

Sustainable Urban Mobility Plans in Spain. Assessment of walking promotion and its impact in the quality of public space.

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Abstract

In recent years, several Spanish cities have taken action against the growth of individual motorized displacements, promoting active and socially equitable modes of transportation. They are contributing to a new mobility's culture in which walking should have a leading role. However, this change depends on complex socio-economic issues and requires planning. For that, according to European guidelines, the Sustainable Urban Mobility Plan (SUMP) is the suitable instrument to address this challenge.

The instrument arises in Spain in the middle of the last decade and nowadays the majority of medium cities have a SUMP. Nevertheless, we still do not know much about its effectiveness, especially about its impact over pedestrians. Therefore, with the aim to contribute to the knowledge about the SUMP experience in Spain, a doctoral thesis is being prepared for the Urban Planning Department at the Polytechnic University of Madrid. The study characterizes the planning instrument in a mobility policies panorama and analyses in detail its relation with urban features and planning. The adoption of a mobility plan represents a political commitment, but its implementation is not always successful, as the instrument has little legal implications in Spain. That is why its coordination with urban plans is so important.

There is a hypothesis that SUMP address mainly traffic and public transport, compared with little attention to pedestrian and cycling promotion or the restriction of private cars use. The analysis' methodologies and actions proposed still have traditional traffic and essentially infrastructural approach, with not enough attention to urban aspects, other functions of public space beyond circulation or the social aspects related to the demand for mobility. Otherwise, the research revealed some good practices that should be shared and widespread between those (technicians, students, politicians and activists) interested in sustainable mobility with walking and cycling promotion and improvement of urban space quality

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1. Introduction

In recent years, several Spanish cities have taken action against the growth of individual and motorized displacements, promoting active and socially equitable modes of transport. Working with new concepts and instruments, they are contributing to a new culture of mobility in which walking should have a leading role.

However, the application of measures to encourage this change depends on complex socio-economic issues and requires planning. For that, and according to some European guidelines, the Sustainable Urban Mobility Plan (SUMP) is the suitable instrument to address this problem. Following the European experience, this instrument arises in Spain in the middle of the last decade, and since then many municipalities have promoted and implemented mobility plans. Nevertheless, the adoption of a mobility plan represents a political commitment, but its implementation is not always successful, as the instrument has little legal implication in Spain. In addition, we still do not know much about the effect of these plans, especially about its impact over pedestrian mobility.

Therefore, with the aim to contribute to the knowledge about the SUMP experience in Spain, a doctoral thesis is being prepared for the Urban Planning Department of the Polytechnic University of Madrid. The study characterizes the planning instrument (SUMP), in midsize Spanish cities, contextualized in a panorama of urban mobility policies in the country. Furthermore, it analyses specially the relation established between mobility plans and urbanism. This paper presents part of this mayor research, and addresses the instrument's characterization, referring to its consideration towards the different modes of mobility and the effect over the public space quality and livability, especially from the pedestrian point of view.

2. Context and goals

The planning instrument object of analysis in this work has its origin in the context of environmental awareness that marked the late '80s and early '90s. The *Eco 92, Rio de Janeiro Earth Summit* is a landmark of this process, where an intergovernmental agreement was settled to favor a more sustainable development. The *Global Program for sustainable development in the 21st Century*, presented in the Conference, also promoted the idea that the solutions to global problems would come from a local approach. The recover and application of the concept *think global - act local*, originally related to Patrick Geddes's ideas, demanded citizen implication and a leading role of local administrations. The result was the Agenda 21 United Nations' Program implementation in several cities around the world during the following years, which established a new approach to town planning in terms of environmental goals, governance and citizen participation.

In this context, urban transport matters received special attention and since that, the European Union has promoted a more sustainable model throughout different campaigns and funding programs. For instance, CIVITAS and URBAN Programs, which made possible some of the most interesting and recent transformations related to urban mobility in Spanish municipalities.

