that respondents establish between the policy and vulnerability.

**Description.** Three groups are identified: i) those who think that the policy has no impact on vulnerable groups; ii) those who think that the policy harms vulnerable groups; iii) those who think that the policy has a positive impact on vulnerable groups.

**Analysis.** The responses given by respondents, not surprisingly, strongly vary according to the country/policy they refer to. In Thessaloniki, five out of ten respondents say nothing about the impact of the new flyover on vulnerable groups. Only one respondent highlighted the positive impact of the new work on them. In Rome, the perception of the impact of the Low Emission Zone on vulnerable groups is undoubtedly higher: only three out of ten respondents do not mention any impact on vulnerable groups (*“It [the Low Emission Zone] would lead to the ghettoisation of the neighbourhood and worsen the conditions of those who are already vulnerable”*, IT03). In Oslo, many respondents (six out of nine) are negative about the impact of the new bike lane in the neighbourhood, especially for older and disabled people (*“I am worried that older people would experience problems if they could not access personal vehicles and have to rely on public transport”*, NO09). In Lisbon, five out of eleven respondents consider the introduction of a new paid parking policy in the chosen neighbourhood area to be negative for vulnerable people (the studied neighbourhood is a district with mainly low and very low-income families). Laşi is the only case where respondents with a positive view of the impact of the policy on vulnerable groups outnumber those with a negative view. In Örebro, none of the respondents commented on the impact of the new citywide mobility plan on certain social groups in the neighbourhood. This district is considered a marginal area, but the majority of respondents dispute such a dominant view.

### Distribution.

- Overall, 33 respondents (51.6%) had no opinion on the impact of the policy on vulnerable groups, 24 (37.5%) had a negative opinion and seven (10.9%) had a positive opinion.
- Women seem to be slightly more inclined than men to express a favourable opinion about the impact of the policy on vulnerable groups (16.7% against 3.5%).
- There does not appear to be any meaningful relationship between respondents' exposure to specific vulnerability factors and their views on the impact of policy on vulnerable groups. There are only some

likely contingent variations. Disabled people, however, are more likely to focus on negative impacts (50.0% compared to 37.5% of the whole sample).

- Those who are exposed to more than one vulnerabilities are more likely to highlight the positive impact of the policy (20.6% against 10.9% of the whole sample) while those who are less exposed or not exposed are more likely to report no impact of the policy on vulnerable people (60.0% against 51.6% of the total sample).

#### Relationship with the outcomes.

- Those with a “loyalty” attitude tend to report no impact on vulnerable groups (70.6% compared to 51.6% of the whole sample) or a positive impact (23.5% against 10.9% of the sample).
- Conversely, among those with a “voice” attitude, 60.9% report a **negative impact** (against 37.5% of the total sample) and none a positive impact.

#### g. Perceived level of inclusion in the policy process

**Definition.** This factor refers to the research participants' feeling of having been involved in the policy design and implementation process. It is therefore closely related to the type of policy considered in each country and the information strategies adopted by policymakers and is often associated with the degree to which respondents distrust policy promoters and implementers (see the Distrust factor, point c, above).

**Description.** Three groups were identified for this factor. i) *Not involved in the process/not interested.* This consists of those who did not feel involved in any part of the process, either at the design or implementation stage. ii) *Partially involved in the process.* Respondents who felt only superficially involved in the process belong to the second group. iii) *Involved in the process.* The last group includes the few respondents who felt included in the process and believed that citizens' needs/wishes have been taken into account.

**Analysis.** i) Not involved in the process/not interested. This group is by far the largest one. Those included in this group reported that there was no consultation, little or inaccurate information about the policy which in some cases came 'out of the blue' ("*I had no clue at all*", GR08) or only informally communicated through unofficial channels, social media and word of mouth. Some felt that this was a deliberate strategy to avoid protests and objections before the policy was implemented, especially when the policies involved the construction of infrastructure which is more difficult to stop than regulatory policies ("*I feel it was very much like a rushed decision, like 'let's push this through now before someone tries to stop it'*", SE11). Some respondents felt powerlessness, that politicians were not interested in their opinions and that protesting was useless. Some respondents were not interested in being informed while others felt that participation was only possible for the privileged who had time or energy to spare. ii) Partially involved in the process. Most of those belonging to this group were aware that citizens were consulted but felt that the consultation processes were just a formality that did not take into account citizens' opinions. They therefore questioned the legitimacy of the consultations and considered them to be a façade to give the appearance of inclusiveness. iii) Involved in the process. All respondents in this group are from the Portuguese sample, where people were consulted through a neighbourhood referendum that resulted in the policy being stopped.

#### Distribution.

- The first group (Not involved in the process/not interested) includes 46 respondents (71.8%), the second group (Partially involved in the process) 12 people (18.8%), while the last group (Involved in the process) six respondents (9.4%).

- Differences between men and women are only marginally relevant. Four out of 36 female respondents (11.1%) and two out of 28 male respondents (7.1%) felt included in the process. More men (25%) than women (13.8%) felt partially included, while among those who did not feel included or were not interested in the policy, the percentages are similar: 27 out of 36 women (75%) and 19 out of 28 men (68%).
- **The distribution per case study is most significant**, as the entire sample of people who felt included in the policy design and implementation process consists of respondents living in Lisbon. Respondents who felt only superficially included are mostly from the Norwegian sample (five people) and, to a lesser extent, from the Portuguese (four), Swedish (two) and Italian (one) samples. People who did not feel involved in the process are present in all case studies.
- Those with age and disability-related vulnerabilities felt slightly more involved in the process than the total sample (23.5% and 18.8% against 9.4% of the sample). In contrast, **none of the respondents with a migration background felt included** in the process.
- No relevant differences are observed between those exposed to none or one vulnerability factor and those who are exposed to more than one of them.

#### Relations with the outcomes.

- People who felt to be **partially or fully involved** in the process were slightly more inclined to the "voice" outcome (34.8% and 13.0% against 18.8% and 9.4% of the total sample). This is not surprising, as the respondents who expressed this position were mostly those who had participated in a referendum or a survey and had succeeded in stopping the policies.
- Conversely, **respondents who did not feel involved** were less oriented to the "voice" outcome and more to the "loyalty" and "neglect" outcomes (88.2% and 79.2% compared to 71.9% of the total sample). As explained above, this may be because many in this category felt powerless in the face of policymakers and believed that protesting (Voice) was not worth the time and energy required.
- The "loyalty" outcome was **less common among those who felt superficially involved** in the process (5.9% against 18.8% of the whole sample), as they were likely to have participated in protests, referendums or surveys.

### 3.2.4. In-depth analysis of outcomes: emerging profiles

As we have tried to show in the presentation of the results, each of the factors considered can be expressed in different ways and can be based on different motivations, expectations and personal circumstances. To more accurately capture these differences, we will attempt to identify and describe some profiles that emerge from the study based on the analysis of reactions to car-free policies.

