

Urban mobility sustainable plans: Tools and transport policies

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Abstract. This paper provides indications on how to develop a Sustainable Urban Mobility Plan (SUMP) in small and medium-sized cities, bringing the case study of an Italian town located in southern Italy, Brindisi. The guidelines are part of the output of the SuMo (Sustainable Mobility in the Port Cities of the Southern Adriatic) project with the aim of specifically improving the sustainability of transport in Brindisi and, in particular, in the port area. The drafting of this paper is based on the dimensional element of the city which allows adopting a path adhering to the needs of the generators and users of a medium-sized city such as Brindisi in order to make the implementation action effective the adoption of the plan follows. The time frame is short-medium term, however, once the sustainability objectives have been pursued, the repercussions are also long-term. The paper anticipates possible solutions and interventions for the Brindisi port area to provide useful ideas in the subsequent phase of drafting and implementing the SUMP itself. In general terms it will be necessary: to improve accessibility for all, regardless of income and social status; to improve the quality of life and the attractiveness of the urban environment; to improve road safety and public health; to reduce air and noise pollution, greenhouse gases, emissions, and energy consumption by limiting individual motorized mobility; to ensure social equity.

1 Introduction

This paper is based on the dimensional element of the city which makes it possible to adopt a path adhering to the needs of the generators and users of a medium-sized city such as Brindisi, a city in Southern Italy, to make the implementation action following the adoption of the sustainable mobility urban plan (SUMP). The time frame is short-medium term, however, once the sustainability objectives have been pursued, the repercussions are also long-term. The document anticipates possible solutions and interventions for the Brindisi port area to provide useful ideas in the subsequent phase of drafting and implementing the SUMP itself.

The starting point is the analysis of the demand, of the mobility needs, to facilitate the matching of supply and demand and therefore to provide services and make infrastructures available that fit the territorial needs. To this end, the coordination of the various players in the transport system is essential so that the action is synergistic and appropriate with respect

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to the needs of citizens, economic operators and the territory in a perspective that is respectful of the economic-environmental-social paradigm of sustainability. The results of this research make it possible to concretely identify the things to be done in order to achieve the objectives of the SUMP. Results show that for Brindisi, there are four fundamental pillars on which it will be necessary to work to outline a real sustainable path (sustainable mobility; equity, safety and social inclusion; environmental quality; innovation and economic efficiency). These actions are certainly a source of inspiration for geographical and dimensional realities similar to that of Brindisi and therefore replicable elsewhere.

2 The city of Brindisi

Every city is a living material, in continuous transformation in which nothing remains crystallized indefinitely in its role and in its functional, cultural, and social position. Along the Adriatic strip of the Salento sub-region of Tavoliere, on a squat peninsula, in the only forked inlet of the Apulian coast, rises Brindisi whose name, attributed by the Messapians who founded it, literally means "deer's horns" and recalls the topography of the place where the port, considered the gateway to the East, arose [1].

Brindisi is in a key position between the Salento coast and the Murgia hinterland, it is the capital of the homonymous province (Fig. 1). The current population is 83,169 inhabitants (2% of the regional population, 22% of the provincial population), and is characterized by a territorial identity based on certain crucial elements of the milieu, certainly among which is its port. This last element has been the cornerstone of the continuous processes of territorialisation, deterritorialization and reterritorialization of the urban space, transforming the form, function and meaning of the city within it and at different levels of the spatial scale.



Fig. 1. Brindisi localization.

Over time Brindisi has developed a functional space which has shaped the socio-economic face of Brindisi, and which has made it the focal point of convergence of multiple flows at regional and sub-regional level. The hub of the urban functional system is the port, a unique structure on the entire Adriatic coast whose development, over the centuries, has been favoured by the geographical position with respect to the most important commercial routes and which has also attracted military functions to the city.

The socio-economic life and the development of the city, the regional and supra-regional functional relations gravitate around the port. Its primary vocation is that of a commercial port, but currently it can be defined as a multipurpose port, equipped with intermodal road, rail and air connections, which performs industrial and tourist functions with an important role in the routes to Greece, Turkey, Albania, Balkan area and eastern Mediterranean basin. Inserted in the Port System of the Southern Adriatic Sea, with the ports of Bari, Manfredonia, Barletta, Monopoli and Termoli, in 2021 it handled 7,626,732 tons of goods (in and out, of

which 59% refined products and 79% of coal, equal to 45% of the total cargo traffic of the entire port system) and had a traffic of 320,783 passengers (28% of the passenger traffic of the port system of which 97.3% ferries passengers and 2.3% passenger's cruises).