Regarding the promotion of SUMPs, a specific landmark is the European *Thematic Strategy on the Urban Environment*, started in 2004 and finalized in 2006. The inclusion of *sustainable transport plans* (term used at that moment) as a key measure to achieve a more livable and healthy urban environment resulted from an important lobby of the consultant's sector and some countries experience. For that time, the law in France and U.K has already introduced the SUMP as a mandatory instrument, designed to plan the transportation of passengers and goods in urban and metropolitan scope in a long-term perspective.

The *Thematic Strategy on the Urban Environment* also advocated for the coordination between mobility policies and other sectors closely related, especially urban planning. Since the approval of the *Strategy*, the Sustainable Urban Mobility Plan (term introduced latter in a more holistic approach) is indicated as the most suitable instrument to define development guidelines in

terms of transport in towns, for medium and long term, considering the specificities of each place. To that end, the *Strategy* also recommended the European Commission to prepare a manual to support local authorities in SUMP's elaboration. (CEDEX, 2013)

In Spain, the public awareness about the negative effects of an unsustainable transport model led to the first experiences of traffic calming and pedestrian friendly measures, during the 90's. In general, the first improvements of public space to favor pedestrians were mainly related to historical centers protection and refurbishment. It was only in 2003, with the *National Strategy for Energy Saving and Efficiency 2004-2012* approval, when a national framework was established and *transport* identified as the most important sector in terms of energy consumption and greenhouse effect emissions.

To make the strategy operative, two consecutive *Action's Plans* were developed: 2005-2007 and 2008-2012. Both plans included measures organized in three different categories: *Modal shift*, *More efficient use of transport* and *Vehicles efficiency improvement*. The SUMP appears as the first key measure of the *Modal shift* group of actions, in both periods. In the first *Action's Plan* the main target was the cities with more than 100.000 inhabitants. While in the second, a wider scope included cities with more than 50.000 people.

In 2004 the Regional Energy Agency of the Basque Country - IHOBE published the first guide for sustainable mobility plans elaboration. Two years later, in 2006, the State Institute of Energy Diversity and Saving - IDAE published the *Practical Guide for SUMP's Elaboration and Implementation*, with a widespread national impact. That was a starting landmark of a 6 years period (until 2012) in which an intensive production of SUMP's took place in Spain. The approval of these plans has significantly increased especially from the *Sustainable Economy Act 2011*, which established the existence of a municipal SUMP as mandatory requirement for public transport funding subsidies.

This research identified more than 90 Spanish medium cities (from 50.000 to 500.000 inhabitants) with a SUMP elaborated during those years. After that, few cities developed or updated their mobility plans, as the result of a shift in public subsidy to mobility polices, from planning process to electric cars production and acquisition. Nevertheless, this intensive planning period was sufficient to produce the first generation of mobility plans in Spain, which permits and demands analysis in order to improve approaches and technics for the future plans or revisions to come.



Among the 139 municipalities of 50.000 to 500.000 people., 90 PMUS identified.
7 plans identified in municipalities of more than 500.000 people.)

To achieve a more sustainable mobility and better life quality for citizens and future generations, all instruments, from European and National Strategies to SUMP local guidelines, highly recommend the promotion of walking, cycling and public transport. Moreover, in agreement with its leading role in the urban modal split in Spain, pedestrian mobility should have a special consideration in SUMP. Also according to official guidelines, the promotion of more sustainable forms of mobility should come from an integrated policies' approach between related sectors (transport, land-use, environment, economic development, social inclusion, gender equity, health, safety, etc.). Guiding principles consider expressly the integration of mobility in urban planning and citizen participation as key elements for the different phases of planning and implementation processes. Therefore, it is imperative to define methodologies to assess those criteria in plans elaboration and execution.

Consequently, the main goals of this paper are:

- Demonstrate a suitable method for pedestrian assessment of mobility plans.
- Analyse a sample of the first generation of SUMP in Spanish medium cities.
- Compare the attentions devoted to the different modes of transport in SUMP.
- Describe how or by means of which type of measures the plans intend to achieve goals.
- Identify the presence of pedestrians in the SUMP's citizen participation processes
- Discuss the repercussion of the approach previously described in the public space's quality and its distribution between different users.