#### a. VOICE

VOICE is a proactive and negative attitude towards the policy. People expressing VOICE (35.9% of the whole sample) tend to mobilise, individually or collectively, to impede its application or to modify it. Hence the first distinction to be made between "disruptive" and "transformative" VOICE. Two examples concerning the same policy are provided below.

**Disruptive VOICE.** Respondents who display disruptive VOICE tend to deny any possibility of changing the policy and engaging in dialogue with policymakers to modify it. Disruptive VOICE aims to abolish the policy, to the point of threatening the use of radical means (e.g., sabotage). **This type of VOICE is largely dominant in the cases studied.** It is usually associated with a strong distrust of

the policy promoters, disappointment with how the policy process has been conducted and an activist background.

#### Disruptive VOICE (IT02)

Vincenzo is a very active person in the neighbourhoods. When the Low Emission Zone became a real prospect, he and other friends decided to meet with representatives of other groups opposed to the policy in order to block it. He believes that politicians are proposing solutions to citizens that have been developed by private companies, further isolating the marginalised, who he believes are the most vulnerable, those without regular employment and those who own no property. According to him, these people would certainly sabotage the policy by not paying the fines or by damaging the cameras, just as he would do himself.

**Transformative VOICE.** Respondents who express a transformative VOICE tend to identify possible workable solutions and open a dialogue with the policy promoters, often simply asking for specific changes to the policy. **Respondents who express a transformative VOICE are very few.** They seem to adopt this stance for different reasons like political realism (e.g., fear that too much opposition to the policy could jeopardise the whole environmental strategy of the municipality), conflicting feelings about the policy (e.g., desire to find a compromise between one's own environmental commitment and disagreement with the policy), or hope to improve the policy (for example, proposing to expand the bus fleet before imposing restrictions on car use).

#### Transformative VOICE (IT05)

Although Alex is a staunch opponent of the ZTL policy (which would not affect him personally), he is also aware that opposing it too strongly would pave the way for the radical right in the next local elections. At that point, many environmental measures would be dismantled. For this reason, Alex has adopted a mediation attitude between social and environmental concerns, trying to find a way to mitigate the effects of the policy by reviewing the boundaries of the Low Emission Zone, where to put checkpoints to enter the city, and how car parks could encourage people to leave their cars outside.

As mentioned above, the great majority of those who express a VOICE attitude tend to be disruptive. However, these motivations can be different. Some profiles are summarised below.

**Preserving personal freedom.** This profile mainly refers to people who tend to have a non-activist background, distrust politicians in general and, although they may also be environmentally aware, are opposed to policies that restrict car use, which are directly perceived as a restriction on personal freedom. In some cases, this attitude is also justified by personal circumstances (disability, need for a car for courses involving children, or pets) and, secondarily, by other considerations (disadvantages for elderly or disabled people).

#### Preserving personal freedom (NO09)

Karl is against the policy and thinks that too many parking spaces have been removed in general and in the area where he lives. (...) In his opinion, a car-free area is impossible. Although he does not use his car every day, he needs it for some of his work and to visit family in other parts of the country. Not being able to use his own car restricts his freedom, and he thinks it is unfair that people who live outside the city are allowed to use cars to get to work, while those who live in the city are not.

**Opposing methods and political assumptions.** This profile refers to those who adopt a VOICE attitude mainly because of their distrust towards politicians and the lack of serious participatory mechanisms allowing citizens to express their opinions and influence the policy process. This profile is mainly present in Norway and Sweden.



### Opposing methods and political assumptions (SE03)

Christian says that the only politicians who were interested in hearing the public's opinion about BRT [the policy] were the politicians who campaigned against it. From those supporting it, there has been no attempt to find out what people think or to inform them about what BRT is and why they are doing it. Christian says that 'politicians have not shown their faces here at all. And it is such a pity because if they had just cooperated more and shown the people some respect, they would get respect back'.

**Fighting inequality.** This profile mainly refers to activists whose VOICE attitude is mainly based on a distrust of policy promoters and especially a particularly acute sensitivity to negative impacts on marginalised groups or urban districts. This type of VOICE is more frequent in Italy and, to a lesser extent, in Portugal.

### Fighting inequality (IT01)

Livia is a disabled woman living in a marginalised neighbourhood. She and her family are aware of environmental issues. They are very concerned about climate change and think that big polluting industries are responsible for it. At first, she was positive about the introduction of the Low Emission Zone. She changed her mind when she became aware of the fears of people in the neighbourhood and visitors to the association she runs. She believes that the policy could cause great harm to the most vulnerable in society and should not be implemented at all.

**Opposing the application of the policy in one's district.** This profile refers to those who are not necessarily opposed to the principles and motives on which the policy is based but who are against the application of the policy in their district. This type of VOICE seems to be a variation of the NIMBY (Not-In-My-Back-Yard) opposition (see section 3.2.3., point c.). This type of VOICE has been found mainly in Portugal and Norway.

### Opposing the application of the policy in one's district (PT13)

Beatriz is 23 years old, and she always lived in the neighbourhood chosen to be studied. In her opinion it does not make sense to implement this policy in the neighbourhood where she lives because these people live in a social neighbourhood and have low incomes. It would be very difficult for make them pay. Moreover, she believes that people would not accept this measure, and they would not obey the rules of paid car parking places.

**Opposing the policy for technical and economic reasons.** This profile refers to those who adopt a VOICE stance because they disagree with the technical and economic aspects of the policy. This kind of VOICE is based on argumentations focusing on, e.g., better alternative uses of the funds devoted to the policy or limited effectiveness of the technical solutions adopted.

### Opposing the policy for technical and economic reasons (SE11)

Patrik says he is knowledgeable about the BRT project and that he has been interested in finding information about it since the very start. As soon as they announced the proposed plans, he started doing his own calculations of what it might cost and quickly realised it would be very expensive. Projects of this kind have a tendency not to stick to the original budget, he says, and so far, BRT looks no different. The first stage was estimated to cost 125 to 250 million SEK [Swedish Crown] and they have already announced they will not be able to stick to that.

## b. LOYALTY

LOYALTY refers to a supportive attitude towards the policy. However, unlike VOICE, LOYALTY is a passive attitude, i.e., it is not linked to a proactive orientation of the respondents. Probably for this reason, LOYALTY manifests itself in less defined and somewhat less consistent ways than VOICE. For example, those who express LOYALTY (overall, 26.6% of the whole sample) are sometimes



distrustful of the policy promoters, are aware of the limitations and risks associated with the policy, and in many cases, their opinion is not based on sufficient information or a genuine interest in the issue. **No cases of collective action in favour of any of the analysed policies have been detected in the sample of RL8.**

Four main profiles can be detected.