The modelling works of the port have modified the city's waterfront to favour the growth of an industrial development area of about 4 million square meters, separated from the town and interspersed with uncultivated and agricultural areas. The start of construction of the industrial area, which directly overlooks the port and the sea, is linked to the extraordinary policies for the South launched in 1950 which affected the entire province. Among the most significant works, there are those carried out by the Ministry of Public Works, after 1953, for the construction of the 'Dock for the industrial area' in the Middle Port where the Montecatini-Polymer factory will be located (1962, 29 factories) which attributes to the city the role of petrochemical pole, giving life to companies of products and by-products, and the Brindisi Nord thermoelectric plant (1964, then transformed into a coal-fired plant today Edipower) which attributes it the role of national energy pole, strengthened by the construction over the years Eighty of another coal-fired thermoelectric plant in the coastal area of Masseria Cerano south of the town (Enel Federico II plant) and a third combined cycle (Enipower).

The industrialization process started in this period of time changes the economic identity of the city, which over the years increasingly strengthens its secondary system and assumes the appearance of an industrial city by strengthening the petrochemical sector (Lyondell Basell, Polimeri Europa, Chemgas, Enipower) and energy for which it plays a key role at national level and promoting the growth of other production sectors of its ASI, among which the aeronautical sector stands out, fourth in Italy after Naples (Avio companies, Dema Design, Officine Aero Navali) and the chemical-pharmaceutical one (Sanofi-Aventis).

This organization of the city, structured as a pole whose centrifugal and centripetal forces are oriented towards the regional and supra-regional scale, has defined an asymmetric territorial organization at the provincial level in which the remaining 19 municipalities have assumed a functional specialization complementary to that of the capital. In particular, the manufacturing sector made up of small enterprises specialized in textiles - clothing, developed along the East-West axis between Brindisi and Francavilla Fontana, completes the picture of the secondary sector made up mainly of medium-large enterprises concentrated in the capital. To these must be added the concentration of activities in the applied scientific research sector in the Brindisi-Mesagne area and those in the logistics and transport sector in San Vito dei Normanni.

The Municipalities of the coastal strip north of Brindisi have followed a path of tourist development, first based on second homes, then organized on the receptive forms of mass tourism (tourist villages, hotel complexes, bathing establishments, marinas) which have determined a process of consumption of the coast sometimes irreversible connected to its progressive anthropization. Specifically, in 2021, 73.2% of arrivals and 73% of presences in the entire province concentrated on Fasano, Ostuni and Carovigno, with Fasano ranking 4th by number of arrivals and 5th by number of presences from the entire region and which welcomes in its territory most of the accommodation offer of 5-star luxury hotel structures which has earned it the title of 'luxury tourist district in Puglia'. In fact, 5 structures out of a total of 13 present throughout the region are located in Fasano; of the latter 4 are housed in prestigious farms: the Cocco, Maizza, San Domenico farms in Savelletri; the Menola farmhouse, renamed Masseria Relais del Cardinale in Pozzo Faceto di Fasano.

This state of places, marked by a functional hierarchical relationship of the provincial urban network in which Brindisi constitutes the hierarchically superior economic-social-political node, has also found its expression in the mobility system. If you look at the provincial road system, it has a radial structure set up to make the movements of the main municipalities of the province converge to and from the capital: the S.S. 7 covers the internal axis from Brindisi to Francavilla Fontana; along the coastal axis, the S.S. 16 Adriatica covers

the Fasano-Ostuni-Carovigno-S. Vito dei Normanni and joins Fasano with the S.S. 379 which ensures the connection with Bari and with the junction of the S.S. 613 which ensures the connection with Lecce.

The railway transport system, the backbone of the connections for the transport of goods and people at the provincial level on the Brindisi-Mesagne axis, at the regional level and at the national level through high speed, also converges on Brindisi. The railway system is set up on integration with road transport and with the intermodal transport systems connected above all to the port system. The presence of the 'Papola-Casale' airport (1,853,449 passengers in 2021) completes the infrastructural equipment and enhances the territorial competitiveness of Brindisi. Located north of the town, it rises along the Seno di Ponente and gives a further strategic role to the city in terms of accessibility of Puglia and the entire Salento peninsula.

