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Exploring inclusive and gender-sensitive planning: an overview of European Cities and a proposal for Bologna

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Abstract

L'urbanistica con prospettiva di genere si occupa di rendere le città più inclusive per tutti i suoi abitanti. In quest'ottica analizza le differenze di utilizzo da parte delle persone degli spazi pubblici, delle strade, delle piazze, dei mezzi di trasporto e di tutti gli elementi che le compongono per renderle più eque e accessibili.

In particolare, nel presente lavoro di tesi è stato affrontato il tema della mobilità, riconoscendo le differenze presenti negli spostamenti quotidiani di donne e di uomini, i mezzi di trasporto maggiormente impiegati da entrambe le categorie e la sostenibilità di questi.

Sono stati utilizzati e rielaborati dei criteri di valutazione della mobilità del collettivo "Punt 6" di Barcellona, trattati nel loro libro "Movilidad cotidiana con perspectiva de género: Guía Metodológica para la Planificación y el Diseño del sistema de Movilidad y Trasporte" per realizzare un'analisi comparativa di dieci piani di mobilità di città europee, tra cui Bologna.

Per ciascun criterio sono stati scelti indicatori quantitativi dai quali fosse possibile attuare una valutazione con punteggi da attribuire a ogni città, per poter infine avere un quadro complessivo di ognuna, che è stato rappresentato tramite grafico radar.

Dalle conclusioni di quest'analisi è stato possibile riconoscere le carenze più diffuse delle città, i criteri meno considerati, ma anche le strategie più efficaci e delle buone pratiche da poter trasporre sulla città di Bologna, utilizzata in questa tesi come caso studio, sia a livello di piano di mobilità, sia a livello progettuale. Lo strumento sviluppato è risultato un utile punto di partenza per acquisire consapevolezza sugli elementi da cui non è possibile prescindere per una progettazione più equa e inclusiva.

L'ultima parte della tesi verte proprio alla messa in pratica di una possibile realizzazione di un centro di mobilità che rispetti i criteri predisposti a una progettazione con prospettiva di genere: nel centro di mobilità si individua infatti un ruolo centrale all'interno degli spostamenti della città, ma anche un grande potenziale per quanto riguarda le strategie di inclusività.

È stata quindi svolta un'analisi della viabilità pubblica di Bologna, localizzando i centri di mobilità previsti dal PUMS, considerando la fragilità delle diverse zone tramite le "Mappe di fragilità" del Comune di Bologna, il bacino di utenza, la posizione e le caratteristiche del territorio circostante ai centri.

Tramite quest'indagine la scelta è ricaduta sul centro di mobilità Corticella, in cui è stato individuato del potenziale a livello progettuale e sul quale è stata sviluppata una proposta di intervento.

Contents

Introduction

Urbanism with a gender perspective is concerned with making cities more inclusive for all its inhabitants. With this in mind, it analyses the differences in people's use of public spaces, streets, squares, means of transport and all the elements that make them up in order to make them more equitable and accessible.

In particular, this thesis dealt with the topic of mobility, recognising the differences in the daily movements of women and men, the means of transport most frequently used by both categories, and the sustainability of these.

Criteria from the Barcelona-based "Col Lectiu Punt 6", discussed in their book "Movilidad cotidiana con perspectiva de género: Guía Metodológica para la Planificación y el Diseño del sistema de Movilidad y Trasporte"(Col-lectiu Punt 6 et al., 2021), were used and reworked to carry out a comparative analysis of ten mobility plans of European cities, including Bologna.

For each criteria, quantitative indicators were chosen from which it was possible to implement an evaluation with scores to be attributed to each city, in order to finally have an overall picture of each one, which was represented by means of a radar graph.

From the conclusions of this analysis it was possible to recognise the most widespread shortcomings of the cities, the criteria that were least considered, but also the most effective strategies and good practices that could be transposed to the city of Bologna at both the mobility plan and project level. The tool developed proved to be a useful starting point for gaining awareness of the elements that cannot be disregarded for a more equitable and inclusive design.

The last part of the thesis deals precisely with the practical implementation of a possible mobility centre that respects the criteria for a design with a gender perspective: the mobility centre is in fact identified as having a central role within the city's movements, but also a great potential with regard to inclusive strategies.

Therefore, an analysis of Bologna's public road system was carried out, locating the mobility centres envisaged by the SUMP, considering the fragility of the different areas through the Municipality of Bologna's "Fragility Maps", the catchment area, the position and the characteristics of the territory surrounding the centres.

Through this survey the choice fell on the Corticella mobility centre, in which potential was identified at the planning level and on which an intervention proposal was developed

1. Framing the concept of inclusivity and gender-sensitive planning in mobility

1.1 Role on mobility in everyday life opportunities

In the context of gender urbanism, mobility occupies a central role in people's lives, as mobility patterns influence other areas of life and can lead to further inequalities, since in advanced economies transport plays a key role in the movement of people and goods, the maintenance of living standards and the improvement of quality of life. (Kronsell et al., 2016). The vision of achieving an equitable transport system is therefore not only seen as improving transport accessibility, but also as a way to achieve greater equality in other areas of life. (Breengaard et al., 2007)

This concept has started to be taken up by several EU countries, which have promoted awareness-raising and information activities regarding gender equality within the transport sector, with a focus on transport planning and the inclusion of gender mainstreaming in the design and planning process.

In order to achieve gender equality in mobility, the use of gender-disaggregated data is crucial, as capturing the differences in approach and use of the world of transport allows differences to be identified and the available data to be interpreted in order to understand where to intervene.

1.2 Differences in travel patterns

From the - very few - research and analyses that have been devoted to the relationship between women and mobility, it emerges first of all that women use private cars less than men, (49% vs. 59%, Eurobarometer data) and prefer (or would prefer) use public transport more than men (31% vs. 24%) (Legambiente, 2022). Men’s travel patterns tend to be linear between work and housing, while women’s journeys follow multi-rib spatial patterns, called *trip-chain*, with a high rate of walking and public transportation, meaning that they need to combine their work and family time to the transport schedules with schedules of services.

In particular, following the gender roles developed from C. Moser (reproductive role, productive role, private role, community role), and recognizing that women are primarily engaged in reproductive, productive and community activities, while men are primarily engaged in productive and private activities, women’s role is related to the land uses of education, health, sports, entertainment, shopping, administrative procedures, etc. (AL-hussaini and Al-ahbabi, 2020)

In general, the mobility pattern of women is more complex, precisely because of the gender role they play, which combines domestic and care tasks with remunerative work, and community and social obligations.

1.3 The new concept of mobility of care

The urban planner Sánchez de Madariaga coined the term *mobility of care* to encompass all those activities that are part of the commute that are distinct from mobility for productive work: accompanying elderly or young people who cannot move on their own, shopping for everyday life, excluding shopping for fun; housekeeping, organisational and administrative errands, distinct from personal recreational walks, visits to take care of sick or elderly relatives, also distinct from visits to friends for fun, etc. The relevant concept of *trip-chaining* is one that describes travel involving multiple destinations and is multimodal, which is also innovative because when considering trips, they are commonly assumed to be trips as from a starting point to a single destination and using a single means of transport. (Sánchez de Madariaga and Roberts, 2016) Of course there are characteristics that accentuate these differences, first of all the presence of young children, in fact having a son or daughter under five increases trip-chaining by 54 per cent among working women and only 19 per cent among working men. (Sánchez de Madariaga and Roberts, 2016)

1.4 Some data in Europe

Other Eurostat data refer to time participation per day in household and family care work broken down by gender and time participation in unpaid work broken down by gender, referring to the time span of the years 2008 to 2015, and reveal evidence of a gender gap between the two time uses between men and women.

Harmonised European Time Use Survey statistics (HETUS) are national surveys conducted in European countries to quantify how much time people spend on various activities and defines as unpaid work all those activities such as food preparation, cleaning dwelling, laundry ironing, gardening, construction and repairs, shopping and services, childcare, house management that are done as main or secondary activities without pay for the own household or for another househo

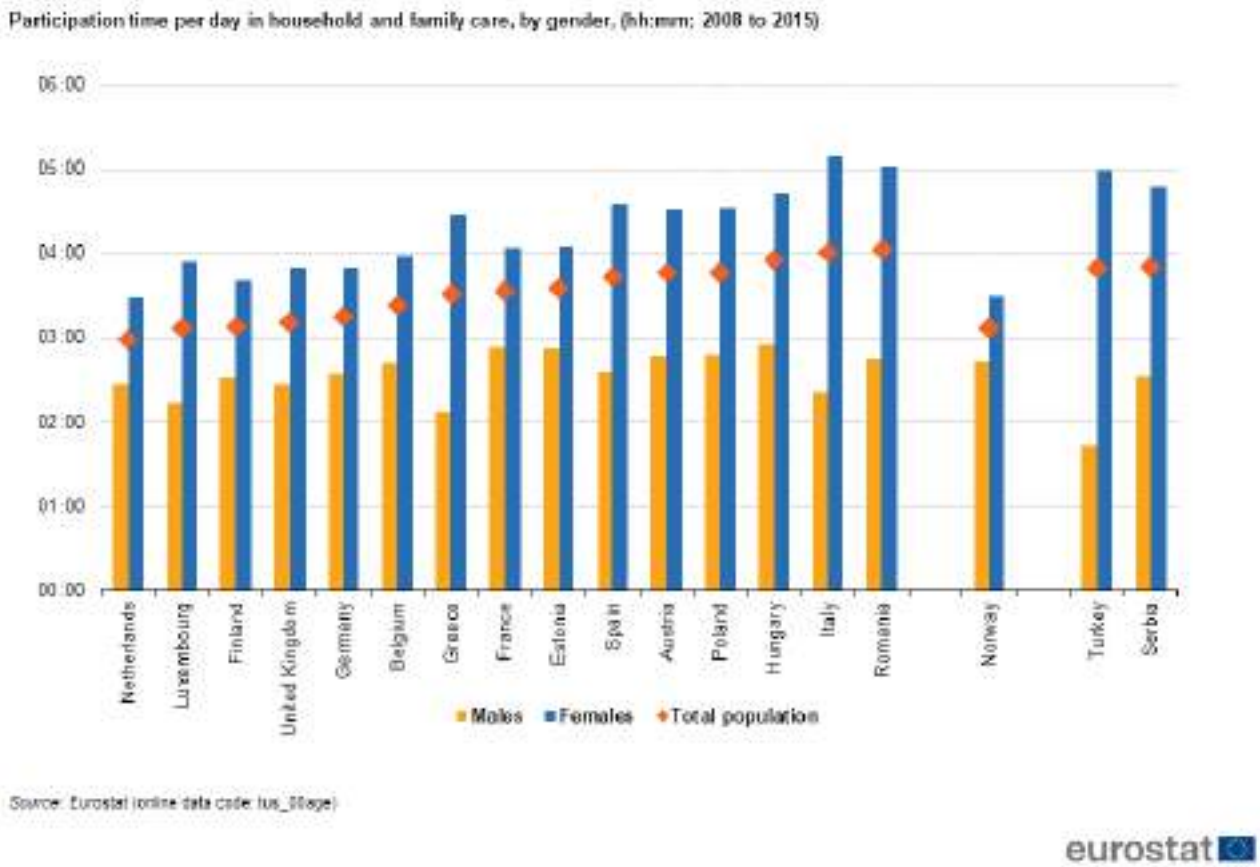


Figure 1: representation of participation time per day in household and family care by gender (HETUS, 2018)

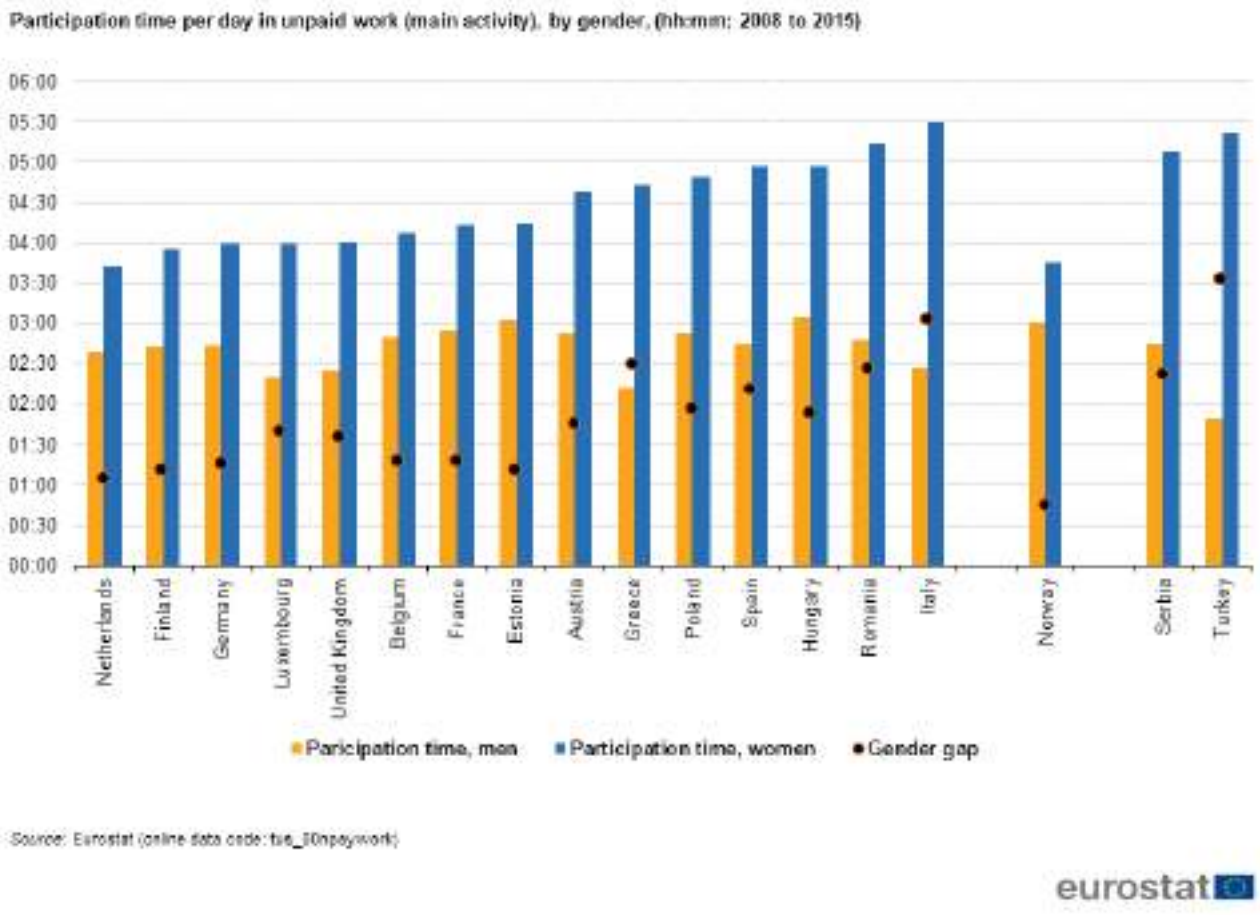


Figure 2: representation of participation time per day in unpaid work, by gender (HETUS, 2018)

Figure 2 shows that women spend more time on unpaid productive activities than men in all countries that have conducted the HETUS 2010 wave. In Turkey the gender gap is 3 h 30 min per day and in Italy it is 3 hours. (HETUS, 2018)

Another report by CIVITAS PLUS II, a programme aimed at promoting and implementing sustainable transport strategies to counteract the negative effects of road transport in urban areas, shows the gender modal differences in transport at the level of patterns, means of transport and motivations for people to travel and shows more or less the same trend as all other studies.

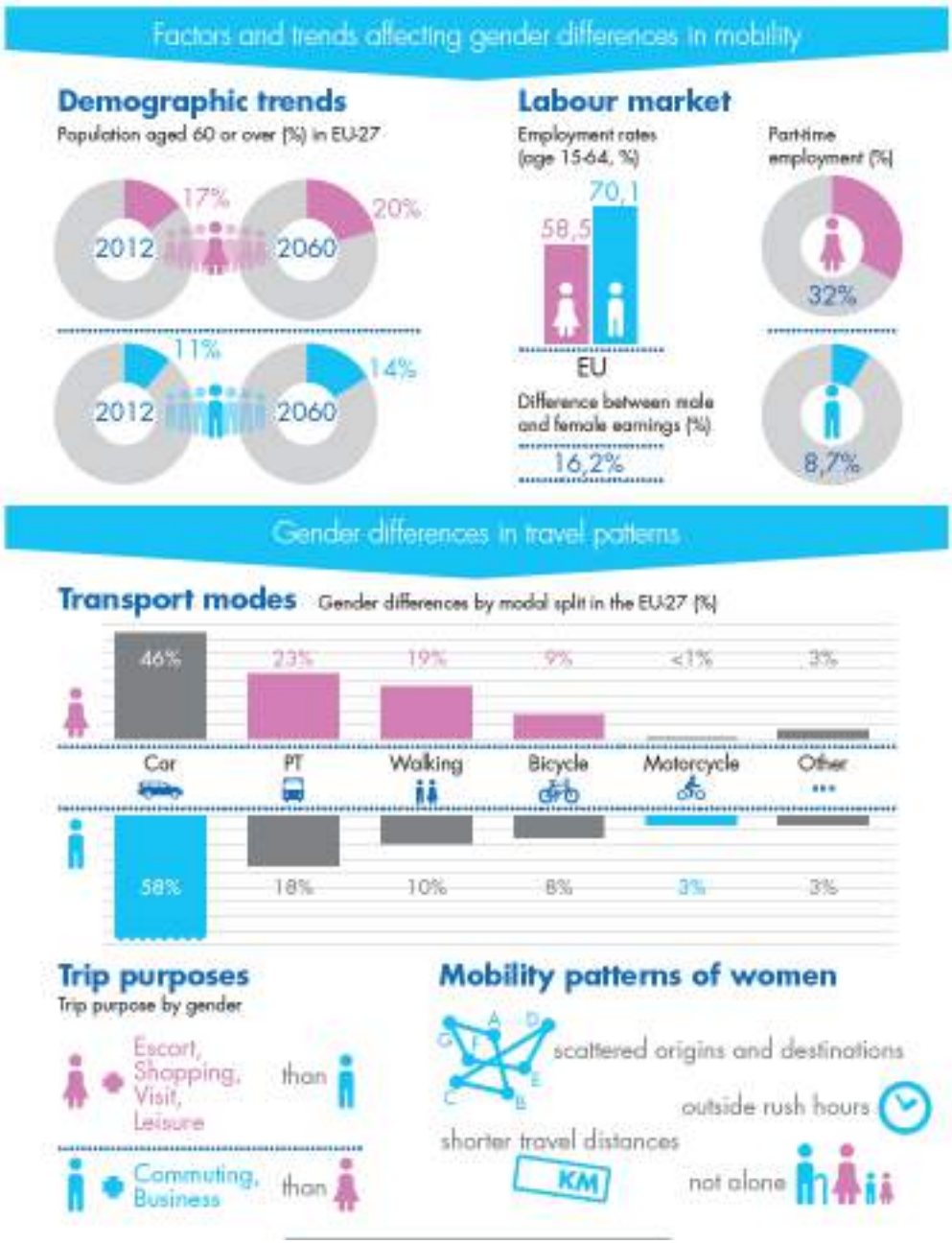


Figure 3: representation of factors affecting gender differences in mobility and gender differences in travel patterns ***(CIVITAS, 2014)***

All these data denote the importance of considering care work as a key element in establishing gender equity in transport, as it needs connections to access services often located in different parts of the city. This presupposes a greater readiness to collect gender-disaggregated data, and to recognise the trip-chain and thus all activities that should be recognised under the same term of caring mobility, which are often still confused with activities related to personal leisure and not taken into account as unpaid work. (Sánchez de Madariaga and Roberts, 2016)

Another important aspect to consider when reading these data is that the mobility patterns of women lead to less intensive energy use.(European Institute for Gender Equality., 2012)
Of course it is important not to make premature assumptions and, as already mentioned, data on the subject are scarce and there is a need to consider more variables and more details about which we do not know much at the moment, but from various reports and studies it seems that women do indeed have, on average, values and attitudes that are more compatible with a sustainable transport system, starting with their mode of use, compliance with speed limits, readiness to accept policy measures that are against climate change, such as road pricing, speed reduction in cities, investment in bicycles and public transport.(Polk, 2009)
Several statistics, for example in Sweden, state that women are more likely to feel guilty about their ecological footprint (61% compared to 43% for men) and also to reduce their emissions and buy products from companies and manufacturers that support climate change initiatives and accept higher prices for these products. Also in Denmark, it seems that 62% of women and 54% of men said they would be willing to pay more for sustainable goods.(European Institute for Gender Equality., 2012)

1.5 Possible connection between gender and sustainability

1.5.1 "How does gender shape mobility?"

It is not clear why there are these different attitudes towards environmental issues, some say it might be related to the caring roles and responsibilities of women, so it is thought to increase their environmental awareness.(European Institute for Gender Equality., 2012)

However, there is still too little research in this regard and these are only hypotheses, which could be disproved. What is certain is that transport uses between men and women vary and it is essential to take this into account when planning and channelling efforts in the direction of people's needs and to achieve sustainability goals.

One of the first scholars to address the issue of investigating the gender perspective link in mobility and sustainability is Susan Hanson, who in fact argues that it is not enough to state that women move more sustainably than men, but there is a need to investigate whether this is a compulsion or a choice, in order to achieve gender equality.
Hanson points to the fact that the available data on studies of mobility and gender have been bifurcated into the two non-intersecting literatures and there is not the knowledge base to figure out how gender might actually feed into and be affected by sustainable mobility. (Hanson, 2010)

She states that it is crucial to increase understanding of the relationships between gender, mobility and all elements pertaining to the cultural, social and geographical context, because without this awareness, no progress towards greater sustainability will be possible.
The questions Hanson poses to those researching in this field are whether mobility can be an agent of change and whether gender can, and to what extent, be an agent of change in moving towards more sustainable mobility.
The University of Copenhagen research group focused on the same issues in their report called "Transgen" (Breengaard et al., 2007)- Gender Mainstreaming European Transport Research and Policies - asking whether it is possible and convenient to translate women's mobility patterns into sustainable development models, or whether different approaches to movement are just another indicator of inequality, leading to women having less access to paid work, and all other social activities.

1.5.2 The case of Catalonia

Research in this sense has made some progress, in fact several studies following these essays and reports have tried to give answers, or to add elements that may clarify certain questions. For example, to answer the question of "How does gender shape mobility?" a recent study (Miralles-Guasch et al., 2016) carried out in Catalonia developed a gender analysis of everyday mobility in urban and rural territories. They tried to trace back in more detail the motivations that lead to choosing one means of transport over another, taking into account all the journeys and all the reasons linked to the journeys analysed, not neglecting the ones related to care work, for which data was often unavailable in the past.
The analysis also looked at urban and rural areas, subdividing the data by gender, but also by age range (16-29,30-44, 45-64 years old), recognising that these populations subgroups correspond to the three main vital stages of the working-age population with respect to family obligations.

There is a body of literature on gender mobility that judges positively that gender differences in mobility are narrowing, as more and more women have access to private transport, travel at higher speeds and for longer distances, arguing that these modes of travel are a symptom of greater individual freedom gained, greater job opportunities and social inclusion of women; however, to assume that this change is positive is to argue that the male model of travel is the one to imitate, when it contradicts all global and European environmental policies to combat climate change. It is necessary to bear in mind that the purpose of the trip is to participate in

daily activities and to reach a certain place at a certain time with a reasonable effort; it is not about travelling at high speeds, by private car or over long distances.
The analysis carried out in Catalonia demonstrates, on the basis of exhaustive data pertaining to the context, how worthwhile it is to invert the paradigm that gender equity can be achieved by allowing more women to travel by private transport, recognising the importance of taking action to enable women to reach services, through planning for greater proximity to homes and increased public transport.

Women's mobility patterns should in no way be seen as flawed compared to men's, recognizing that they have accumulated the knowledge needed to develop a model of sustainable mobility patterns for the future. It should be, instead, an example of awareness that it is possible to undertake everyday mobility in more sustainable ways and, therefore, should encourage policy measures that seek to reduce car use. (Miralles-Guasch et al., 2016)

1.5.3 The case of Sweden

Other fairly recent studies in Sweden have examined the issue of fighting climate change by challenging gender norms. The Swedish context is very different from that of Catalonia, as Sweden is defined as one of the most gender-equal countries in the world, within the transport sector it is one of the two countries in Europe with the highest representation of women and introduced the importance of considering gender issues within transport policy.
Its targets include improving accessibility from a physical point of view, thus guaranteeing a functional design for all, and from a health and safety point of view, through the implementation of environmental performance and talking about climate goals, in fact the Swedish parliament has adopted a perspective of net zero greenhouse gas emissions by 2050.

In the research carried out by Kronsell, Smidfelt Rosqvist and Hiselius the aim is further to demonstrate how gender is connected to the achievement of climate objectives in transport policy.
In two different reports five years apart (RES 2005-2006 and RVU Sweden 2010-201) the same differences with respect to travel patterns observed in the European and Catalan analyses are repeated, in that it appears that men travel more than women and cover twice the distance that women do; it also appears that women still on average have transportation behaviour with lower environmental impact than men have; women also tend to have stronger preferences for improving sustainability in the sector.(Kronsell et al., 2016)

The insight offered by this research on the Swedish case answers Hanson's question on gender modal choice or constraint because it shows that gender differences go beyond socio-economic factors. Indeed, when examining single family groups of women and men with equal economic conditions and availability of private transport, the average single man spends more on private transport and petrol than the average single woman. The difference is approximately twice as much CO2 emissions per single man as per single woman, and similar patterns are found in several countries. (Kronsell et al., 2016)

1.5.4 Proportion of women in decision-making positions

When considering climate change from a gender equity perspective, it is important to take into account the aspect of participation and power in policy-making, and this is about the proportion of women and men in decision-making positions, in the fields of climate change research and the development of new technologies, as well as in international negotiations. Consideration should therefore also be given to how the participation of men and women influences and conditions the debate on the topic and why the presence of women is important. (European Institute for Gender Equality., 2012)

All the reports therefore emphasise the importance of including more women in decision-making and planning, and although there is a slow but steady increase in their presence at the level of government delegations, there is no increase among representative leaders at the decision-making level.

A demonstration of this trend is the low presence of women in Conference of Parties: even at the last COP27 in Sharm El-Sheikh, according to a BBC analysis of the participant list, less than 34% of country negotiation staff were female. Some teams were more than 90% male. ("COP27: Lack of women at negotiations raises concern - BBC News," 2022)

To return to the transport sector, the distribution of power within the sector is also dominated by men, both in terms of participation in decision-making processes and in those of implementation and planning.(Polk, 2009)

For this reason, when interfacing with planning with a gender perspective, it is important to define criteria, guiding elements that guarantee, from the experience gained so far on the subject, that fundamental equity requirements, such as the presence of women and men in decision-making processes, are respected.

2. Criteria for urban mobility planning with gender perspective

2.1 Transversal and physical criteria

The only systematic source of information with concrete examples and parameters to evaluate these aspects are *criteria for urban mobility planning with gender perspective* that have been formulated by a cooperative called Col Lectiu Punt 6, made up of women architects, sociologists and town planners from different backgrounds, that have been working since 2005 and in 2016 constituted themselves as a cooperative.

They work to rethink domestic, community and public spaces from a feminist perspective, with more than 400 projects carried out locally, nationally and internationally, and they wrote a methodological guide for mobility and transport system planning and design.

The criteria that have been identified as fundamental by them can be physical and social criteria.

Some of them are transversal, and they describe with some key words the characteristics of a mobility with gender perspective*: Daily and caring, Safe and free, Nocturnal and festive, Participative and equitable*. The criteria concerning the more physical aspects are: *Well-marked, Visible, Vital, Supervised, Equipped, Accessible*. (Col·lectiu Punt 6 et al., 2021)

The concepts proposed by the collective have been defined in the literature by various scholars, although examples of concrete actions that work as a yardstick for measuring the actual relevance of gender issues within a project, practice or initiative are often lacking.

Those already listed, together with other criteria recognised as fundamental within planning with a gender perspective, will be used for the comparative analysis of case studies identified as significant within the sphere of mobility, also trying to understand if indeed thanks to these initiatives or practices there has been an improvement also from the point of view of sustainability.

- **Daily and caring** 

Facilitating the task of care work for those who have to perform it, both from a physical point of view, e.g. by reserving seats on vehicles for people with reduced mobility, but also for wheelchairs and buggies, bulky shopping bags; and from the point of view of formation, visibility and awareness of the gender role of care work, too often left in the background compared to productive work.

- **Safe and free** 

Urban environments that promote feelings of safety are those in which people are in control of their behaviour in space, and it is widely established in the literature that urban planning is an important tool to be used to promote safety, both real and perceived.(Ceccato, 2012)

Efforts should go in the direction of making travel safe for all, using all forms of counteracting gender-based violence and violence against any marginalised group in society, through continuous training of staff of transport companies, participation of women within companies and participation of women also during training days to encourage them to report and recognise violence. A widely recognised strategy used in planning with a gender perspective is that of women's safety audits, through which women walk in the urban or rural environment, assessing their own feelings of safety and seeking solutions to increase them. (Moser, 2012) Also crucial are the use of surveys and polls, as well as help points to turn to in case of difficulties at stations and adherence to a single protocol of action against gender-based violence.

- **Nocturnal and festive** 

Often transport timetables respect the needs of those who perform productive work, and these timetables often do not correspond to the daily schedules of those who also perform reproductive work. A good practice could be to adjust the frequency of transport on the basis of the real needs of all people, without taking only productive work as a priority. This same intention can also be applied to evening hours, as well as to holidays, where it can become a priority to try to know the needs of those who move according to the mobility of care, and to make public services accessible to the entire public.

Another way may be to arrange for public services at certain times or in certain places to stop on call, free from the scheduled stops, according to customised requests during night hours or according to recurring events on holidays, to facilitate mobility for all.

- **Participative and equitable** 

As discussed in detail above, the participation of the target groups in planning with a gender perspective is essential in order to arrive at something concretely useful for these groups, which will then be reflected as useful for the whole community. The participation of women in analysis

groups, but also in planning and monitoring groups is therefore necessary. The degree of participation may vary and is in particular defined by the governance chosen for each practice.

In the interests of fairness, it is important that the intervention does not harm other categories towards which it is not directed, but that the benefit of one category has positive effects on the whole community.

- **Well-marked** 

Signposting is an indispensable aspect to facilitate orientation and increase people's autonomy for moving around the city: in addition to vertical and horizontal signposting, it is also useful to encourage acoustic or tactile signposting and to include neighbourhood-scale maps along the road, which help people understand where they are, also to increase the perception of safety (Col·lectiu Punt 6 et al., 2021). Neighbourhood-scale maps would be useful if they also reported intermodal connections, cycle routes and bus routes; in an inclusive perspective it is important to take into account that those who move around might not have a smartphone at their disposal (for example in the case of children or the elderly).

- **Visible** 

Visible means seeing and being seen in space, eliminating all visual obstructions, e.g. avoiding corners and blind walls, and promoting greater illumination of space. (Col·lectiu Punt 6 et al., 2021)

- **Vital** 

Vital because a mixture of different uses and the presence of people living in the streets and squares can help foster cooperation and cohesion in the city community, creating a network of mutual aid that is useful for the life of the city and its inhabitants (Col·lectiu Punt 6 et al., 2021). Physically, it is a matter of bringing different uses together in the same area, so that there are no parts of the city that are always empty, or empty at a certain time, and creating community and collective meeting spaces in public places.

In the world of transport and mobility, this principle can also be transposed to the way public transport stops are designed, for example, or to the design of subways at train stations.

- **Supervised** 

It refers both to the presence of people in the proximity who can be spectators and increase the perception of safety, thus linked to the previous points of ‘visible’ and 'vital', but also to the presence of devices on public transport, e.g. buttons to be pressed in the event of emergencies or a request for help from staff, the presence of Wi-Fi on public transports, or any function that allows one to communicate with a person not present at the moment one identifies being in a potentially dangerous situation. (Col·lectiu Punt 6 et al., 2021)

- **Equipped** 

A well-equipped transport is also equipped with services such as toilets or represents in its signs the nearest toilets, takes care of the maintenance of cycle paths as well as the cleanliness of public transport. (Col·lectiu Punt 6 et al., 2021)

- **Accessible** 

Accessibility within town planning is closely connected with the principle of the right to the city, in fact it is defined as the ease with which individuals may overcome the distance separating places, and thus exercise their right as citizens. (AL-hussaini and Al-ahbabi, 2020). Women, as well as elderly and children, who often travel with them, have special mobility needs that are not always duly taken into consideration, like step height, seat design, positioning of grab rails in public transport equipment (Breengaard et al., 2007).