3. Methodology

Considering the objectives listed above this research works with following hypotheses:

1. There is an unbalanced attention to each mode of transportation in the diagnosis and the correspondent proposals' sets.
2. Proposals and actions are mainly infrastructural.
3. Pedestrians do not take place in citizen participation processes as an organized collective or stakeholder namely represented.
4. The public space configuration that might result of the measures application do not fully correspond to pedestrians' necessities.

In order to confirm or refute hypotheses, the method consists in a descriptive statistical analysis of SUMP's basic features, throughout indicators' definition and assessment of documentary sources: Urban Mobility Plans and documents directly related to its development, like technical guides and reports, contracting basis, etc.

In this first phase of the investigation, five cases (plans) were analysed. It is a small number of cases, but sufficient considering that the goal is not to present definitive conclusions, but test the method and identify result hints. The criteria to select cities and their mobility plans are minimum geographic diversity, municipality's population size, representation of the author consulting team and documents availability.

In the first place, there is a quantitative description of the selected plans, throughout the following indicators:

- Documents contents and structure. Common elements and chapters order.
- Terminology used in the complete text. Counting words and comparing the number of references to each mobility sector (walking, bicycle, public transport and private car).
- Space (pages) devoted to each sectors' proposal set.
- Budget split between sectors.

Then, a qualitative approach takes place, to describe and analyse:

- Methods and instruments in diagnoses

- Areas of intervention: infrastructure, legislation, culture and education, demand management, urbanism, taxes policies, etc.
- Compilation of most usual measures proposed for the different sectors, with special attention to the restriction or promotion of private cars traffic.
- Pedestrian and cyclist's role in citizen participation processes.

4. First results and discussion

From the application of the sample selection criteria, the SUMP's analysed are the following:

- *Plan de Movilidad Urbana de Gijón 2002*
- *Plan de Movilidad Urbana Sostenible de Toledo, 2007.*
- *Plan Integral de Movilidad Urbana Sostenible de Castellón del Plana 2007-2015*
- *Plan de movilidad urbana sostenible de Donostia-Sán Sebastián 2008-2024*
- *Plan de Movilidad Sostenible y Espacio Público en Vitoria-Gasteiz, 2008*

In order to check the coherence between plans and the instructions for its elaboration, the analysis includes the *Practical Guide for SUMP's Elaboration and Implementation – IDAE 2006* as well.

As the sample intend to represent general features of the SUMP's developed in Spain, and not the specificities of each case, in the analysis does not identify the cities, and a random number is assigned to each case.

Structure

The documents present a similar sequence of sections and chapters, attending to the contents and phases proposed in the guidelines and established by contracting authorities. The basic structure, meaning the similar chapters included in all documents reviewed, is *Introduction – Diagnosis – Future scenarios – Proposals' plan*. In addition to those, some plans include also specific chapters for *Justification and sustainable mobility advocacy, Complementary programs* and *Cost/benefit evaluation*. Fewer are the plans that present chapters for the *Citizen Participation process* or *Monitoring system and indicators*.

The *Introductions* normally present the main precedents, the urban context and the methods for the plan elaboration. In this first chapter, pedestrian and cyclist mobility promotion appears between the plans' main goals, together with public transport and a more rational use of private cars. Plans normally highlight the great importance of pedestrian share in the modal split, which is considerably high in Spanish cities (around 50% in the cases studied).