Starting from the end of the nineties, the affirmation of new territorial policy tools, the enhancement of local resources as a starting point for self-centred development processes, combined with the paradigm of sustainability, establish new points of view that change the geometries consolidated by long paths of spontaneous evolution and decades of top-down interventions. These points of view turn the spotlight on possible new territorial arrangements that overlap with the previous ones or that replace them also through the creation of new territorial entities.

In this perspective, the city of Brindisi is looking for a new, more satisfying territorial mosaic, which defines a functional reorganization in which transversal and complementary relationships prevail and in which, in addition to its vocation of being a node of territorial systems that develop in the local and supra-local, consider the unexpressed or under-exploited potential of the cultural and environmental heritage. By working in this direction, Brindisi develops new functional, social, cultural, and political systemic relationships which will highlight new features of the territorial identity, and which will create a new sense of belonging through the construction of participatory processes connected to common projects aimed at continuous multi-scale integration.

At the provincial level, the aim is to develop an integrated system of services, logistics and distribution that favour connection along the North-South axis of Puglia and communication along other international routes, placing its pre-eminent urban pole in Brindisi (lead municipality) which emerges for its industrial and tertiary endowment compared to small-medium centres [2].

The launch of the 2007-2013 strategic planning process accentuates the attention on an endogenous approach and on multilevel governance and leads to the definition of the Area Vasta Brindisina, within which the city of Brindisi is recognized as a territorial of provincial junction, between the Great Salento (Taranto, Lecce and Brindisi) and the linear system of the Adriatic cities. Furthermore, it pursues the aim of stimulating economic processes in the Wider Area by favouring the creation of local systems that strengthen the strategic position of the territory.

In this perspective, the aforementioned process works to favour the integration between central, semi-central and peripheral areas and aims, on the one hand, at upgrading the large infrastructures of the transport and communication networks; on the other hand, the consolidation of the ability to network in the territorial urban system. Furthermore, it relaunches the role of the city with respect to the rediscovery of the sea as a resource not only economic, but also natural and cultural and of historical, naturalistic, cultural and landscape heritage.

Brindisi thus reaches 2022 with a kaleidoscopic face in which it adds a series of facets to the traditional secondary vocation which preserve its role as primatial city of its province and attribute it a fundamental role in the sub-region of Salento and the entire Adriatic area and Mediterranean with respect to traditional functions, but they also give it a new face that could lead it to preside over other roles. The latter are supported by the current multilevel

governance planning and territorial organization tools which propose a reinterpretation of the endowment in terms of sustainability connected to the solution of multiple dimensions of environmental unsustainability defined by secondary specialization processes and focus more clearly on mobility and its strategic role in the construction of alternative territorial routes.

3 Traffic generating poles

The traffic generating poles are significant transformation factors of the municipal territory of Brindisi. The presence of large shopping centres in an urban periphery structured for small commercial-industrial-artisan settlements has led to:

- the relocation in new sectors of the territory of individual activities that were previously the exclusive prerogative of urban centres,
- the saturation of the road network during peak hours,
- a high and disharmonious building development which has exalted an insufficient and inadequate urban planning and urban network with reference to (public transport, public spaces, road infrastructures, pedestrian paths, etc. [3].

At the same time, this concentration of activities poses supply problems in consumer goods outside the central areas and the crowns of the agglomerations, thus increasing the traffic for purchases from peripheral areas. This trend is in contrast with the objectives of sustainable development and with the protection of the supply of consumer goods for the population of peripheral regions.

In the municipal area of Brindisi, these phenomena have intertwined with the growing traffic generated by the Antonio Papola airport of Brindisi – Casale, destined to increase with the greater tourist and business interest covered by the Puglia Region in recent years. Car rental operators have created fleet storage zones which bring about new logistical conditions. Furthermore, the presence of the main UN Logistics Base in the Mediterranean since 1994 has also created new urban transit flows, both for cars and heavy vehicles for the transport of goods destined for abroad.

Relevant are the port area, the hospital, the industrial area, and the university.

With particular reference to the port area of Brindisi, it must be said that the port, due to its geographical position and its physical characteristics, represents the natural "gate" of reference for relations with Greece, the Balkan area, Turkey and the eastern Mediterranean basin.

The railway connections are developed through the node of the Brindisi station: with the North, along the director Bari - Bologna - Milan; with Campania and Calabria through the junction of Taranto and with the south with the extension of the Adriatic route towards Lecce and Salento.