When talking about mobility, it is necessary to take into account the physical limitations of people with mobility difficulties, as well as people accompanying children or the elderly, and anyone who therefore performs care work. Moreover, it is also a matter of taking affordability into account, by meeting those with the greatest difficulties with lowered prices and favouring multimodal transport in terms of fares as well.

These illustrated by Col Lectiu Punt 6 are the characteristics that should characterise a design or planning with a gender perspective. These aspects always take soft mobility or public

transport into account as a form of mobility, and none of them refer to increased travel possibilities by private car.

However, in order to consider sustainable mobility more explicitly and concretely in the case study analysis, one feature to be submitted for analysis could be precisely the environmental impacts of the intervention carried out.

- **Impacts of the intervention on the environment** 

In practice, it is a question of whether the intervention involved an improvement in the conditions and efficiency of soft mobility or public transport, attracting more people to take advantage of that type of travel, thus through the extension of pedestrian areas, bicycle lanes, traffic calming areas, but also the impacts on greenhouse emissions, noise and air pollution and the safety of the transport system.

The criteria just mentioned are to be taken into account when it comes to getting to the heart of the development of a project, and thus more in the detail of the individual intervention, but more generally it is important to follow in all steps leading to the realisation of a practice certain expedients that are fundamental to pursue the incorporation of the gender perspective.

2.2 Roadmap for planning with a gendered approach

A general intervention can be subdivided into different planning stages, including: the analysis of the state of affairs, the intervention proposal, the process and development of the design, monitoring and evaluation.

To encapsulate all phases in three terms, status analysis, development and evaluation are used. An attempt has been made to subdivide the elements necessary for gender planning into these different stages, aware, however, that many do not necessarily follow the chronological order, or belong to all stages of planning.

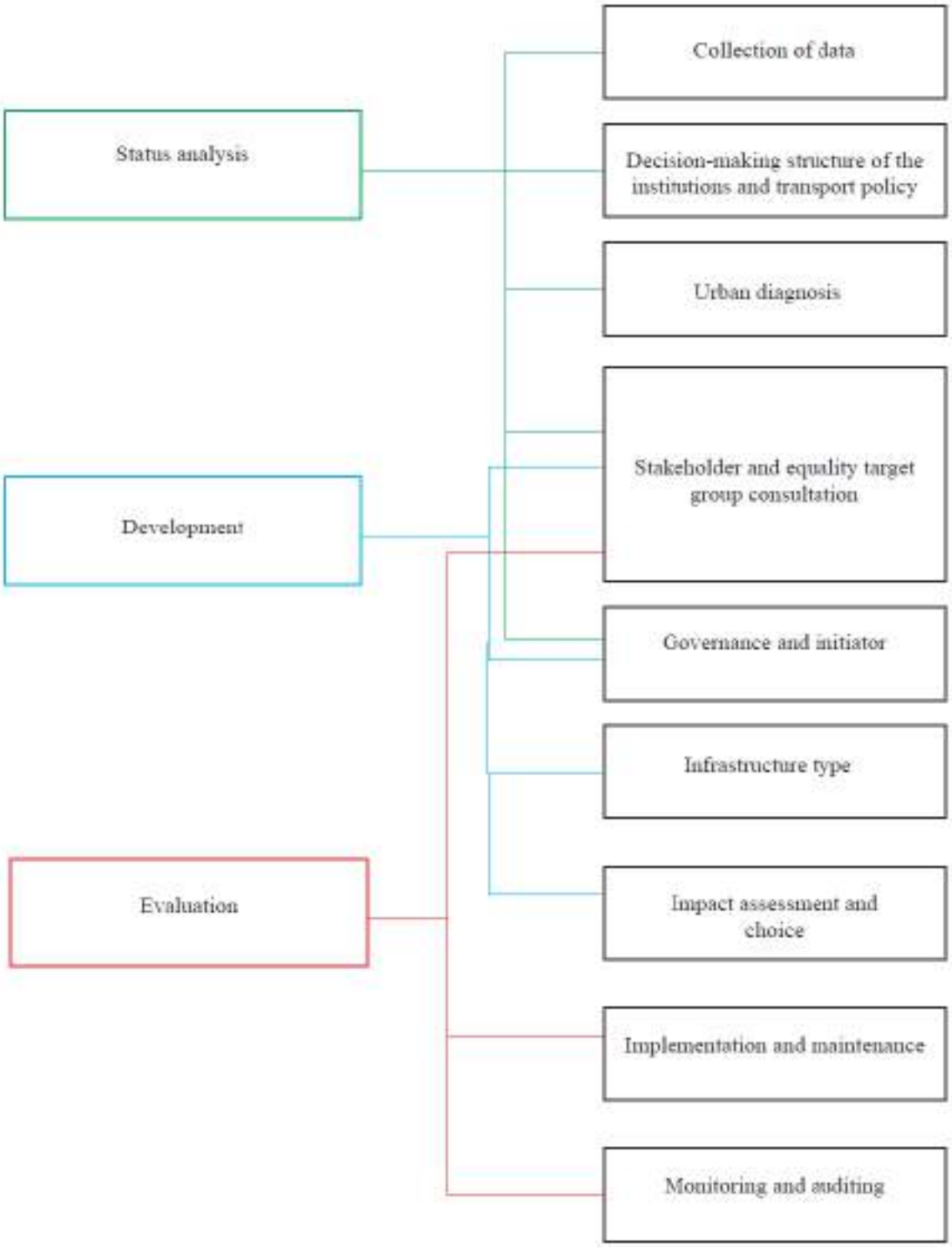


Figure 4: representation of the stages of planning. Author's elaboration

Gender mainstreaming is to be understood as the common denominator of all design and planning phases, since by definition it must cover all stages of the policy and programme process, be extended to all levels and take into account the needs of men and women and the impact of each action on them.

With regard to the first stage of analysis (1), the elements to be considered are:

2.2.1 Status analysis

- **Collection of data**

The collection of data disaggregated by gender is crucial in order to be able to recognise the needs of the population, it is not enough to take the average person as a reference, as this standard refers to men and not women, and, as numerous studies have shown (Breengaard et al., 2007; CIVITAS, 2014; Miralles-Guasch et al., 2016), the needs between the two change, as do the patterns and choices, and it is important to recognise this when choosing which resources to allocate.

- **Decision making structures and gender mainstreaming in national and local development plans**

For a comparative analysis, it is essential to be clear about the starting point of the place where a certain type of intervention is being developed, and thus what the administrative management at the national or local level of the area is, starting with the presence of women in decision-making structures with regard to mobility and transport, but also with regard to climate issues, and what objectives, if any, at the national, local and international level are being taken into account in the chosen place. It is therefore important to know what the starting condition is from which these initiatives were undertaken, because these make it possible to understand in proportion to other contexts what the effort was to implement a certain practice.

- **Urban diagnosis**

After collecting all the necessary information, the analysis phase is completed with a field survey: various tools can be used to carry this out, such as an assessment questionnaire, community mapping, neighbourhood photovoice, or exploratory walks.(Ortiz Escalante and Gutiérrez Valdivia, 2015)

Often this diagnosis can take the form of an initial phase in which women individually reflect on their neighbourhoods and issues which will then be discussed in a second phase in group workshops.

Exploratory walks have long been recognised as an effective way of identifying and analysing at the neighbourhood scale, reaching proposals that can then be used in the design phase, and as a means of bringing together women of different ages, social backgrounds and ethnicities and promoting collaboration between them. In Barcelona, this practice was included as an

action in the government measure 'Urbanisme i gènere. The urban planning of daily life'. (Departament de Transversalitat de Gènere, 2019)

The photovoice neighbourhood consists of taking photos of elements in one's neighbourhood that communicate something important about their personal life or the history of the neighbourhood, accompanying them with a text explaining the meaning of the image. (Ortiz Escalante and Gutiérrez Valdivia, 2015)

In general, it can be said that from the perspective of planning with a gender perspective, urban analysis cannot be separated from collaboration with the target group and stakeholders.

- **Stakeholder and equality target group consultation**

Making analysis data available and guaranteeing transparency of information is crucial for the acquisition of awareness on the topic of gender equality and from the target groups themselves, defined as equality target groups: women, black and minority ethnic people, young people and children, older people, disabled people, lesbians, gay men, bisexuals, transgendered and people from different faith groups. (Breengaard et al., 2007)
The term "stakeholder" refers to those who implement, influence, experience and benefit from the impact of a public policy. Consultation refers to obtaining feedback, views and opinions from stakeholders on gender equality issues in order to inform the scope and content of a specific intervention/problem, decision, proposed policy or problem analysis. (European Institute for Gender Equality., 2019) Stakeholders also include other groups or organisations that are affected by the project to be carried out and its implementation: public authorities or experts on the topic of gender are therefore also included. (Wefering et al., 2014)

Involvement can vary in degree, in aspects of transport decision-making and through different tools. The objective is to ensure that the voices of men and women are heard and that priorities are reflected in policies, programmes and projects.

The inclusion of stakeholders and target groups actually concerns all stages of the process: analysis, development and monitoring and evaluation.

2.2.2 Development

- **Stakeholder and equality target group consultation**
- **Governance and initiator**

Governance refers to the methods of governing and how policies are developed and implemented at the local level. (Zebracki, 2014)

Gender stakeholder consultation is interlaced with participatory governance, which is recognised as a new and highly effective way of creating public policy, as it places citizens at the centre of policy planning, implementation, monitoring and evaluation. Participatory governance, precisely because of its role, is defined as one of the necessary conditions for the advancement of gender equity at the international level. (European Institute for Gender Equality., 2019)

The participatory process can be differentiated according to the intensity of participation. From the more passive to the more active, it is divided into: information, consultation, involvement, collaboration and empowerment. (Bammer, 2019)

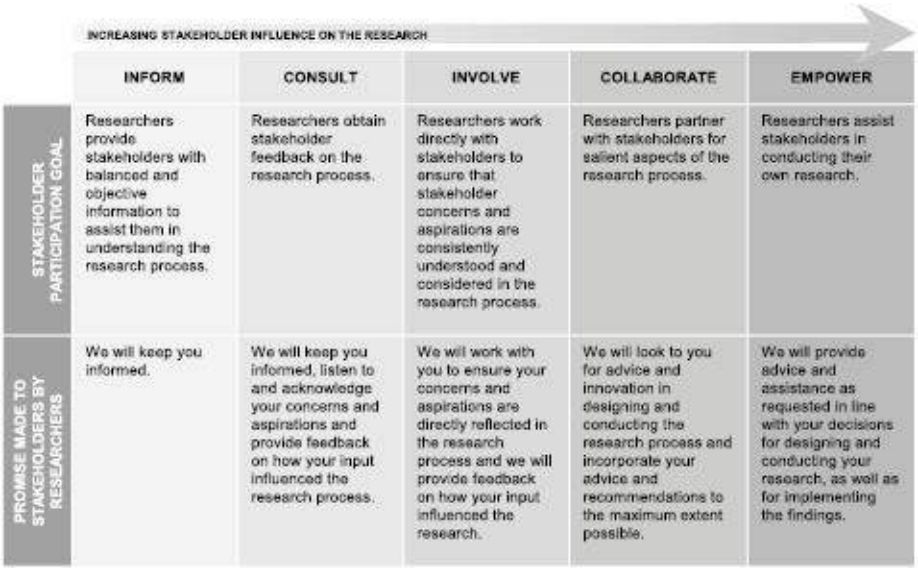


Figure 5: representation of the increasing stakeholder influence (Bammer, 2019)

Information is the lowest level of participation, its purpose is to engage citizens through objective and balanced information to help them understand the problems, alternatives, critical issues and opportunities or solutions to a given situation (Michelini e t al., 2023); *consultation* aims to obtain feedback, such as gender stakeholder consultation in this case, with a focus on gender balance and reflection on gender equity throughout the process (European Institute for Gender Equality., 2019); *involvement* is about ensuring that the will of citizens is taken into account during the policy-making process, *collaboration* includes working with citizens throughout the entire public policy cycle, including identifying alternatives and the best solution to proposed alternatives; *empowerment* puts the final decision and implementation in the hands of citizens. (European Institute for Gender Equality., 2019)

Empowerment is the highest degree attained by the participatory process, and is defined in the case of women's empowerment as a process of reaffirming one's own capacities, the awareness of the individual and collective power of women, and the possibility of harnessing it in decision-making. It is therefore not a matter of giving power to someone, but of becoming aware of the power already possessed by someone. (Ortiz Escalante and Gutiérrez Valdivia, 2015)
At the governance level, it is important, in addition to the inclusion of stakeholders or target groups through participatory processes, that there is support from experts who know how to apply gender equality considerations in the process frameworks. It is essential to identify gender imbalances and to establish indicators according to which the impacts of the programme can be monitored. (Breengaard et al., 2007)

Beyond the structure used for planning, and thus governance, another aspect that might be interesting to consider is that of the initiator, for example whether the proposal starts with the citizens themselves who feel the need to improve their daily lives or whether it starts with the institutions. (Sánchez de Madariaga and Roberts, 2016)

- **Infrastructure type**

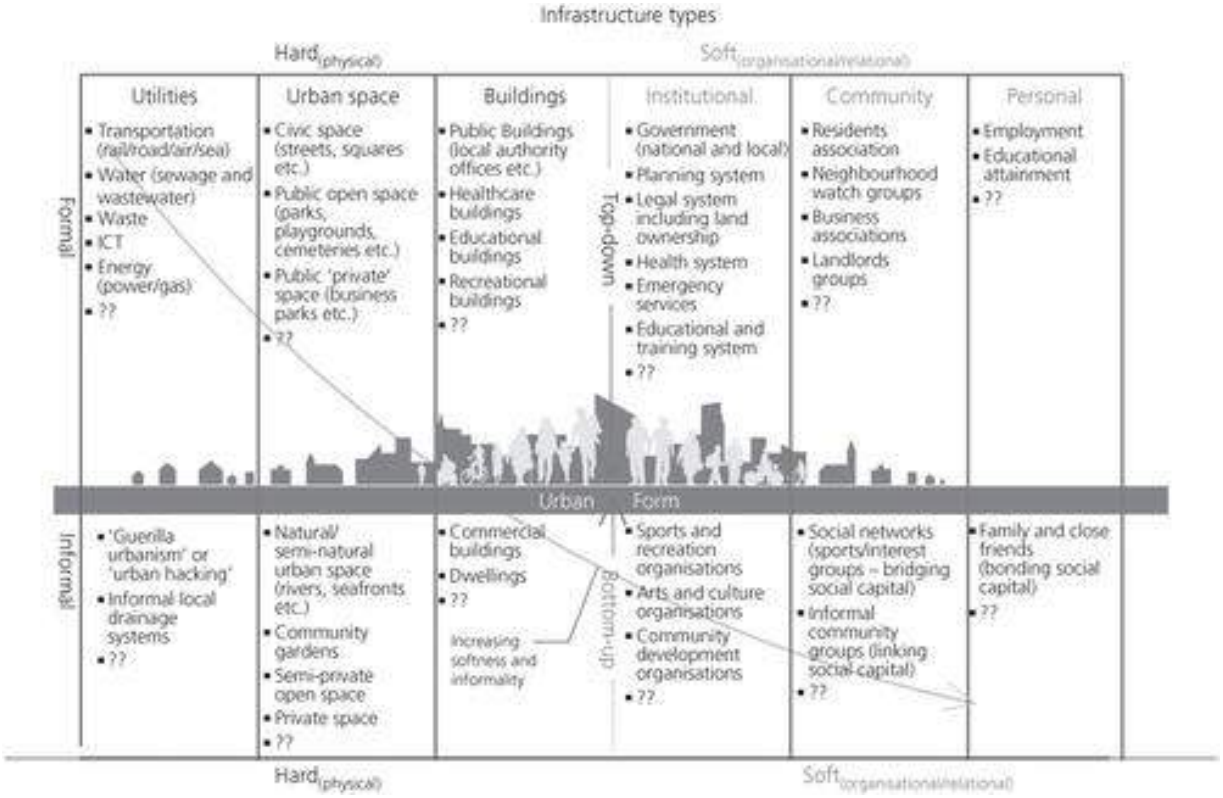


Figure 6: representation of the types of infrastructure (Dyer et al., 2019)

The type of infrastructure considers harder (or physical) and softer (or organisational and relational) actions. The table shows examples of hard and soft actions; the fact that soft actions do not involve the physical construction of something does not mean that they are less relevant, especially in the gender perspective planning.

- **Impact assessments (sustainability and equity) and choice**

It is useful when planning to create scenarios of possible impacts of the plan, project, policy or initiative. In this case it is about gender impact assessment and sustainability assessment, and in particular it concerns the identification of advantages or disadvantages that could affect a particular group of individuals, thus focusing on the target groups set at the beginning and also trying to understand whether the intervention brings differences in impacts between them. (Breengaard et al., 2007) In this case, including the sustainability criteria, it is also a question of verifying the environmental impacts through scenarios in order to choose the most suitable intervention on the basis of these observations.

2.2.3 Evaluation

- **Stakeholder and equality target group consultation**
- **Implementation and maintenance**

Every plan must take into account the fact that variables considered during planning may have changed or may change in the future, which is why implementation is used as a way of adapting to changes, verifying that they do not compromise gender equity and sustainability goals, and if they do, attempting to readjust planning or policies.

- **Monitoring and auditing**

Monitoring consists of the continuous measurement of progress, through the collection of new data (Wefering et al., 2014) and the monitoring of pre-established indicators during the development phase. It involves identifying the gap between the project's objectives, results and impact (Sánchez de Madariaga and Roberts, 2016), for example through surveys and gender audits, or through exploratory walks, a useful tool in the analysis and verification phase.

The evaluation phase is important because it verifies whether all the principles and indicators developed with a view to planning with a gender perspective have indeed made it possible to achieve the goal of inclusive planning, that it has fulfilled its objectives and that it has realised the interests of the equality target group and sustainability.

The criteria initially explored are outlined below and pertain to all the phases, as they can be used as objectives to be pursued from a gender and sustainability perspective when planning, but also as standards to be recognised and whose presence in policy and planning should be evaluated. The comparative analysis of mobility case studies with a gender perspective therefore deals with the examination of what is listed in the planning phases, by checking how specifically all these criteria have been taken into account.

Figure 7: representation of gender-sensitive planning criteria. Author's elaboration.

3. Comparative analysis of mobility plans in ten European cities

3.1 The choice of the cities, the indicators and the method

The criteria of the Col Lectiu Punt 6 collective in Barcelona were the starting point to establish indicators to be used to evaluate the mobility plans of different cities.

The cities taken into consideration were selected on the basis of whether they had been mentioned in scientific papers and articles on the topic of gender perspectives in urban planning or whether they had been recognised for their sustainability, as the link between sustainability and gender policies within mobility was considered interesting for the evaluation.

Figure 8: representation of the location of the cities involved in the analysis. Author's elaboration.

	Name of the plan	City	State	Year of adoption	Temporal horizon
1	*Mayor's Transport Strategy*	London	UK	2018	2041
2	*Plan de Déplacements Urbains d'Île-de-France*	Paris	FR	2014	2020
3	*Plan de Movilidad del Area Metropolitana de València (PmoMe)*	Valencia	ES	2022	2029
4	*Pla de Mobilitat Urbana 2024*	Barcelona	ES	2022	2030
5	*Sustainable Urban Mobility Plan*	Malmö	SE	2016	2030
6	*Sustainable Urban Mobility Plan SUMP*	Tampere	FI	2021	2030
7	*STEP 2025 Urban Mobility Plan Vienna*	Vienna	AT	2015	2025
8	*Plan régional de mobilité 2020-2030*	Bruxelles	BE	2021	2030
9	*Piano Urbano della Mobilità Sostenibile di Bergamo*	Bergamo	IT	2019	2030
10	*Piano Urbano della Mobilità Sostenibile di Bologna*	Bologna	IT	2019	2030

Table 1: key international urban mobility plans analyzed through gender-sensitive criteria.

Some cities were excluded purely for linguistic reasons, so medium-large European cities with plans in Italian, English, French and Spanish were chosen: London, Paris, Valencia, Barcelona, Malmö, Tampere, Vienna, Brussels and Bergamo. Bologna was added to these cities, which will be the subject of a specific area analysis concerning a mobility centre.

All indicators are given below:

		Abbreviation	indicator description	unit
	general informations		year in which the plan was adopted, number of citizens, population density	
1	General indicators	GI	Number of times the words gender/gendered, social justice, equity, diversity, care, people-oriented, human-oriented, human scale, trip chain are mentioned in mobility plans	n° of times
2	General indicators	GI	Presence of definition of gender mainstreaming in the glossary of the transport plan	presence=1, absence=0
3	General indicators	GI	Presence of gender experts in the plan drafting process	presence=1, absence=0
4	General indicators	GI	Presence of studies on the use of bike sharing with gender-disaggregated data	presence=1, absence=1
5	General indicators	GI	Presence of disaggregated data on the modes of transport most frequently used by men, women, disabled people, different ethnicities and income	presence=1, absence=0
6	General indicators	GI	Presence of pilot projects dealing explicitly with gender mainstreaming	presence=1, absence=0

		Abbreviation	indicator description	unit
7	Daily and caring	DC	Mention of reserved seats for persons with reduced mobility, pregnant women and senior citizens on public transport	if mentioned and/or quantified =1, if not mentioned= 0
8	Daily and caring	DC	Mention of spaces dedicated to the storage of prams and pushchairs on public transport	if mentioned and/or quantified =1, if not mend ioned= 0
9	Daily and caring	DC	Reinforcement of lines during school opening and closing times	if mentioned and/or quantified =1, if not mentioned= 0
10	Daily and caring	DC	Presence of traffic-calming areas near schools	presence=1, absence=0
11	Daily and caring	DC	Mention of bicycle parking spaces near public transport stations to favour intermodal transport	if mentioned and/or quantified =1, if not mentioned= 0
12	Daily and caring	DC	Number of seats for waiting public transport vehicles	if mentioned and/or quantified =1, if not mentioned= 0
13	Daily and caring	DC	Presence of subsidised social fare system for accompanying children or persons with reduced mobility, for example in car sharing system, or in public transport	presence=1, absence=0
14	Daily and caring	DC	Presence of programmes to accompany children to school on foot or by bicycle (pedibus, bicibus)	presence=1, absence=0
15	Daily and caring	DC	Presence of fares or tickets for intermodal "single ticket" transport and information system for multimodality	presence=1, absence=0
16	Daily and caring	DC	Possibility of carrying a bicycle on local public transport for free	if mentioned and/or quantified =1, if not mentioned= 0
17	Daily and caring	DC	Increased bicycle parking in the vicinity of schools	if mentioned and/or quantified =1, if not mentioned= 0
18	Daily and caring	DC	Presence of streets or squares near the school dedicated to children's play and recreational activities	presence=1, absence=0
19	Daily and caring	DC	Presence of streets or squares temporarily closed to traffic for pedestrians and cyclists	never= 0, once a month= 0.25, twice a month = 0.5, during the weekend= 0.75 , all the time or a fixed time of the day =1)
20	Daily and caring	DC	Public transport and bicycle connections between suburbs	if mentioned and/or quantified =1, if not mentioned= 0

		Abbreviation	indicator description	unit
21	Safe and free	SF	Presence of sexual assault management protocols in the mobility system	presence=1, absence=0
22	Safe and free	SF	Presence of training for staff in sexual assault management	presence=1, absence=0
23	Safe and free	SF	Width of pavements near schools (the minimum should be 1.8/2m)	if mentioned and/or quantified =1, if not mentioned= 0
24	Safe and free	SF	Number of cycle paths separated by physical barriers from the carriageway	if mentioned and/or quantified =1, if not mentioned= 0
25	Safe and free	SF	Duration of traffic lights for pedestrians in the vicinity of nursing homes, hospitals and schools (it should be calculated to ensure movement for a person with a speed of 0.7 m/s)	if mentioned and/or quantified =1, if not mentioned= 0
26	Safe and free	SF	Number of countdown traffic lights	if mentioned and/or quantified =1, if not mentioned= 0
27	Safe and free	SF	Presence of traffic light programming differentiated by time of day, or programmed by pedestrian priority or public transport priority	presence=1, absence=0
28	Safe and free	SF	Percentage of traffic calming zones in the inhabited area	if mentioned and/or quantified =1, if not mentioned= 0

		Abbreviation	indicator description	unit
29	Nocturnal and festive	NF	Night transport services reserved for women: pink taxis and other initiatives	if mentioned and/or quantified =1, if not mentioned= 0
30	Nocturnal and festive	NF	Possibility of requesting customised stops during night hours	if mentioned and/or quantified =1, if not mentioned= 0
31	Nocturnal and festive	NF	Number of illuminated bus stations	if mentioned and/or quantified =1, if not mentioned= 0

		Abbreviation	indicator description	unit
32	Participative and equitable	PE	Proportion of women in the decision-making process of the plan	number of women in the decision-making process/ number of people in the decision-making process
33	Participative and equitable	PE	Collaboration with women's associations, associations dealing with disabilities, associations dealing with immigration, NGOs	if mentioned and/or quantified =1, if not mentioned= 0
34	Participative and equitable	PE	Participatory process with stakeholders	if diversity of stakeholder is mentioned=1 (e.g. different genders, different ages, different economic availability, different ethnicity, with disabilities), if it is mentioned a participatory process and not diversity= 0.5, if it is not even mentioned= 0)
35	Participative and equitable	PE	Degree of participatory process	If the degree is collaboration and empowerment=1, if it is involvement=0.75, if it is consultation=0.50, if it is information=0.25
36	Participative and equitable	PE	Percentage of women in the participative process	if mentioned and/or quantified =1, if not mentioned= 0
37	Participative and equitable	PE	Percentage of disabled people in the participative process	if mentioned and/or quantified =1, if not mentioned= 0

		Abbreviation	indicator description	unit
38	Well-marked	WM	Presence of neighbourhood-wide street maps throughout the city with bicycle network and/or public transport connections	if mentioned and/or quantified =1, if not mentioned= 0
39	Well-marked	WM	Illuminated bicycle lanes	if mentioned and/or quantified =1, if not mentioned= 0
40	Well-marked	WM	Bicycle lanes in a different colour from the street	if mentioned and/or quantified =1, if not mentioned= 0
41	Well-marked	WM	Public transport stops and stations equipped with dynamic real-time transport information	if mentioned and/or quantified =1, if not mentioned= 0
42	Well-marked	WM	Presence of signs with directions to public transport stops and/or cycle routes, mobility centres, transport interconnections, important destinations in public space	if mentioned and/or quantified =1, if not mentioned= 0
43	Well-marked	WM	Presence of advance indication of end of cycle path	if mentioned and/or quantified =1, if not mentioned= 0
44	Well-marked	WM	Presence of specific sections within the plan on inclusion or public initiatives to promote inclusive measures within the plan	presence=1, absence=0
45	Well-marked	WM	Number of interventions to remove visual obstructions	if mentioned and/or quantified =1, if not mentioned= 0

		Abbreviation	indicator description	unit
46	Vital	VI	Mention of making public transport stops more vital by having nearby activities, even at night perhaps	if mentioned and/or quantified =1, if not mentioned= 0
47	Vital	VI	Presence of interventions aimed at enhancing ground floors to make areas more attractive to pedestrians and generally bring more liveability	if mentioned and/or quantified =1, if not mentioned= 0
48	Vital	VI	Presence of benches and green areas near public transport stops	if mentioned and/or quantified =1, if not mentioned= 0
49	Vital	VI	Presence of initiatives to free streets from car parking for the re-appropriation of space by soft mobility (cycling and walking), e.g. the elimination of on-street parking and the implementation of multi-car garages in high-density areas	presence=1, absence=0

		Abbreviation	indicator description	unit
50	Supervised	SU	Presence of wifi on vehicles and at stops	presence=1, absence=0
51	Supervised	SU	Presence of dedicated telephone lines/buttons for direct contact for sexual harassment and assault	presence=1, absence=0
52	Supervised	SU	Presence of mobile phone charging columns at public transport stops or on public transport	presence=1, absence=0

		Abbreviation	indicator description	unit
53	Equipped	EQ	Number of toilets near public transport stops for staff or passengers	if mentioned and/or quantified =1, if not mentioned= 0
54	Equipped	EQ	Number of supervised or guarded/enclosed bicycle parking facilities	if mentioned and/or quantified =1, if not mentioned= 0
55	Equipped	EQ	Number of roads/kilometres maintained for potholes/ground irregularities	if mentioned and/or quantified =1, if not mentioned= 0
56	Equipped	EQ	Presence of double bike lanes on one-way driveways	if mentioned and/or quantified =1, if not mentioned= 0

		Abbreviation	indicator description	unit
57	Accessible	AC	Percentage of public transport stops and a cyclist network within 300m from home (to urban bus, tram, or bike sharing stations)	if mentioned and/or quantified =1, if not mentioned= 0
58	Accessible	AC	Percentage of stops, metrobus and railway stations, interchanges, etc. with universal physical, sensory and cognitive accessibility (lifts, ramps, signage and visual and audible information, etc.) along the whole travel chain: environment, concourse/stop, connectors, platform, bus/train/metro	if mentioned and/or quantified =1, if not mentioned= 0
59	Accessible	AC	Proportion of footpaths with pedestrian-accessible streets with tactile tile signage	if mentioned and/or quantified =1, if not mentioned= 0
60	Accessible	AC	Presence of affordable sharing services with annual fares and subscriptions, or linked to local public transport subscriptions	presence=1, absence=0
61	Accessible	AC	Presence of an accessible online platform for consulting the results of mobility surveys and polls	presence=1, absence=0
62	Accessible	AC	Presence of affordable dial-a-ride services for persons with disabilities and sparsely populated areas	presence=1, absence=0

Table 2: indicators developed from gender-sensitive criteria, with their description and unit

The indicators are then divided by criterion theme: daily and caring, safe and free, nocturnal and festive, participative and equitable, well-marked, vital, supervised, equipped, accessible. General criteria for analysing the plans were added concerning the mention of key words related to gender issues, the presence of pilot projects explicitly linked to the gender perspective, the presence of gender experts in the drafting and design phase of the plan, etc.

Each indicator was assigned a score from 0 to 1. The indicators arise from the need to translate a discourse mainly linked to a qualitative type of evaluation into a quantitative one, in order to in order to visualise them with graphs: as can be seen, there are indicators that report "presence of...", but many others require specific values such as "number of places, number of kilometres, percentage of roads". This level of information, however, requires a degree of detail in the plans that in most, if not all, cases, depending on the indicator, has not been achieved.

For this reason, the yardstick has changed, not associating values according to the actual quantity and specific number of a certain value, but according to the level of detail of information of that particular data. For example, the indicator "Mention of reserved seats for persons with reduced mobility, pregnant women and senior citizens on public transport (if number of seats is quantified: 1, if it is only mentioned: 0.5, if it is not even mentioned: 0)" was previously "number of seats reserved for...", but due to a lack of data it was changed, and like this many other indicators previously intended to have a specific numerical value as an answer. On the other hand, with regard to indicators such as 'presence of...', the score can be 0 or 1, with no intermediate values, as it has no quantification distinction.

However, while changing the level of detail of the information sought, most cities did not reach the sufficiency level, which is why a distinction was no longer made between mention or quantification, but simply assigned a value of 0 without mention by the plan of the specific topic, 1 in the presence of mention by the plan, whether the value is quantified or not.

In cases where the requirement of the indicator is not exactly fulfilled, but a similar or more general characteristic is mentioned, or does not concern all named target groups, but pertains to only one for example, a score of 0.25 is given. In general, therefore, although starting from precise and well-quantified indicators, more flexibility was needed in the face of unsatisfactory results.

The value corresponding to the mention of gender-related keywords was normalised by calculating the average number of mentions of the different cities, eliminating outliers: the maximum value (1) was assigned to Valencia with 130 mentions, Barcelona with 94 mentions and Vienna with 41 mentions, all the others were calculated by dividing their value by 41 to reach a result between 0 and 1.

Once the values for each individual indicator had been reached, the values for each criterion were then averaged and, once the average value of the criterion had been reached, this was reported on a 0-5 scale to allow a better graphical display of the results, shown on a radar graph.