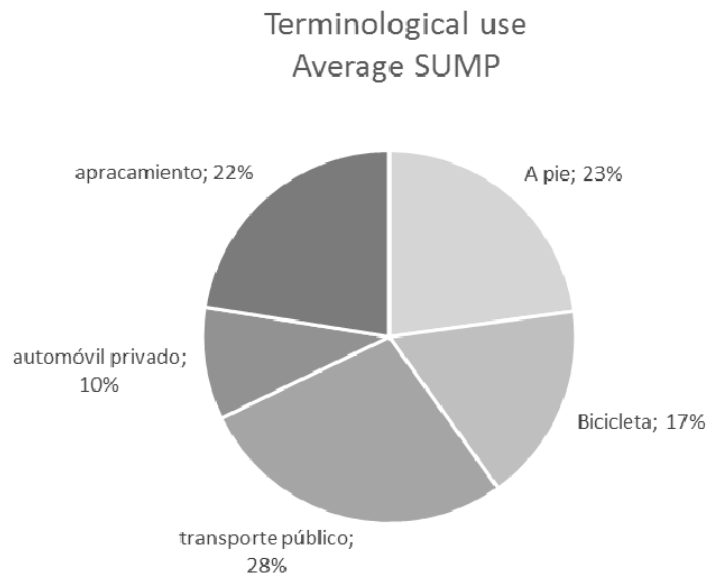
Terminology

The use of the term *mobility* in technical and legal texts, in place of *transport* or *traffic*, represented the introduction of new actors in urban policies. During a long time, pedestrians and cyclists, active participants in the public streets, were forgotten or almost invisible in the traditional traffic engineering theoretical corpus, more concerned about motor vehicles safe and fluent flow. The question here is how much space did those new actors gained in the technical rhetoric.



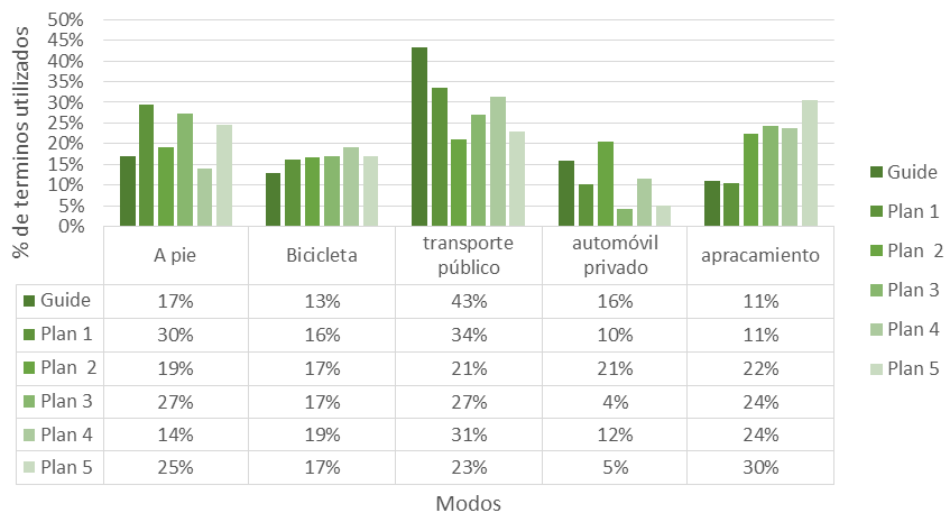
Word counting by wordcloud.com of two different mobility plans.

The repetition of words referring to a certain type of mobility and its proportional relation to the total of references to all types is the indicator applied to estimate plans' awareness about pedestrian in comparison to other modes. The terminological usage comparison reveals a balanced relation between modes in an overall view of the counting results.



The counting of different terms referring to the main modes of transport, in the whole text of the SUMPs, shows that *private car and parking* slightly prevail, followed by *public transport* and then *walking*, while *bicycles* have the shortest participation.

Terminological use



The proportional relation between modes is coherent to that one identified in the official Guide, except for the case of parking that has a bigger participation in plans than recommended. In the comparison between SUMP, it is remarkable that terms referring to cycle mobility appear with the same proportion in all cases. Other interesting results are that public transport is always the most mentioned and the plan that more speaks of pedestrian is the one that less refers to private cars.