**Environmentally focused LOYALTY based on environmental awareness.** This profile mainly concerns those who are particularly concerned with environmental issues, sometimes with an activist background. This form of LOYALTY is rooted in the conviction that it is necessary to start taking environmental issues seriously, even if this may lead to some inconvenience or social consequences. In some cases, this leads to taking an uncompromising stance, subordinating social justice concerns to environmental priorities, symmetrically corresponding to more destructive VOICE outcomes.

#### Environmentally focused LOYALTY (IT06)

Saverio is a 68-year-old pensioner who lives in a semi-peripheral district in Rome. He is passionate about environmental issues and believes that the climate emergency and air pollution are urgent issues that need to be addressed immediately. He thinks that reducing the circulation of private cars, especially the most polluting ones, is the only solution and hopes that in the future there will be more controls and more restrictive regulations in this direction. Although there may be individual mobility problems, he thinks that the public interest cannot be put before minority interests. Therefore, he strongly supports the traffic-restricted zone policy.

**Socially focused LOYALTY.** A second profile concerns those who generate a LOYALTY orientation based on the perception that the policy could bring benefits to citizens in general. This type of LOYALTY is not necessarily or exclusively associated with a strong environmental commitment and can be motivated in different ways, such as a feeling that the overwhelming presence of cars makes daily life more difficult and uncomfortable, a hope that one's city or country could adapt to more advanced international mobility standards, or simply a perception that current mobility policies are ineffective and should be overcome. This type of LOYALTY is the most diffuse.

#### Socially focused LOYALTY (RO06)

Gheorghe is a 71-year-old man born in the Republic of Moldavia, who moved to Iași in 1991 and has been a resident of the neighbourhood since 1999. He strongly agrees with the policy. He believes that this measure (the bus lane) is a first step in reducing the number of cars on the city streets by offering an advantage to those who use public transport. According to Gheorghe, many people have grown too accustomed to use their cars and too lazy to give them up. This is why authorities must push these people towards public transport by making driving a more expensive option than it is now, similar to the approach that has been in place in Western countries.

**Personally focused LOYALTY.** This profile covers those who do not have a strong personal orientation towards environmental issues and do not necessarily have a decidedly positive view of the policy. Rather, their LOYALTY is mainly based on the idea or the expectation that the policy can make their own lives easier in the future or at least that the policy could be a first step towards more efficient solutions for them. Most of those who share this profile tend to rely on public transport to meet their mobility needs.

#### Personally focused LOYALTY (GR10)

Mina is a 34-year-old single mother of a 5-year-old girl. She lives together with her daughter in a neighbourhood in the western part of Thessaloniki. She works in the city centre, and she now commutes to work mainly by bike. She used to take the bus, but due to the increased traffic caused by the FlyOver [the policy], she now changed to a bike. She supports FlyOver as she believes in its long-term benefits. According to Mina, the infrastructure is not good, the roads are often

damaged, and the buses do not come on time. This is a big problem for her since she cannot afford a car. They have to rely on public transport, but it is not reliable. As a working mother, this is a big problem.

**Generic LOYALTY.** This fourth profile concerns those who express a low level of agreement with the policy because they do not feel affected by or interested in the policy. Therefore, their arguments in favour of the policy are rather weak, generic or uncertain and their position is rather distant.

#### Generic LOYALTY (SE13)

Bilan is a single mother of four, has a migration background and faces discrimination on the grounds of migration status, race and language. She works locally so she does need to leave the area daily but when she does, she usually takes the bus. She finds the bus very expensive, and she thinks that is the main problem to resolve. She does not see any major improvements as a result of BRT so far, but it is a little bit quicker, and she likes the new bus stops. She is generally in favour of improving the bus service as she relies on it herself and says she is slightly more for than against BRT even though it does not deal with the main issue of price.

### c. NEGLECT

Like LOYALTY, NEGLECT is a passive orientation, i.e. it does not involve any form of proactive attitude or mobilisation. However, like VOICE, it expresses a negative attitude towards the policy. The motivations given by respondents who have a NEGLECT attitude (37.5% of the sample) to justify their negative attitude are similar to those given by respondents with a VOICE attitude. It is, therefore, more interesting to focus on the reasons why a NEGLECT passive orientation does not turn into a proactive VOICE.

In this regard, three main profiles can be identified.

**NEGLECT due to the presence of other priorities.** The main reason why NEGLECT does not develop into a proactive VOICE is that people attach more importance to other aspects of their lives. VOICE requires an investment, however, limited, in terms of time, resources or simply attention. People are not inclined to make this investment if, for example, interest in the policy and the available time is limited. In all these cases, other priorities (e.g., health, age-related activities, work and family issues) prevail and the negative attitude towards the policy remains an opinion and does not lead to any action.

#### NEGLECT due to the presence of other priorities (GR01)

Christina is a 26-year-old woman living in a neighbourhood in the western part of Thessaloniki. She lives with her parents in their family home. She used to take the bus to work every day. Now, due to the construction of the Flyover, she can no longer do so, as commuting by bus has become extremely difficult. She is considering buying a car because of this situation, which makes her very worried financially. She is not part of any particular active movement against the Flyover, but she is a member of a Facebook group that discusses the situation and gives live updates on traffic and news. Christina thinks people are disappointed. But there are many problems that people do not know where to start. So, although the Flyover will affect many people's lives, she thinks that most of them, including herself, will just accept it as the new reality, even if it is wrong.

**NEGLECT due to lack of trust.** Another profile concerns those who consider mobilisation against the policy useless and in some cases even counterproductive. This attitude is mainly linked to a lack of trust in the promoters of the policy, but often also in collective actors. Those who generate this kind of NEGLECT sometimes express a broader sense of powerlessness, pessimism about the VOICE of citizens to be heard and mistrust in citizens to adopt mature civic behaviours.

#### NEGLECT due to lack of trust (GR03)



Sofia is a 23-year-old woman who lives with her parents and her younger sister in a neighbourhood in the western part of Thessaloniki. She commutes almost every day to the city centre where her university is located. She would like to use her bike for her daily commute, but the lack of infrastructure has forced her to continue using the bus. She is against the construction of the Flyover but is not very active. According to Sofia, there are a lot of people who are against the Flyover, but she has never heard of any organised actions. Sofia believes that this is because protests are useless, as no one listens to citizens ("When the machines start running, it is too late").

**NEGLECT due to lack of exposure to negative policy impacts.** The third profile refers to those who oppose the policy but are not personally exposed to its effects. This may be for various reasons, such as not owning a car in the case of a policy that restricts car use or not using public transport in the case of a policy that encourages bus use. A lack of personal exposure to the policy impact may also lead to contrasting feelings about the policy ("It could be a good policy but ..."), even though the opinion remains negative.