The indicators were formulated taking inspiration mainly from what was reported by the collective as examples of virtuous actions to be taken according to the chosen criteria, adding others reported in the literature and in the plans as initiatives taken by certain cities.

The theme of multi-modality is recurring, linked to the study of the travel patterns of men and women, which, as highlighted above, recognise in women a greater frequency of use of public

transport, walking as a means of transport and in general, a type of journey defined as "trip chain", and "mobility of care", i.e. with several stops and often accompanying children or the elderly. These characteristics underline the importance of efficient modal interchanges that take into account these needs for those who perform care work and do not own or choose not to use a car.

For this reason, indicators referring to daily and caring, visible, supervised and equipped often refer to transport stops and their characteristics, examining whether they meet the needs of those who make such a journey.

Another place relevant to gender mobility is schools, related to the issue of safety and services in the vicinity of schools, traffic calming and pedestrian priority zones both at the level of signposting and traffic light programming, also concerning the recognition of different walking speeds for children than for adults.

The topic of safety is a particularly difficult one, as it is very complicated to establish what conditions the perception of safety, as it is highly subjective, and consequently it is also difficult to identify suitable measures for achieving a better perception of the situation, while remaining faithful to the principles of gender equality. This is why an indicator on pink taxis was also included in the analysis, despite the fact that the controversies that means of transport and measures aimed only at women can bring, such as discrimination against other categories of people, are recognised. They are measures which, however, as a temporary measure, pending more structural changes from a social and economic point of view, can benefit women and were therefore thought worth mentioning. (World Bank Group et al., 2020)

The analysis of each individual city is presented below.

3.2 Case study n°1: London (“Mayor’s Transport Strategy,” 2018)

The case of London is particularly cited within the existing literature on gender and the city with respect to the transport company 'Transport for London', which has long been involved in producing documents specifically aimed at equality, called 'Action on equality', in which it sets targets, both with regard to customers and the workforce within the company. It also attaches great importance to the aspect of training its employees in dealing with dangerous situations and discrimination within the company's vehicles.

Another very interesting aspect is that of analysing the diversity of the London community: there is a document that summarises all the diversity analysis statistics in the city, which is called 'Travel in London: Understanding our diverse communities 2019' and deals precisely with who to target equality efforts at. All these reports and statistics then remain available and searchable on the website's online page, which is also something to consider within the company's policies. The mobility plan document puts a lot of emphasis on the concept of the 'healthy city', i.e. on the health of citizens and how a change of habits in daily mobility choices can bring about major health changes in people's lives.

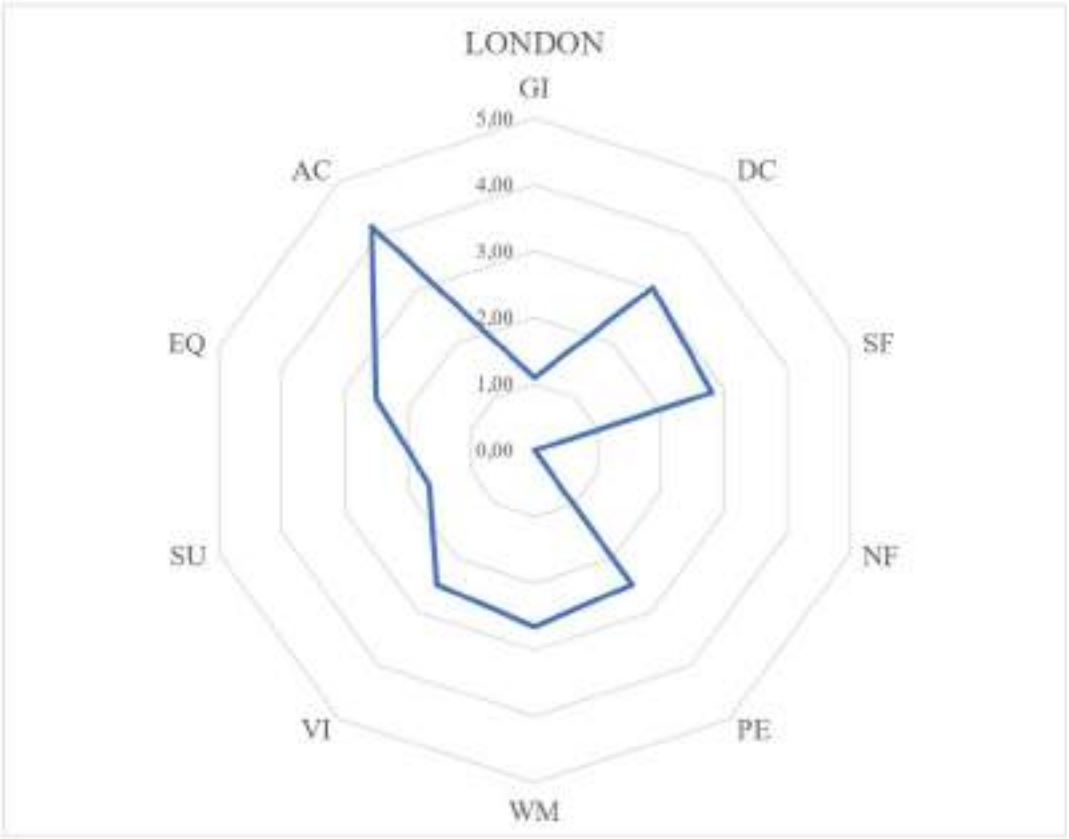


Figure 9: radar chart representation of the London city assessment

3.3 Case study n°2: Vienna (City of Vienna, 2015)

The city of Vienna has been approaching town planning with a gender perspective for more than twenty years and therefore holds a role as a true model in Europe within gender-sensitive planning. At the planning level, there is a Co-ordination Office that deals with the implementation of 'reproductive' working conditions, the needs of women at the level of interaction with the city space and also their travel patterns, is directly involved in the decision-making process of the City of Vienna. On a practical level, the city offers several examples of gender-sensitive design, especially in the field of social housing, but also in the design of green areas and in the Mariahilf district, a very densely built-up district with several critical issues in terms of accessibility and pedestrian movement.(Sánchez de Madariaga and Roberts, 2016)

At the level of the mobility plan, it is certainly the city, together with Barcelona, that refers most explicitly to gender equality interventions and that presents the most pilot projects on the topic of gender-sensitive planning.

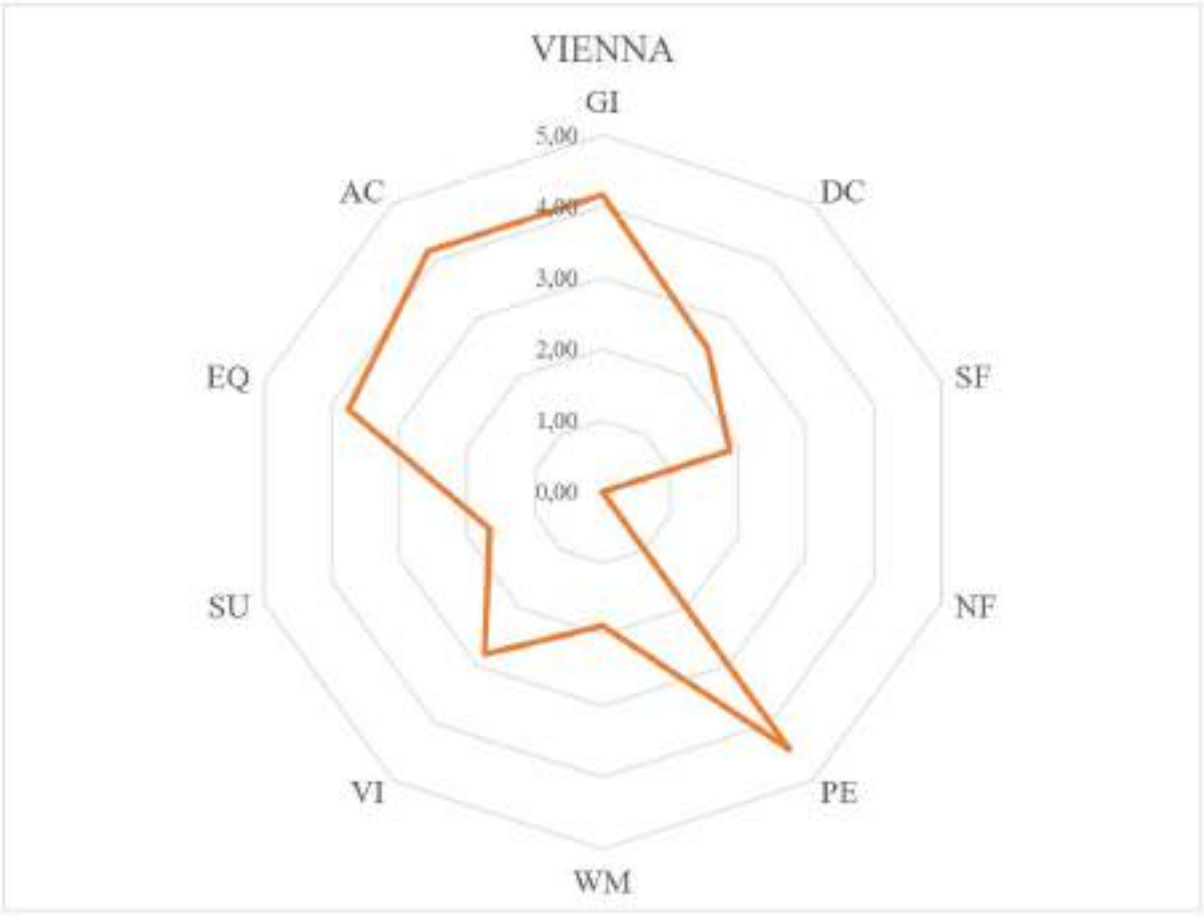


Figure 10: radar chart representation of the Vienna city assessment

3.4 Case study n°3: Malmö (Malmö Stad, 2016)

The Swedish Minister of Transport has included the goal of gender equality in transport policy since 2002, which is why Sweden is often mentioned in the literature as an example at national level, and at local level some cities are mentioned more frequently, such as Umeå and Malmö. Unfortunately, Umeå 's mobility plan document was not available in English, so the city of Malmo was selected for the comparative analysis.

The city of Malmö in particular, according to documents found in the literature, interfaced with the concept of gender equality in relation to the development of a more sustainable transport plan, finding a direct correlation between women's travel patterns and greater sustainability.

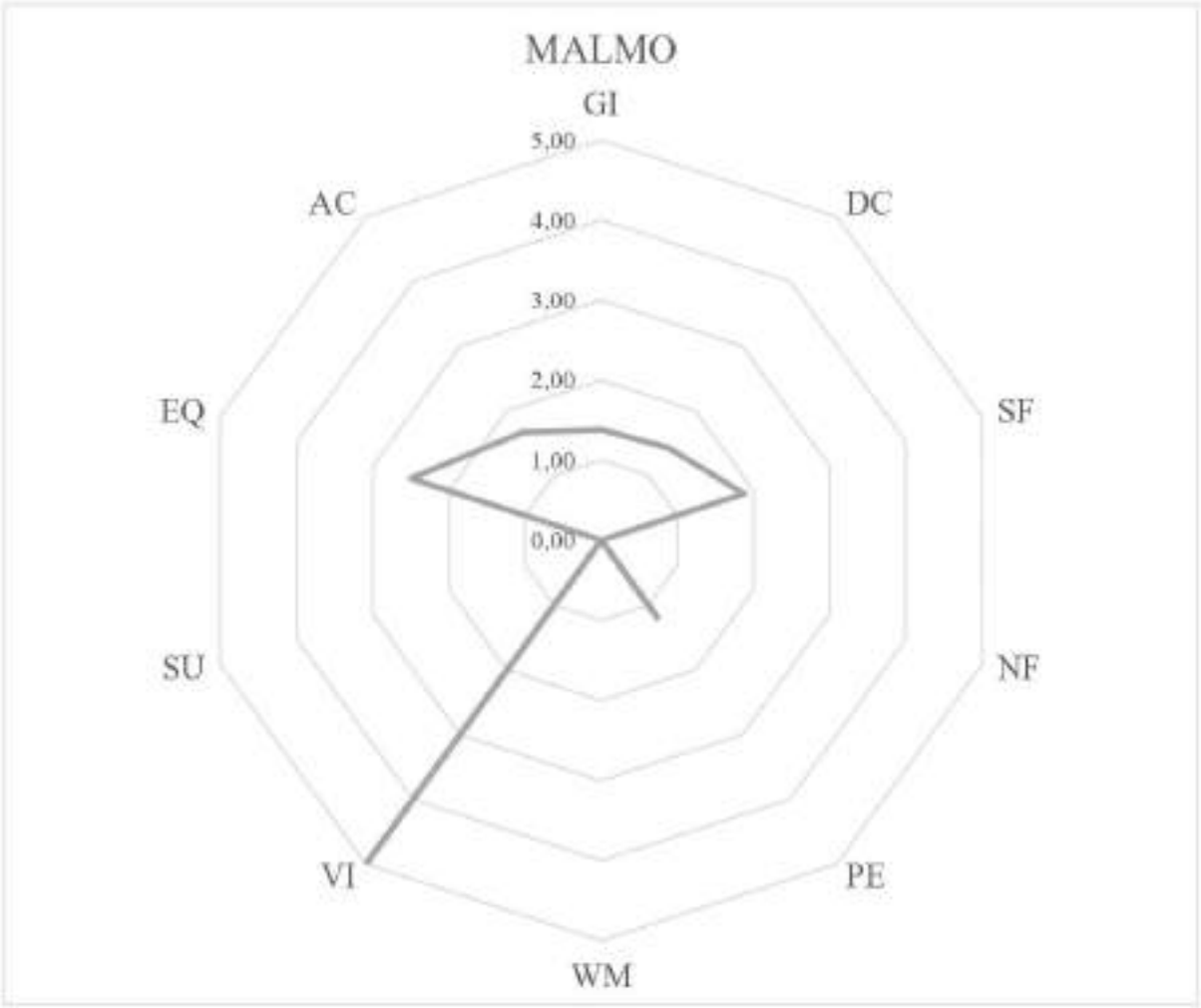


Figure 11: radar chart representation of the Malmö city assessment

3.5 Case study n°4: Tampere (City of Tampere, 2021)

The city of Tampere was considered mainly for its being a virtuous example in terms of sustainability, it participated in a competition called 'SUMP Award' in 2021, for which it was proclaimed the winner, thanks to its multidisciplinary approach and its contribution to people's active and healthy mobility choices. In general, thanks to its multidisciplinary approach, it takes into account the vitality of city places, the need for greenery and rest areas for citizens. (EuropeanMobilityWeek,2022)

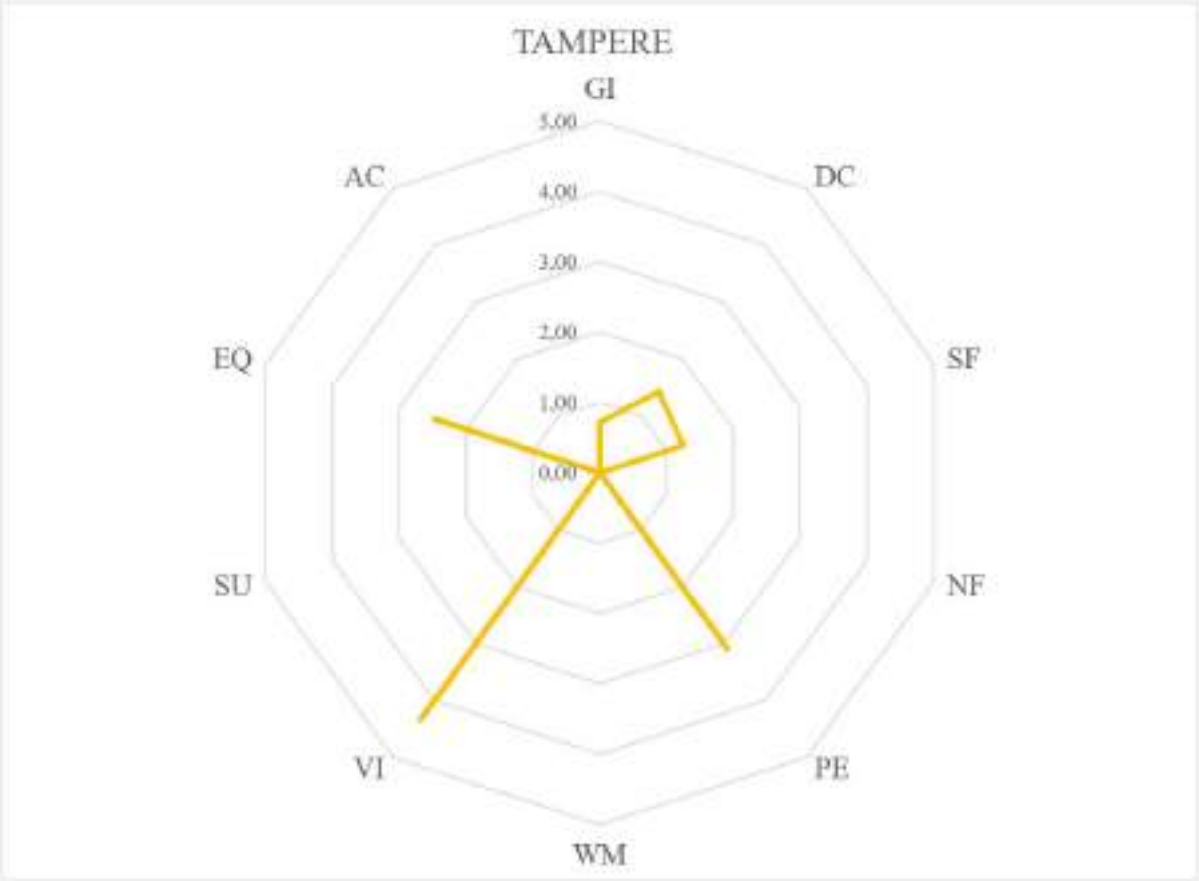


Figure 12: radar chart representation of the Tampere city assessment

3.6 Case study n°5: Paris (Île-de-France, 2014)

The city of Paris is mentioned in several articles regarding sustainability, the need to slow down speed and thus the proclamation of 'City 30', which in the case of Paris, however, is not very effective. Also mentioned is the effort the city promises to make to provide all public transport stations equipped with bicycle parking spaces. Furthermore, it is interesting to note whether there is a correlation between the so-called '15-minute city, concept invented by the urbanist Carlos Moreno and popularised by the mayor of Paris Anne Hidalgo, and gender policies

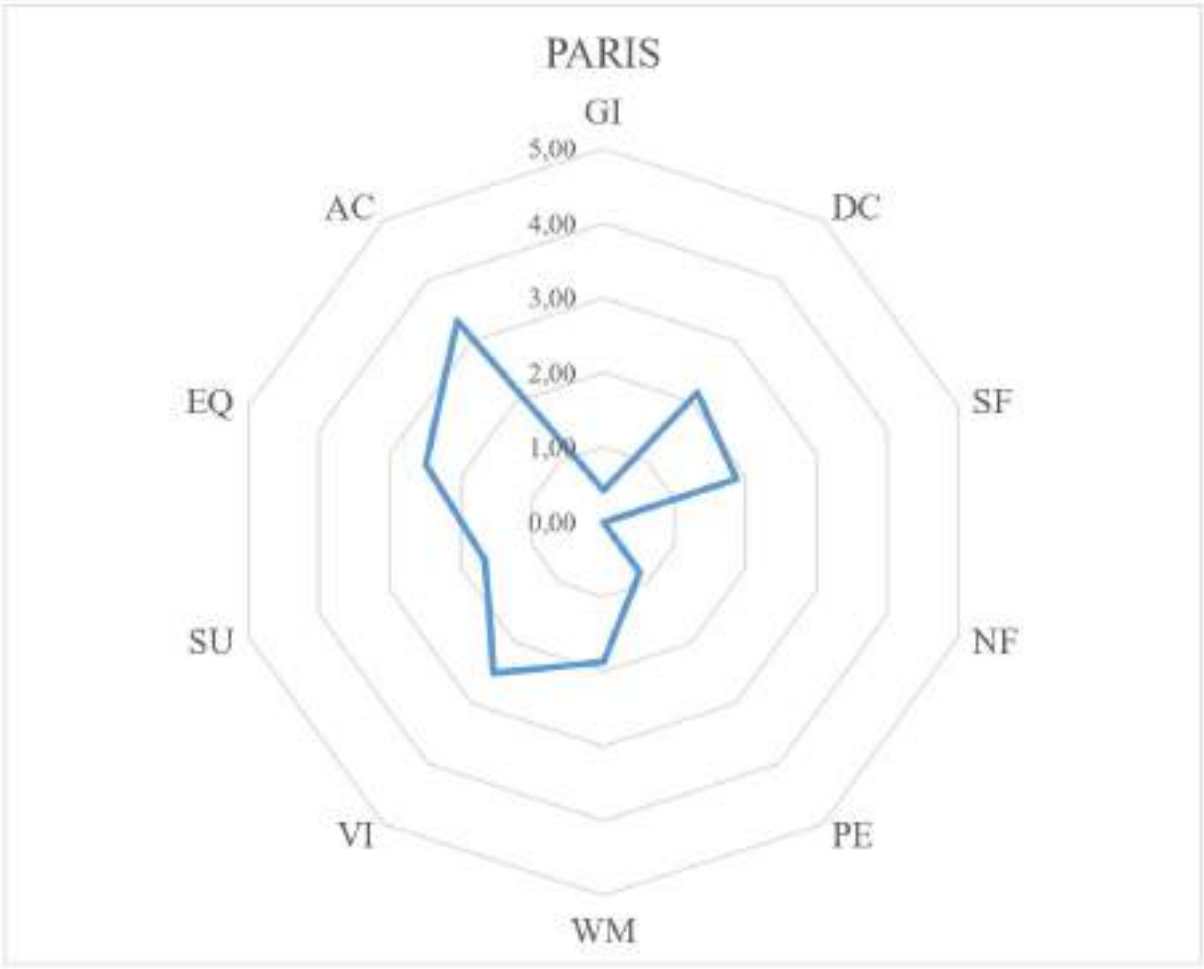


Figure 13: radar chart representation of the Paris city assessment

3.7 Case study n°6: Brussels (Bruxelles Mobilité and Smarteam, 2019)

Brussels, in addition to winning a SUMP award like Tampere, has become famous for its 'Be Good Move' plan and its strategies to reduce the speed limit to 30 km/h throughout the city. (Legambiente, 2022) Indeed, the city of Brussels has not always been a model of sustainability, but for some years now it has been reversing course, thanks to the pedestrianisation of several streets and the lowering of speed limits

Figure 14: radar chart representation of the Bruxelles city assessment

3.8 Case study n°7: Valencia (Generalitat Valenciana, 2022)

The city of Valencia has been mentioned in scientific articles about the gender perception perspective in walking in European cities and also studies on the use of bike sharing services according to gender. The bike sharing service in Valencia is widely used, annual subscriptions are also offered at very low prices to encourage cycling among the resident population, which is why it was possible to do this kind of study. (Pellicer-Chenoll et al., 2021)

Figure 15: radar chart representation of the Valencia city assessment

3.9 Case study n°8: Barcelona (Ajuntament de Barcelona, 2022)

Barcelona has already been extensively mentioned in previous chapters and, like Vienna, is certainly the most established example of gender-sensitive planning. Whereas in Vienna the phenomenon started earlier, Barcelona has evolved a great deal in this respect in recent years. It is no coincidence that most of the available material on the subject comes from Barcelona, where several collectives have been formed (among the most important is the Col Lectiu Punt 6, which is the one that formulated the revised criteria for this analysis), and where some of the most committed scholars from the perspective of gender-sensitive planning, such as Zaida Muxi Martinez, can also be found. As in the case of Vienna, since 2017 also in Barcelona the gender perspective has been institutionalised, in fact it is present in the official documents of the governmental measures of the municipality of Barcelona.

Figure 16: radar chart representation of the Barcelona city assessment

3.10 Case study n°9: Bergamo (TRT trasporti e territorio, 2023)

The city of Bergamo is mentioned in several texts as an example of time-related studies. Bergamo has in fact been experimenting with the development and exploration of time policies for over fifteen years, through the drafting of the ”Piano dei tempi e degli Orari”, approved in July 2006. The plan aims to improve the use of personal time and the reconciliation of different life times. This demand came from a group of women, who opened the debate on the need to live the city in a more 'user-friendly' way. Time policies therefore consider people as different entities, with different cultural backgrounds and experiencing different phases of their lives: they therefore aim to incorporate different experiences, visions, knowledge and practices into a shared perspective. (Sánchez de Madariaga and Roberts, 2016)

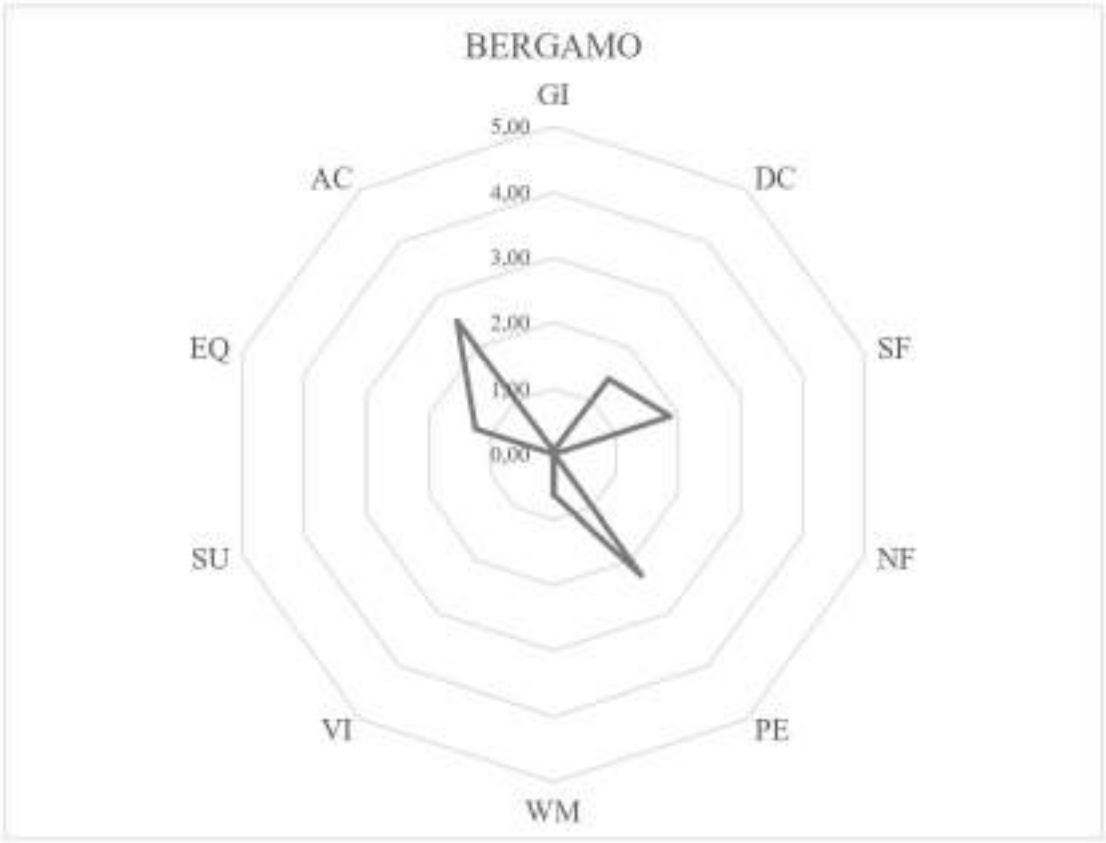


Figure 17: radar chart representation of the Bergamo city assessment

3.11 Case study n°10: Bologna (Città Metropolitana di Bologna, 2019)

The city of Bologna was included in the analysis to allow a more conscious application of gender-sensitive planning practices to a specific place, which will be tested in the last part of the thesis and thus understand what the starting point of the city in general is. On 8 March 2023, a press release was published on the municipality's website entitled '8 March, Bologna experiments with gender-sensitive urbanism', so the city is beginning to approach gender-sensitive planning issues, and since July 2023 the city has also become a 30 city, a city that reduces its speed limits to 30 km/h on almost all streets in the municipality. All these innovations are not part of the mobility plan implemented in 2019, but it is expected that certainly part of the policies in place will directly influence planning in the coming years.

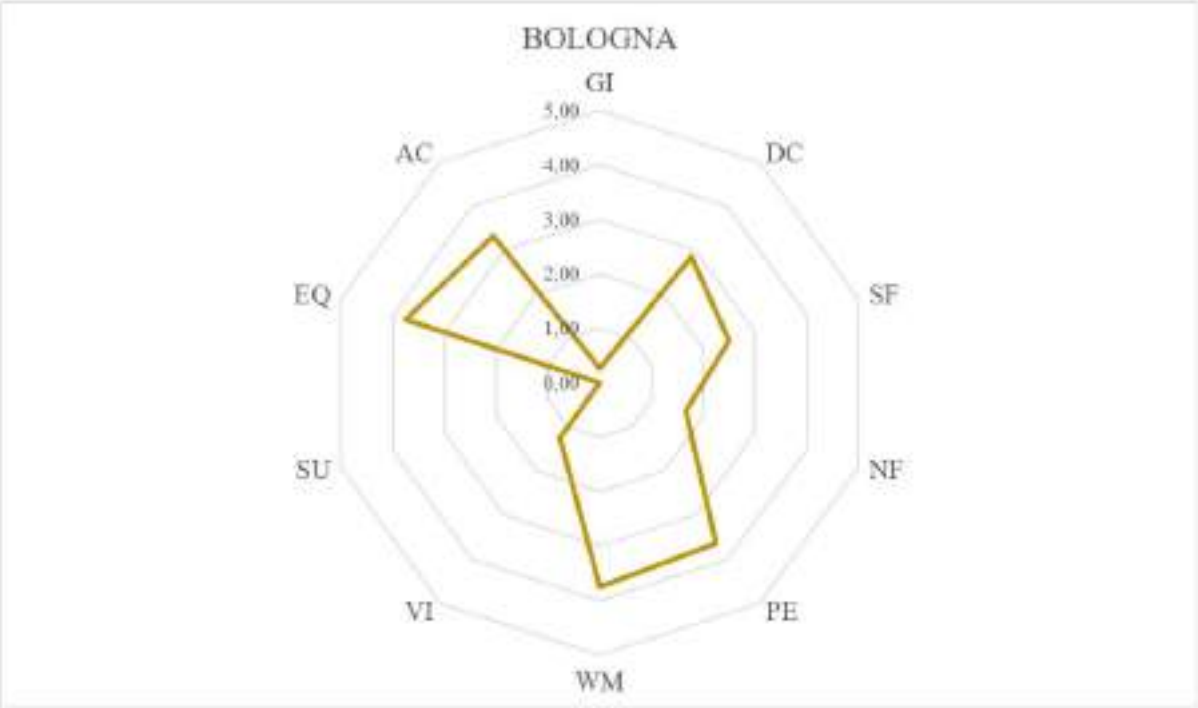


Figure 18: radar chart representation of the Bologna city assessment

3.12 Results and considerations

The analysis of the case studies leads to several considerations. The results are very different for each case study and several cities do not achieve sufficiency in more than one criterion. Unfortunately, bringing them together in a single radar graph would not be clear, but by means of columnar graphs broken down by criterion some observations can be made.