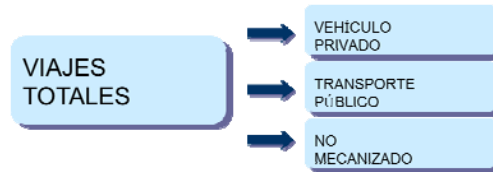
Diagnoses' methods and instruments

The balance observed in the terms proportional usage is not present in the *Diagnoses* elaborated for the plans. In all analysis' chapters there is a clear contrast in the treatment applied to the different modes of transport, that contradicts the pedestrian and bicycle priority previously advocated by the plans. The studies present general data about the modal split and different networks inventories focused on the infrastructures capacity and state of repair. However, the great difference reside in the information about the flows intensity and other characteristics of the different mobility systems. While for motorized traffic and parking there is exhaustive data about intensities and directions, occupation, speeds, etc.; the information about the cycling and walking is limited to basic considerations. This research did not find any accurate counting system, satisfaction surveys or potential demand studies for pedestrians or cyclists.



Daily Average Intensity Map in the Road System only elaborated for motor traffic.
Source: *Plan de Movilidad Urbana Sostenible de Toledo, 2007.*

The same contrast, result of biased methods and instruments, marks the consecutive step in the general methodology adopted by plans: *the future scenarios elaboration*. In this case, the usual approach is to compare future prospects, with and without the SUMP implementation, based on current evidences. The result of the opposite scenarios to come are described by means of hypothetical modal splits, whose repercussion in the street system is generated by traffic engineering simulation models. The question is that those mathematical models focus in motorized traffic and road capacity. Neither the variables introduced to generate the models, nor the dynamics presented as results, consider pedestrians or cyclist features, necessities or constraints in a systematic way.



Methodological diagram for traffic simulation model, which divides the total number of trips in three categories: *Private vehicle, Public transport and No mechanical*.

Source: *Plan de Movilidad Urbana Sostenible de Toledo, 2007*.

It is important to consider that the complexity related to human movements, walking or by bicycle, in the city exceed automobiles displacement patterns. For instance, all the activities related to rest, children playing or social relation in the public space, direct related to pedestrian behaviour, do not have place in those models. In addition, simulation models have bases on data about previous situations extremely constrained by traffic impositions. Furthermore, as mentioned before, there are no accurate figures about pedestrians and bicycles circulation in towns to feed those models. In this case, is representative the fact that some models present predictions for pedestrian and cyclists under the common category of nonmotorized trips, ignoring that they are very different forms of urban mobility, with distinguished necessities, flow patterns and share in the modal split. All those reveal a great unbalance between the active and the motorized transport in terms of intensity and amount of information provided, in favour of public transport and private car's traffic.

Proposals sets: place and space devoted

Usually, once the diagnosis is finished, plans present *proposals programs* with measures to adopt in order to promote the desired transformation in urban mobility patterns. Generally, proposals are grouped around modes of transport and their networks. In this case, regarding the documents' structure it is worth mentioning that pedestrians and cyclists are usually, ones of the latest chapters in the reading order.

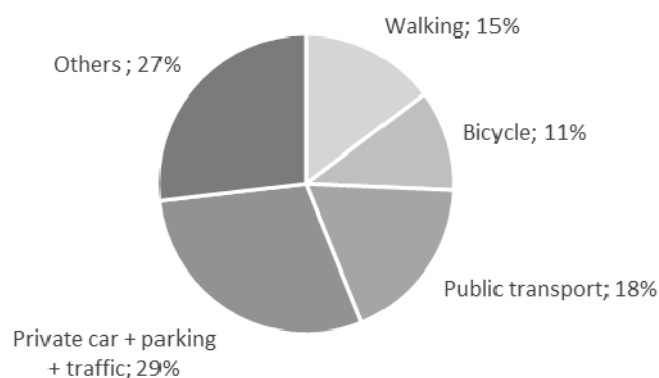
Propuestas. Medidas a Adoptar	42	2 Programas de actuación .....	.....
1. Red viaria y el tráfico	42	2.1 Plan de circulación y red viaria.....	.....
2. Programa de formación para la conducción eficiente	65	2.1.1 Propuesta de red viaria .....	.....
3. Club de viaje en coche compartido, proyecto "Compartir Coche"	66	2.1.2 Acciones específicas a emprender para la implantación de la propuesta..	.....
4. Mejora del Transporte público	68	2.1.3 Implantación por fases de la propuesta de red viaria .....	.....
5. Gestión del Aparcamiento	95	2.1.4 Recomendaciones generales.....	.....
6. Medidas de fomento de la movilidad peatonal	109	2.2 Plan de estacionamiento y carga/descarga.....	.....
7. La movilidad ciclista	146	2.2.1 Introducción.....	.....
8. Planes de movilidad a los centros de trabajo	158	2.2.2 Plan de aparcamientos subterráneos .....	.....
9. Camino Escolar	158	2.2.3 Plan de estacionamiento en viario .....	.....
10. Políticas de movilidad sostenible en los nuevos desarrollos urbanísticos	161	2.2.4 Plan de carga y descarga y circulación de vehículos pesados .....	.....
11. Plan de Seguridad vial	162	2.3 Plan de potenciación del transporte colectivo .....	.....
12. Plan de Comunicación, divulgación y sensibilización	19	2.3.1 Transporte público.....	.....
		2.3.2 Transporte discrecional .....	.....
		2.4 Plan de ciclabilidad y peatonalidad .....	.....
		2.4.1 Red de ejes ciclistas.....	.....
		2.4.2 Red de ejes peatonales .....	.....