#### NEGLECT due to lack of exposure to negative policy impacts (IT10)

Aisha is a 45-year-old woman of Tunisian origin with two small children. After living in various European countries, she has been living in Rome for some years and in the neighbourhood in a group home for women victims of violence the last year. She is very interested in environmental issues and thinks there is a major pollution problem in Rome that needs to be solved. Despite this, for her type of life, she could not live without using the car for her freedom and for the comfort of her children as she finds public transport very stressful and inefficient. For this reason, she is against the policy because she thinks it does not meet people's needs and does not push people to change their behaviour towards the use of public transport. She has decided to buy an LPG car, which will be allowed to run until 2025 so that the policy will not affect her life. She is also against protests for their own sake because she thinks that the pollution problem remains, and alternative projects would be needed to solve it.

### 3.2.5 The point of view of policy promoters and representatives of civil society organisations

To complement the analysis carried out through the interviews with citizens, a selected group of policy promoters, members of organisations involved in the design and implementation of the six policies, as well as representatives of civil society organisations opposed to the policies, were interviewed using a semi-structured interview guide.

In total, nine policy promoters and CSO representatives – all men but one – were interviewed, one in Greece, two in Italy, two in Portugal, two in Romania and two in Sweden (see Table 26 below).

Table 26 – Sample of policy promoters and CSO representatives

Code	Position
P-GR1	Representative of a Municipality in Thessaloniki
P-IT1	Representative from the local mobility department
P-IT2	Alderman of a Municipality in Rome
P-PT1	President of the chosen neighbourhood residents' association
P-PT2	Representative of the Civil Parish Council of Benfica
P-RO1	Representative of the public administration of the Municipality of Iași
P-RO2	Representative of an NGO engaged in social development and civic education
P-SE1	Public administrator in the Örebro Municipality
P-SE2	Public administrator in the Örebro Region

### a. Motivations and responsibilities about the policy

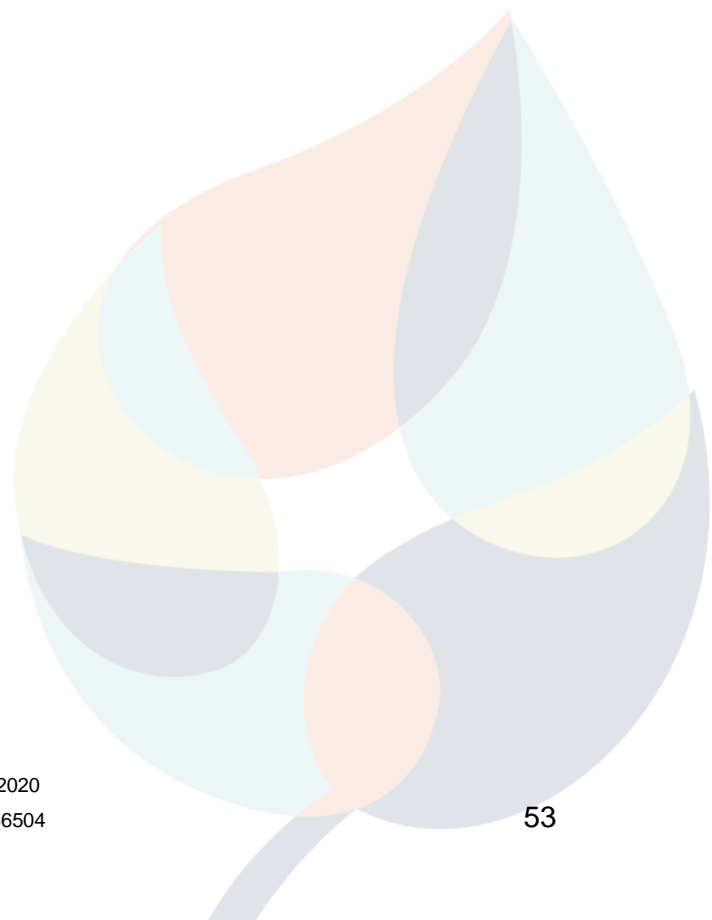
Although the six policies all seek to reduce car use and promote alternative transport, **they differ significantly in terms of primary objectives**: reducing pollution levels (Rome), creating a more efficient public transport system (Örebro and Iași), sustaining active mobility (Oslo), reducing the space occupied by cars through paid car parking (Lisbon), and reducing traffic in the city centre (Thessaloniki).

The **responsibility over the policy also differs**. In Rome, the implementation of the policy reflects an overlap in institutional responsibilities, where the municipality views its role as primarily executing directives shaped at both national and regional levels, in alignment with broader European frameworks. In Örebro, the policy has been fully conceived by traffic planners of the local administration, without the direct involvement of the city political leaders (*"BRT [the policy] was very much a project that came from public administration rather than elected officials"*, P-SE1). In Lisbon, the policy promoter is the Lisbon municipality, but the policy is managed by the local transportation agency (EMEL) which is viewed as the real policy promoter. Only in Thessaloniki, Oslo and Iași, the city council directly assumed the responsibility for the conception and implementation of the policy.

In several cases, the **implementation process was not linear**, with other actors coming into play. In three cases, the policy was somehow frozen. In Rome, the implementation of the policy was postponed due to limited consensus, and even within the local municipal authority where the study took place (Rome is administratively organised into 15 local municipalities), several voices expressed reservations about the measure. In Lisbon, the municipal council where the study was conducted (Lisbon is administratively organised into 24 municipalities) called a referendum on the application of the policy in the study area, which resulted in the policy being blocked there. In Oslo, a consultancy firm was hired to manage relations with citizens, with somewhat counterproductive effects, creating further tensions and leading to the suspension of the policy. In Örebro, the first phase of the plan is nearing completion, but the second and third phases may be reviewed due to lack of funding.

Despite their differences, the six policies converge in identifying the **main enemy to be fought as excessive car use** (*"We need to convince people to use public transport and other alternative means of transport. This is the most important thing"*, P-RO1; *To change the traffic situation, it would be necessary to apply more stringent policies, such as congestion charging, as has happened in other European cities, such as London*", P-IT1; *"Any solution would have to work with the existing roads, and the most efficient way to do that was to give priority to buses on the main routes and try to get people to switch from cars to buses"*, P-SE1). Even in Thessaloniki, where the policy is aimed at enhancing a road infrastructure, the aim pursued is promoting public transport (*"[Thanks to the Flyover] people of all groups will be able to use public transport easier, as it will be more efficient and faster than previously"*, P-GR1).

Another common feature is that **none of the policies considered the impact of the policy on vulnerable groups from the outset**. In Örebro, the perspective was that of a transport planner with a transport problem to solve (*"I don't think we will ever be able to create a public transport system that suits everyone. That is why we have to look at the broad masses and see what will work for the most people"*, P-SE1). In Rome, the question of how to support vulnerable groups is a complementary aspect to be considered once the mobility policy is in place (*"Very strong policies are needed to discourage car use and take space away from cars, correlated with policies to support vulnerable groups and promote public transport. The latter are ineffective without the former"*, P-IT2). In Thessaloniki and Iași, vulnerability is not taken into account in policy design. The assumption on which the policies are based is that any action to support public transport is an action to support vulnerable groups (*"[Traffic and car use] raises problems, especially for those who cannot afford a car and are therefore economically vulnerable, many of whom are also elderly, single parents or young people on low wages"*, P-RO12). Therefore, no further attention to vulnerable groups is required.