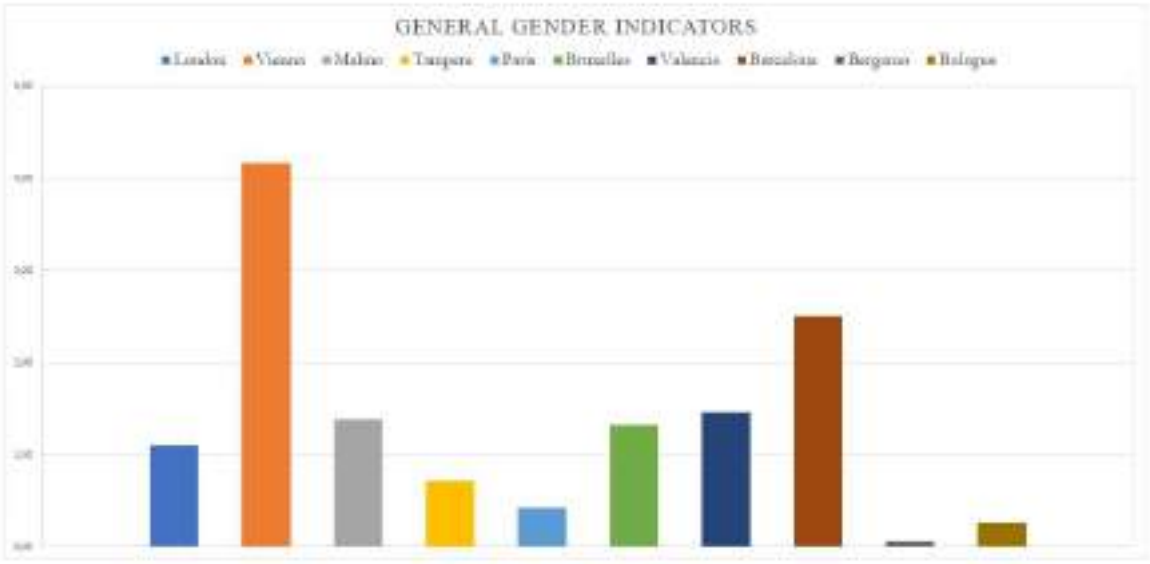


Figure 19: column chart representation of values for each city pertaining to "general" indicators

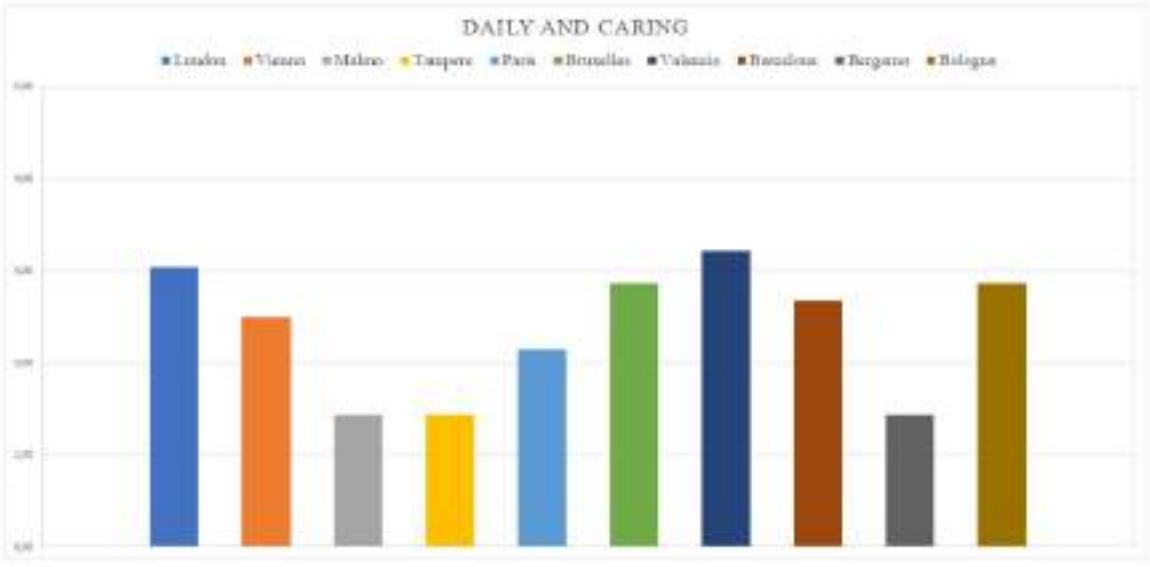


Figure 20: column chart representation of values for each city pertaining to "daily and caring" ndicators

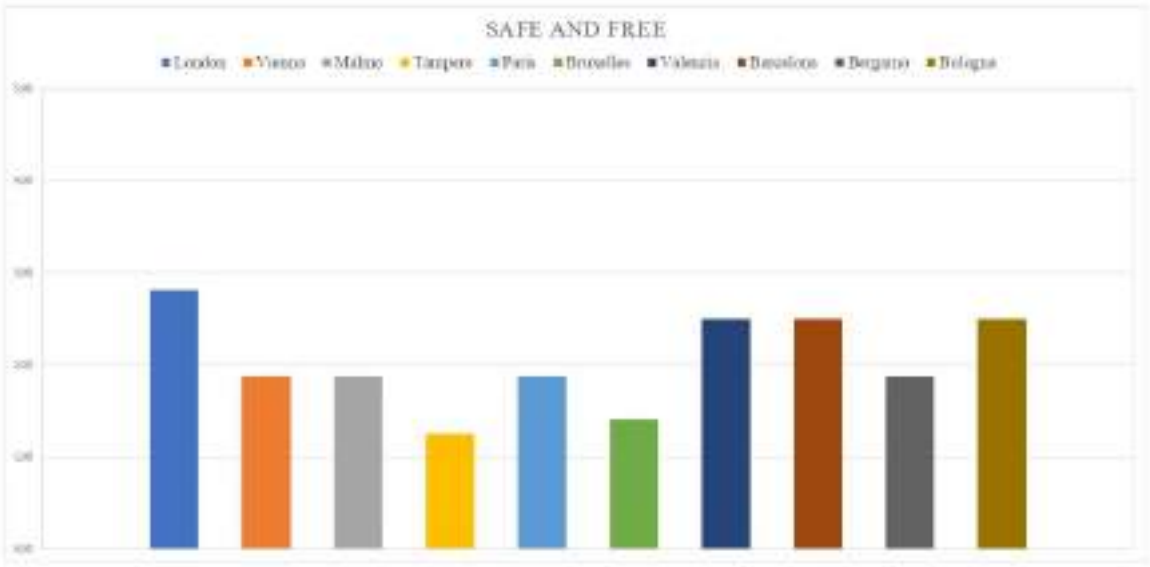


Figure 21: column chart representation of values for each city pertaining to "safe and free" indicators

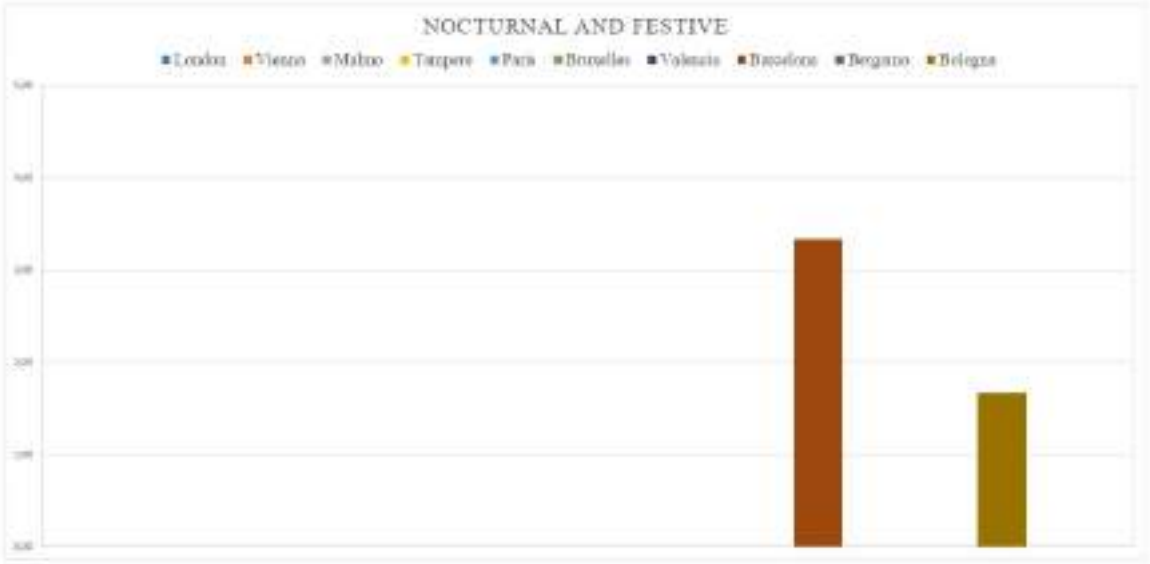


Figure 22: column chart representation of values for each city pertaining to "nocturnal and festive" indicators

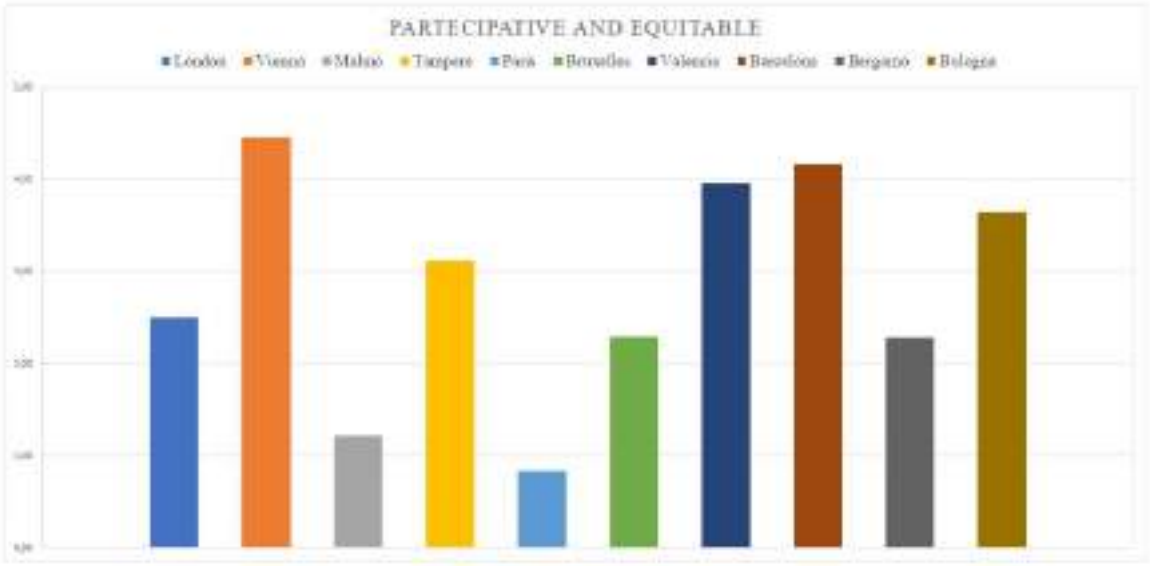


Figure 23: column chart representation of values for each city pertaining to "participative and equitable" indicators

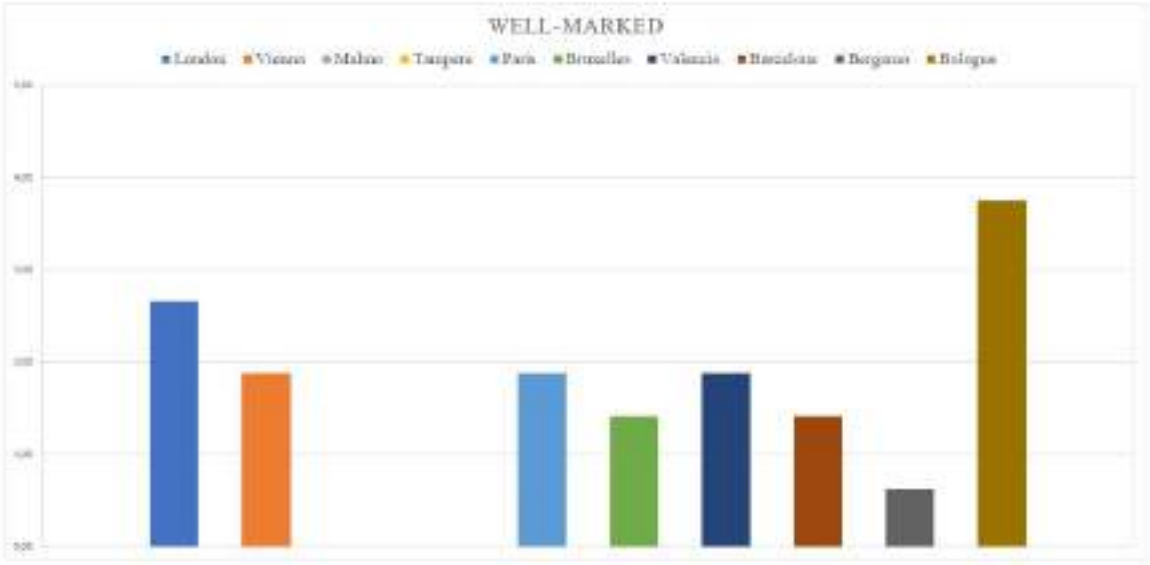


Figure 24: column chart representation of values for each city pertaining to "well-marked" indicators

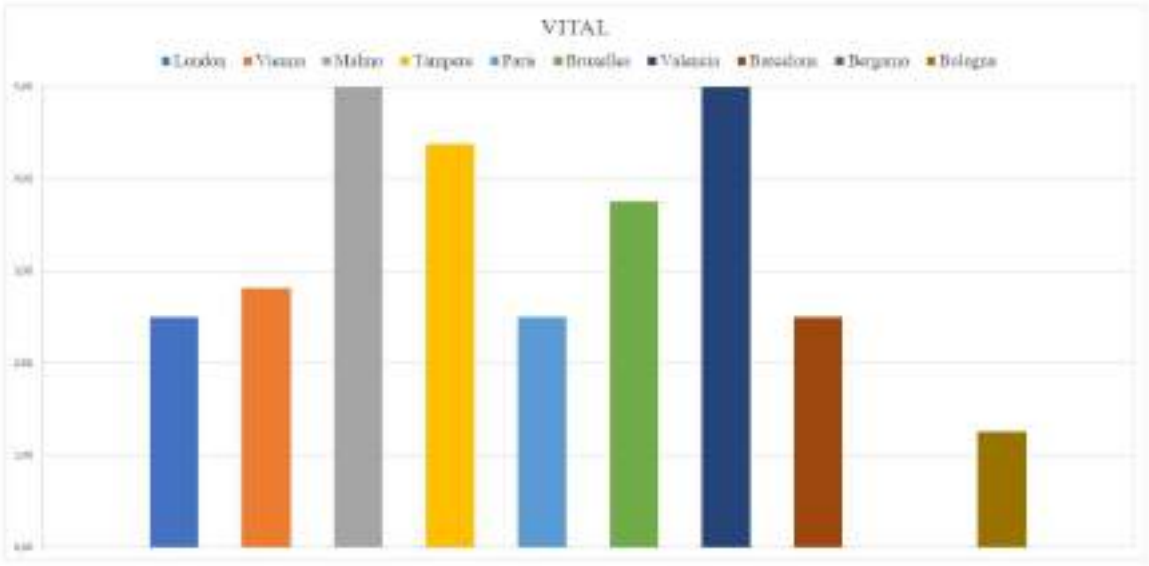


Figure 25: column chart representation of values for each city pertaining to "vital" indicators

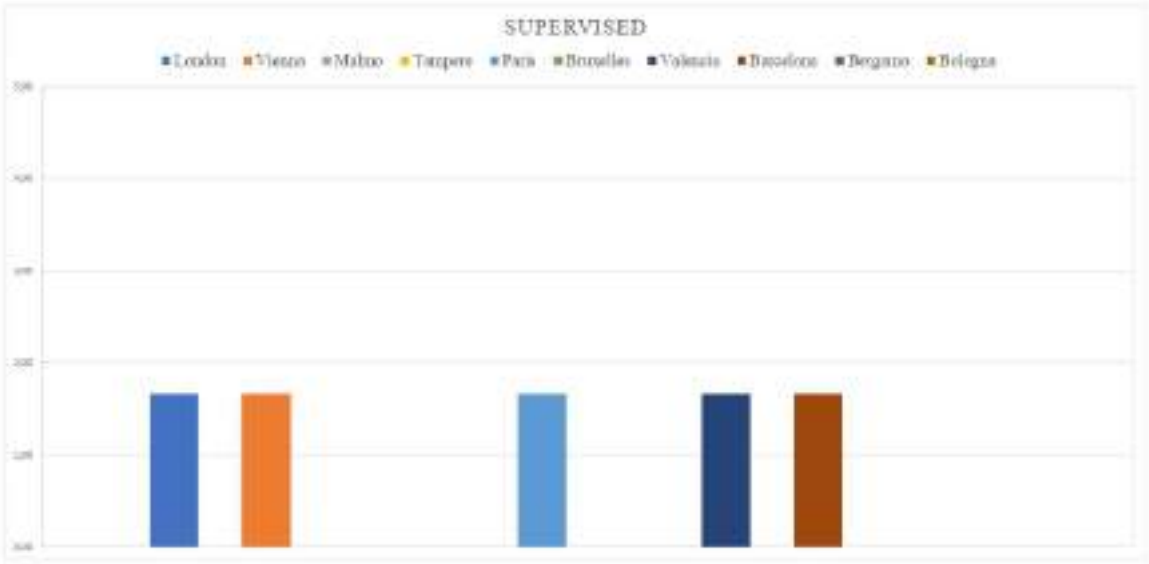


Figure 26: column chart representation of values for each city pertaining to "supervised"indicators

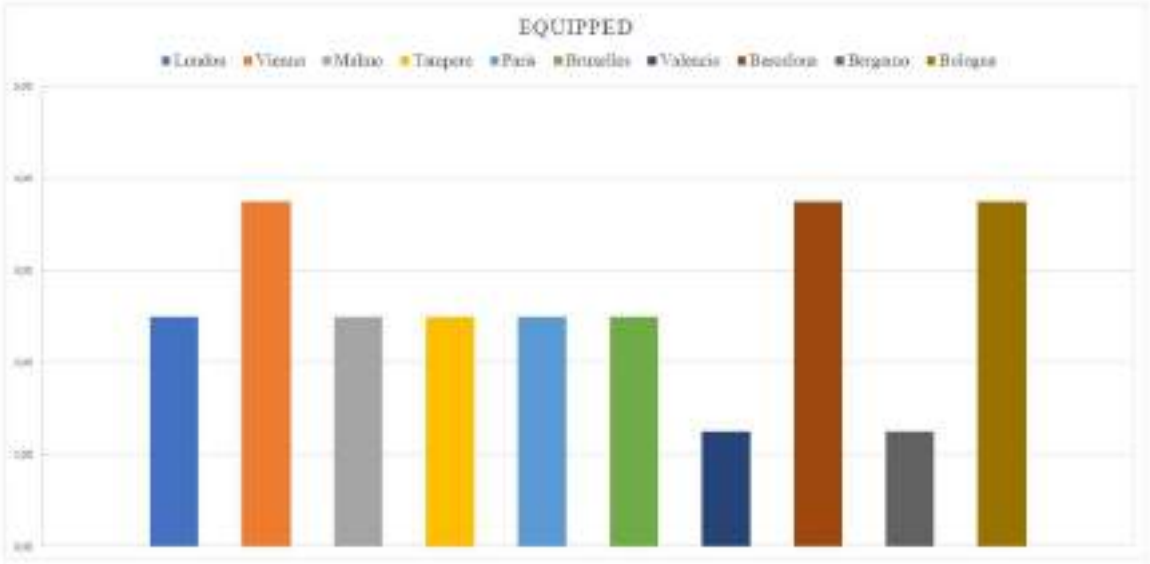


Figure 27: column chart representation of values for each city pertaining to "equipped" indicators

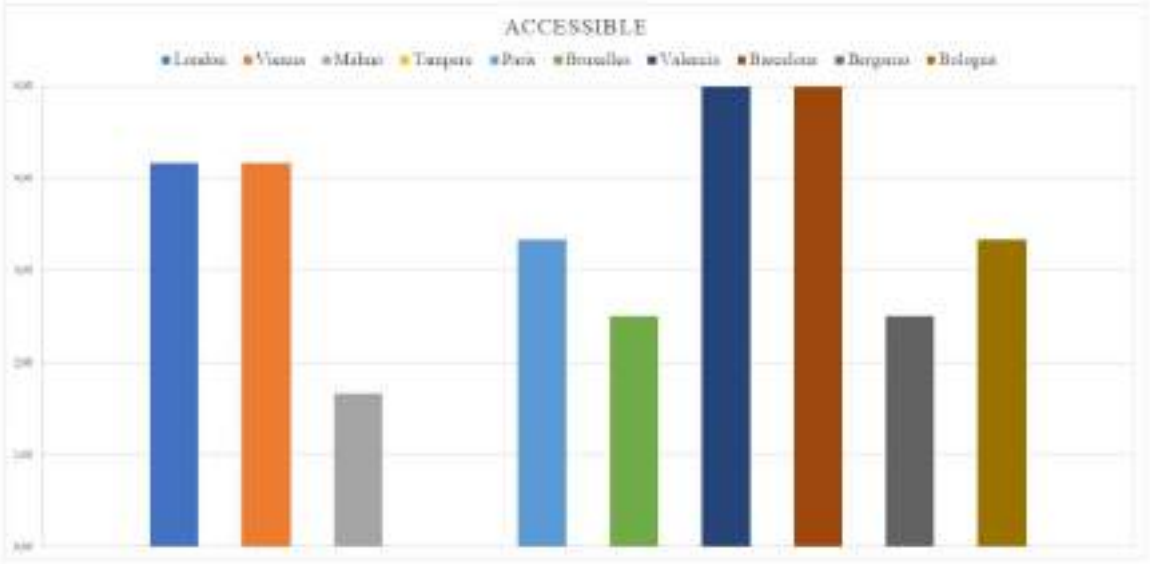


Figure 28: column chart representation of values for each city pertaining to "accessible" indicators

The 'Nocturnal and festive' criterion and the 'Supervised' criterion are undoubtedly those with the poorest results: in the first one only Barcelona and Bologna achieved a non-zero result, while in the second one half, but none of the cities achieves sufficiency. Undoubtedly the scarcity of results in these two criteria leads one to think that the issue of safety is little addressed by cities, at least as far as mobility is concerned: it is evident that at the level of the plan there are no explicit ways of managing the issue, perhaps because it is not thought to be pertinent to the sphere of transport and movement in the city, or perhaps because of the actual difficulty of interpreting the perception of safety, which is still a very controversial issue.

The most satisfactory results concern the 'Accessible' and 'Vital' criteria, which are the only ones for which some cities achieve the maximum result of 5 points. With regard to accessibility Valencia and Barcelona are the best, followed by Vienna and London with more than 4 points, while Valencia and Malmo stand out for their vitality, followed by Tampere which exceeds the 4-point threshold.

For almost all criteria there are very different results in each city, with 'Safe and Free' perhaps generally being the criteria with values that deviate the least from each other, despite being on the borderline of sufficiency.

The city that obtains better average results, and the only one that does not report any null values, is Barcelona, which stands out in particular with regard to accessibility and being a participative city, but obtains very good results in the criterion with the worst results, namely 'Nocturnal and Festive'. It is curious that one of its lowest results is obtained in 'Vital', which in contrast has very high scores in other cities.

Vienna and London also achieve average satisfactory results, which do not deviate too much from expectations, as they are cities frequently mentioned in the available literature on the topic. In particular, Vienna differs from the others with regard to general indicators, for which gender-sensitive planning jargon and also gender experts and pilot projects are not lacking, while it obtains a null result in 'Nocturnal and Festive'. London, on the other hand, is strong on the topic of accessibility in an absolute sense, while it deviates from the average of the others, although not achieving particularly high results, in the criteria 'Safe and Free' and 'Daily and caring'.

Valencia surprises positively with its results, because although it is neither a pioneer nor particularly cited for gender sensitive planning, it seems to be a city that has incorporated inclusive policies in its mobility planning. The only deficiency is in 'Nocturnal and festive', but in no less than two criteria it achieves maximum points.

Malmo and Tampere are the cities with poorer average results, in particular the values of three and four criteria respectively remain zero: both in 'Nocturnal and Festive', 'Well-marked' and 'Supervised', while Tampere also in 'Accessible'. The latter's zero is particular, as it is on average a more satisfactory criteria. For both 'Vital' is the one with the highest score, which in both is greater than 4 points.

Paris presents a zero value only in 'Nocturnal and Festive', although the values of 'General indicators' and 'Participative and Equitable' also do not reach 1. It does not assert itself in any

of the other criteria as a more positive example than the other cities, remaining with values close to or slightly above sufficient.

Brussels has two null values: 'Nocturnal and Festive' and 'Supervised', while for all other criteria, like Paris, it does not reach particularly high values, but remains more or less average.

As far as Bergamo is concerned, the expected results certainly do not reflect reality: it has three null values and two others that do not exceed a value of 1. Surely the fact that it had implemented the ‘Piano dei Tempi e degli Orari’some time ago gave hope for better results with regard to the criterion 'Daily and Caring', which instead remains just above the 1 threshold.

Bologna, although not mentioned in texts on the subject, does not have low scores: together with Barcelona, it is the only one that does not score negatively in 'Nocturnal and Festive' and on average has results rather in line with the average of the other cities. Particular is the result it obtains in 'Well-Marked', which is considerably higher than the others. Bologna in fact puts a lot of emphasis on wayfinding, for a city-wide shared signage. It is noticeable, however, that it has not included specific gender-sensitive planning vocabulary or intentions within its planning tools, so it scores second worst after Bergamo in 'General Indicators'.

The length of the plans certainly influenced the evaluation, since a greater plan length corresponded with a greater detail of information and thus a higher evaluation. This would explain the positive result of Valencia, whose plan exceeded five hundred pages, and the negative result of Tampere and Malmo, fifty-five and sixty-eight pages respectively. However, the results are not directly proportional to the length of the plans, with Bergamo and Vienna having the same number of pages and completely different results.

In general, cities that had been selected to be good examples in terms of sustainability received generally low results, so while it seems from the literature that gender-sensitive planning leads to greater sustainability (Breengaard et al., 2007; European Institute for Gender Equality., 2012; Hanson, 2010), the reverse is probably not true, i.e. that a greater focus on sustainability issues automatically leads to more inclusive planning.

The language limitation was a major limitation, as it did not allow for the analysis of several cities, including Umea in Sweden, Berlin and Dutch cities, for which an analysis comparison would have been interesting. If plans were also more often translated into English, analyses of this kind would become more accessible on a European level.

From the conclusions of this analysis, it was possible to recognise the most widespread shortcomings of cities, the criterions that were least considered, but also the most effective strategies and good practices that could be transposed to the city of Bologna at both the mobility plan and design level. The tool developed turned out to be a useful starting point for gaining awareness of the elements that cannot be disregarded for a more equitable and inclusive design.

4. The application of gender-sensitive planning: a proposal for a mobility centre in Bologna

4.1 The role of mobility centres and their distribution in the city

The last part of the thesis deals with the development of a mobility centre that respects the criteria for a design with a gender perspective: in the mobility centre a central role within the city's travels is identified, but also a great potential regarding inclusive strategies.

As discussed in detail in the first chapter, women are identified as a type of travel defined as "trip chain", which is more fragmented because it is also linked to care work, hence the expression "mobility of care" to describe the purpose of these trips, in which women often accompany children or the elderly.

With the willingness of limiting the use of the private car, the same means of transport may not be suitable for making all the necessary journeys, and efficient intermodal exchange centres may be crucial for this.

In Bologna, the role of intermodal exchange centres is played by the 'Mobility Centres', described in the Sustainable Urban Mobility Plan (SUMP) as places that arise at stations of the Metropolitan Railway System where a level of service is provided at least every 15 minutes and that support the metropolitan cycle network defined by the Biciplan: the Bicipolitana.

The Mobility Centres are not only seen as places with a transport function, but the importance of improving the quality of life in the vicinity of the Centres is also recognised on a social level and in terms of the vitality of the city, therefore the implementation of a Mobility Centre does not only entail the possibility of changing means of transport efficiently, but adds a series of services in its context, diversified according to its proximity to the station. In particular, the regeneration of the area within the 500-metre radius of the station takes on a priority role within the Piano Territoriale Metropolitano.

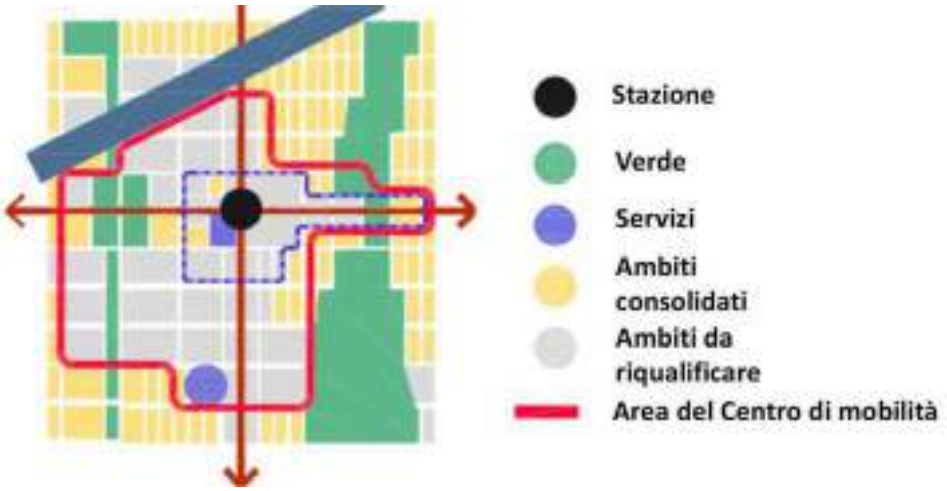


Figure 29 : representation of the area of a Mobility Centre (Città Metropolitana di Bologna et al., 2021a)

The attractiveness of a Mobility Centre should be within a radius equal to the distance that can be travelled by car in 10 to 15 minutes.

The area of influence is divided into three functional zones, the 250-metre zone, the 500-metre zone and the over 500-metre zone. For each zone, the elements that should be present and the services that should be offered to users are specified in Figure 30.

Figure 30 : representation of the three functional areas of a Mobility Centre (Città Metropolitana di Bologna et al., 2021a)

As can be seen, these are services related to mobility and facilitating access to public transport linked to the centre, but also to improving roads, improving information to access public transport, shops and adjustments to ensure the safety of soft mobility routes.

There are 30 Mobility Centres in the Metropolitan City: 9 in the capital and 21 located in the metropolitan municipalities. In the SUMP the Centres are classified according to their function and geographical location: they are divided into: urban, non-urban and terminal.

Urban Centres are located in the most densely populated nuclei of the Metropolitan City, non-urban Centres serve more peripheral areas or in less densely populated areas, and terminals are located at the terminus of the first line of the tramway network currently being planned and are located in Figure 31. To date, the technical-economic feasibility projects of Vergato, Castel San Pietro Terme, San Benedetto Val di Sambro, Castel Maggiore, San Giorgio di Piano, San Pietro in Casale, Medicina and Castenaso have been completed.

Bologna's Mobility Centres certainly have more connections (compared to the other municipalities) in terms of bus lines as well as rail public transport lines, which are depicted in figure 32: tram lines are planned, while metropolitan rail service lines are existing lines.