Position of pedestrian topic in the Index of the Action's Program from two different SUMP's

Bicycles and pedestrians even share one single chapter in some cases, while traffic reorder and proposal for private cars are the first to treat in the majority of plans. The problem here is not only the order in itself, but the fact that this organization reflects the priority really granted by the planning process. By this way, when proposals for pedestrians and cyclists come, all the important decisions about the street-system were already taken with the focus on motor traffic. An evidence of this planning sequence combined with biased diagnoses, is the "new" streets hierarchy set out in SUMP's, to be analysed latter in this work.

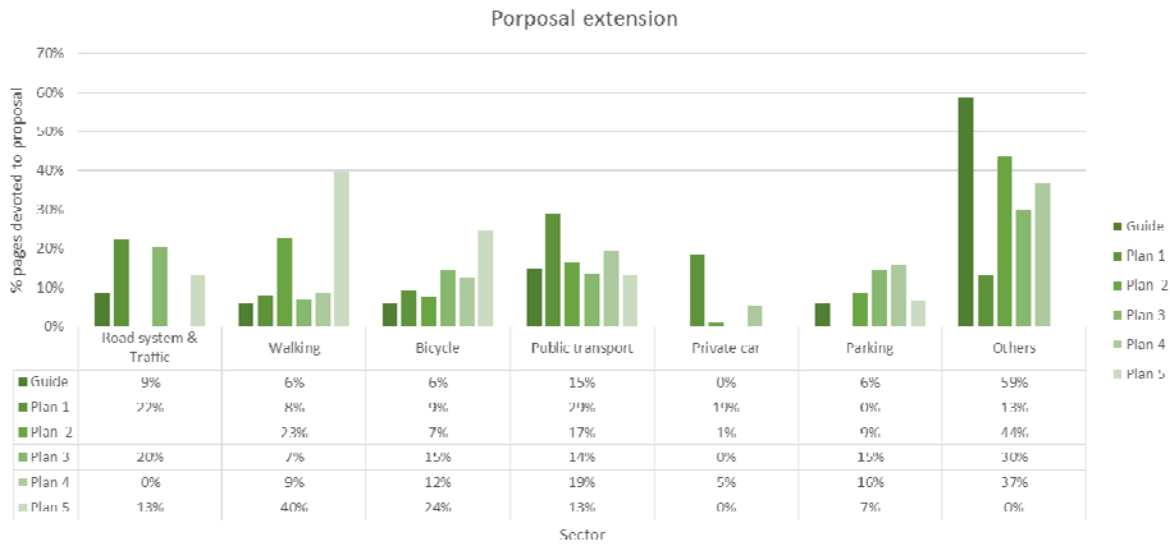
Regarding the space devoted for each mode, the "pages split", inside the proposal plan, *walking* and *bicycle* have participations of 15% and 11% respectively. *Public transport* deserves 18% of the total pages of proposals, while *traffic and parking* take approximately 30%, the same as *other measures*.