The road connections coincide with the same itineraries: for the North, expressway for Bari and then the A14; for the Ionian and Tyrrhenian regions, the SS7 up to Taranto, then the SS 106 (Ionic) towards Calabria and the expressway for Potenza towards Salerno and Naples. Therefore, the amount of traffic generated by this pole can easily be deduced and it is on it that it is possible to intervene to make mobility in this segment of the territory sustainable. The elements on which it is possible to leverage are, on the one hand, the better management of the demand for passenger mobility, both touristic and systematic (for work reasons), and on the other hand, the offer with interventions on the means of transport and on the infrastructural network of type light. At the same time, it is also possible to intervene on the improvement of the urban movement of goods. More specifically, in order to pursue the objective of sustainability, it is essential to change the modal split in favour of alternative modes to road transport, even better with vehicles not powered by traditional fuels. Crucial is the role played by STP Brindisi which currently provides the sea transport service in the internal waters of the port of Brindisi, integrated with the urban public transport service. The

service is provided with a motorboat which represents a highly attractive connection line and alternative to road methods for the Casale and Centro districts. Therefore, a first intervention may consist in strengthening this service, supported by an effective information campaign in order to favour the modal switch to which reference has been made.

The information to be provided to users could be conveyed through information poles located near bus stops, motorboat stops, as well as park and ride parking lots to communicate to users, local and non-local, as well as to tourists waiting for public transport, forecast information regarding the arrival of the vehicles themselves. For an inclusive and sustainable service in social terms, the information poles could be equipped with an audio system installed on the support to broadcast the displayed messages vocally, in order to help blind people or people with other disabilities. A further intervention in this sense can be made up of informative and interactive apps, available both on mobile devices and on the web. In this way, the information would reach a large number of users, both local and non- local, as well as tourists interested in using public transport.

An intervention on the supply, particularly the acquisition of an electric motorboat, would make it possible to eliminate the negative environmental externalities linked to the power supply of the means of transport and would favour the achievement of a situation of efficiency from a purely environmental point of view. Again, from a sustainable point of view, it is possible to hypothesize the presence in the port area of shared micromobility services that concern both passengers/tourists and workers, as well as the movement of goods in urban areas by means of cargo bikes, also in sharing. Fundamental, in support of these latest interventions, is the creation of its own circular and integrated seat of a cycle path network, also in light form, which connects the port area to destinations specially mapped and traced in the urban and sub-urban area, without interruptions (Fig. 2). Still on the supply side, in order to make a public transport service effective and efficient, it is conceivable to supply public transport services on demand, the latter characterized by the element of erratic nature which coincides with a share of the demand deriving from segments of the population no longer autonomous or not equipped with alternative means or generated in off-peak hours.

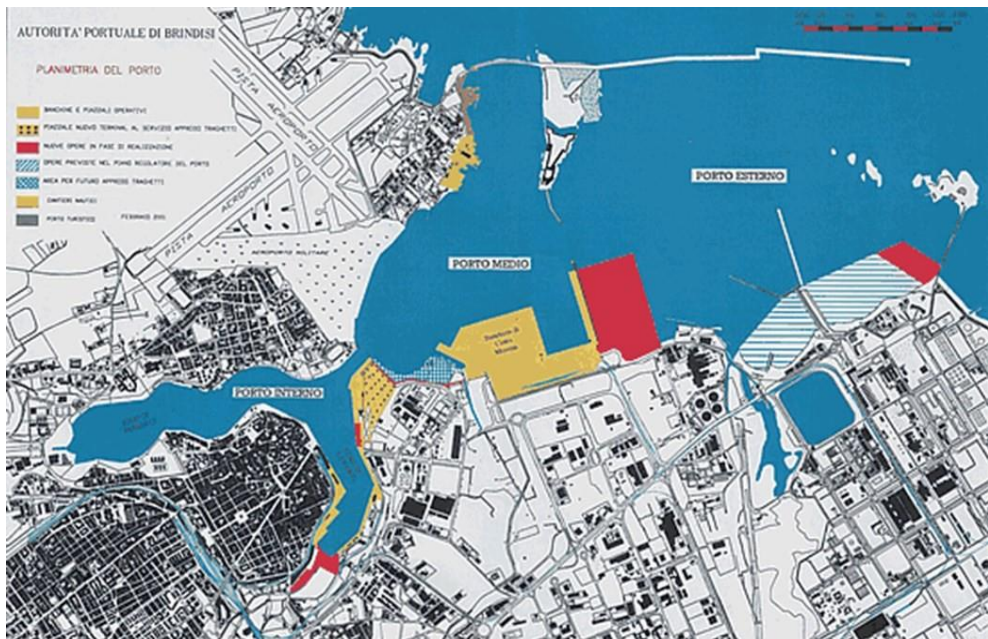


Fig. 2. Port area.