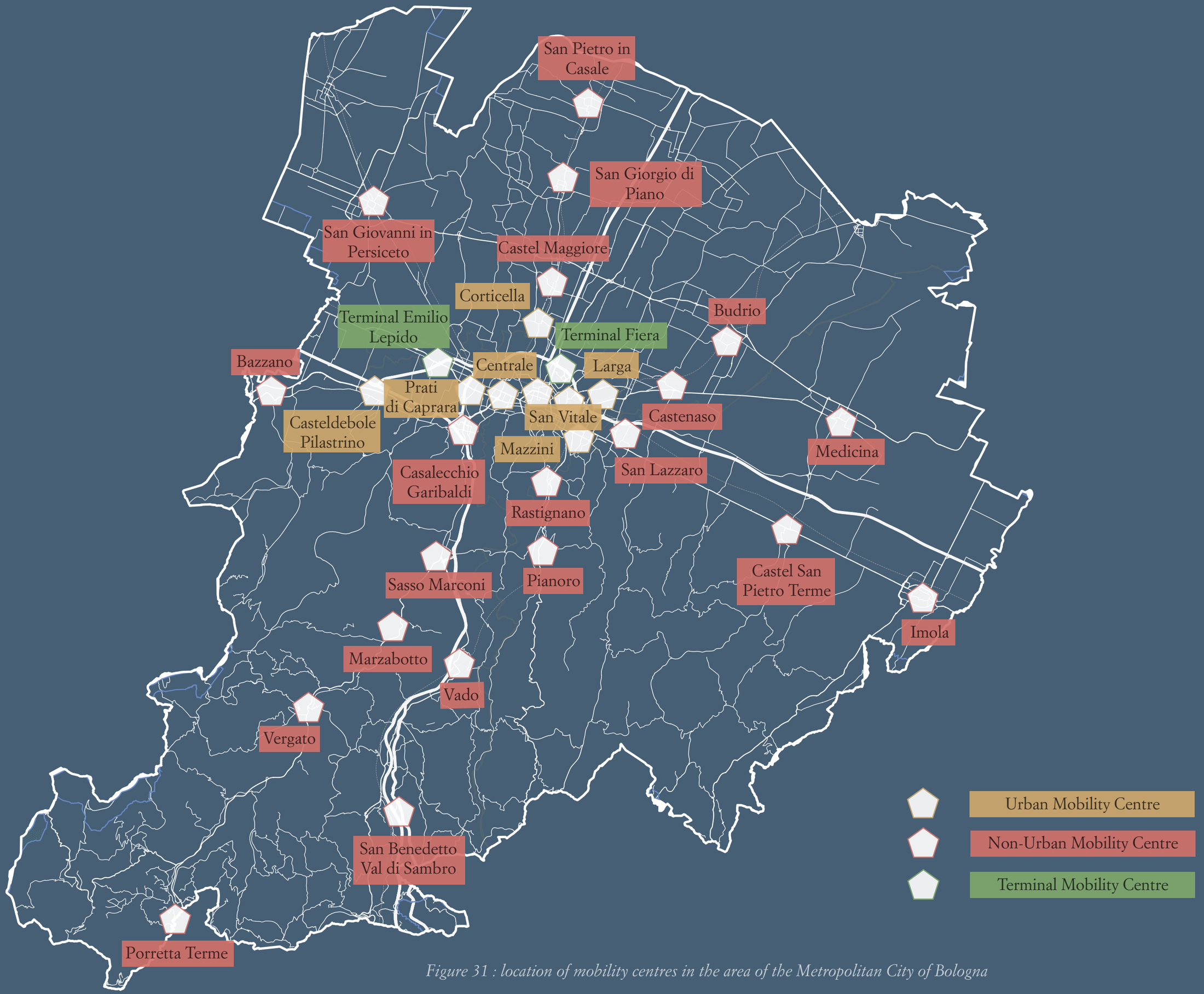


Figure 31 : location of mobility centres in the area of the Metropolitan City of Bologna

Tram lines (planned)
- T verde
- T rossa
- T blu
- T gialla
- Track alternatives

Metropolitan railway service Lines (existing):
- S1 Porretta Bologna Prato
- S2 Vignola Bologna Portamaggiore
- S3 Bologna Poggio Rusco
- S4 Ferrara Bologna Imola
- S5 Bologna Modena

Figure 32 : representation of metropolitan public rail transport in the Metropolitan City of Bologna

4.2 Analysis of the city's fragility indices and their location in the territory

For the choice of the mobility centre on which to carry out the application part, fragility maps were used, as well as the location of the centres in relation to existing railway lines and those planned for the tram.

The fragility maps are developed by the metropolitan city and the municipality of Bologna and are divided into three categories: demographic, economic and social fragility.(Ufficio di Statistica del Comune di Bologna, 2022) (Servizio studi e statistica per la programmazione strategica and Città Metropolitana di Bologna, 2022) For each of them, several indicators are defined that are relevant to the field they refer to.

In addition, gender fragility maps have also been developed since this year (Scuola Achille Ardigò and Ufficio di Statistica del Comune di Bologna, 2023), which take the same indicators studied for demographic, economic and social fragility and relate them to women and men, in order to understand whether there is a gender imbalance for each indicator and, if so, to bring it to the surface and capture the incidence of female versus male fragility and locate it.

4.2.1 Gender fragility maps

The gender fragility map at the time of writing this thesis is under development, so further updates of the available documentation will probably follow, but the area covered by the study is for now only that of the municipality of Bologna.

The overall fragility maps for each area are of little interest in terms of understanding gender imbalances, which is why maps of single indicators were taken into consideration: single-parent menages with minors, median per capita income, low labour intensity.

These indicators are in fact representative of the fragilities that pertain to more difficult access to public transport, but also to categories related to care work relationships and thus also to care work-related travel needs.

The location of the Mobility Centres was superimposed on each map in order to obtain information on the fragilities in the areas covered by the Centres.

Figure 33: gender fragility map of single-parent menages with minors and Mobility Centres

Figure 34: gender fragility map of median per capita income and Mobility Centres

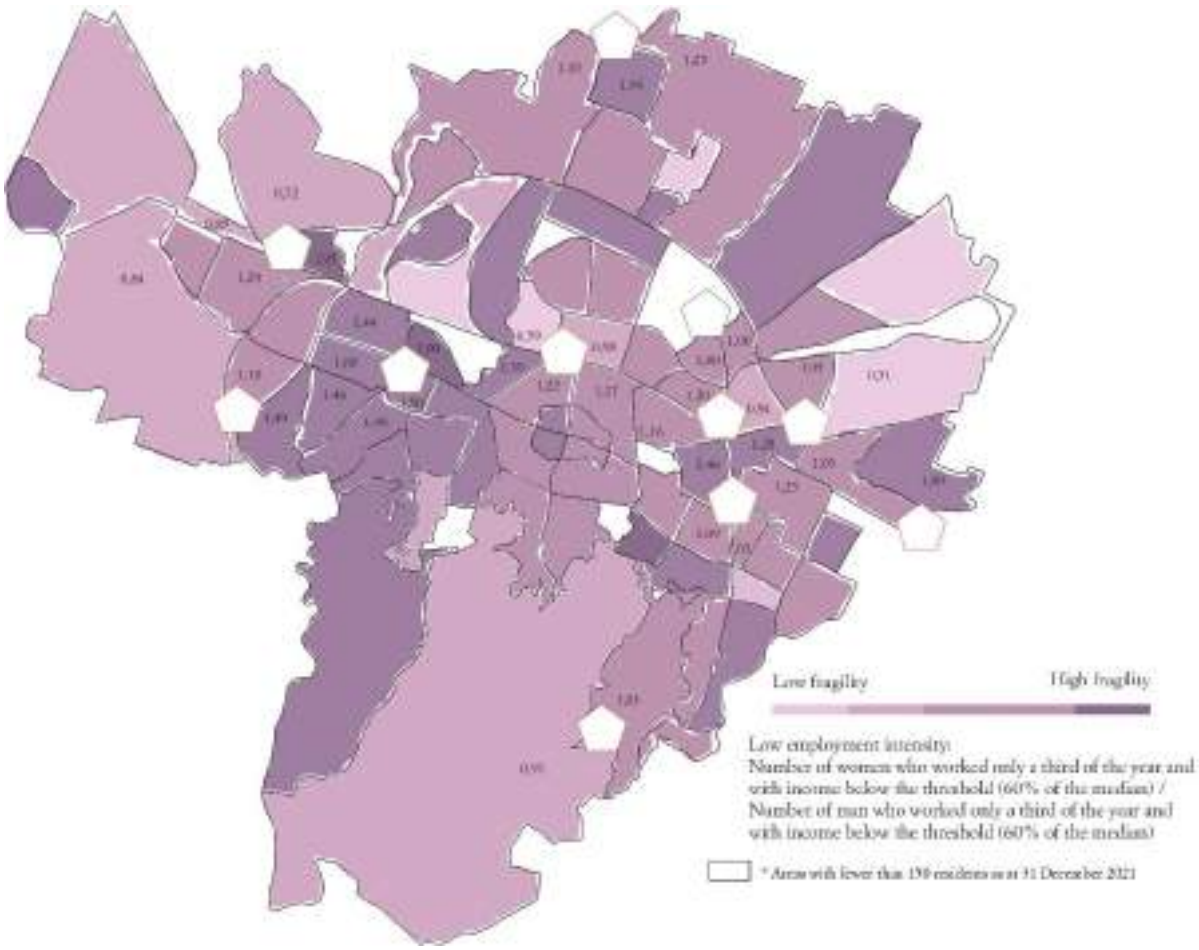


Figure 35: gender fragility map low employment intensity and Mobility Centres

The colours in the first two maps do not differ too much between each statistical area, with some exceptions. It should be borne in mind that, although areas with fewer than 150 residents have already been omitted from the count, there are certainly more densely populated areas and others less so, such as the hills (located to the south in the map), which may show some anomalies. In general it is undoubtedly the case, reading the numbers for each area near the Mobility Centres, that both in terms of single-parent menages and in terms of average income per capita, gender imbalances are present: in none of the statistical areas analysed is the value less than zero for the ratio of single-parent menages women to men, and in none of the areas concerning income per capita is the ratio greater than one.

In the third map the ratio of low labour intensity differs more from one area to another, being particularly high in the areas of Corticella, Prati di Caprara, Casteldebole and Larga/Mazzini/San Vitale.

4.2.2 General fragility maps

There are indicators that at the level of fragility may be interesting, but if they are interpreted from a gender perspective they are not significant: these include the foreign resident population between the ages of 0 and 19. Another figure that may be useful regardless of gender is that of residents over 65 who live alone, because regardless of gender their presence leads to shifts related to care work.

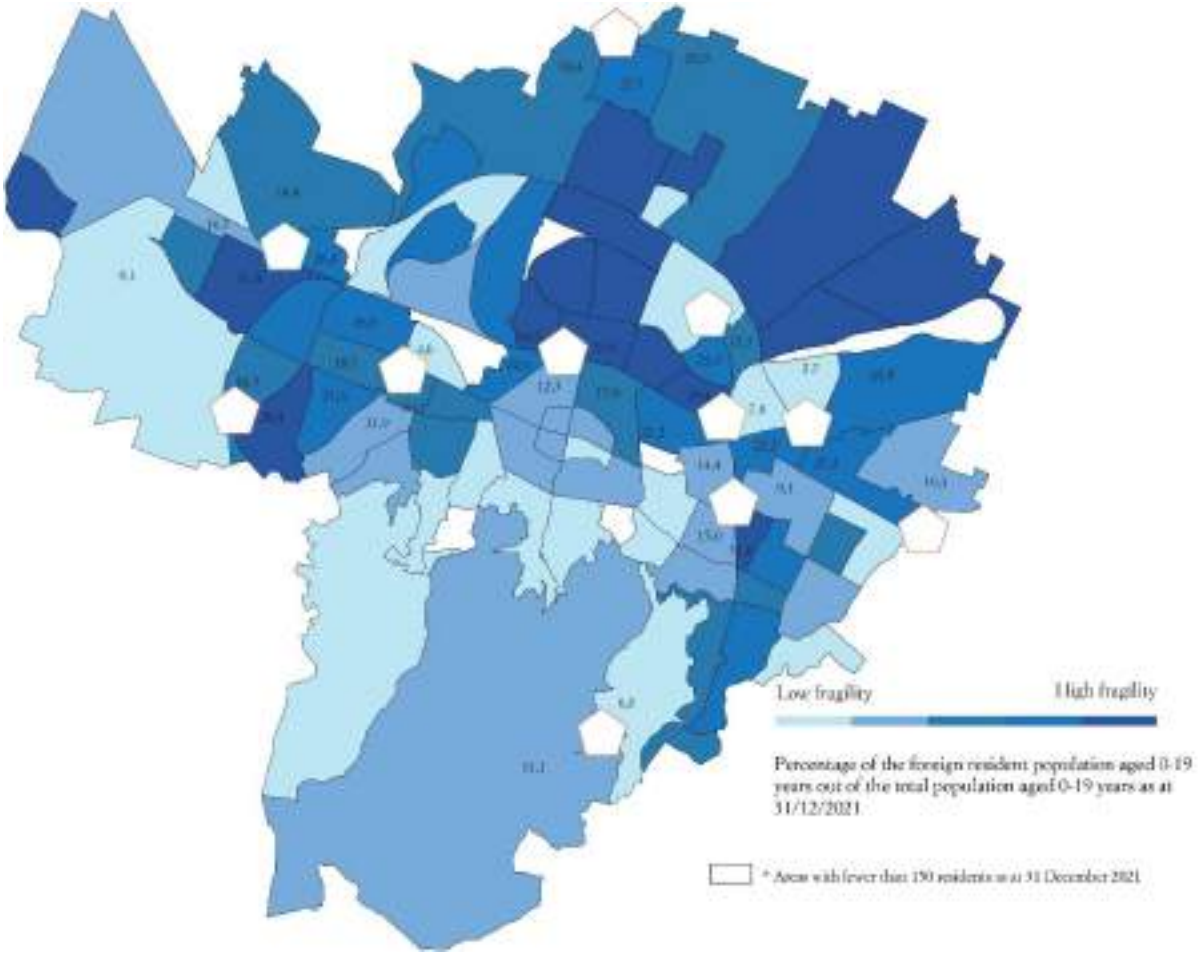


Figure 36 : Bologna municipality's fragility map of the foreign resident population aged 0-19 years at 31/12/2021 and Mobility Centres

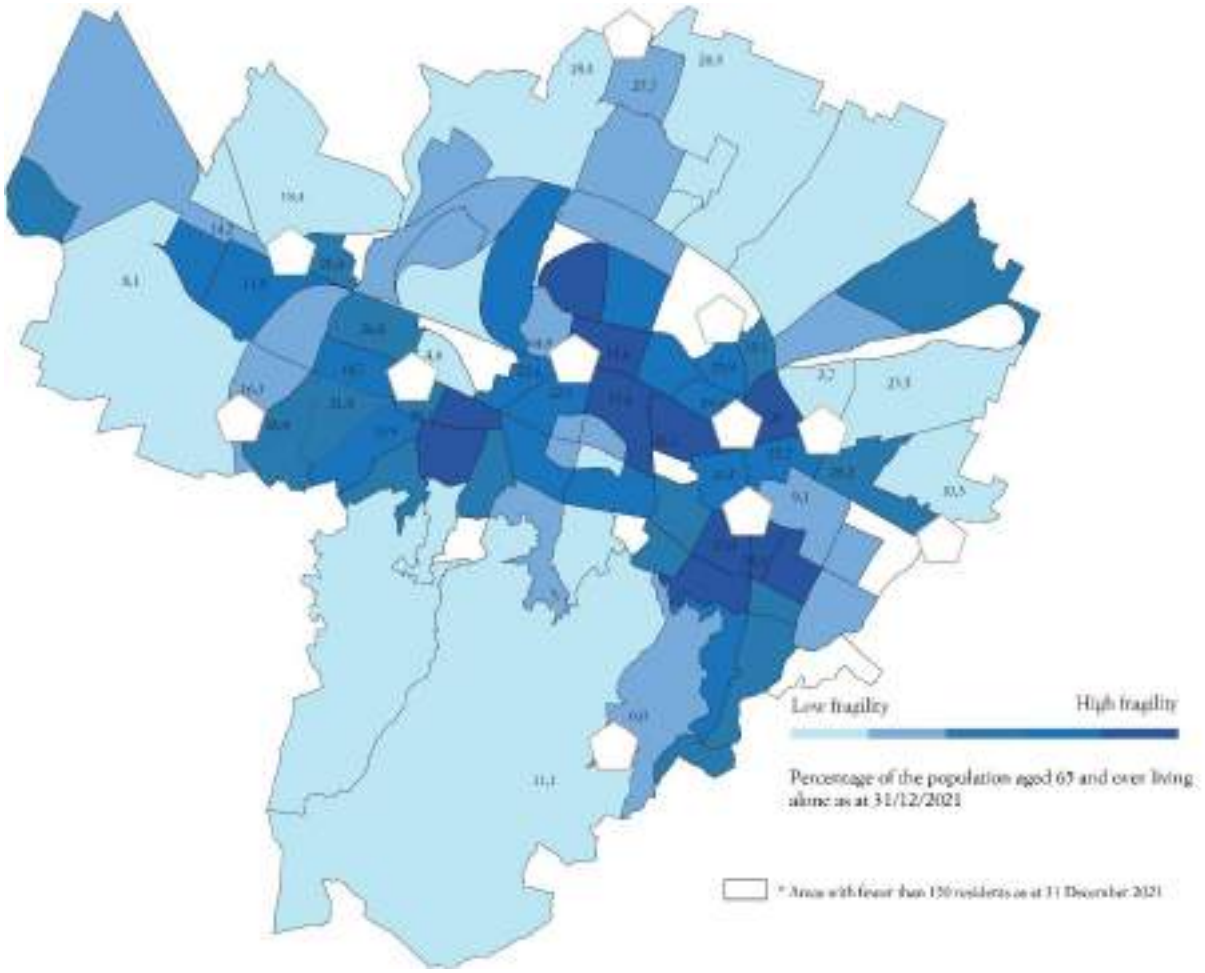


Figure 37 : Bologna municipality's fragility map of the percentage of the population aged 65 and over living alone at 31/12/2021 and Mobility Centres

The presence of foreign under-19s is certainly much more widespread in the peripheral areas, especially in the north: the Corticella and Casteldebole areas reach very high levels of fragility, as do the Bolognina areas, north of the Central Station. On the other hand, as regards the presence of over-65s living alone, there is almost a reversal of the previous trend: they tend to be found closer to the historic centre or in the neighbouring districts

4.3 Attractiveness analysis of urban mobility centres

Considering the gender fragility maps the most pertinent to the theme, an elaboration of the attractiveness analysis provided by the SUMP was then developed with respect to the Centres located in the statistical areas of those maps.

The attractiveness analysis does not present data on Terminals, Central Station and Prati di Caprara.

In general, pedestrian attractiveness (represented by the inner part of the pentagon) and bicycle attractiveness (represented by the outline of the pentagon) for each Centre are quite proportionate to each other and in general it may be noted that, as one moves away from the historic centre of the Municipality of Bologna, potential demand certainly decreases. Among the Urban Mobility Centres bordering other municipalities, that of Corticella, despite its distance from the historic centre, is more attractive than that of Casteldebole Pilastrino.

Analysis of demand potential (set of residents and employees based on ISTAT 2011)*

pedestrian basin: 1 km

4000-6000 9000-11000 30000-33000

cycle basin: : 3km

9000-20000 30000-40000 85000-150000

*Missing data on Terminal Emilio Lepido, Terminal Fiera, Stazione Centrale and Prati di Caprara

basin of 3km

basin of 1 km

Castel Maggiore

Corticella

Casteldebole Pilastrino

Casalecchio Garibaldi

Larga

San Vitale

Mazzini

Rastignano

San Lazzaro

Castenaso

Figure 38: attractiveness of some Mobility Centres of the Metropolitan City of Bologna

4.4 The case of Corticella Mobility Centre

After cross-referencing all the available data, the Corticella centre turned out to be the most interesting one to carry out the application part, as it is on average fragile, with a rather high attractiveness, still considered as an Urban Centre, despite being located between two municipalities: that of Bologna and that of Castel Maggiore. From figure 39 it is possible to see where the administrative boundary between the two municipalities passes in relation to the Corticella station (shown in blue). It can be seen that the administrative boundary does not strictly concern the station area, but almost divides the station area in half from 250 metres to 1000 metres.

The SUMP also provides for each planned centre a table concerning the currently available facilities broken down by mobility levels. From table 23 already at a first glance one can see that many features remain empty: there is a lack of services related to bicycle mobility, but also a lack of pedestrian zones, traffic calming zones, lack of universal accessibility, poor signposting and lighting, lack of bicycle sharing services.

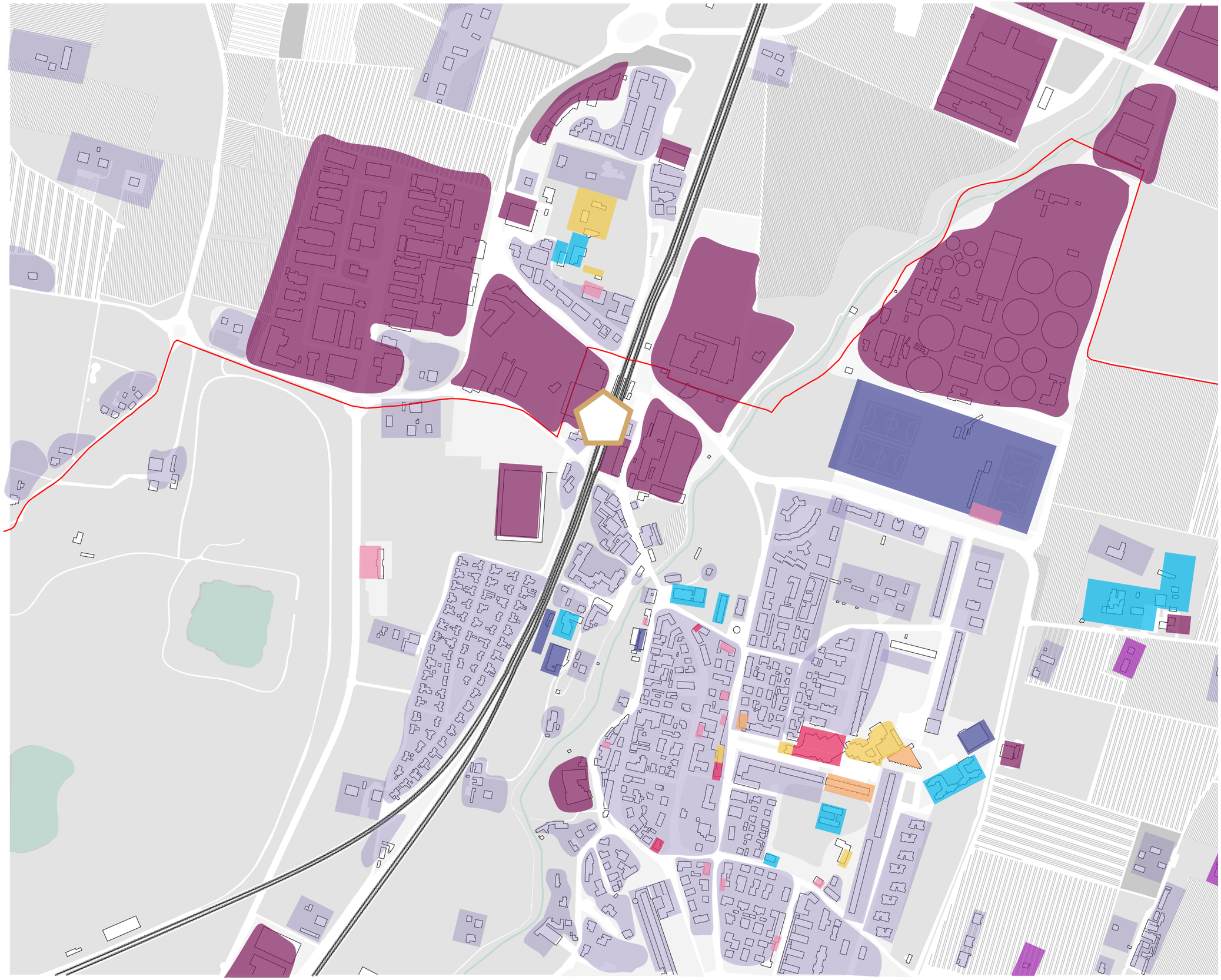
Figure 39: representation of the administrative limit between the Municipality of Castel Maggiore and the Municipality of Bologna in relation to the Corticella Station

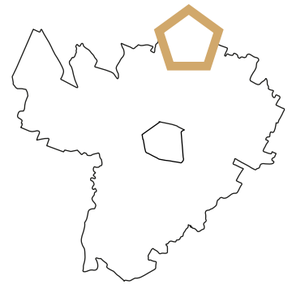
GENERAL INFORMATIONS	Mobility Centre	BOLOGNA CORTICELLA	EQUIPMENT
	SUMP Classification	Capital	
	Infrastructure	SFM station- Line S4A Bologna-Ferrara	
			
STATION	Buildings/Spaces owned by RFI	Station building	
	Buildings/Spaces owned by others	-	
	Universal Accessibility	Subway, video and audio information, raised pavements	
	Elements of recognisability	Canopies and furniture as per SFM project abacus	
	Video surveillance systems inside the station	-	
	Other services	Self-Service Ticketing	
PEDESTRIAN MOBILITY	Footpaths/wayfinding and crossings	Own carriageway paths on pavements with non-signalised level crossings	
	Signage and lighting	Public lighting	
	Pedestrian areas	-	
	Zone 30	-	
	Universal Accessibility	-	
CYCLING MOBILITY	Cycle routes and crossings	-	
	Signage and lighting	-	
	Spaces and facilities for parking	Racks on both sides of the station (approx. 20 stalls)	
	Velostation	-	
	Inflating pumps	-	
	Cycle shop	-	
	Cycle routes	-	
PUBLIC MOBILITY	Local public transport stops	Main station square, line 27	
	Fast lines	-	
	Traffic light installations	-	
	Information monitors	-	
MOTORISED MOBILITY	Parking areas	2 uncovered parking areas (approx. 40 spaces)	
	Kiss&Ride	-	
	Information systems	-	
	Charging columns	-	
	Taxi Area	-	
INNOVATIVE MOBILITY (shared and electric)	Bike sharing	-	
	E-scooter sharing	-	
	Car-sharing	Coverage area Corvetto	
	MAAS (systems, apps)	App Roger (Tper), App Tsmtalks	
OTHER FUNCTIONS AND SERVICES	Green	Car park trees	
	Buildings outside the station managed by Associations, Bodies	-	
	Information maps	-	
	Video surveillance systems outside the station	-	
	Recognisable elements outside the station	-	
	Logistics Services	-	
	Sustainable energy supply systems	-	
	Planned projects	PIMBO	

Table 3: general information and equipment of the Corticella Mobility Center translated by the author (Città Metropolitana di Bologna et al., 2021b)

4.4.1 Functions analysis

The station area is mostly a manufacturing area in the area pertaining to the municipality of Castel Maggiore, while in the area pertaining to the municipality of Bologna there is a concentration of housing. The area closest to the station pertaining to Castel Maggiore residential includes a primary school and a kindergarten, and Villa Salina, a villa owned by the Emilia-Romagna region where conferences and events are held. Also in the residential area of Corticella are several schools spread throughout the area, while some grocery shops and supermarkets, hospitals and cultural centres are located in the Via Gorki area. There is a large sports centre on Via Bentini and several gyms mainly related to the schools in the area.





Corticella Station

Administrative Limit

Function analysis

School

Gymnasium/sports centre

Groceries

Production settlements and services

Bar/restaurant

Cultural centre/ event centre/ library/ theatre

Hospital/policy clinic

Hotel/accommodation

Housing

Figure 40: representation of the function analysis in the area of relevance of the Mobility Centre

4.4.2 Viability analysis

A traffic analysis of the area was carried out from the perspective of soft mobility, public mobility and road speed.

As far as pedestrian traffic is concerned, it is not favoured by the morphology of the area, which has few areas near the station with pavements at least 1.5 metres wide on both sides of the road.

The cycle network is not very safe: cycle paths with physical separation from the carriageway are often interrupted without closing a route, and are very short and fragmented. In general, the entire cycle network is bumpy: the Navile Canal cycle path is nowhere connected to the Bicipolitana Bolognese cycle path.(Città Metropolitana di Bologna, n.d.)

From the point of view of the public transport network, the area is covered by several suburban buses, two of which are connected to the municipality of Bologna, while one provides connections between several neighbouring municipalities. An urban line has its terminus in the main square of the station. The planned tram line will also be located in the vicinity of the station and will provide another fast connection to the centre of Bologna.

Bologna Città 30 is an active project from 1 July 2023, the city of Bologna is in fact the first medium-sized Italian city to experiment with this type of approach, already seen in several European cities. The area identified as 'Città 30' involves the area bordering the Corticella Mobility Centre, but the streets leading to the station remain passable at 50 km/h, despite the fact that some of them are also in the residential district and therefore do not require high-speed roads. (Comune di Bologna and Fondazione Innovazione Urbana, 2023)

Road sections have been depicted for some areas to show how they change in relation to the area in which they are located, despite the fact that they are all in the vicinity of the Corticella station. Section 2 in figure 47 represents Via Bentini, the street that passes under the railway, the other streets represented are on the railway level at different points and, while in section 3 the pavement is present on both sides, in sections 1 and 4 it is only present on one side.