Proposal extension. Average SUMP



Usually plans have a specific proposal set for the whole road system, which is supposed to concern to all the different users of public streets. However, in the usual approach to the

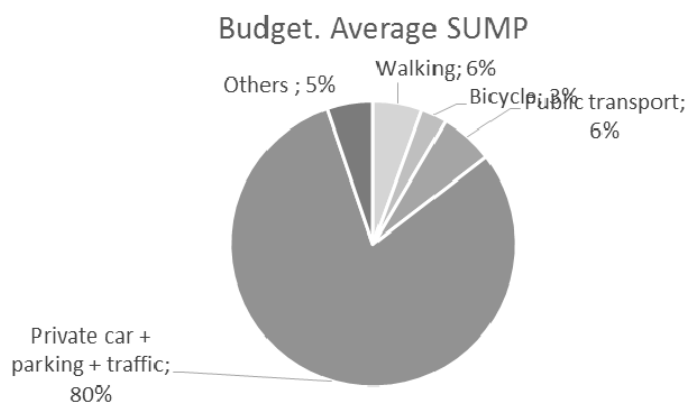
complete system of streets, traffic demands and criteria are still hegemonic. That justify the consideration of *road system* and *cars circulation and parking* as one single topic.



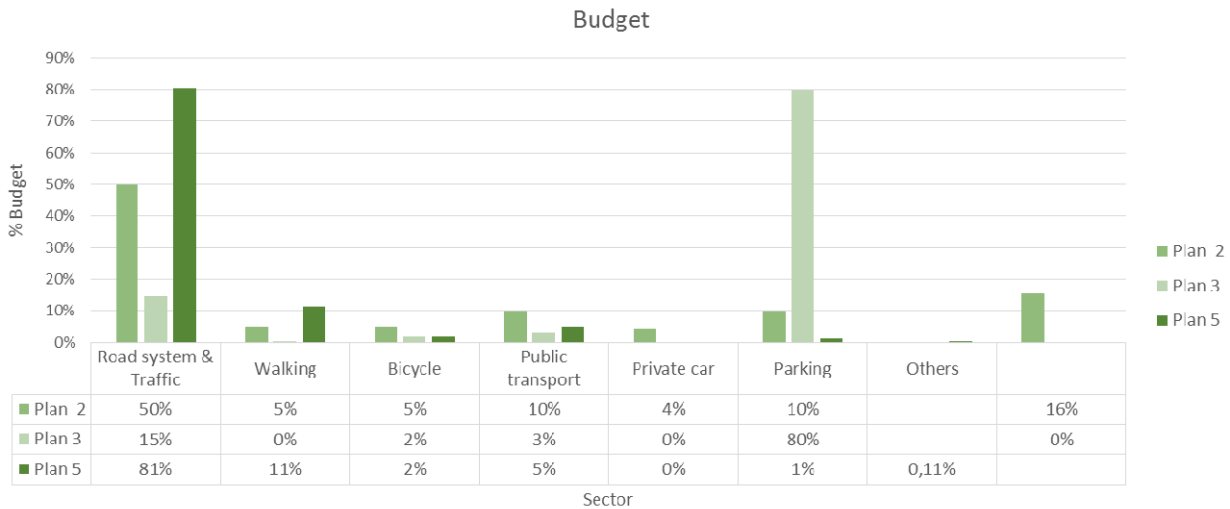
Those are indicators of the attention devoted to each mode to redefine the mobility model. In this case, as in the word counting, the fact that plans use lots of pages to present measures for cars does not permit to know if traffic is being promoted or restricted, but confirm the importance of this sector in the whole mobility model. To reflect the concerns nature or the type and direction of the alternatives planned in each sector a more qualitative analysis is necessary. Specially for cars circulation and parking, where restrictive measures are expected to be found more than others.