## b. People's reactions to the policy

In most cases, the inclusion of participatory processes was not considered.

In Rome, the policy is perceived by its own promoters as a top-down measure originating from higher institutional levels such as the EU, national government, and the Latium regional administration. Therefore, there were no institutional mechanisms and time to introduce participatory mechanisms. However, various meetings were organised to disseminate the policy, although they covered a very small part of the population. In Örebro, some municipal processes concerning zoning plans require that residents affected by the decision are consulted. However, as road construction is not covered by this requirement, no specific efforts were made to inform the public about the policy before the decision was taken. No consultation process was launched in Thessaloniki either (*"The FlyOver is the result of long research and observation of the mobility of the city's citizens for more than a decade now. In a sense, therefore, the citizens of the city have participated, even indirectly, in the development of the idea for its construction"*, P-GR1). In Portugal, instead, participation was imposed by the action of local actors (especially, the chosen neighbourhood Residents' Association) that led the Parish Council to launch a referendum on the application of the general policy of paid parking at the local level (*"The local referendum was very participatory. There were several moments of debate. There were several interviews urging people to vote, local posters and newspapers. It was the biggest local referendum in Portugal"*, P-PT2). No specific consultation was planned in Norway. A bottom-up action against the policy forced the administration to hire a consultancy firm to interact with the local community, which produced a report that was not accepted by the residents. Only in Iași was an attempt made to involve the population by opening a consultation on the website of the municipality (*"The plan has been submitted to public consultations. It was disseminated through the regular public communication channels used by the municipality, i.e. its website, social media, press conferences and through our NGO partners who participated in the consultations"*, P-RO1).

There are **two main reasons for the limited use of the participatory approach**. On the one hand, launching consultations could mean opening a 'Pandora's box' that would not ultimately be useful for policy implementation (*"The decision [on the policy] was top-down, but I don't think it would have been better understood and accepted by the citizens if it had been discussed"*, P-IT2). On the other hand, the capacity of citizens to make technical decisions on long-term processes is seen as limited (*"It can be really hard to explain the need for change to the general public. They may not see the need at the moment, but if we don't address it now, it could cause big problems in ten years. If we ask people now, a lot of people might think it's really unnecessary and if we base our decisions on that, we'll never get the transition we need"*, P-SE1; *"Look, I know people are angry now and I think a lot of that has to do with the fact that they don't understand the importance and the potential benefits that Flyover will bring in a few years"*, P-GR).

While participation is not seen as essential or risky, policy promoters consider communication to be more important and, in some cases, acknowledge that it has been lacking. In Rome, communication has not been developed because of various constraints: *"The Municipality of Rome and the municipal administrations have very little money for current expenditure on communication. Moreover, there was no time [for communication]"* (P-IT1). In Örebro, the policy promoter acknowledged that communication about the policy was limited, but also stressed that it would not have been crucial in promoting the policy (*"In retrospect, I am sure that the communication around the project could have worked better. But I am not sure that it would have led to less resistance"*, P-SE1). In Thessaloniki, very few institutional communication tools were used (*"There was no kind of formal announcement to the public, like an event or something like that. Of course, there were announcements on our website, both when the construction was confirmed and when it started"*, P-GR).

The lack of participatory mechanisms and the limited use of communication and information tools may explain, at least in part, why the six policies have struggled to be accepted by citizens.



In Rome, the policy promoter believed that protests were inevitable and that they were even less widespread than they were supposed to be. This is explained as a sign that the policy does not affect as many people as the popular narrative tends to suggest (*"I can tell you that the level of protest was not high. I wondered why mobilisation was low. Then I saw the data on the checkpoints monitored by the cameras, and I understood why; only 1.9% of the population will ultimately be affected by the measure"*, P-IT1).

In Örebro, protests were not expected at all: "Although I expected some disagreement regarding BRT, I was not prepared for the level of protest they were met with. [...] Politicians who had voted for BRT were largely passive, and it was often up to public administrators to promote the project", P-SE1.

As we have seen, the protests in Lisbon and Oslo were decisive in halting or severely curtailing the application of the policy.

In some cases, policy promoters think that those who protest are those who use the car more ("There was some resistance in the beginning, especially from people who use only their car to get around the city", P-RO1; "Generally speaking, those less attached to their cars - emotionally, ideologically or out of necessity - tend to be more in favour of the policy", P-SE1) while those who support it are those who are struggling for more sustainable mobility ("Are there actors supporting the policy? Yes, many: environmental associations, cycling associations, pedestrian associations, all sustainable mobility associations. But there is also a silent majority in favour of this provision. The problem is that the majority is silent", P-IT1). However, a quite common idea is that protests and disagreement are destined to diminish as the policy is implemented because people become convinced of the usefulness of the policy itself ("I think that some of them [those who protest] will be convinced about the appropriateness of the policy once they try to use public transport", P-RO1; "Protesters were much more vocal in the early stages of the project. Now that the construction work on part of the main route is finished, people can start to envision what the end result will be like. Even those who were a bit critical will see that this won't be half bad", P-SE1). It is worth noting that some of these representations by politicians appear to be unfounded or tend to oversimplify reality. For example, it is not entirely true that those who have a car protest more. Among those with a VOICE attitude, only 34.7% use a car or motorcycle as their main means of transport (a proportion corresponding to 34.4% of the total sample), while among those with a NEGLECT attitude, the proportion using a car or motorcycle as their main means of transport reaches 50.0%. This suggests that among those who protest (VOICE), two out of three mainly use other means of transport (public transport, cycling or walking). The idea that protests decrease over time (as citizens eventually accept or get used to the policy) also seems untenable, given that three of the six policies were suspended because of protests. In other words, protests are likely to diminish if policy implementation does not progress.

### c. Factors influencing the reception of the policy by citizens

Finally, policy promoters and representatives of CSO organisations were asked which factors they considered most likely to influence citizens' uptake of the policy, and especially which were the enablers and the hindlers to its positive acceptance. The main influencing factors are **time** and **money**, both mentioned by all respondents. The perception is that people are not inclined to switch from private to public transport if the latter is not competitive in terms of time spent on daily journeys and if its cost is not lower than the cost of using the car. Hence the tendency of some of these policies to act on one or both of these factors (e.g., increasing the cost of car use and parking or reducing the time taken by public transport). The importance given to time and money by policymakers is not unexpected. As we have seen, respondents also tend to attach great importance to the time spent on daily travel and the cost of transport.

However, policymakers also stress the importance of **changing people's mobility culture and attitudes**. Therefore, among the main factors influencing the uptake of the policy, they also mention

people's knowledge about mobility issues and the policy (six out of nine mentioned it) and **people's beliefs** and **culture** (five out of nine) as among the most influential. It should be emphasised that this general interpretation may seem overly simplistic. As noted above (see section 3.2.3), the relationships between mobility culture, attitudes and behaviour are not as linear as policy advocates suggest. For example, many of those who protest against free car policies do not use the car as their primary means of transport, and among those who have a VOICE attitude many have an environmentalist orientation.