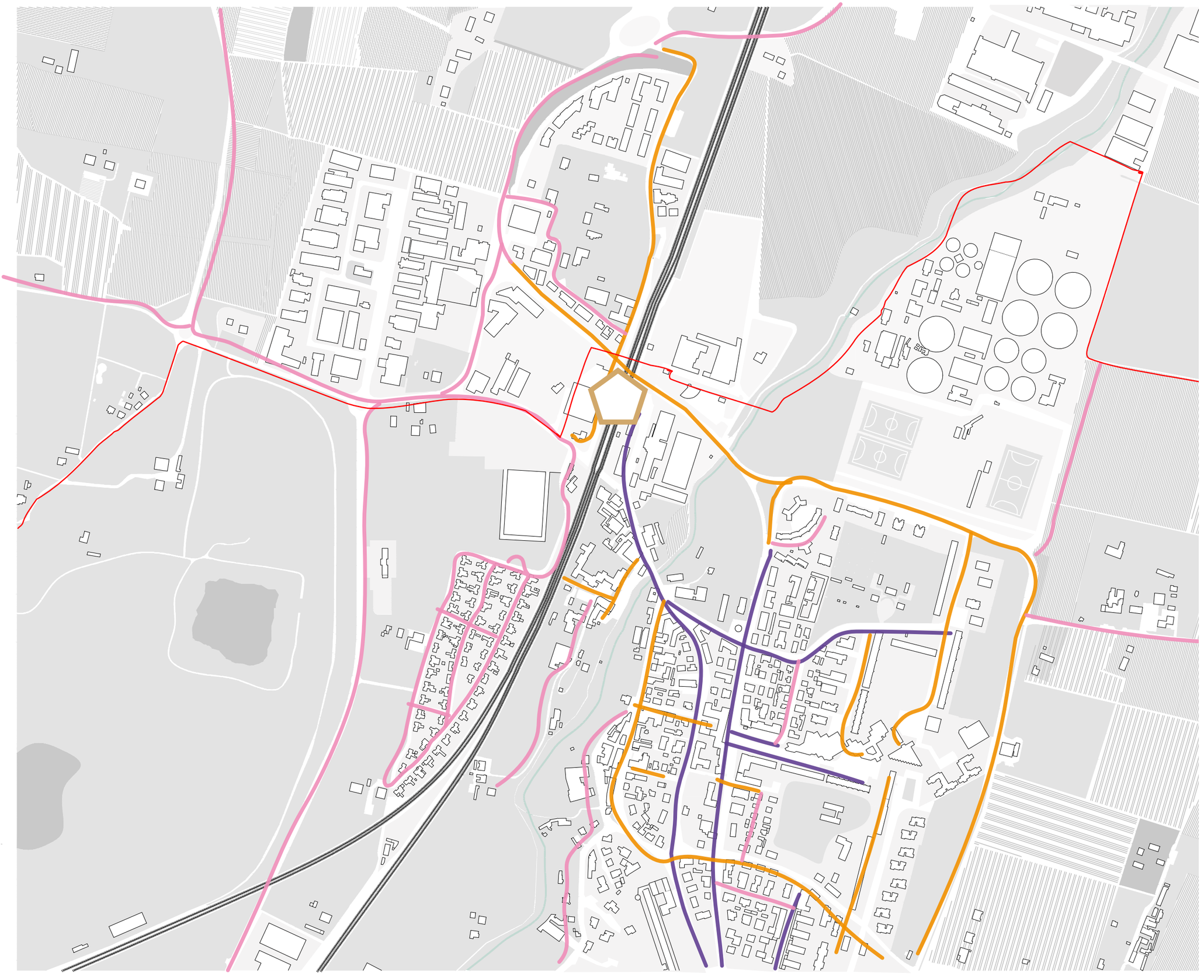


Figure 41: representation of the pedestrian network analysis in the area of relevance of the Mobility Centre

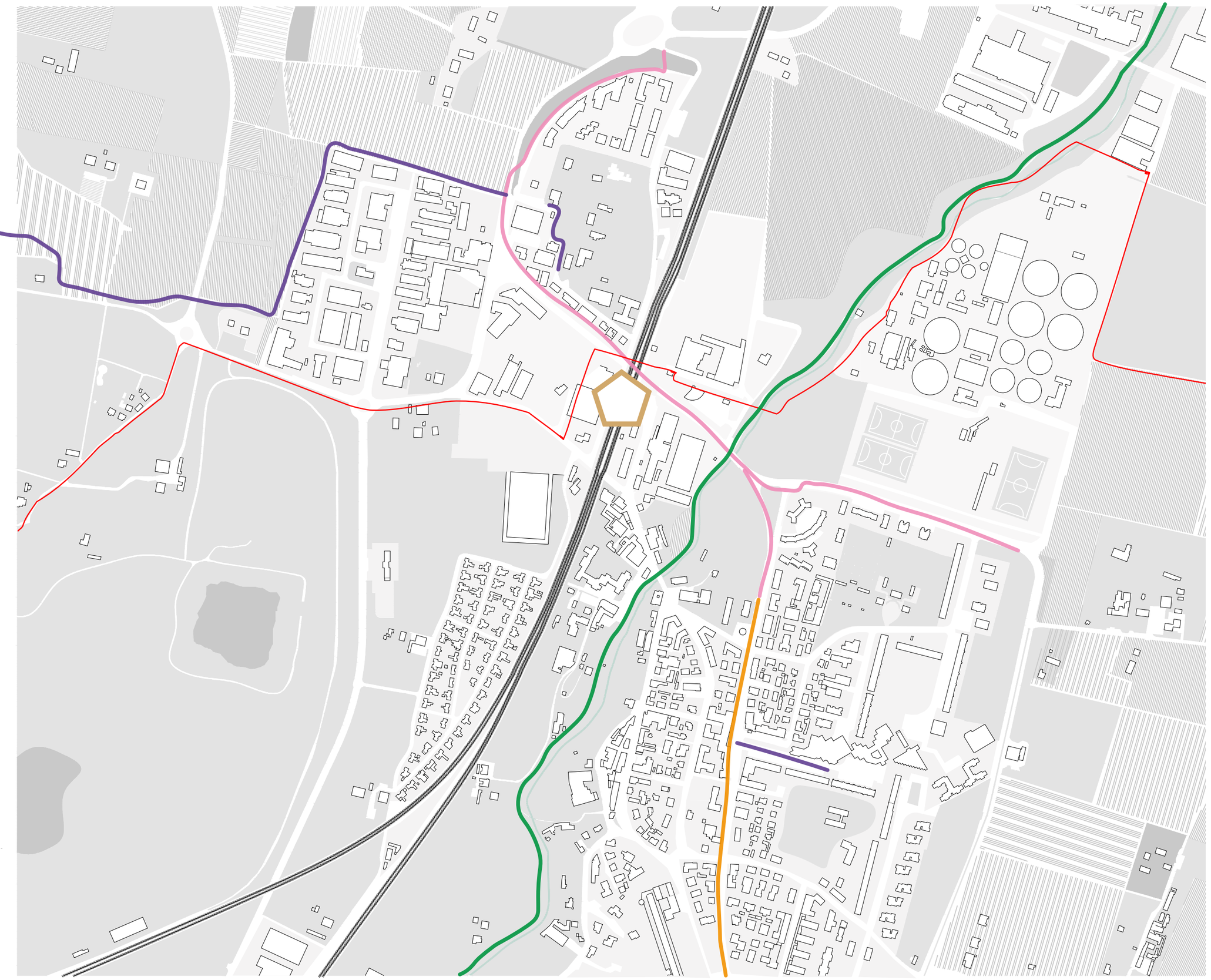
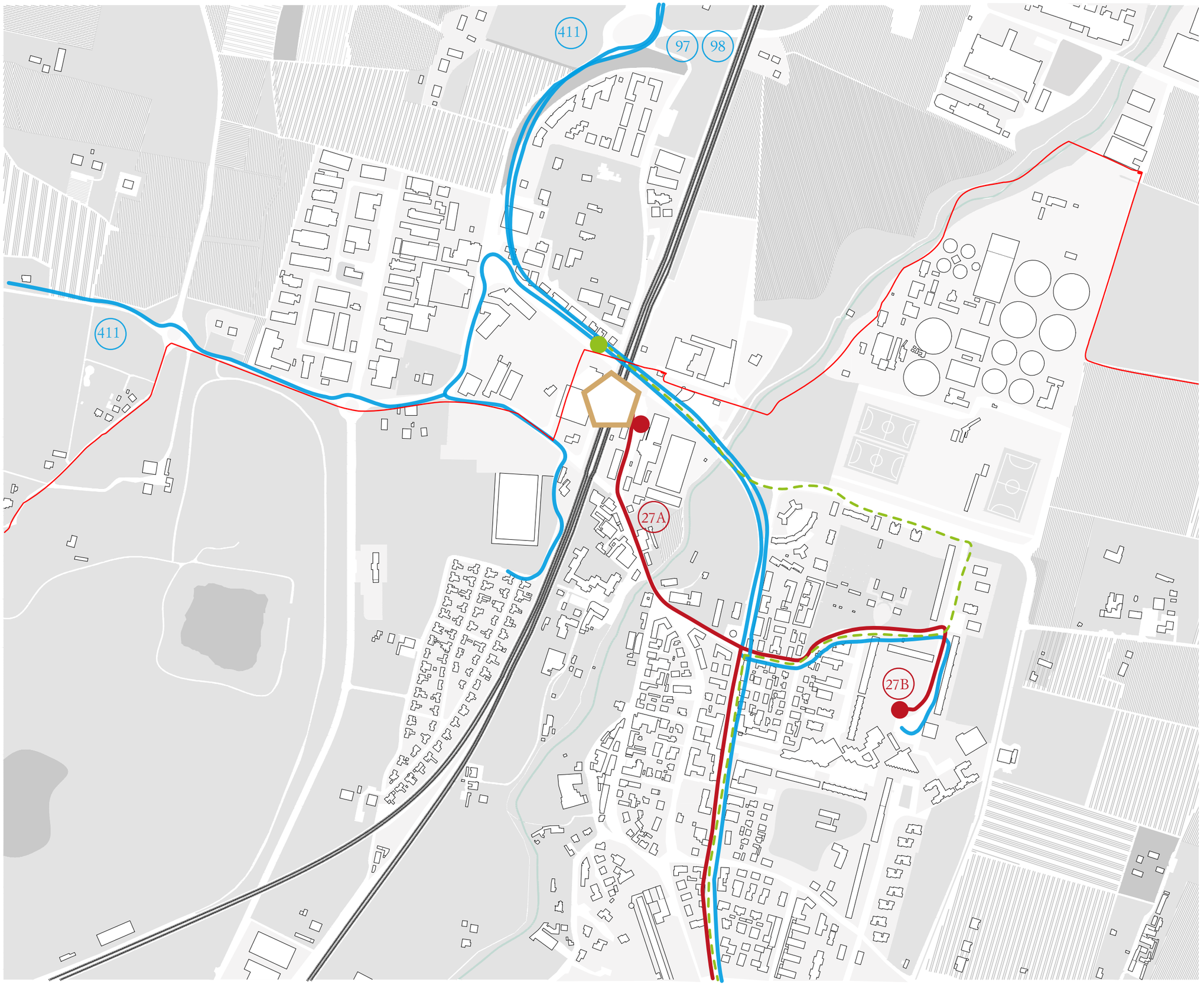
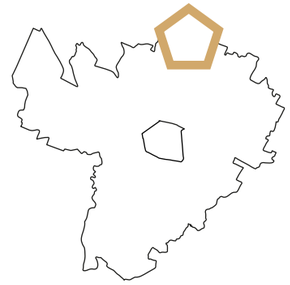


Figure 42 :representation of the cycle network analysis in the area of relevance of the Mobility Centre





Corticella Station

Administrative Limit

Analysis of the public transport network

Urban bus line

Suburban bus line

Planned tram line

End of the line

Railway

27A Urban bus number

97 Suburban bus number

Figure 43 :representation of the cycle network analysis in the area of relevance of the Mobility Centre

Corticella Station

Administrative Limit

Bologna città 30

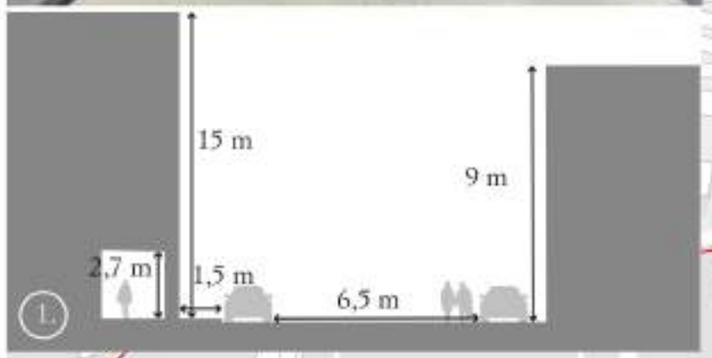
Roads at 50 km/h

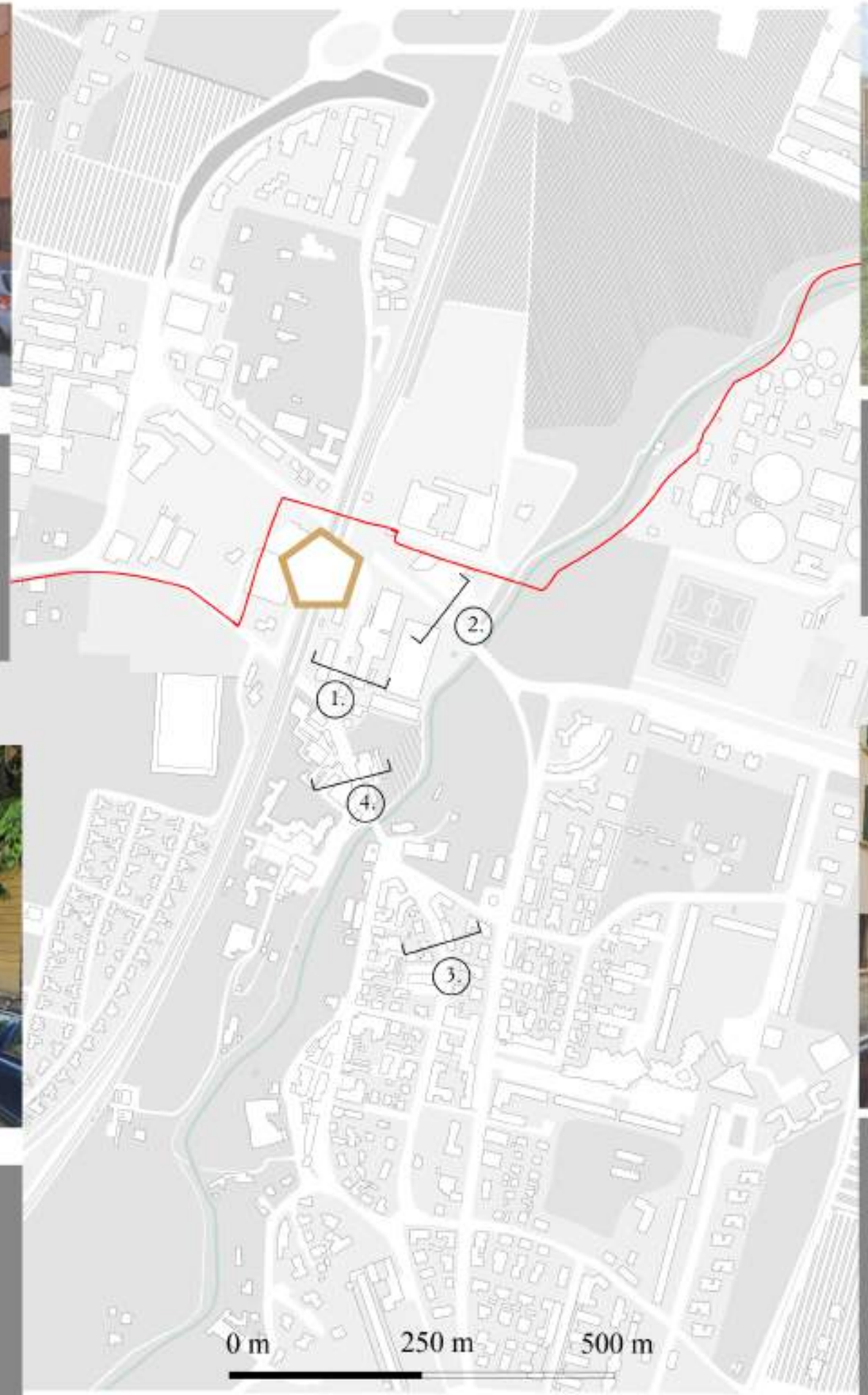
Roads at 30 km/h or less

Città 30

0 m 250 m 500 m

Figure 44: representation of the Bologna Città 30 analysis in the area of relevance of the Mobility Centre





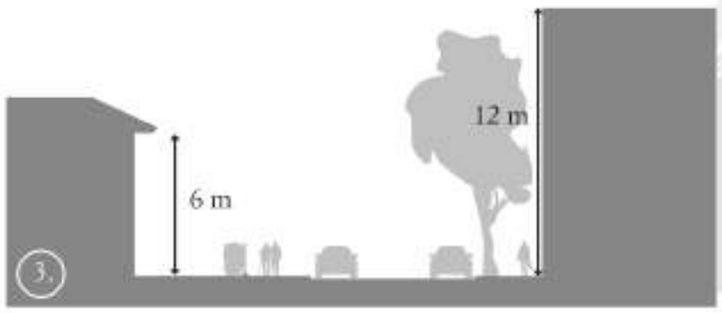


Figure 45 :representation of some road cross-sections in the area of relevance of the Mobility Centre

4.4.3 Identification of points of project interest

It was then possible to focus on points of great design interest by going into more detail in the area: these are points where connections are lacking (photo 5 figure 48), accessibility conditions are not good (photos 1,3, 8 figure 48), or even safety conditions (photos 1, 2, 9,10 figure 48). Other points, on the other hand, offer ample space (photo 4 figure 48), but there are critical points or do not present the services that are required by a Mobility Centre, especially if it is designed with a gender-sensitive approach.

These are mainly the access areas on both sides of the station, interrupted or unsafe cycle connections, and the path and forecourt (photos 9 and 10 figure 48) in front of the schools closest to the station: the Primo Levi primary school and the Villa Salina nursery school.

10 11 9 8 7 6 4 3 2 1 5

Points of project interest

Corticella Station

Administrative Limit

scale 1:2000

Figure 46 :representation of points of project interest in the area of relevance of the Mobility Centre

4.4.4 A proposal for Corticella Mobility Centre

To develop the application part, the criteria and indicators proposed for the analysis of mobility plans were taken into account and used as an urban planning standard, not in a quantitative sense, but in a qualitative sense: it is therefore considered fundamental also in this phase to take into account the tools and teachings of the analysis part in order to have as rigorous an approach as possible. The interventions to be proposed have therefore been grouped into macro areas, in fact while the criteria used for the analysis were ten, in this project phase they have been summarised into three levels: Equipped, Accessible and Safe and Free.

"Equipped" mainly involves the criteria also relating to "Daily and Caring", "Well-Marked", "Vital", the criterion "Safe and Free" also brings together "Nocturnal and Festive" and "Supervised", while "Accessible" refers only to itself, as it cannot be associated with other criteria. The criteria "Participative and Equitable" has no application in this thesis, as it would not have been possible to carry out a participatory process for this practical application, although the importance of this criterion at design level is recognised.

The areas highlighted in figure 49 in pink refer to the Equipped criteria, those in yellow to Accessible and those in purple to Safe and Free, and identify on the strategic map the areas where it is appropriate to intervene according to that criteria, suggesting through icons the interventions that could be made. The same colours also depict existing links and those that would need to be implemented, as well as those that would need to be created from scratch.

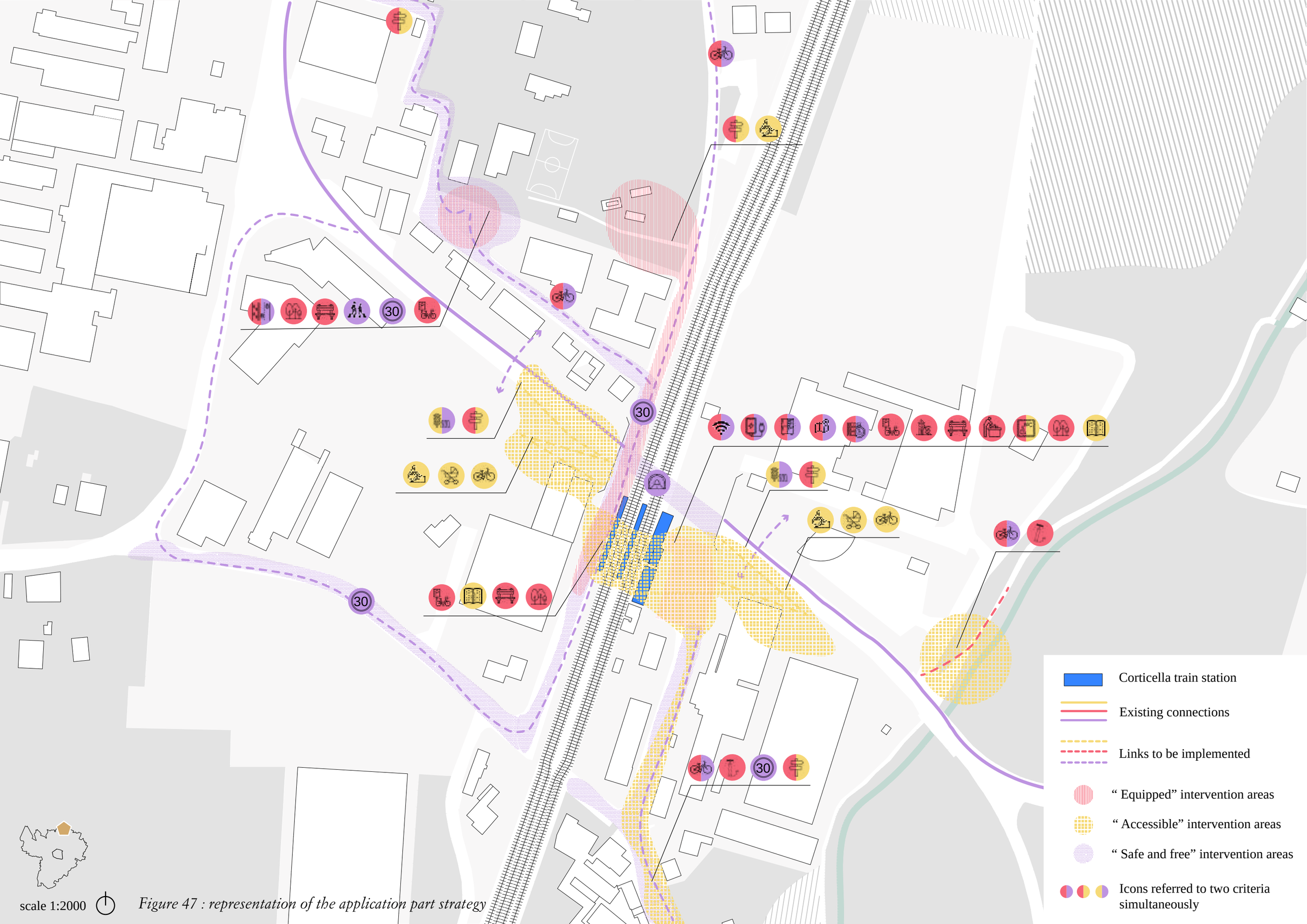


Figure 47 : representation of the application part strategy

Two areas, in which most of the interventions proposed in the strategy map were located, were then examined in depth: the area of the main entrance forecourt to the station, with its connection to the road under the railway, and the area of the connection between the school and the street of the secondary entrance to the station.

The axonometric representations in figure 50 and 51 offer a glimpse of what the situation might be after the gender-sensitive planning intervention.

Real-time transport information and directions and neighbourhood-wide street maps

Wi-fi and mobile phone charging columns

Children's play areas

Open and closed bicycle parking

Lockers or spaces for storing bags

Accessible toilets for staff or passengers and baby changing facilities

Ramps

Cycle paths separated by physical barriers from the carriageway

Bike sharing station

Benches and green areas

Footpaths with pedestrian-accessible streets with tactile tile signage

30

Traffic-calming areas

Signs with directions to public transport stops and/or cycle routes, mobility centre, transport interconnections

Traffic light with countown

“ Equipped” intervention areas

“ Accessible” intervention areas

“ Safe and free” intervention areas

Icons referred to two criteria simultaneously

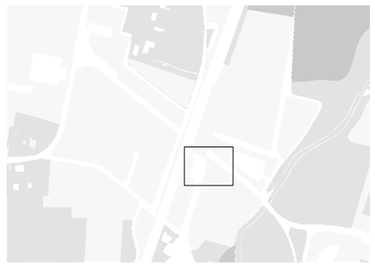


Figure 48: axonometry of the Corticella station entrance forecourt

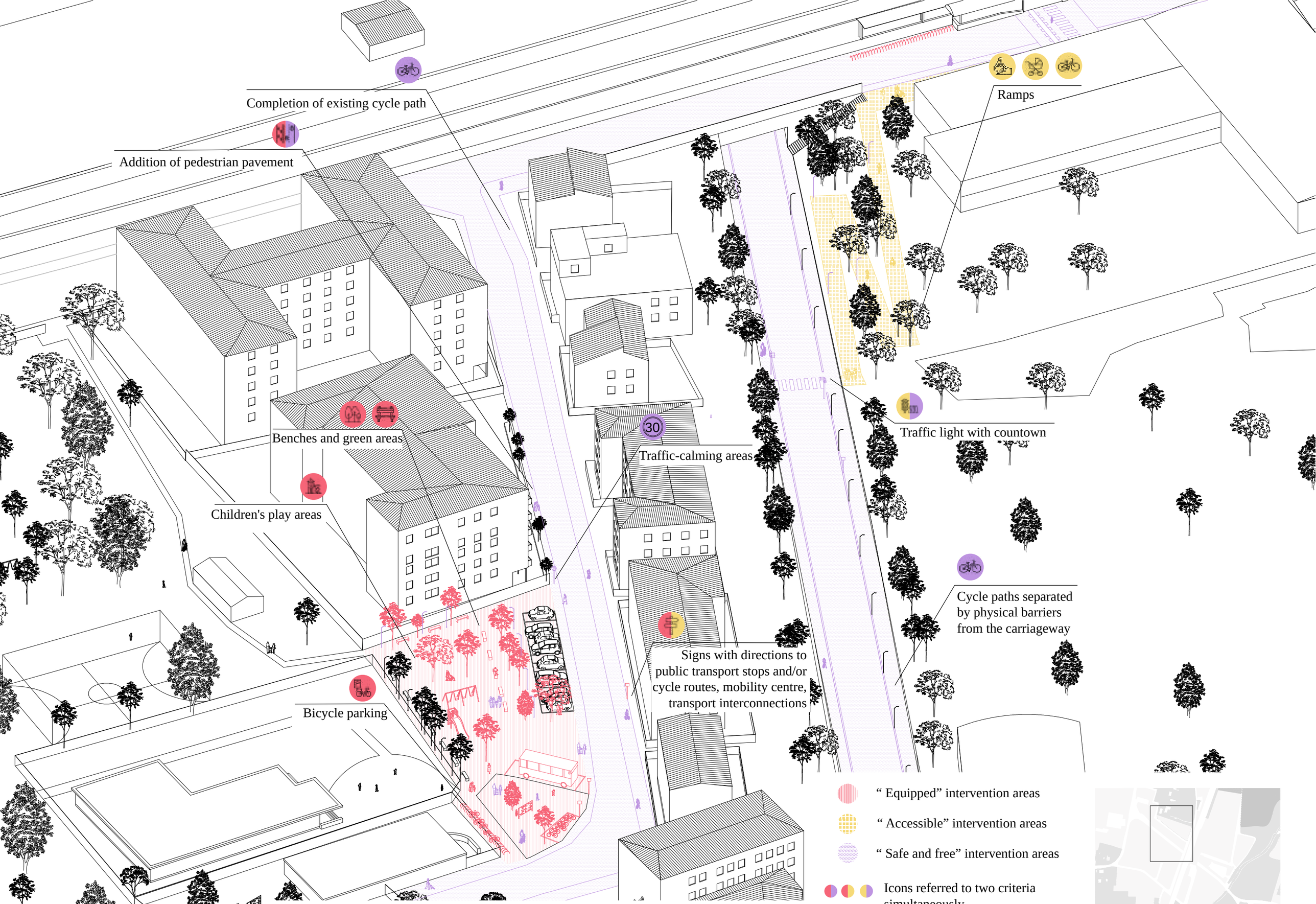


Figure 49 : axonometry of the school entrance forecourt and connection to the station

Conclusions

The thesis work dealt with gender-sensitive planning in mobility, searching for definitions in the literature to explain how the topic was defined and why it needed to be studied. The focus was on the role of mobility in everyday life, the differences in how people approach it and the statistics collected at European level on this topic.

Subsequently, thanks to the development of gender criteria indicators, it was possible to provide and graph an assessment of where ten European cities were at the time they were drafting their mobility plans.

The thesis work carried out made it clear, especially through the comparative analysis, how little the topic is still dealt with at European level.

Vienna and Barcelona, that well-integrate most of the criteria considered, have achieved high results according to gender-sensitive planning criteria since they have made an in-depth study of the needs of the population and have gone into detail in documenting their planning choices. Although the results are generally unsatisfactory, there are other cities that have achieved high results (such as London and Valencia), which, however, do not explicitly refer to gender-sensitive planning in their planning strategy, which suggests that this type of planning is not yet institutionalised in much of Europe.

In any case, things are changing in recent years: much more often, in fact, people are starting to talk about gender urbanism, as in the example of Bologna's press release on the occasion of 8 March 2023.

As far as the individual criteria are concerned, there certainly remain controversial issues, especially those related to safety: it is no coincidence that there were fewer indicators related to the topic and that the results were generally not good, because there is still no unambiguous awareness that would allow concrete action to be taken to counter the perception of insecurity felt especially by women on the streets. The generally more successful criteria is that of accessibility: more and more people are moving towards more accessible cities, it seems to be a concept that is not lacking in planning.

In the last application part there was a way to convert and re-adapt the same indicators used for the analytical part into design requirements: the characteristics that were sought in the plans were the same as those that were considered indispensable for putting into practice what had

been learnt so far. Although the area represented was not particularly large, it was possible to include different types of intervention, each linked to a starting criteria.
The tool developed thus has a lot of potential, as it can be used both from the point of view of evaluating and examining the state of affairs in terms of inclusiveness in planning, and from the point of view of guiding inclusive planning.

Certainly for future developments in the field of gender-sensitive design it would be very interesting to have the opportunity to carry out the application part using the participatory process and all its features, to work at all stages of design with stakeholders and target groups, to ensure that the vision is shared and never taken for granted to be in the interest of the majority, precisely because automatically the concept of majority excludes individualities.

In order to investigate this type of theme, a transversal cognitive approach is indispensable, as the choices of each individual in the field of mobility, as well as in the way of living in general the relationship with the city, certainly do not pertain only to the architectural and engineering sphere, but are also closely linked to the social sphere for example.

Urban planning must increasingly develop strategies and cannot disregard a type of planning that takes into account the fight against climate change, which is why even the most recent studies carried out on the subject seek the link between gender-sensitive planning and greater sustainability: if this type of thinking were to be explored in more depth and more solid and concrete connections were found, the tool developed could certainly be a great opportunity for future progress towards greener planning.

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Annex: comparative analysis tables

London

	Abbreviation	Indicator description	London	On a 0-1 scale
General Characteristics		Year in which the plan was adopted, number of citizens, population density	2018, 9 625 500 inhabitants, 6 122,51 ab./km²	-
1	GI	Number of times the words gender/gendered, social justice, equity, diversity, care, people-oriented, human-oriented, human scale, trip chain are mentioned in mobility plans	Gender(1), equality(5), diversity (3), care (4)	0,317073171
2	GI	Presence of definition of gender mainstreaming in the glossary of the transport plan	No	0
3	GI	Presence of gender experts in the plan drafting process	No	0
4	GI	Presence of studies on the use of bike sharing with gender-disaggregated data	No	0
5	GI	Presence of disaggregated data on the modes of transport most frequently used by men, women, disabled people, different ethnicities and income	Yes	1
6	GI	Presence of pilot projects dealing explicitly with gender mainstreaming	No	0
7	DC	Mention of reserved seats for persons with reduced mobility, pregnant women and senior citizens on public transport	Yes	1
8	DC	Mention of spaces dedicated to the storage of prams and pushchairs on public transport	Yes, it also mentions training of transport workers to help with wheelchairs and pushchairs	1
9	DC	Reinforcement of lines during school opening and closing times	No	0
10	DC	Presence of traffic-calming areas near schools	No	0
11	DC	Mention of bicycle parking spaces near public transport stations to favour intermodal transport	Yes	1
12	DC	Number of seats for waiting public transport vehicles	No	0
13	DC	Presence of subsidised social fare system for accompanying children or persons with reduced mobility, for example in car sharing system, or in public transport	Yes, as categories mainly mention reduced income, old, disabled	1
14	DC	Presence of programmes to accompany children to school on foot or by bicycle (pedibus, bicibus)	Not exactly accompany children to school but it mentions healthy and safe routes to school	1
15	DC	Presence of fares or tickets for intermodal "single ticket" transport and information system for multimodality	No	0
16	DC	Possibility of carrying a bicycle on local public transport for free	No	0
17	DC	Increased bicycle parking in the vicinity of schools	Yes	1
18	DC	Presence of streets or squares near the school dedicated to children's play and recreational activities	There is a willingness to collaborate with schools to make streets where people can play	1

19	DC	Presence of streets or squares temporarily closed to traffic for pedestrians and cyclists	It is mentioned as a service at the request of the neighbourhood and also to make trials to show that planning puts people at the centre: regular and experimental closures will be tested	0.5
20	DC	Public transport and bicycle connections between suburbs	Yes	1
21	SF	Presence of sexual assault management protocols in the mobility system	Mention of finding ways to deal with sexual offences and hate crimes	1
22	SF	Presence of training for staff in sexual assault managemen	It mentions dealing with sexual offences and hate crimes	1
23	SF	Width of pavements near schools (the minimum should be 1.8/2m)	It mentions it in general to enlarge them for disabled people everywhere, but does not quantify	0.5
24	SF	Number of cycle paths separated by physical barriers from the carriageway	It mentions the need to protect cyclepath when necessary	1
25	SF	Duration of traffic lights for pedestrians in the vicinity of nursing homes, hospitals and schools (it should be calculated to ensure movement for a person with a speed of 0.7 m/s)	No	0
26	SF	Number of countdown traffic lights	No	0
27	SF	Presence of traffic light programming differentiated by time of day, or programmed by pedestrian priority or public transport priority	No	0
28	SF	Percentage of traffic calming zones in the inhabited area	Yes, it mentions it for zero road danger	1
29	NF	Night transport services reserved for women: pink taxis and other initiatives	No	0
30	NF	Possibility of requesting customised stops during night hours	No	0
31	NF	Number of illuminated bus stations	No	0
32	PE	Proportion of women in the decision-making process of the plan	No	0
33	PE	Collaboration with women's associations, associations dealing with disabilities, associations dealing with immigration, NGOs	Yes	1
34	PE	Participatory process with stakeholders	The term stakeholders is mentioned, in all initiatives practically, including diversity in 'action on equality'	1
35	PE	Degree of participatory process	Yes, in all project phases it is mentioned	1

36	PE	Percentage of women in the participative process	No	0
37	PE	Percentage of disabled people in the participative process	No	0
38	WM	Presence of neighbourhood-wide street maps throughout the city with bicycle network and/or public transport connections	Yes, "Legible London" iniciative	1
39	WM	Illuminated bicycle lanes	No	0
40	WM	Bicycle lanes in a different colour from the street	No	0
41	WM	Public transport stops and stations equipped with dynamic real-time transport information	Yes, visual and auditory information	1
42	WM	Presence of signs with directions to public transport stops and/or cycle routes, mobility centres, transport interconnections, important destinations in public space	Yes	1
43	WM	Presence of advance indication of end of cycle path	No	0
44	WM	Presence of specific sections within the plan on inclusion or public initiatives to promote inclusive measures within the plan	The words accessible and inclusive are repeated a lot, many measures in the plan are aimed at this even if there are no particular public initiatives	1
45	WM	Number of interventions to remove visual obstructions	It is mentioned "removing obstacles", but not in term of visual obstruction	0,25
46	VI	Mention of making public transport stops more vital by having nearby activities, even at night perhaps	Yes	1
47	VI	Presence of interventions aimed at enhancing ground floors to make areas more attractive to pedestrians and generally bring more liveability	No	0
48	VI	Presence of benches and green areas near public transport stops	Yes, not necessary near public transport but in general	1
49	VI	Presence of initiatives to free streets from car parking for the re-appropriation of space by soft mobility (cycling and walking), e.g. the elimination of on-street parking and the implementation of multi-car garages in high-density areas	No	0
50	SU	Presence of wifi on vehicles and at stops	Yes, stops of railway and metro network	1
51	SU	Presence of dedicated telephone lines/buttons for direct contact for sexual harassment and assault	No	0
52	SU	Presence of mobile phone charging columns at public transport stops or on public transport	No	0
53	EQ	Number of toilets near public transport stops for staff or passengers	No	0
55	EQ	Number of supervised or guarded/enclosed bicycle parking facilities	Yes	1