This type of service, in addition to effectively facilitating the meeting between supply and demand, allows the management company to pay attention to users with ad hoc services and to pursue the objective of optimization with reference to both production (in terms of service and km supplied) and the minimization of costs, given the replacement of the service and vehicles (certainly of a smaller scope than traditional vehicles) with fitting elements with respect to the needs of users. Lastly, to encourage modal integration and to further favour the transition from road to sea mode, it is conceivable to build floating pontoons for mooring motor vessels at nodal interchange points, such as, for example, car parks and points parking nodes.

4 Mobility situation and planning context

Medium-sized cities such as Brindisi tend to be car-oriented communities with a low share of public/collective transport, so getting around by car is often the easiest option, even though it is neither economically viable nor sustainable from an environmental point of view. The residents of these cities very often find themselves in the real conditions of dealing with distances that can be covered on foot and with micro-mobility tools within the city. However very often the recourse is to the private car especially when the routes involve medium distances following the need to satisfy the homework and home-study commuter mobility [3].

A point that needs to be made is that of the infrastructures which are lacking for pedestrians and for those who would like to resort to alternative individual means of transport to the car. So, in addition to trying to do something about it, it is crucial that, to achieve sustainability goals, providing attractive and reliable public transport is often a challenge to achieve in these smaller cities. With respect to this point, however, it should be highlighted that the direction of collective transport must necessarily involve a supra-municipal area given the substantial extra-urban movements that affect Brindisi for study and work reasons, as well as for tourism [4].

The reality of Brindisi is characterized by limited resources and capacities, and these can constitute a substantial obstacle not only to planning, but above all to the implementation of the plans drawn up. This derives from a weaker coordination of planning activities in the reference area and the measures to be adopted can be selected ad hoc with a limited consideration of the strategic objectives. However, what may seem to be negative characteristics turn out to be a potential given the lesser institutional complexity that can facilitate the SUMP drafting processes and make them particularly effective. Under the right conditions, governance can be simplified as a limited number of institutional and non-institutional actors need to be involved in the decision-making process. The possibility of achieving the broader sustainable development objectives is therefore facilitated precisely by the dimensional element and by the subjects involved, although the simultaneous pursuit of economic, social and environmental objectives is necessary [5] [6].

5 The benefits of adopting a SUMP, and things to do

As highlighted in the Rupprecht report [7], a sustainable urban mobility plan can help cities like Brindisi actively shape their future if they are to remain economically prosperous and attractive places to live and work. Bicycle-friendly, walkable, and attractive public spaces have become key strategic points for attracting and retaining residents. A winning element, which plays in favour of active mobility tools, such as bicycles and pedestrian areas, is represented by the improvement of citizens' health. The city shows decreasing levels of daily activity, negatively impacting their health. This is partly due to car dependency in cities.

The SUMP, on the other hand, must intervene in this sense, leveraging this component, also returning the city to full use by the residents.

Another benefit of the SUMP consists in setting up a welcoming city-system for an aging society, in order to provide accessibility for all. The SUMP helps to improve access to services (shops, school, health, culture) and to work, especially for non-motorised people. This includes not just older people, but everyone who doesn't own a car, such as children, young adults, low-income families and people who can't drive for health reasons.

Also consider that the use of transport and land use planning tools offers better opportunities to travel without a car, to make life easier for almost everyone, even those who have a car. Any family will benefit if their children can walk, cycle or take the bus to school rather than using their own car for this reason. A downsizing of mobility through the SUMP therefore makes it possible to fully address the problems of congestion, safety and liveability.