Other key factors are the **availability of infrastructure** (mentioned by all respondents) and the **existence of effective existing mobility policies** (mentioned by six respondents). According to policy promoters, these factors remain crucial in influencing the acceptance of new policies. **However, somewhat contrary to this assumption, protests were reported in all six cities, apparently regardless of the quality of the existing transport system or the mobility policies in place.**

Other factors that may play a role are of a structural nature, i.e., the **general socio-economic conditions** of the area (four respondents) and its **physical and environmental characteristics** (four).

The respondents also consider it important that the policy addresses the **main expectations** that people may have in relation to mobility, i.e. road safety (all respondents mentioned this aspect), mobility for people with special needs (all respondents also mentioned this aspect) and people's physical and mental well-being (five respondents).

Another important factor influencing policy reception from the representatives' perspectives is the possibility for citizens to have **access to political and social actors** (four respondents highlight this aspect). In contrast, the participation of citizens in the community or social networks is not considered by policy promoters to be important in influencing the reception of the policy (only one mention). This view seems to contradict the role of networks and collective action in shaping protest. For example, almost 80% of respondents with a VOICE attitude have a background in neighbourhood activism.

# Discussion and conclusion

## 4. Overall discussion and recommendations

RL8 examined how a more sustainable transport system can be achieved in the context of the Green Deal, by looking at how to encourage changes in individual transport behaviour. In the second cycle, the research line focused on the **reactions of vulnerable and disadvantaged social groups living in deprived urban neighbourhoods to policies that discourage car use (car-free policies) and/or promote sustainable transport at the expense of car use**, looking at both their **individual and collective responses**, if any (i.e., forms of protest, activism, mobilisation).

To better observe these responses, it was chosen to focus on policies that had not been completed but were still in progress or even at an early stage of implementation. This allowed researchers to attend meetings where policy was being discussed or to conduct interviews on issues which respondents were familiar with and, in many cases, still emotionally invested in. Overall, 64 informants and nine policymakers and representatives of civil society organisations were interviewed. To capture the responses, a tailored version of Hirschman's Exit, Voice and Loyalty analytical framework (Hirschman, 1970 and 1978) has been adopted with the addition of the Neglect category (Farrell, 1983).

This section first summarises the main findings of the analysis. This is followed by a discussion of the main scientific and policy implications.

### 4.1. Main findings

#### 4.1.1. General findings

The intention to adopt more sustainable personal behaviours is generally reported, but this does not always extend to transport behaviour. Most respondents (58 out of 64) consider themselves to be quite aware of pro-environmental policies and 50 respondents are aware of sustainable transport policies. However, while 43 respondents declare their intent to change their behaviour to follow pro-environmental recommendations in general, only 21 intend to change their everyday transport behaviour.

Support for car-free policies is generally low, and very low where policies have a strong impact on car use. The six policies surveyed received little support from respondents. In total, 30 respondents strongly or somewhat disagree and 18 strongly or somewhat agree (in percentage terms, 46.9% versus 28.1%). The **highest levels of agreement** are found in Romania and Sweden, **where the policy only indirectly penalises car use**. The **highest levels of disagreement** are found in Greece, Italy and Norway, **where car use is more severely affected**. In Portugal, opposition was so strong that the policy did not come into force.

Activism against car-free policies is widespread. Only 13 respondents did not mobilise at all around the policy. As for the others, they mobilised in a variety of ways, such as attending meetings or demonstrations, contacting the promoters of the policy, promoting or organising a petition, or at least advocating or talking on social media and to relatives about the policy. The overwhelming majority of activism came from citizens opposed to the policy.

**Car-free policies seem to have little potential to influence personal transport behaviour in the short term.** Very few respondents changed their transport behaviour as a result of the policy or

expressed the intention to do so in the future: only five out of 64. This is probably related to the fact that the analysed policies are at an early stage of implementation and three out of six cases have even been suspended due to public opposition. Nevertheless, the low level of public acceptance of the policies suggests that very few people will be persuaded to change their transport behaviour unless they have no real alternatives. Non-compliance and sabotage are sometimes reported as reactions.

**Policymakers seem to be particularly worried about involving citizens when it comes to car-free policies.** In this context, it is not surprising that policymakers tend not to involve citizens in policy design or implementation. Only eight out of 64 respondents said that there had been some consultation or involvement of citizens, only five considered the policy process to be inclusive and only four actually felt involved. Moreover, the interviews with policymakers also reveal an intention (in some cases explicit) not to adopt a participatory approach, which would make the timing and outcomes of the policy uncertain and, in some cases, risk blocking the policy altogether.

#### 4.1.2. Findings on citizens' reactions to car-free policies

The findings on the specific RL8 research questions are summarised below.

NEGLECT and VOICE are the most widespread reactions to the policy (37.5% and 35.9% respectively), while LOYALTY is less present (26.6%). The outcomes change according to the policy. In Sweden and Romania, LOYALTY is most widespread (59.3% and 50.0%), in Norway and Italy VOICE dominates (88.9% and 60.0%) and in Portugal and Greece NEGLECT is shared by the majority (90.0% and 53.8%).

Some of the main factors that appear to be associated with these outcomes are briefly outlined below, with a particular focus on gender+ dynamics.

**Gender matters.** The first aspect to note is the rather different attitudes of women and men. **Women are more likely to have an attitude of LOYALTY towards car-free policies than men**, who are more oriented towards VOICE. This seems to overlap with and confirm that men tend to use cars more and have a stronger car culture than women (Hasenkopf & Steiner 2021; Roos et al., 2020). In addition, compared to men, women are more likely to be concerned about environmental issues (Zani & Barret, 2012; Zhao et al., 2021) and to adopt or maintain sustainable mobility behaviour (Matthies et al., 2002). Finally, in our sample, women are less likely than men to express distrust towards the policy promoters and conversely are more likely to have a positive view of the policy's impact on vulnerable groups. Overall, women seem to be more open to sustainable mobility than men and are more likely to accept or at least not reject new policies focused on sustainability.

**Vulnerability influences people's attitudes differently.** Vulnerability affects outcomes differently depending on the type of vulnerability. Those suffering from very disadvantaged socio-economic conditions tend to have a NEGLECT attitude. This is probably because they do not have the resources, opportunities, interest or time to engage with mobility policies. People with disabilities show high levels of VOICE, probably because they are particularly exposed to policies that somehow limit the use of cars. Older people, on the other hand, tend to be more LOYAL than others, probably because older people tend to use a car less. Finally, people with a migrant background show a high level of LOYALTY and, at the same time, a tendency to NEGLECT the policy. The intersection of different vulnerability factors also influences people's orientation. For example, those exposed to more vulnerability factors are more likely than others to use sustainable transport, also due to a lack of alternatives, and are less likely to express mistrust towards policy promoters, as well as are more likely to emphasise the positive effects of the policy, even though they appear to be less involved in environmental issues.