55	EQ	Number of roads/kilometres maintained for potholes/ground irregularities	Yes, it mentions well maintained streets, but not quantifying them	1
56	EQ	Presence of double bike lanes on one-way driveways	No	0
57	AC	Percentage of public transport stops and a cyclist network within 300m from home (to urban bus, tram, or bike sharing stations)	It mentions 70% capacity at max 400 m from cycling network in 2041	1
58	AC	Percentage of stops, metrobus and railway stations, interchanges, etc. with universal physical, sensory and cognitive accessibility (lifts, ramps, signage and visual and audible information, etc.) along the whole travel chain: environment, concourse/stop, connectors, platform, bus/train/metro	Mention accessibility of buses and bus stops	1
59	AC	Proportion of footpaths with pedestrian-accessible streets with tactile tile signage	Yes, only mentioned	1
60	AC	Presence of affordable sharing services with annual fares and subscriptions, or linked to local public transport subscriptions	No	0
61	AC	Presence of an accessible online platform for consulting the results of mobility surveys and polls	Yes	1
62	AC	Presence of affordable dial-a-ride services for persons with disabilities and sparsely populated areas	Yes	1

Criteria	Average score criteria on a 0-1 scale	Average score criteria on a 0-5 scale
GI	0,22	1,10
DC	0,61	3,04
SF	0,56	2,81
NF	0	0
PE	0,50	2,50
WM	0,53	2,66
VI	0,50	2,50
SU	0,33	1,67
EQ	0,50	2,50
AC	0,83	4,17

Vienna

	Abbreviation	Indicator description	Vienna	On a 0-1 scale
General Characteristics		Year in which the plan was adopted, number of citizens, population density	2015, 1 982 442 inhabitants, 4 781,58 ab./km²	-
1	GI	Number of times the words gender/gendered, social justice, equity, diversity, care, people-oriented, human-oriented, human scale, trip chain are mentioned in mobility plans	Gender (24), equity (1), equality (1), care (15) trip chain (1), diversity (17)	1
2	GI	Presence of definition of gender mainstreaming in the glossary of the transport plan	Yes	1
3	GI	Presence of gender experts in the plan drafting process	Yes	1
4	GI	Presence of studies on the use of bike sharing with gender-disaggregated data	Yes	1
5	GI	Presence of disaggregated data on the modes of transport most frequently used by men, women, disabled people, different ethnicities and income	No	0
6	GI	Presence of pilot projects dealing explicitly with gender mainstreaming	Yes	1
7	DC	Mention of reserved seats for persons with reduced mobility, pregnant women and senior citizens on public transport	No	0
8	DC	Mention of spaces dedicated to the storage of prams and pushchairs on public transport	No	0
9	DC	Reinforcement of lines during school opening and closing times	No	0
10	DC	Presence of traffic-calming areas near schools	Yes	1
11	DC	Mention of bicycle parking spaces near public transport stations to favour intermodal transport	Yes	1
12	DC	Number of seats for waiting public transport vehicles	No	0
13	DC	Presence of subsidised social fare system for accompanying children or persons with reduced mobility, for example in car sharing system, or in public transport	No, but it mentions to make bigger car models or with more specific equipement for sharing for care activities	0,25
14	DC	Presence of programmes to accompany children to school on foot or by bicycle (pedibus, bicibus)	No	0
15	DC	Presence of fares or tickets for intermodal "single ticket" transport and information system for multimodality	Yes	1
16	DC	Possibility of carrying a bicycle on local public transport for free	Yes, it's a proposal of the citizens	1
17	DC	Increased bicycle parking in the vicinity of schools	It's mentioned in a general way near public buildings and services	1
18	DC	Presence of streets or squares near the school dedicated to children's play and recreational activities	Yes, "Vienna play street"	1
19	DC	Presence of streets or squares temporarily closed to traffic for pedestrians and cyclists	Yes, in front of schools and at weekends in general	0,75
20	DC	Public transport and bicycle connections between suburbs	No	0
21	SF	Presence of sexual assault management protocols in the mobility system	No	0
22	SF	Presence of training for staff in sexual assault management	No	0
23	SF	Width of pavements near schools (the minimum should be 1.8/2m)	Not particularly near schools, but 2 m minimum	1

24	SF	Number of cycle paths separated by physical barriers from the carriageway	No	0
25	SF	Duration of traffic lights for pedestrians in the vicinity of nursing homes, hospitals and schools (it should be calculated to ensure movement for a person with a speed of 0.7 m/s)	No	0
26	SF	Number of countdown traffic lights	No	0
27	SF	Presence of traffic light programming differentiated by time of day, or programmed by pedestrian priority or public transport priority	Yes	1
28	SF	Percentage of traffic calming zones in the inhabited area	Yes, on the shared roads there is the 20 km/h limit	1
29	NF	Night transport services reserved for women: pink taxis and other initiatives	No	0
30	NF	Possibility of requesting customised stops during night hours	No	0
31	NF	Number of illuminated bus stations	No	0
32	PE	Proportion of women in the decision-making process of the plan	35%	0,35
33	PE	Collaboration with women's associations, associations dealing with disabilities, associations dealing with immigration, NGOs	Yes,NGOs	1
34	PE	Participatory process with stakeholders	It mentions people with different background and experiences	1
35	PE	Degree of participatory process	Continuous participatory process, from start to finish, up to fairness checks	1
36	PE	Percentage of women in the participative process	Mentioned, not quantified	1
37	PE	Percentage of disabled people in the participative process	It mentions reduced mobility experts	1
38	WM	Presence of neighbourhood-wide street maps throughout the city with bicycle network and/or public transport connections	No	0
39	WM	Illuminated bicycle lanes	No	0
40	WM	Bicycle lanes in a different colour from the street	No	0
41	WM	Public transport stops and stations equipped with dynamic real-time transport information	Yes	1
42	WM	Presence of signs with directions to public transport stops and/or cycle routes, mobility centres, transport interconnections, important destinations in public space	Yes, for schools	1
43	WM	Presence of advance indication of end of cycle path	Yes, it's a citizens' proposal	1
44	WM	Presence of specific sections within the plan on inclusion or public initiatives to promote inclusive measures within the plan	No	0
45	WM	Number of interventions to remove visual obstructions	No	0
46	VI	Mention of making public transport stops more vital by having nearby activities, even at night perhaps	No	0
47	VI	Presence of interventions aimed at enhancing ground floors to make areas more attractive to pedestrians and generally bring more liveability	Yes	1

48	VI	Presence of benches and green areas near public transport stops	Not exactly, it mentions resting places along footpaths	0,25
49	VI	Presence of initiatives to free streets from car parking for the re-appropriation of space by soft mobility (cycling and walking), e.g the elimination of on-street parking and the implementation of multi-car garages in high-density areas	Yes	1
50	SU	Presence of wifi on vehicles and at stops	No	0
51	SU	Presence of dedicated telephone lines/buttons for direct contact for sexual harassment and assault	No	0
52	SU	Presence of mobile phone charging columns at public transport stops or on public transport	Yes, at "mobility points"	1
53	EQ	Number of toilets near public transport stops for staff or passengers	No	0
55	EQ	Number of supervised or guarded/enclosed bicycle parking facilities	It is mentioned	1
55	EQ	Number of roads/kilometres maintained for potholes/ground irregularities	It is mentioned	1
56	EQ	Presence of double bike lanes on one-way driveways	Yes	1
57	AC	Percentage of public transport stops and a cyclist network within 300m from home (to urban bus, tram, or bike sharing stations)	Yyes, the distance is calculated for bike sharing, rail transpoet and local transpoet	1
58	AC	Percentage of stops, metrobus and railway stations, interchanges, etc. with universal physical, sensory and cognitive accessibility (lifts, ramps, signage and visual and audible information, etc.) along the whole travel chain: environment, concourse/stop, connectors, platform, bus/train/metro	It is mentioned	1
59	AC	Proportion of footpaths with pedestrian-accessible streets with tactile tile signage	No	0
60	AC	Presence of affordable sharing services with annual fares and subscriptions, or linked to local public transport subscriptions	Yes, with mobility card	1
61	AC	Presence of an accessible online platform for consulting the results of mobility surveys and polls	Yes	1
62	AC	Presence of affordable dial-a-ride services for persons with disabilities and sparsely populated areas	Yes	1

Criteria	Average score criteria on a 0-1 scale	Average score criteria on a 0-5 scale
GI	0,83	4,17
DC	0,50	2,50
SF	0,38	1,88
NF	0	0
PE	0,89	4,46
WM	0,38	1,88
VI	0,56	2,81
SU	0,33	1,67
EQ	0,75	3,75
AC	0,83	4,17

Malmö

	Abbreviation	Indicator description	Malmö	On a 0-1 scale
General Characteristics		Year in which the plan was adopted, number of citizens, population density	2016, 351 749 inhabitants, 2 242,3 inhab./km²	-
1	GI	Number of times the words gender/gendered, social justice, equity, diversity, care, people-oriented, human-oriented, human scale, trip chain are mentioned in mobility plans	Gender (14), care (1), equality (8), diversity (2), human scale (2),	0,66
2	GI	Presence of definition of gender mainstreaming in the glossary of the transport plan	No	0
3	GI	Presence of gender experts in the plan drafting process	No	0
4	GI	Presence of studies on the use of bike sharing with gender-disaggregated data	No	0
5	GI	Presence of disaggregated data on the modes of transport most frequently used by men, women, disabled people, different ethnicities and income	Yes, by women and men	1
6	GI	Presence of pilot projects dealing explicitly with gender mainstreaming	No	0
7	DC	Mention of reserved seats for persons with reduced mobility, pregnant women and senior citizens on public transport	Not mentioned	0
8	DC	Mention of spaces dedicated to the storage of prams and pushchairs on public transport	Not mentioned	0
9	DC	Reinforcement of lines during school opening and closing times	Not mentioned	0
10	DC	Presence of traffic-calming areas near schools	Yes, car free school concept	1
11	DC	Mention of bicycle parking spaces near public transport stations to favour intermodal transport	Yes, also safe and included in the ticket price	1
12	DC	Number of seats for waiting public transport vehicles	Not mentioned	0
13	DC	Presence of subsidised social fare system for accompanying children or persons with reduced mobility, for example in car sharing system, or in public transport	Not mentioned	0
14	DC	Presence of programmes to accompany children to school on foot or by bicycle (pedibus, bicibus)	Yes, safe routes to school	1
15	DC	Presence of fares or tickets for intermodal "single ticket" transport and information system for multimodality	Yes	1
16	DC	Possibility of carrying a bicycle on local public transport for free	No	0
17	DC	Increased bicycle parking in the vicinity of schools	Not mentioned	0
18	DC	Presence of streets or squares near the school dedicated to children's play and recreational activities	Not mentioned	0
19	DC	Presence of streets or squares temporarily closed to traffic for pedestrians and cyclists	Not mentioned	0
20	DC	Public transport and bicycle connections between suburbs	Not mentioned	0
21	SF	Presence of sexual assault management protocols in the mobility system	No	0
22	SF	Presence of training for staff in sexual assault managemen	No	0

23	SF	Width of pavements near schools (the minimum should be 1.8/2m)	No	0
24	SF	Number of cycle paths separated by physical barriers from the carriageway	Yes	1
25	SF	Duration of traffic lights for pedestrians in the vicinity of nursing homes, hospitals and schools (it should be calculated to ensure movement for a person with a speed of 0.7 m/s)	No	0
26	SF	Number of countdown traffic lights	No	0
27	SF	Presence of traffic light programming differentiated by time of day, or programmed by pedestrian priority or public transport priority	Yes, with priority to public transport	1
28	SF	Percentage of traffic calming zones in the inhabited area	Yes	1
29	NF	Night transport services reserved for women: pink taxis and other initiatives	No	0
30	NF	Possibility of requesting customised stops during night hours	No	0
31	NF	Number of illuminated bus stations	No	0
32	PE	Proportion of women in the decision-making process of the plan	47%	0,47
33	PE	Collaboration with women's associations, associations dealing with disabilities, associations dealing with immigration, NGOs	No	0
34	PE	Participatory process with stakeholders	Participatory process mentioned but without mentioning diversities	0,5
35	PE	Degree of participatory process	Consultation	0,5
36	PE	Percentage of women in the participative process	Not mentioned	0
37	PE	Percentage of disabled people in the participative process	Not mentioned	0
38	WM	Presence of neighbourhood-wide street maps throughout the city with bicycle network and/or public transport connections	No	0
39	WM	Illuminated bicycle lanes	No	0
40	WM	Bicycle lanes in a different colour from the street	No	0
41	WM	Public transport stops and stations equipped with dynamic real-time transport information	No	0
42	WM	Presence of signs with directions to public transport stops and/or cycle routes, mobility centres, transport interconnections, important destinations in public space	No	0
43	WM	Presence of advance indication of end of cycle path	No	0
44	WM	Presence of specific sections within the plan on inclusion or public initiatives to promote inclusive measures within the plan	No	0
45	WM	Number of interventions to remove visual obstructions	No	0
46	VI	Mention of making public transport stops more vital by having nearby activities, even at night perhaps	Yes	1

47	VI	Presence of interventions aimed at enhancing ground floors to make areas more attractive to pedestrians and generally bring more liveability	Yes	1
48	VI	Presence of benches and green areas near public transport stops	Yes	1
49	VI	Presence of initiatives to free streets from car parking for the re-appropriation of space by soft mobility (cycling and walking), e.g. the elimination of on-street parking and the implementation of multi-car garages in high-density areas	Yes	1
50	SU	Presence of wifi on vehicles and at stops	No	0
51	SU	Presence of dedicated telephone lines/buttons for direct contact for sexual harassment and assault	No	0
52	SU	Presence of mobile phone charging columns at public transport stops or on public transport	No	0
53	EQ	Number of toilets near public transport stops for staff or passengers	No	0
55	EQ	Number of supervised or guarded/enclosed bicycle parking facilities	Yes, for intermodality	1
55	EQ	Number of roads/kilometres maintained for potholes/ground irregularities	No	0
56	EQ	Presence of double bike lanes on one-way driveways	Yes, it actually says to put them on both sides of the road everywhere	1
57	AC	Percentage of public transport stops and a cyclist network within 300m from home (to urban bus, tram, or bike sharing stations)	Yes, not exactly in terms of 300 metres but there is a public transport accessibility index	1
58	AC	Percentage of stops, metrobus and railway stations, interchanges, etc. with universal physical, sensory and cognitive accessibility (lifts, ramps, signage and visual and audible information, etc.) along the whole travel chain: environment, concourse/stop, connectors, platform, bus/train/metro	Not mentioned	0
59	AC	Proportion of footpaths with pedestrian-accessible streets with tactile tile signage	Not mentioned	0
60	AC	Presence of affordable sharing services with annual fares and subscriptions, or linked to local public transport subscriptions	No	0
61	AC	Presence of an accessible online platform for consulting the results of mobility surveys and polls	Yes	1
62	AC	Presence of affordable dial-a-ride services for persons with disabilities and sparsely populated areas	No	0

Criteria	Average score criteria on a 0-1 scale	Average score criteria on a 0-5 scale
GI	0,28	1,38
DC	0,29	1,43
SF	0,38	1,88
NF	0	0
PE	0,24	1,22
WM	0,00	0,00
VI	1,00	5,00
SU	0,00	0,00
EQ	0,50	2,50
AC	0,33	1,67

Tampere

	Abbreviation	Indicator description	Tampere	On a 0-1 scale
General Characteristics		Year in which the plan was adopted, number of citizens, population density	2021, 317 316 inhabitants, 461,28 ab./km²	
1	GI	Number of times the words gender/gendered, social justice, equity, diversity, care, people-oriented, human-oriented, human scale, trip chain are mentioned in mobility plans	Gender (2) gendered (1) equity (1) equality (9) human-oriented (1), trip chain (11)	0,61
2	GI	Presence of definition of gender mainstreaming in the glossary of the transport plan	No	0
3	GI	Presence of gender experts in the plan drafting process	No	0
4	GI	Presence of studies on the use of bike sharing with gender-disaggregated data	No	0
5	GI	Presence of disaggregated data on the modes of transport most frequently used by men, women, disabled people, different ethnicities and income	It is mentioned that women use the car less, public transport more and walk, but without any data	0,25
6	GI	Presence of pilot projects dealing explicitly with gender mainstreaming	No	0
7	DC	Mention of reserved seats for persons with reduced mobility, pregnant women and senior citizens on public transport	No	0
8	DC	Mention of spaces dedicated to the storage of prams and pushchairs on public transport	No	0
9	DC	Reinforcement of lines during school opening and closing times	No	0
10	DC	Presence of traffic-calming areas near schools	Yes	1
11	DC	Mention of bicycle parking spaces near public transport stations to favour intermodal transport	Yes	1
12	DC	Number of seats for waiting public transport vehicles	No	0
13	DC	Presence of subsidised social fare system for accompanying children or persons with reduced mobility, for example in car sharing system, or in public transport	No	0
14	DC	Presence of programmes to accompany children to school on foot or by bicycle (pedibus, bicibus)	It is mentioned the need for safe routes, so that all children can go there on their own, then says that schools can organise with parents' associations to promote safe routes	1
15	DC	Presence of fares or tickets for intermodal "single ticket" transport and information system for multimodality	No	0
16	DC	Possibility of carrying a bicycle on local public transport for free	No	0
17	DC	Increased bicycle parking in the vicinity of schools	No	0
18	DC	Presence of streets or squares near the school dedicated to children's play and recreational activities	No	0

19	DC	Presence of streets or squares temporarily closed to traffic for pedestrians and cyclists	It mentions car free zones in proximity of schools on mornings	1
20	DC	Public transport and bicycle connections between suburbs	No	0
21	SF	Presence of sexual assault management protocols in the mobility system	No	0
22	SF	Presence of training for staff in sexual assault managemen	No	0
23	SF	Width of pavements near schools (the minimum should be 1.8/2m)	No	0
24	SF	Number of cycle paths separated by physical barriers from the carriageway	Not from carriageway but from walkinlane	0
25	SF	Duration of traffic lights for pedestrians in the vicinity of nursing homes, hospitals and schools (it should be calculated to ensure movement for a person with a speed of 0.7 m/s)	No	0
26	SF	Number of countdown traffic lights	No	0
27	SF	Presence of traffic light programming differentiated by time of day, or programmed by pedestrian priority or public transport priority	It mentions traffic signal priority for bycicle and public transport	1
28	SF	Percentage of traffic calming zones in the inhabited area	Yes, it is mentioned and quantified	1
29	NF	Night transport services reserved for women: pink taxis and other initiatives	No	0
30	NF	Possibility of requesting customised stops during night hours	No	0
31	NF	Number of illuminated bus stations	No	0
32	PE	Proportion of women in the decision-making process of the plan	Not mentioned	0
33	PE	Collaboration with women's associations, associations dealing with disabilities, associations dealing with immigration, NGOs	Collaboration with youth council and council on disability	1
34	PE	Participatory process with stakeholders	It mentions different groups of people	1
35	PE	Degree of participatory process	Workshop with residents: resident survey and resident workshop, workshop at university	0,75
36	PE	Percentage of women in the participative process	No	0
37	PE	Percentage of disabled people in the participative process	Yes, council on disability	1
38	WM	Presence of neighbourhood-wide street maps throughout the city with bicycle network and/or public transport connections	No	0
39	WM	Illuminated bicycle lanes	No	0
40	WM	Bicycle lanes in a different colour from the street	No	0
41	WM	Public transport stops and stations equipped with dynamic real-time transport information	No	0

42	WM	Presence of signs with directions to public transport stops and/or cycle routes, mobility centres, transport interconnections, important destinations in public space	No	0
43	WM	Presence of advance indication of end of cycle path	No	0
44	WM	Presence of specific sections within the plan on inclusion or public initiatives to promote inclusive measures within the plan	No	0
45	WM	Number of interventions to remove visual obstructions	No	0
46	VI	Mention of making public transport stops more vital by having nearby activities, even at night perhaps	Yes, the vitality of zones in general will strenghten the efficient use of the transport system	1
47	VI	Presence of interventions aimed at enhancing ground floors to make areas more attractive to pedestrians and generally bring more liveability	Yes	1
48	VI	Presence of benches and green areas near public transport stops	Outlined by illustrations, not supported by text	0,5
49	VI	Presence of initiatives to free streets from car parking for the re-appropriation of space by soft mobility (cycling and walking), e.g. the elimination of on-street parking and the implementation of multi-car garages in high-density areas	Yes, in sharing space in certain targets and at certain times: piloting temporary walking and playing areas, parklet use of parking spaces	1
50	SU	Presence of wifi on vehicles and at stops	No	0
51	SU	Presence of dedicated telephone lines/buttons for direct contact for sexual harassment and assault	No	0
52	SU	Presence of mobile phone charging columns at public transport stops or on public transport	No	0
53	EQ	Number of toilets near public transport stops for staff or passengers	No	0
55	EQ	Number of supervised or guarded/enclosed bicycle parking facilities	No	0
55	EQ	Number of roads/kilometres maintained for potholes/ground irregularities	Yes, street maintanance of bicycle lanes in winter, with developing criteria and follow-up methods, but also maintanance in general	1
56	EQ	Presence of double bike lanes on one-way driveways	Yes	1
57	AC	Percentage of public transport stops and a cyclist network within 300m from home (to urban bus, tram, or bike sharing stations)	No	0
58	AC	Percentage of stops, metrobus and railway stations, interchanges, etc. with universal physical, sensory and cognitive accessibility (lifts, ramps, signage and visual and audible information, etc.) along the whole travel chain: environment, concourse/stop, connectors, platform, bus/train/metro	No	0

59	AC	Proportion of footpaths with pedestrian-accessible streets with tactile tile signage	No	0
60	AC	Presence of affordable sharing services with annual fares and subscriptions, or linked to local public transport subscriptions	No	0
61	AC	Presence of an accessible online platform for consulting the results of mobility surveys and polls	No	0
62	AC	Presence of affordable dial-a-ride services for persons with disabilities and sparsely populated areas	No	0

Criteria	Average score criteria on a 0-1 scale	Average score criteria on a 0-5 scale
GI	0,14	0,72
DC	0,29	1,43
SF	0,25	1,25
NF	0	0
PE	0,63	3,13
WM	0	0
VI	0,88	4,38
SU	0	0
EQ	0,5	2,5
AC	0	0

Paris

	Abbreviation	Indicator description	Paris	On a 0-1 scale
General Characteristics		Year in which the plan was adopted, number of citizens, population density	2014, 2 229 095 inhabitants, 21 148,91 inhab./km²	-
1	GI	Number of times the words gender/gendered, social justice, equity, diversity, care, people-oriented, human-oriented, human scale, trip chain are mentioned in mobility plans	Gender(1), diversity (16), trip chain (2), equity (2)	0.512195122
2	GI	Presence of definition of gender mainstreaming in the glossary of the transport plan	No	0
3	GI	Presence of gender experts in the plan drafting process	No	0
4	GI	Presence of studies on the use of bike sharing with gender-disaggregated data	No	0
5	GI	Presence of disaggregated data on the modes of transport most frequently used by men, women, disabled people, different ethnicities and income	No	0
6	GI	Presence of pilot projects dealing explicitly with gender mainstreaming	No	0
7	DC	Mention of reserved seats for persons with reduced mobility, pregnant women and senior citizens on public transport	No	0
8	DC	Mention of spaces dedicated to the storage of prams and pushchairs on public transport	No	0
9	DC	Reinforcement of lines during school opening and closing times	It mentions "outside rush hours"	1
10	DC	Presence of traffic-calming areas near schools	Yes	1
11	DC	Mention of bicycle parking spaces near public transport stations to favour intermodal transport	Yes, many times	1
12	DC	Number of seats for waiting public transport vehicles	No	0
13	DC	Presence of subsidised social fare system for accompanying children or persons with reduced mobility, for example in car sharing system, or in public transport	Yes, only for people with low income	1
14	DC	Presence of programmes to accompany children to school on foot or by bicycle (pedibus, bicibus)	Yes	1
15	DC	Presence of fares or tickets for intermodal "single ticket" transport and information system for multimodality	No	0
16	DC	Possibility of carrying a bicycle on local public transport for free	No	0
17	DC	Increased bicycle parking in the vicinity of schools	Yes	1
18	DC	Presence of streets or squares near the school dedicated to children's play and recreational activities	No	0
19	DC	Presence of streets or squares temporarily closed to traffic for pedestrians and cyclists	No	0
20	DC	Public transport and bicycle connections between suburbs	No	0
21	SF	Presence of sexual assault management protocols in the mobility system	No	0
22	SF	Presence of training for staff in sexual assault management	No	0
23	SF	Width of pavements near schools (the minimum should be 1.8/2m)	No	0
24	SF	Number of cycle paths separated by physical barriers from the carriageway	Yes, also quantified	1

25	SF	Duration of traffic lights for pedestrians in the vicinity of nursing homes, hospitals and schools (it should be calculated to ensure movement for a person with a speed of 0.7 m/s)	No	0
26	SF	Number of countdown traffic lights	No	0
27	SF	Presence of traffic light programming differentiated by time of day, or programmed by pedestrian priority or public transport priority	Yes	1
28	SF	Percentage of traffic calming zones in the inhabited area	Yes, 30 km/h	1
29	NF	Night transport services reserved for women: pink taxis and other initiatives	No	0
30	NF	Possibility of requesting customised stops during night hours	No	0
31	NF	Number of illuminated bus stations	No	0
32	PE	Proportion of women in the decision-making process of the plan	No	0
33	PE	Collaboration with women's associations, associations dealing with disabilities, associations dealing with immigration, NGOs	Yes, associations dealing with reduced mobility	1
34	PE	Participatory process with stakeholders	No	0
35	PE	Degree of participatory process	Not mentioned	0
36	PE	Percentage of women in the participative process	No	0
37	PE	Percentage of disabled people in the participative process	No	0
38	WM	Presence of neighbourhood-wide street maps throughout the city with bicycle network and/or public transport connections	Yes	1
39	WM	Illuminated bicycle lanes	No	0
40	WM	Bicycle lanes in a different colour from the street	No	0
41	WM	Public transport stops and stations equipped with dynamic real-time transport information	Yes	1
42	WM	Presence of signs with directions to public transport stops and/or cycle routes, mobility centres, transport interconnections, important destinations in public space	Yes, it is mentionedmany times	1
43	WM	Presence of advance indication of end of cycle path	No	0
44	WM	Presence of specific sections within the plan on inclusion or public initiatives to promote inclusive measures within the plan	No	0
45	WM	Number of interventions to remove visual obstructions	No	0
46	VI	Mention of making public transport stops more vital by having nearby activities, even at night perhaps	No	0
47	VI	Presence of interventions aimed at enhancing ground floors to make areas more attractive to pedestrians and generally bring more liveability	No	0
48	VI	Presence of benches and green areas near public transport stops	Yes	1
49	VI	Presence of initiatives to free streets from car parking for the re-appropriation of space by soft mobility (cycling and walking), e.g. the elimination of on-street parking and the implementation of multi-car garages in high-density areas	Yes	1
50	SU	Presence of wifi on vehicles and at stops	Yes, on trains	1

51	SU	Presence of dedicated telephone lines/buttons for direct contact for sexual harassment and assault	No	0
52	SU	Presence of mobile phone charging columns at public transport stops or on public transport	No	0
53	EQ	Number of toilets near public transport stops for staff or passengers	Yes, at train stops	1
55	EQ	Number of supervised or guarded/enclosed bicycle parking facilities	Yes	1
55	EQ	Number of roads/kilometres maintained for potholes/ground irregularities	No	0
56	EQ	Presence of double bike lanes on one-way driveways	No	0
57	AC	Percentage of public transport stops and a cyclist network within 300m from home (to urban bus, tram, or bike sharing stations)	No	0
58	AC	Percentage of stops, metrobus and railway stations, interchanges, etc. with universal physical, sensory and cognitive accessibility (lifts, ramps, signage and visual and audible information, etc.) along the whole travel chain: environment, concourse/stop, connectors, platform, bus/train/metro	Yes	1
59	AC	Proportion of footpaths with pedestrian-accessible streets with tactile tile signage	Yes	1
60	AC	Presence of affordable sharing services with annual fares and subscriptions, or linked to local public transport subscriptions	No	0
61	AC	Presence of an accessible online platform for consulting the results of mobility surveys and polls	Yes	1
62	AC	Presence of affordable dial-a-ride services for persons with disabilities and sparsely populated areas	Yes	1

Criteria	Average score criteria on a 0-1 scale	Average score criteria on a 0-5 scale
GI	0,09	0,43
DC	0,43	2,14
SF	0,38	1,88
NF	0	0
PE	0,17	0,83
WM	0,38	1,88
VI	0,50	2,50
SU	0,33	1,67
EQ	0,50	2,50
AC	0,67	3,33

Brussels

	Abbreviation	Indicator description	Bruxelles	On a 0-1 scale
General Characteristics		Year in which the plan was adopted, number of citizens, population density	2021, 1 208 542 inhabitants, 7 488,8 ab./km²	-
1	GI	Number of times the words gender/gendered, social justice, equity, diversity, care, people-oriented, human-oriented, human scale, trip chain are mentioned in mobility plans	Gender (11), diversity (7), equality (1), trip chain (2), people-oriented (3)	0.585365854
2	GI	Presence of definition of gender mainstreaming in the glossary of the transport plan	No	0
3	GI	Presence of gender experts in the plan drafting process	No	0
4	GI	Presence of studies on the use of bike sharing with gender-disaggregated data	No	0
5	GI	Presence of disaggregated data on the modes of transport most frequently used by men, women, disabled people, different ethnicities and income	Yes, only about woman and bycicles	1
6	GI	Presence of pilot projects dealing explicitly with gender mainstreaming	No	0
7	DC	Mention of reserved seats for persons with reduced mobility, pregnant women and senior citizens on public transport	No	0
8	DC	Mention of spaces dedicated to the storage of pesms and pushchairs on public transport	No	0
9	DC	Reinforcement of lines during school opening and closing times	No	0
10	DC	Presence of traffic-calming areas near schools	Yes, in many areas	1
11	DC	Mention of bicycle parking spaces near public transport stations to favour intermodal transport	Yes	1
12	DC	Number of seats for waiting public transport vehicles	No	0
13	DC	Presence of subsidised social fare system for accompanying children or persons with reduced mobility, for example in car sharing system, or in public transport	Yes	1
14	DC	Presence of programmes to accompany children to school on foot or by bicycle (pedibus, bicibus)	Yes, with "ramg scolaires" bycicles	1
15	DC	Presence of fares or tickets for intermodal "single ticket" transport and information system for multimodality	Yes, it mentions "integrated pricing"	1
16	DC	Possibility of carrying a bicycle on local public transport for free	It does not mention the price, but talks about facilitating access, such as with ramps	0,25
17	DC	Increased bicycle parking in the vicinity of schools	No	0
18	DC	Presence of streets or squares near the school dedicated to children's play and recreational activities	Yes	1
19	DC	Presence of streets or squares temporarily closed to traffic for pedestrians and cyclists	Once a week	0,75
20	DC	Public transport and bicycle connections between suburbs	Yes	1
21	SF	Presence of sexual assault management protocols in the mobility system	No	0
22	SF	Presence of training for staff in sexual assault managemen	No	0