In the light of the characteristic elements of the city of Brindisi, it is suggested to base the drafting of the SUMP on four essential pillars:

- Sustainable mobility
 - o ensure high accessibility,
 - o reduce dependence on private motorized vehicles,
 - o redistribute public space in favour of active mobility,
 - o encourage compliance with traffic and vehicle parking rules.
- Equity, security and social inclusion
 - o guarantee services and accessibility to all components of the population,
 - o reduce accidents,
 - o reduce population exposure to numbers and air pollutants,
 - o reduce access barriers to mobility services,
 - o increase freedom of choice in favour of sustainable mobility tools.
- Environmental quality
 - o reduce polluting atmospheric emissions,
 - o reduce energy consumption and greenhouse gas emissions,
 - o prevent and contain noise pollution,
 - o improve the quality of the urban landscape.
- Innovation and economic efficiency
 - o ensure the economic balance of the mobility system,
 - o internalize environmental, social and health costs through the use of public policies,
 - o promote the economic efficiency of commercial traffic,
 - o optimize the use of resources intended for mobility.

At the basis of the preparation and implementation of the SUMP in the city of Brindisi there must be the real will to change the current structure, improving it, in a sustainable perspective. This implies having to act not only on mobility, which is the heart of the SUMP, but also on the quality of life and well-being of the resident population, as well as the transiting population and tourists. In general terms, therefore, it will be necessary:

- improve accessibility for all, regardless of income and social status;
- improve the quality of life and the attractiveness of the urban environment;
- improve road safety and public health;
- reduce air and noise pollution, greenhouse gases, emissions and energy consumption by limiting individual motorized mobility;
- ensure social equity.

To pursue both general and more specific objectives, for the city of Brindisi it is necessary to structure the path into 12 successive steps in order to have an orderly and clear progress.

1. What resources are available?

2. What is the planning context?
3. What are the main problems and what are the opportunities?
4. What are the different possible options for the future?
5. What city model do you want to adopt?
6. How will success be guaranteed?
7. What should be done concretely?
8. What will it require and who will do what?
9. Is the city ready for SUMP?
10. What should be done for good management?
11. How are we doing this?
12. What have we learned?

In order to start the process, it is necessary to have a work team that has skills and competence, that has relationships with all the components to be involved in the process, from administration to citizenship. Furthermore, in the initial phase it is necessary to define the budget required for the SUMP, which may also be of the supra- municipal type if the other neighbouring municipalities are involved. It is worth remembering that the adoption of the SUMP by the administration constitutes in itself a reason for obtaining national resources aimed at its implementation. Budget estimation and funding sources are a key point.

With reference to the planning context, it is necessary to define the geographical scope and identify the functional urban areas. This implies not only the territorial perimeter, but also the administrative one which derives from the plans, rules and regulations in force. For example, it will be necessary to identify the type of mobility on which to act and the reference context, urban or extra-urban. Furthermore, it is advisable to check which territorial policies are in force and whether or not they promote uncontrolled urban expansion. In this case, the SUMP must be integrated into sustainable urban development strategies to be able to influence mobility and territorial planning. In this phase the mobility situation is analysed. The analysis is essential to help defining policies appropriately and provide strategic lines of action. In a preliminary manner, it will be necessary to acquire all the data relating to mobility and the main traffic generators to be able to intervene with maximum awareness. Where there is no systematic survey of transport demand, it will be necessary to carry out ad hoc surveys and adopt estimation models. On the supply side, however, it will be necessary to interact with all transport operators as regards services and with the competent administrations as regards transport networks. In this case, the mapping of the territory is essential to identify critical issues and opportunities. This analysis will be complemented using spatial analysis methods, for example by mapping road accidents, air and noise pollution levels, areas away from parks, areas inaccessible to the public, gaps in the cycle and footpath network.

In this phase it is necessary to detect specific information on the status and trends with reference to:

- means of transport available and used in the city (walking, cycling, public transport, vehicle sharing, private motorized transport, multimodality, freight transport),
- relevant aspects of sustainable mobility in the city (egg air pollution, traffic noise, road safety, liveability of public spaces, fair accessibility to services, work and education),
- existing planning documentation for analyzes relevant to sustainable urban mobility. Such documents may include sectoral mobility strategies and plans, as well as documents from other sectors such as land use, energy, environment, economic development, social inclusion, health and safety.

After this stage, a baseline analysis should be prepared to identify and prioritize and identify the main issues that need to be addressed by the SUMP. As far as possible, it is desirable that the current state of mobility and transport be quantified exactly and displayed on maps. The starting point of the analysis should include the current status, trends and problem areas of all modes of transport used in the city of Brindisi, as well as any interventions and behaviours in favour of sustainable mobility should be identified. Useful in this case is the SWOT analysis (Strengths-Weaknesses- Opportunities-Threats).