**Voice against car-free policies comes mostly from less vulnerable people.** While all respondents live in deprived neighbourhoods (by local standards), it is mostly those who do not report a high or intersectional vulnerability factor who are most inclined to actively oppose car-free policies. People with disabilities are the only exception.

**The target and type of the car-free policy determine the outcome.** Policies that directly tend to restrict car use are more likely to elicit VOICE reactions, while those that do not directly restrict car use and have a dominant infrastructure component are more likely to be associated with LOYALTY reactions. This suggests that people react negatively especially when their freedom to use a car is questioned and when they believe that the policy can still be reverted.

**The influence of the modal split of the city seems to be less relevant than expected.** Although the study cannot provide robust data in this respect, the modal split of the city seems to have a limited influence on citizens' reactions to the policy. For example, even in areas with a relatively low share of car use, protests against car-free policies can be extremely vocal and lead to the blocking of the policy.

The main findings are summarised in Table 27. Only significant relationships are highlighted. Where no robust relation was found, the cell is left blank.

Table 27 – Major factors influencing respondents' responses to the policies

Factors	Outcomes		
	LOYALTY	NEGLECT	VOICE
<b>Contextual and policy-related factors</b>			
Active mobility		Low level of active mobility	
Use of public transport		High level of use of public transport	
Car use		Low level of car use	
Car use limitation	Policy non introducing constraints in car use		Policy introducing constraints in car use
Infrastructural/regulatory policies	Infrastructural policy	Infrastructural policy	Regulatory policy
<b>Factors related to individual attitudes and exposure to vulnerability</b>			
Involvement with environmental issues	High level of involvement	Low level of involvement	
Activism in the neighbourhood	Some experiences of activism	Low level of activism	High level of activism
Distrust in the policy promoters	Low level of distrust		High level of distrust
Intention to adopt more sustainable transport behaviours	High tendency to adopt sustainable transport behaviour	Low tendency to adopt sustainable transport behaviour	Low tendency to adopt sustainable transport behaviour
Exposure to the negative effects of the policy	Low level of exposure	High level of exposure	High level of exposure
Tendency to report the impact of the policy on vulnerable groups	Low tendency to report		High tendency to report



Beyond these general trends, it is worth noting that the three forms of reaction to the policy are not internally homogeneous and that different profiles and ways of expressing LOYALTY, NEGLECT or VOICE can be found. In this respect, the following points can be highlighted.

**Disruptive VOICE outweighs Transformative VOICE.** Respondents expressing VOICE are much more likely to deny any possibility of changing the policy and engaging in dialogue with policymakers to modify it (Disruptive VOICE) than to identify possible workable solutions and open up dialogue with policymakers (Transformative VOICE). This suggests that, at least in the case of the policies examined in this study, the space for dialogue and cooperation between policymakers and citizens is limited. This also reflects the decision of policymakers themselves not to encourage citizen participation in the design of car-free policies.

**Different paths may lead to VOICE.** VOICE is motivated by different values and expectations: the fear that the policy will restrict the freedom to use the car; the belief that the policy may increase inequality; the perception that the policy is not technically or economically valid and that taxpayers' money could have been spent more profitably. In some cases, VOICE is triggered by the poor attitude of policy promoters to involve citizens. In others, VOICE is not linked to the policy, which can be even appreciated, but to the belief that it cannot be successfully applied in one's neighbourhood.

**Compared to VOICE, LOYALTY is a less defined attitude.** LOYALTY manifests itself in less defined and somewhat less consistent ways than VOICE. Rarely do people express full LOYALTY to the policy and even less to those who promote it. Rather, they try to be loyal to their own beliefs (e.g., loyalty to their pro-environmental stance or social engagement) or interests (loyalty because the policy is expected to make their lives easier in the future). Not infrequently, LOYALTY is not based on clear beliefs and arguments, but a quite vague opinion expressed by people who do not feel affected by or interested in the policy.

It is also important to note that LOYALTY can also take an uncompromising stance, subordinating any social justice concerns to environmental priorities, symmetrically corresponding to more destructive VOICE outcomes.

**NEGLECT attitudes struggle to turn into VOICE.** NEGLECT, in many ways, is the passive version of VOICE. The reasons given by respondents to justify their disagreement with the policy are therefore the same as proposed by those who show a VOICE attitude. Various factors can prevent NEGLECT from turning into VOICE. The main reason is that people have other priorities and do not have enough time, resources or interest in the policy to push them to take an active attitude. In other cases, people are not directly exposed to the negative effects of the policy or have had the opportunity to escape these effects and do not have serious personal motivations to mobilise. Another factor that finally tends to inhibit mobilisation is a sense of distrust towards policy promoters but also towards the ability of collective actors and citizens in general to influence the policy process.

**Activism and networks can make a difference.** Looking at the dynamics around VOICE, it is easy to see how an activist orientation and the presence of networks are important precursors to VOICE. Indeed, as highlighted above, bringing resources and people together to activate collective action against a policy requires skills, knowledge and contacts that cannot be put together on a casual basis. In Italy and Norway, where VOICE is more widespread, the presence of consolidated forms of collective action (e.g., voluntary associations, neighbourhood associations, political groups) can be observed. In both cases, the policy has been 'frozen'. In Portugal, the presence of a neighbourhood association played a key role in promoting a local referendum that prevented the policy from being enacted.

## 4.2. Research gaps and directions for policy

### 4.2.1. Research gaps

Some limitations of the RL8 design and fieldwork have already been highlighted in sections 1.2.9 and 1.3, concerning case comparability, recruitment and sample composition, with reference to the coverage of different vulnerable groups.

This section provides some reflections on some more general gaps in the research design, which also highlights issues that would be important to address in future research.

#### a. Further exploring the links between responses to policies and gender+ factors shaping transport

Given the research design's emphasis on policy responses, it was not easy to link the gendered attitudes towards car-free policies – emerging clearly from the interviews – with the gendered nature of transport (e.g., gendered access to transport means, different routes and needs), which instead remained implicit as a somewhat unspecified determinant of the policy response.

Similarly, the links with ethnicity/nationality/migrant status could be analysed mainly in relation to policy responses, but not in relation to issues of access to transport, which were left in the background. This limitation is also due to the tendency of respondents not to include their gender and ethnicity/nationality/migrant status in the discussion of their mobility habits and problems. This suggests that transport is not an area of social life that is generally perceived to be affected by these factors. However, the vulnerability of older people or people with disabilities was often mentioned as a relevant factor, as was socio-economic status.

Careful consideration of these aspects should be included in further research on citizens' responses to mobility policies, which would allow for a more accurate understanding of the role of different gender+ factors, not least in relation to activism and participation in policymaking.