23	SF	Width of pavements near schools (the minimum should be 1.8/2m)	It mentions making the pavements very wide, like 5 metres per pavement along main roads, not schools though	0,25
24	SF	Number of cycle paths separated by physical barriers from the carriageway	Yes, in the 50 km/h speed routes	1
25	SF	Duration of traffic lights for pedestrians in the vicinity of nursing homes, hospitals and schools (it should be calculated to ensure movement for a person with a speed of 0.7 m/s)	No	0
26	SF	Number of countdown traffic lights	No	0
27	SF	Presence of traffic light programming differentiated by time of day, or programmed by pedestrian priority or public transport priority	No	0
28	SF	Percentage of traffic calming zones in the inhabited area	Yes	1
29	NF	Night transport services reserved for women: pink taxis and other initiatives	No	0
30	NF	Possibility of requesting customised stops during night hours	No	0
31	NF	Number of illuminated bus stations	No	0
32	PE	Proportion of women in the decision-making process of the plan	No	0
33	PE	Collaboration with women's associations, associations dealing with disabilities, associations dealing with immigration, NGOs	Yes	1
34	PE	Participatory process with stakeholders	Yes, it mentions diversity but in terms of areas of origin (transport, municipality, associations, etc.), and it mentions the composition of participatory bodies	0,75
35	PE	Degree of participatory process	It mentions the fact that they were consulted at all key stages of the project, there are many tools for participation	1
36	PE	Percentage of women in the participative process	No	0
37	PE	Percentage of disabled people in the participative process	No	0
38	WM	Presence of neighbourhood-wide street maps throughout the city with bicycle network and/or public transport connections	No	0
39	WM	Illuminated bicycle lanes	No, but illuminated pedestrian routes	0,25
40	WM	Bicycle lanes in a different colour from the street	No	0
41	WM	Public transport stops and stations equipped with dynamic real-time transport information	Yes	1
42	WM	Presence of signs with directions to public transport stops and/or cycle routes, mobility centres, transport interconnections, important destinations in public space	It mentions cycle routes with unique signage	1
43	WM	Presence of advance indication of end of cycle path	No	0

44	WM	Presence of specific sections within the plan on inclusion or public initiatives to promote inclusive measures within the plan	No	0
45	WM	Number of interventions to remove visual obstructions	No	0
46	VI	Mention of making public transport stops more vital by having nearby activities, even at night perhaps	No	0
47	VI	Presence of interventions aimed at enhancing ground floors to make areas more attractive to pedestrians and generally bring more liveability	Yes, it generally mentions making the roads attractive	1
48	VI	Presence of benches and green areas near public transport stops	Yes, also in terms of resting in the pedestrian street, benches, green areas, etc.	1
49	VI	Presence of initiatives to free streets from car parking for the re-appropriation of space by soft mobility (cycling and walking), e.g. the elimination of on-street parking and the implementation of multi-car garages in high-density areas	Yes	1
50	SU	Presence of wifi on vehicles and at stops	No	0
51	SU	Presence of dedicated telephone lines/buttons for direct contact for sexual harassment and assault	No	0
52	SU	Presence of mobile phone charging columns at public transport stops or on public transport	No	0
53	EQ	Number of toilets near public transport stops for staff or passengers	No	0
55	EQ	Number of supervised or guarded/enclosed bicycle parking facilities	Yes	1
55	EQ	Number of roads/kilometres maintained for potholes/ground irregularities	Yes, it is mentioned the maintenance of roads in general, including cycle paths and pavements	1
56	EQ	Presence of double bike lanes on one-way driveways	No	0
57	AC	Percentage of public transport stops and a cyclist network within 300m from home (to urban bus, tram, or bike sharing stations)	From 250 to 500 m on the whole territory maximum distance from a cycle path	1
58	AC	Percentage of stops, metrobus and railway stations, interchanges, etc. with universal physical, sensory and cognitive accessibility (lifts, ramps, signage and visual and audible information, etc.) along the whole travel chain: environment, concourse/stop, connectors, platform, bus/train/metro	Yes, of those on the surface so mainly buses and trams, quantifying them	1
59	AC	Proportion of footpaths with pedestrian-accessible streets with tactile tile signage	No	0
60	AC	Presence of affordable sharing services with annual fares and subscriptions, or linked to local public transport subscriptions	No	0
61	AC	Presence of an accessible online platform for consulting the results of mobility surveys and polls	Yes	1
62	AC	Presence of affordable dial-a-ride services for persons with disabilities and sparsely populated areas	No	0

Criteria	Average score criteria on a 0-1 scale	Average score criteria on a 0-5 scale
GI	0,26	1,32
DC	0,57	2,86
SF	0,28	1,41
NF	0	0
PE	0,46	2,29
WM	0,28	1,41
VI	0,75	3,75
SU	0,00	0,00
EQ	0,50	2,50
AC	0,50	2,50

Valencia

	Abbreviation	Indicator description	Valencia	On a 0-1 scale
General Characteristics		Year in which the plan was adopted, number of citizens, population density	2022 (preliminar version), 789 744 inhabitants, 5778 ab./km²	-
1	GI	Number of times the words gender/gendered, social justice, equity, diversity, care, people-oriented, human-oriented, human scale, trip chain are mentioned in mobility plans	Gender (106) gendered (1) equity (0) equality (18) human-oriented (2) trip chain (1) diversity (2)	1
2	GI	Presence of definition of gender mainstreaming in the glossary of the transport plan	0	0
3	GI	Presence of gender experts in the plan drafting process	0	0
4	GI	Presence of studies on the use of bike sharing with gender-disaggregated data	0	0
5	GI	Presence of disaggregated data on the modes of transport most frequently used by men, women, disabled people, different ethnicities and income	Yes, only different ethnicities	0,75
6	GI	Presence of pilot projects dealing explicitly with gender mainstreaming	No	0
7	DC	Mention of reserved seats for persons with reduced mobility, pregnant women and senior citizens on public transport	Yes, on buses, for people with reduced mobilityù	1
8	DC	Mention of spaces dedicated to the storage of prams and pushchairs on public transport	Yes, on buses	1
9	DC	Reinforcement of lines during school opening and closing times	It mentions not to do it only in rush hours	1
10	DC	Presence of traffic-calming areas near schools	Yes, safe walks near schools and other sensitive places	1
11	DC	Mention of bicycle parking spaces near public transport stations to favour intermodal transport	Yes, particularly in the area of the municipality of Valencia an in-depth analysis is carried out	1
12	DC	Number of seats for waiting public transport vehicles	No	0
13	DC	Presence of subsidised social fare system for accompanying children or persons with reduced mobility, for example in car sharing system, or in public transport	No	0
14	DC	Presence of programmes to accompany children to school on foot or by bicycle (pedibus, bicibus)	Yes	1
15	DC	Presence of fares or tickets for intermodal "single ticket" transport and information system for multimodality	Yes	1
16	DC	Possibility of carrying a bicycle on local public transport for free	Not possible on buses, only on trains and metro with time restrictions, few places, so there is a will to improve	1
17	DC	Increased bicycle parking in the vicinity of schools	No	0
18	DC	Presence of streets or squares near the school dedicated to children's play and recreational activities	It mentions making the immediate surroundings of schools safer	0
19	DC	Presence of streets or squares temporarily closed to traffic for pedestrians and cyclists	No	0
20	DC	Public transport and bicycle connections between suburbs	Yes	1

21	SF	Presence of sexual assault management protocols in the mobility system	No	0
22	SF	Presence of training for staff in sexual assault management	No	0
23	SF	Width of pavements near schools (the minimum should be 1.8/2m)	No	0
24	SF	Number of cycle paths separated by physical barriers from the carriageway	No	0
25	SF	Duration of traffic lights for pedestrians in the vicinity of nursing homes, hospitals and schools (it should be calculated to ensure movement for a person with a speed of 0.7 m/s)	Yes, not only near schools but in general	1
26	SF	Number of countdown traffic lights	Yes	1
27	SF	Presence of traffic light programming differentiated by time of day, or programmed by pedestrian priority or public transport priority	Bus priority	1
28	SF	Percentage of traffic calming zones in the inhabited area	Yes, quantified	1
29	NF	Night transport services reserved for women: pink taxis and other initiatives	No	0
30	NF	Possibility of requesting customised stops during night hours	No	0
31	NF	Number of illuminated bus stations	No	0
32	PE	Proportion of women in the decision-making process of the plan	No	0
33	PE	Collaboration with women's associations, associations dealing with disabilities, associations dealing with immigration, NGOs	Yes, mentioned but they have not yet collaborated	1
34	PE	Participatory process with stakeholders	Yes, also diversity is mentioned	1
35	PE	Degree of participatory process	Yes, involvement	0,75
36	PE	Percentage of women in the participative process	Yes, between 43% and 57% in each age group	1
37	PE	Percentage of disabled people in the participative process	Yes,5.3%	1
38	WM	Presence of neighbourhood-wide street maps throughout the city with bicycle network and/or public transport connections	No	0
39	WM	Illuminated bicycle lines	No	0
40	WM	Bicycle lanes in a different colour from the street	No	0
41	WM	Public transport stops and stations equipped with dynamic real-time transport information	Yes	1
42	WM	Presence of signs with directions to public transport stops and/or cycle routes, mobility centres, transport interconnections, important destinations in public space	Yes, marking cycle routes by giving numbers to the lines	1
43	WM	Presence of advance indication of end of cycle path	No	0
44	WM	Presence of specific sections within the plan on inclusion or public initiatives to promote inclusive measures within the plan	No	0
45	WM	Number of interventions to remove visual obstructions	Yes	1
46	VI	Mention of making public transport stops more vital by having nearby activities, even at night perhaps	Yes	1

47	VI	Presence of interventions aimed at enhancing ground floors to make areas more attractive to pedestrians and generally bring more liveability	Yes	1
48	VI	Presence of benches and green areas near public transport stops	Yes	1
49	VI	Presence of initiatives to free streets from car parking for the re-appropriation of space by soft mobility (cycling and walking), e.g. the elimination of on-street parking and the implementation of multi-car garages in high-density areas	Yes	1
50	SU	Presence of wifi on vehicles and at stops	Yes, on buses in Valencia municipality	1
51	SU	Presence of dedicated telephone lines/buttons for direct contact for sexual harassment and assault	No	0
52	SU	Presence of mobile phone charging columns at public transport stops or on public transport	No	0
53	EQ	Number of toilets near public transport stops for staff or passengers	No	0
55	EQ	Number of supervised or guarded/enclosed bicycle parking facilities	Yes, bycicle box	1
55	EQ	Number of roads/kilometres maintained for potholes/ground irregularities	No	0
56	EQ	Presence of double bike lanes on one-way driveways	No	0
57	AC	Percentage of public transport stops and a cyclist network within 300m from home (to urban bus, tram, or bike sharing stations)	It shows coverage over 500m of tram and metro stops, buses total coverage, and accessibility of public transport in general	1
58	AC	Percentage of stops, metrobus and railway stations, interchanges, etc. with universal physical, sensory and cognitive accessibility (lifts, ramps, signage and visual and audible information, etc.) along the whole travel chain: environment, concourse/stop, connectors, platform, bus/train/metro	There is the willing to get to 100 per cent, it actually refers more explicitly about motor difficulties than other disabilities	1
59	AC	Proportion of footpaths with pedestrian-accessible streets with tactile tile signage	Yes, in zebra crossing in particular	1
60	AC	Presence of affordable sharing services with annual fares and subscriptions, or linked to local public transport subscriptions	Yes, "Valenbisi" service	1
61	AC	Presence of an accessible online platform for consulting the results of mobility surveys and polls	Yes, also in the plan itself	1
62	AC	Presence of affordable dial-a-ride services for persons with disabilities and sparsely populated areas	Yes, for both	1

Criteria	Average score criteria on a 0-1 scale	Average score criteria on a 0-5 scale
GI	0,29	1,46
DC	0,64	3,21
SF	0,50	2,50
NF	0	0
PE	0,79	3,96
WM	0,38	1,88
VI	1,00	5,00
SU	0,33	1,67
EQ	0,25	1,25
AC	1,00	5,00

Barcelona

	Abbreviation	Indicator description	Barcelona	On a 0-1 scale
General Characteristics		Year in which the plan was adopted, number of citizens, population density	2022, 1 636 193 inhabitants, 16 151,95 inhab./km²	-
1	GI	Number of times the words gender/gendered, social justice, equity, diversity, care, people-oriented, human-oriented, human scale, trip chain are mentioned in mobility plans	Gender (62), equity (14), diversity (12), care (6)	1
2	GI	Presence of definition of gender mainstreaming in the glossary of the transport plan	No	0
3	GI	Presence of gender experts in the plan drafting process	No	0
4	GI	Presence of studies on the use of bike sharing with gender-disaggregated data	No	0
5	GI	Presence of disaggregated data on the modes of transport most frequently used by men, women, disabled people, different ethnicities and income	Yes	1
6	GI	Presence of pilot projects dealing explicitly with gender mainstreaming	Yes, nocturnal bus services	1
7	DC	Mention of reserved seats for persons with reduced mobility, pregnant women and senior citizens on public transport	No	0
8	DC	Mention of spaces dedicated to the storage of prams and pushchairs on public transport	No	0
9	DC	Reinforcement of lines during school opening and closing times	No	0
10	DC	Presence of traffic-calming areas near schools	No, but there's the ciutat 30 project	0,25
11	DC	Mention of bicycle parking spaces near public transport stations to favour intermodal transport	Yes, not only parking spaces but also services for bycicles	1
12	DC	Number of seats for waiting public transport vehicles	No	0
13	DC	Presence of subsidised social fare system for accompanying children or persons with reduced mobility, for example in car sharing system, or in public transport	Yes, "T-Mobility"	1
14	DC	Presence of programmes to accompany children to school on foot or by bicycle (pedibus, bicibus)	Yes, "cami escolar"	1
15	DC	Presence of fares or tickets for intermodal "single ticket" transport and information system for multimodality	Yes, "T-Mobility"	1
16	DC	Possibility of carrying a bicycle on local public transport for free	Not possible on buses, only on metro with time restrictions, few places, so there is a will to improve	1
17	DC	Increased bicycle parking in the vicinity of schools	No	0
18	DC	Presence of streets or squares near the school dedicated to children's play and recreational activities	Not explicitly mentioned, but there are many projects that are dealing with it (Superilles)	0,25
19	DC	Presence of streets or squares temporarily closed to traffic for pedestrians and cyclists	Superillas are closed to traffic permanently	1
20	DC	Public transport and bicycle connections between suburbs	Yes, it refers to the new network and all the connections to even the most mountainous districts	1
21	SF	Presence of sexual assault management protocols in the mobility system	Yes	1
22	SF	Presence of training for staff in sexual assault management	No	0
23	SF	Width of pavements near schools (the minimum should be 1.8/2m)	Not mentioned	0

24	SF	Number of cycle paths separated by physical barriers from the carriageway	There is an alternative proposal to put the cycle path at a different height from the road for both pedestrians and vehicles in order to distinguish spaces but not to take away usable space for bicycles	1
25	SF	Duration of traffic lights for pedestrians in the vicinity of nursing homes, hospitals and schools (it should be calculated to ensure movement for a person with a speed of 0.7 m/s)	No	0
26	SF	Number of countdown traffic lights	No	0
27	SF	Presence of traffic light programming differentiated by time of day, or programmed by pedestrian priority or public transport priority	Yes, public transport priority	1
28	SF	Percentage of traffic calming zones in the inhabited area	Yes, quantified	1
29	NF	Night transport services reserved for women: pink taxis and other initiatives	No	0
30	NF	Possibility of requesting customised stops during night hours	Yes	1
31	NF	Number of illuminated bus stations	Yes, increased lighting and visibility at public transport stops, shelters	1
32	PE	Proportion of women in the decision-making process of the plan	Not mentioned	0
33	PE	Collaboration with women's associations, associations dealing with disabilities, associations dealing with immigration, NGOs	es, associations dealing with disabiliti	1
34	PE	Participatory process with stakeholders	Yes, diversity is mentioned	1
35	PE	Degree of participatory process	Yes, collaboration	1
36	PE	Percentage of women in the participative process	Yes, a group of women perspective	1
37	PE	Percentage of disabled people in the participative process	Yes, by associations	1
38	WM	Presence of neighbourhood-wide street maps throughout the city with bicycle network and/or public transport connections	Not mentioned	0
39	WM	Illuminated bicycle lanes	Not mentioned	0
40	WM	Bicycle lanes in a different colour from the street	Not mentioned	0
41	WM	Public transport stops and stations equipped with dynamic real-time transport information	Not at transport stops but online	0,25
42	WM	Presence of signs with directions to public transport stops and/or cycle routes, mobility centres, transport interconnections, important destinations in public space	No	0
43	WM	Presence of advance indication of end of cycle path	No	0
44	WM	Presence of specific sections within the plan on inclusion or public initiatives to promote inclusive measures within the plan	Yes	1
45	WM	Number of interventions to remove visual obstructions	Yes	1
46	VI	Mention of making public transport stops more vital by having nearby activities, even at night perhaps	No	0
47	VI	Presence of interventions aimed at enhancing ground floors to make areas more attractive to pedestrians and generally bring more liveability	No	0
48	VI	Presence of benches and green areas near public transport stops	Yes, not only near public transport stops	1

49	VI	Presence of initiatives to free streets from car parking for the re-appropriation of space by soft mobility (cycling and walking), e.g. the elimination of on-street parking and the implementation of multi-car garages in high-density areas	Yes	1
50	SU	Presence of wifi on vehicles and at stops	No	0
51	SU	Presence of dedicated telephone lines/buttons for direct contact for sexual harassment and assault	Yes, there is an app not only for sexual harassment but for any suspicious activity	1
52	SU	Presence of mobile phone charging columns at public transport stops or on public transport	No	0
53	EQ	Number of toilets near public transport stops for staff or passengers	Not mentioned	0
54	EQ	Number of supervised or guarded/enclosed bicycle parking facilities	Yes	1
55	EQ	Number of roads/kilometres maintained for potholes/ground irregularities	Yes	1
56	EQ	Presence of double bike lanes on one-way driveways	Yes, but as an alternative, it is proposed to remove the two-way bike lane in one-way streets for cars	1
57	AC	Percentage of public transport stops and a cyclist network within 300m from home (to urban bus, tram, or bike sharing stations)	Yes, it is quantified for cycling paths and buses	1
58	AC	Percentage of stops, metrobus and railway stations, interchanges, etc. with universal physical, sensory and cognitive accessibility (lifts, ramps, signage and visual and audible information, etc.) along the whole travel chain: environment, concourse/stop, connectors, platform, bus/train/metro	There is the target of 100 per cent accessible buses and trains but for now it refers to about 60 per cent of bus stops not being accessible	1
59	AC	Proportion of footpaths with pedestrian-accessible streets with tactile tile signage	Yes, quantified	1
60	AC	Presence of affordable sharing services with annual fares and subscriptions, or linked to local public transport subscriptions	Yes	1
61	AC	Presence of an accessible online platform for consulting the results of mobility surveys and polls	Yes	1
62	AC	Presence of affordable dial-a-ride services for persons with disabilities and sparsely populated areas	Yes "El meu bus"	1

Criteria	Average score criteria on a 0-1 scale	Average score criteria on a 0-5 scale
GI	0,50	2,50
DC	0,54	2,68
SF	0,50	2,50
NF	1	3,33
PE	0,83	4,17
WM	0,28	1,41
VI	0,50	2,50
SU	0,33	1,67
EQ	0,75	3,75
AC	1,00	5,00

Bergamo

	Abbreviation	Indicator description	Bergamo	On a 0-1 scale
General Characteristics		Year in which the plan was adopted, number of citizens, population density	2023, 119 746 inhabitants, 2 981,72 inhab./km²	-
1	GI	Number of times the words gender/gendered, social justice, equity, diversity, care, people-oriented, human-oriented, human scale, trip chain are mentioned in mobility plans	Care (1), equity (1), social justice (1)	0,07
2	GI	Presence of definition of gender mainstreaming in the glossary of the transport plan	No	0
3	GI	Presence of gender experts in the plan drafting process	No	0
4	GI	Presence of studies on the use of bike sharing with gender-disaggregated data	No	0
5	GI	Presence of disaggregated data on the modes of transport most frequently used by men, women, disabled people, different ethnicities and income	No	0
6	GI	Presence of pilot projects dealing explicitly with gender mainstreaming	No	0
7	DC	Mention of reserved seats for persons with reduced mobility, pregnant women and senior citizens on public transport	No	0
8	DC	Mention of spaces dedicated to the storage of prams and pushchairs on public transport	No	0
9	DC	Reinforcement of lines during school opening and closing times	No	0
10	DC	Presence of traffic-calming areas near schools	Yes	1
11	DC	Mention of bicycle parking spaces near public transport stations to favour intermodal transport	It refers to a velostation with 120 places near the station	1
12	DC	Number of seats for waiting public transport vehicles	No	0
13	DC	Presence of subsidised social fare system for accompanying children or persons with reduced mobility, for example in car sharing system, or in public transport	No	0
14	DC	Presence of programmes to accompany children to school on foot or by bicycle (pedibus, bicibus)	Yes	1
15	DC	Presence of fares or tickets for intermodal "single ticket" transport and information system for multimodality	No	0
16	DC	Possibility of carrying a bicycle on local public transport for free	No	0
17	DC	Increased bicycle parking in the vicinity of schools	Yes	1
18	DC	Presence of streets or squares near the school dedicated to children's play and recreational activities	No	0
19	DC	Presence of streets or squares temporarily closed to traffic for pedestrians and cyclists	No	0
20	DC	Public transport and bicycle connections between suburbs	No	0
21	SF	Presence of sexual assault management protocols in the mobility system	No	0
22	SF	Presence of training for staff in sexual assault managemen	No	0

23	SF	Width of pavements near schools (the minimum should be 1.8/2m)	No	0
24	SF	Number of cycle paths separated by physical barriers from the carriageway	Yes	1
25	SF	Duration of traffic lights for pedestrians in the vicinity of nursing homes, hospitals and schools (it should be calculated to ensure movement for a person with a speed of 0.7 m/s)	No	0
26	SF	Number of countdown traffic lights	No	0
27	SF	Presence of traffic light programming differentiated by time of day, or programmed by pedestrian priority or public transport priority	Yes, bus priority	1
28	SF	Percentage of traffic calming zones in the inhabited area	Yes, 30 km/h zones, also quantifying	1
29	NF	Night transport services reserved for women: pink taxis and other initiatives	No	0
30	NF	Possibility of requesting customised stops during night hours	No	0
31	NF	Number of illuminated bus stations	No	0
32	PE	Proportion of women in the decision-making process of the plan	24%	0,24
33	PE	Collaboration with women's associations, associations dealing with disabilities, associations dealing with immigration, NGOs	Yes, it refers to associations	1
34	PE	Participatory process with stakeholders	Yes, without mentioning diversity	0,5
35	PE	Degree of participatory process	Yes, collaboration	1
36	PE	Percentage of women in the participative process	Not mentioned	0
37	PE	Percentage of disabled people in the participative process	Not mentioned	0
38	WM	Presence of neighbourhood-wide street maps throughout the city with bicycle network and/or public transport connections	Not mentioned	0
39	WM	Illuminated bicycle lanes	Yes, citizens' proposal	1
40	WM	Bicycle lanes in a different colour from the street	No	0
41	WM	Public transport stops and stations equipped with dynamic real-time transport information	Not mentioned	0
42	WM	Presence of signs with directions to public transport stops and/or cycle routes, mobility centres, transport interconnections, important destinations in public space	No	0
43	WM	Presence of advance indication of end of cycle path	No	0
44	WM	Presence of specific sections within the plan on inclusion or public initiatives to promote inclusive measures within the plan	No	0
45	WM	Number of interventions to remove visual obstructions	Not mentioned	0
46	VI	Mention of making public transport stops more vital by having nearby activities, even at night perhaps	No	0

47	VI	Presence of interventions aimed at enhancing ground floors to make areas more attractive to pedestrians and generally bring more liveability	No	0
48	VI	Presence of benches and green areas near public transport stops	No	0
49	VI	Presence of initiatives to free streets from car parking for the re-appropriation of space by soft mobility (cycling and walking), e.g. the elimination of on-street parking and the implementation of multi-car garages in high-density areas	It mentions clearing the streets of parked cars, but for residential parking	0
50	SU	Presence of wifi on vehicles and at stops	No	0
51	SU	Presence of dedicated telephone lines/buttons for direct contact for sexual harassment and assault	No	0
52	SU	Presence of mobile phone charging columns at public transport stops or on public transport	No	0
53	EQ	Number of toilets near public transport stops for staff or passengers	No	0
55	EQ	Number of supervised or guarded/enclosed bicycle parking facilities	No	0
55	EQ	Number of roads/kilometres maintained for potholes/ground irregularities	Yes, also quantified	1
56	EQ	Presence of double bike lanes on one-way driveways	No	0
57	AC	Percentage of public transport stops and a cyclist network within 300m from home (to urban bus, tram, or bike sharing stations)	Yes, from local public transport and trains	1
58	AC	Percentage of stops, metrobus and railway stations, interchanges, etc. with universal physical, sensory and cognitive accessibility (lifts, ramps, signage and visual and audible information, etc.) along the whole travel chain: environment, concourse/stop, connectors, platform, bus/train/metro	Accessibility at bus stops is bad, on buses is good, there is a desire to make the entire tpl network fully accessible, also referring to blind people	1
59	AC	Proportion of footpaths with pedestrian-accessible streets with tactile tile signage	Yes, it refers more to the stops	1
60	AC	Presence of affordable sharing services with annual fares and subscriptions, or linked to local public transport subscriptions	No	0
61	AC	Presence of an accessible online platform for consulting the results of mobility surveys and polls	No	0
62	AC	Presence of affordable dial-a-ride services for persons with disabilities and sparsely populated areas	No	0

Criteria	Average score criteria on a 0-1 scale	Average score criteria on a 0-5 scale
GI	0,01	0,06
DC	0,29	1,43
SF	0,38	1,88
NF	0	0
PE	0,46	2,28
WM	0,13	0,63
VI	0,00	0,00
SU	0,00	0,00
EQ	0,25	1,25
AC	0,50	2,50

Bologna

	Abbreviation	Indicator description	Bologna	On a 0-1 scale
General Characteristics		Year in which the plan was adopted, number of citizens, population density	2019, 388 013 inhabitants, 2 754,6 inhab./km²	-
1	GI	Number of times the words gender/gendered, social justice, equity, diversity, care, people-oriented, human-oriented, human scale, trip chain are mentioned in mobility plans	Care (10), equity (2), people-centred (1)	0,317073171
2	GI	Presence of definition of gender mainstreaming in the glossary of the transport plan	No	0
3	GI	Presence of gender experts in the plan drafting process	No	0
4	GI	Presence of studies on the use of bike sharing with gender-disaggregated data	No	0
5	GI	Presence of disaggregated data on the modes of transport most frequently used by men, women, disabled people, different ethnicities and income	No	0
6	GI	Presence of pilot projects dealing explicitly with gender mainstreaming	No	0
7	DC	Mention of reserved seats for persons with reduced mobility, pregnant women and senior citizens on public transport	Yes, mentioned in bringing the public transports up to standard	1
8	DC	Mention of spaces dedicated to the storage of prams and pushchairs on public transport	No	0
9	DC	Reinforcement of lines during school opening and closing times	No	0
10	DC	Presence of traffic-calming areas near schools	Yes	1
11	DC	Mention of bicycle parking spaces near public transport stations to favour intermodal transport	Yes	1
12	DC	Number of seats for waiting public transport vehicles	No	0
13	DC	Presence of subsidised social fare system for accompanying children or persons with reduced mobility, for example in car sharing system, or in public transport	No	0
14	DC	Presence of programmes to accompany children to school on foot or by bicycle (pedibus, bicibus)	Yes	1
15	DC	Presence of fares or tickets for intermodal "single ticket" transport and information system for multimodality	Yes, fare integration	1
16	DC	Possibility of carrying a bicycle on local public transport for free	It is mentioned not referring to prices but to places	0,25
17	DC	Increased bicycle parking in the vicinity of schools	Yes	1
18	DC	Presence of streets or squares near the school dedicated to children's play and recreational activities	No	0
19	DC	Presence of streets or squares temporarily closed to traffic for pedestrians and cyclists	Yes, T-days during weekends	0,75
20	DC	Public transport and bicycle connections between suburbs	Yes	1
21	SF	Presence of sexual assault management protocols in the mobility system	No	0
22	SF	Presence of training for staff in sexual assault managemen	No	0

23	SF	Width of pavements near schools (the minimum should be 1.8/2m)	No	0
24	SF	Number of cycle paths separated by physical barriers from the carriageway	Yes, only mentioned	1
25	SF	Duration of traffic lights for pedestrians in the vicinity of nursing homes, hospitals and schools (it should be calculated to ensure movement for a person with a speed of 0.7 m/s)	No	0
26	SF	Number of countdown traffic lights	Yes, only mentioned	1
27	SF	Presence of traffic light programming differentiated by time of day, or programmed by pedestrian priority or public transport priority	Yes, public transport priority and for pedestrian crossings	1
28	SF	Percentage of traffic calming zones in the inhabited area	Yes, Bologna 30	1
29	NF	Night transport services reserved for women: pink taxis and other initiatives	No	0
30	NF	Possibility of requesting customised stops during night hours	No	0
31	NF	Number of illuminated bus stations	Yes	1
32	PE	Proportion of women in the decision-making process of the plan	37%	0,37
33	PE	Collaboration with women's associations, associations dealing with disabilities, associations dealing with immigration, NGOs	Yes, associations dealing with disabilities	1
34	PE	Participatory process with stakeholders	Yes, also referring to diversity	1
35	PE	Degree of participatory process	Yes, in all phases	1
36	PE	Percentage of women in the participative process	Yes	1
37	PE	Percentage of disabled people in the participative process	Not mentioned	0
38	WM	Presence of neighbourhood-wide street maps throughout the city with bicycle network and/or public transport connections	Yes, wayfinding project	1
39	WM	Illuminated bicycle lanes	Yes	1
40	WM	Bicycle lanes in a different colour from the street	Yes	1
41	WM	Public transport stops and stations equipped with dynamic real-time transport information	Yes	1
42	WM	Presence of signs with directions to public transport stops and/or cycle routes, mobility centres, transport interconnections, important destinations in public space	Yes	1
43	WM	Presence of advance indication of end of cycle path	Not mentioned	0
44	WM	Presence of specific sections within the plan on inclusion or public initiatives to promote inclusive measures within the plan	Yes, about people with reduced mobility	1
45	WM	Number of interventions to remove visual obstructions	No	0
46	VI	Mention of making public transport stops more vital by having nearby activities, even at night perhaps	No	0
47	VI	Presence of interventions aimed at enhancing ground floors to make areas more attractive to pedestrians and generally bring more liveability	No	0

48	VI	Presence of benches and green areas near public transport stops	Yes, for suburban stops	1
49	VI	Presence of initiatives to free streets from car parking for the re-appropriation of space by soft mobility (cycling and walking), e.g the elimination of on-street parking and the implementation of multi-car garages in high-density areas	No	0
50	SU	Presence of wifi on vehicles and at stops	No	0
51	SU	Presence of dedicated telephone lines/buttons for direct contact for sexual harassment and assault	No	0
52	SU	Presence of mobile phone charging columns at public transport stops or on public transport	No	0
53	EQ	Number of toilets near public transport stops for staff or passengers	No	0
55	EQ	Number of supervised or guarded/enclosed bicycle parking facilities	Yes, network of bike stations near intermodal nodes	1
55	EQ	Number of roads/kilometres maintained for potholes/ground irregularities	Yes, it refers to pavement maintenance and disability manager	1
56	EQ	Presence of double bike lanes on one-way driveways	Yes, it mentions two-way paths in the centre and in zones 30 km/h	1
57	AC	Percentage of public transport stops and a cyclist network within 300m from home (to urban bus, tram, or bike sharing stations)	Yes, it is discussed in quantifying public transport by diversifying it into trains, trams, buses, but no cycling paths	1
58	AC	Percentage of stops, metrobus and railway stations, interchanges, etc. with universal physical, sensory and cognitive accessibility (lifts, ramps, signage and visual and audible information, etc.) along the whole travel chain: environment, concourse/stop, connectors, platform, bus/train/metro	Yes, it mentions it in the equipment of public transport stops but does not quantify, it refers to fit them all	1
59	AC	Proportion of footpaths with pedestrian-accessible streets with tactile tile signage	Yes, only mentioned	1
60	AC	Presence of affordable sharing services with annual fares and subscriptions, or linked to local public transport subscriptions	No	0
61	AC	Presence of an accessible online platform for consulting the results of mobility surveys and polls	Yes	1
62	AC	Presence of affordable dial-a-ride services for persons with disabilities and sparsely populated areas	No	0

Criteria	Average score criteria on a 0-1 scale	Average score criteria on a 0-5 scale
GI	0,05	0,26
DC	0,57	2,86
SF	0,50	2,50
NF	0	1,67
PE	0,73	3,64
WM	0,75	3,75
VI	0,25	1,25
SU	0,00	0,00
EQ	0,75	3,75
AC	0,67	3,33