With reference to the various possible options, it is essential to outline the future situation in prospective terms considering, in general terms, population growth, changes to the economic system, the trend of the labour market, and more specifically the trend of the transport sector. With reference to the latter element, it will be necessary to interact with the supervising administrations in order to understand the future transport structure. Therefore, the dialogue with the Puglia Region and with the Ministry of Infrastructure and Sustainable Mobility will be absolutely necessary. On the other hand, also understanding what the evolution of the labour market will be and how the demand for student mobility will evolve allow us to outline the future of systematic demand. In this regard, the possible changes that may occur in the local transport system will also have to be considered. This may include, for example, the use of technologies that allow the provision of the collective bus service on demand or the use of automated driving in urban contexts.

Having to outline some scenarios we will have to find ourselves in a position to develop:

- a business-as-usual scenario describing the likely development if the current political direction continues with its course by implementing the measures that have already been planned,
- alternative scenarios describing likely developments arising from different priority strategic policies (egg. focus on public transport vs. focus on active mobility vs focus on electromobility). These scenarios show the contribution of different actions that can more effectively pursue sustainability.

On the model to be adopted for the development and implementation of the SUMP, it is essential to set the vision and objectives with all the reference stakeholders. Sharing is essential for subsequent acceptance and for outlining a shared future vision of mobility and the city. To this end, the Rupprecht report (2021) suggests:

- agree on a stimulating and widely disseminated vision of mobility,
- formulate clear objectives and strategies that can select guiding measures,
- emphasize the political value of the SUMP and ensure the commitment of stakeholders and decision makers.

Vision and goals provide an important description of the desired future. However, this alone is not enough. To make interventions measurable, it is necessary to select an adequate set of indicators and strategic objectives. The main objective is therefore to define a small set of "core" objectives, i.e. feasible, ambitious, and coherent. It is appropriate to use standard indicators that are already well defined and for which there is knowledge on how to measure and analyze them. This allows for benchmarking with other cities or comparison with national/international statistics. Furthermore, the measurable and temporal objectives must clearly describe how much each indicator should change over a given period (egg. 30% reduction of greenhouse gas emissions from urban transport within 10 years). Adopting a model means selecting packages of measures with stakeholders [8].

Developing effective packages of measures is at the heart of sustainable urban mobility planning [9]. Only well selected measures will ensure the achievement of the defined objectives, and these will be achieved. The selection should be transparent to evaluate potential measures for their effectiveness and feasibility, considering the experience from similar policies in other cities [10].

6 Conclusions

In practice, a few things will have to be done. The identification of priorities is the point that characterizes the entire SUMP and its development [11]. For Brindisi, as outlined above, there are four fundamental pillars with respect to which it will be necessary to work to outline a real sustainable path (sustainable mobility; equity, safety and social inclusion; environmental quality; innovation and economic efficiency). This implies the identification by a work team of the packages of measures to support the individual pillars, supported by technical, financial and economic feasibility analyses.

The drafting of a SUMP can take several months, so it will require a few months of analysis work which will need to be shared among all stakeholders. For the city of Brindisi, given the size and number of traffic generating poles, the sharing/consultation process does not require extremely long times.

In any case, it must be considered that the city of Brindisi, like many other realities, may require a gradual implementation of the SUMP, therefore it may not be ready for the adoption of entire packages of measures. In this case it is good to envisage the implementation of pilot initiatives aimed at exploring the real acceptance of the interventions by the residents or by the erratic component represented by the tourists. Subsequently, the packages of measures can be implemented in their entirety. From a management point of view there will necessarily be a division of tasks between the various subjects involved, even if there is only one direction. The actors change according to the packages to be implemented, so the administration will have to interface with the transport operators, with the parking managers, with the representatives of the traffic generating poles, with the users, with the citizens as the various interventions will be designed and implemented.

It is important that the administration equips itself with tools for measuring results to understand in which direction it is going with respect to the objectives to be pursued. Therefore, it will be appropriate to set up an evaluation and monitoring office that follows the entire SUMP implementation process and that evaluates the implementation through self-assessment tools [13].

Finally, the administration will understand the scope and effectiveness of the action through the qualitative observation of the city and the appreciation of the improvement in the well-being of the community impacted by the interventions implemented. If this does not occur, it will be appropriate to understand through ex post evaluations what has not worked, to correct the sustainability tool and re-propose it in a new guise.

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