#### b. Who's missing? Shifting the focus on those who are too vulnerable to protest or be affected

Similarly, the emphasis on cars and car-free policies has somehow hidden those groups who are too poor and vulnerable to have cars. Those interviewed are often included in the category of those who NEGLECT or sometimes even support the policy (LOYALTY), but their VOICE is rarely heard.

Conversely, the most vocal are those who are vulnerable but not severely or strongly intersectionally vulnerable. This is in line with classic theories of collective action, pointing to the availability of resources (time, money, skills, but also inclusion in relevant networks) as an important condition for mobilisation (McCarthy & Zald, 1977; Verba, Schlozman and Brady 1995) and to the perception of injustice and relative deprivation in not too deprived vulnerable groups as a trigger for mobilisation (Morrison, 1971; Smith & Pettigrew, 2015). These results suggest the importance of deepening the analysis with the views of those who do not meet the conditions for being able to protest and engage with the authorities.

What would be the contribution of the groups that have remained outside this dynamic? They lack the time and resources for mobilisation and often do not even have a car and therefore a stake. The other resource they lack is access to networks. The frequent lack of access to mainstream networks with a say in local choices makes their perspective more difficult to represent.

Research is needed to understand the conditions under which marginalised groups would be able to express their opinions in the public arena, and the different perspectives this would bring in comparison to the more socially integrated vulnerable groups and their protests.

### c. Can VOICE be transformative?

The vast majority of those who expressed a VOICE did so in a very oppositional way, wanting the policy to be abolished for good, particularly those policies more heavily limiting free car use. This attitude represented the more common resolution of the tension between environmental and social goals, where social goals tend to prevail among vulnerable populations. It is noteworthy that this outcome was also found among many environmentally aware respondents and even some long-time environmental activists in deprived neighbourhoods where car-free policies were implemented.

However, the position of those who are both social and environmental activists deserves separate mentions. In these groups, attempts have been made in a few cases to mediate the social/environmental tensions without completely abandoning the environmental side and to find a compromise. Although this is a minority position, it would be interesting to focus on it through dedicated research. Mediating groups and individuals – often torn between different values and priorities – embody generally polarised positions and express the potential to lead to transformative attitudes and solutions.

### 4.2.2. Directions for policy

Research within RL8 has highlighted the numerous and complexly intertwined sets of factors that interact to determine citizens' responses to mobility policies in general and car-free policies in particular. Policy directions need to be based on the acknowledgement of this complexity and that no one size will ever fit all in terms of policymaking.

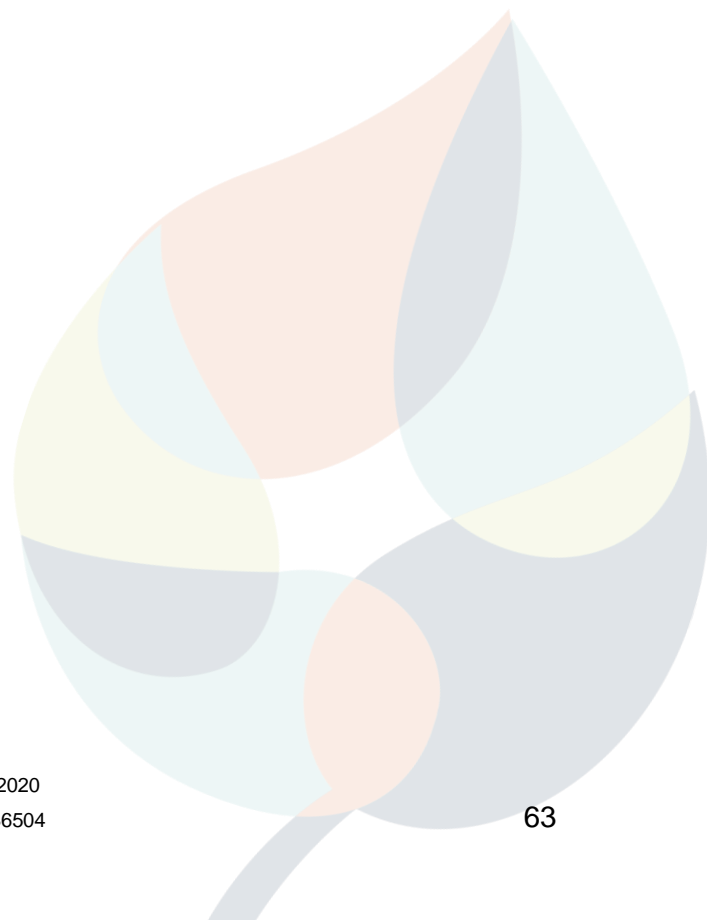
However, some orientations can be defined. They are mainly methodological in nature and aimed at supporting the creation of an inclusive process that can take into account as many factors as possible, among those that have been shown to directly influence citizens' responses and, ultimately, changes in transport behaviour.

They represent different angles or steps of this process, which are not all in the hands of one and the same authority, but which require cooperation between different levels of policymaking in a vertical integration perspective.

- The first orientation concerns the need to **include the consideration of vulnerability factors by design** and not by the later inclusion of remedial measures in the policies, both taking into account the particularities of different vulnerable areas and considering the various policy options from the point of view of specific vulnerability factors, such as age, socio-economic fragility, disability or gender-related risks.
- This entails the need to pursue the **strengthening of horizontal integration** across policy sectors within the administration to address the factors that lead to protests against mobility policies, linked to their consequences in different spheres of life. This will enable tensions and trade-offs across policy areas to be effectively addressed and mitigation measures to be integrated across policy areas (e.g., social services, education, housing).
- A further orientation encourages the adoption of **a realistic approach to consultation**, recognising that fully participatory bottom-up processes are extremely difficult in mobility policy, let alone car-free policy. Yet, a purely top-down perspective is just as likely to lead to failure. The inclusion of the consultation process as a default step in the policy design process should be considered as a basic requirement for mobility measures.
- An important step in putting this realistic approach into practice is to identify and consult, at an early stage in policy development, those **activist groups and associations that jointly address both environmental and social objectives** in the area concerned. They can

mediate the tensions between these often highly polarised perspectives and help identify ways to mitigate impacts on vulnerable groups without sacrificing one dimension to the other.

- In this perspective, **gender-related activism** can be an important ally, as it often links equality and social justice concerns with environmental awareness and action.
- Also based on the insights and potential solutions gathered in the previous steps, **other relevant local stakeholders and representatives of vulnerable groups** (networks and groups) can be more easily identified and consulted.
- **Broad and targeted communication** is also key and seems to be conspicuously lacking in most of the policies analysed. In particular, it is important to clearly highlight solutions and mitigation measures that address potentially affected vulnerable groups and that result from previous consultations.
- Provide **training to policymakers** in mobility-related areas to manage such inclusive processes and be able to positively engage with protest, identify more transformative attitudes and thus gain insight and support in dealing with oppositional activism.



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