Budget split

Not all the plans present economic program or study. Only three out of the five plans analysed have this information, crucial for the measures execution in the future. In any case, the analysis of the budget assigned for each mobility sector reveals an enormous difference.



Actions for *walking* promotion and pedestrian network enhance take a very small part in the financial allocation, compared to other modes. Sometimes pedestrians even share item with *bicycles*, which have a similar residual participation when treated separately in the economic distribution. In the other hand, interventions on the road system related to *motorized traffic and parking* consume the majority of resources, followed by the *public transport* system.



Once more, as in the previous analysis about the space devoted to each mobility sector, the fact that the road system transformation receives the bigger amount, not necessarily means that plans are favouring traffic. Depending on the character and intentions behind the interventions, it could also favour sustainable transport modes. That is why a qualitative analysis of measures becomes necessary. Nevertheless, the criteria in money allocation and the final budget structure do reflect and reinforce the tendentious approach and procedures pointed before. It is remarkable the case of *parking*, which in some plans consume almost 80% of the economic resources.

Areas of intervention

As mentioned in chapter 2, to achieve a more sustainable mobility model and better life quality for citizens and future generations, SUMP guidelines recommend an integrated approach of practices between policy sectors (land-use, environment, economic development, social inclusion, gender equity, health, safety, etc.). Nevertheless, the contents of the *Action's Programs* studied so far are essentially infrastructural.

Confirming the second work hypothesis, strategies and actions in other areas, like *educational/culture, urbanism, social/economy, juridical or demand management*, are marginal, considered complementary to the main infrastructural corpus. However, infrastructure is only one of the multiple variables with influence on the modal choice. *Distances/time* and *economical cost* are other significant constraints to the decision about the more suitable mode for different trips. It is a partial approach in terms of areas of intervention, but also one-sided in the way plans address the infrastructure (road system. Similar to the *Diagnosis, Proposals* are excessively constrained by traffic and circulation, as it will be detailed further down. There is a minimum consideration towards social interaction and permanence in the public space. None about other functions of the road system in towns, like urban morphology, installations support, biodiversity and metabolism. (Pozueta 2015).

Summing up, the approach restricted to circulation matters with an exclusive infrastructural answer to the problem is not sufficient to archive the challenging goals proposed in SUMP. Furthermore, this bias prejudices especially pedestrians and vulnerable population, like disabled, children and elderly.

Usual measures compilation

Regardless the differences between cities in terms of size, urban model and feature (density land uses distribution, morphology, etc.) all plans present a very similar set of programs and actions. It is like a "magic formula", repeatedly prescribed, irrespective of the diversity of urban realities and mobility patterns exhaustive analysed in each plan's *Diagnosis*. The most usual

measures proposed for each mode of transportation are synthesised in the following tables. The underlined topics are the one of doubtful contribution to a more sustainable mobility model.

Road system and traffic	Private car
<ul style="list-style-type: none"> - New road hierarchy and circulation scheme - Traffic restriction in singular areas (historic centers, residents, etc.) - Traffic calming (30 zones) - <u>Measures to favor traffic flow (ring roads and new connections/access, simplifying intersections, street conversion to one-way)</u> - New circulation ordinances - Road Safety Plan 	<ul style="list-style-type: none"> - New Network (restrictions vs. <u>facilities</u>) - Car-sharing - Car-pooling - Eco-driving training - <u>Financial aid for efficient vehicles' purchase</u>
Public transport	Parking
<ul style="list-style-type: none"> - Complete system reorder (network redefinition and integration) - New modes of high capacity (tram or subway) - New technologies (SAE) - Intermodality (Hubs, park & ride, free transfer) - Special or unique rate - Bus lane and priority in traffic lights - Fleet renewal (vehicles and fuels) - Discretionary transport (work or school) - Metropolitan transport authority - Taxi system and fleet renewal - Improving universal accessibility to vehicles, stops and stations 	<ul style="list-style-type: none"> - Network of underground and surface parking (combinations of residents and rotation, <u>usually increasing supply</u>) - Parking streets regulation (central areas) - <u>Dissuasive Parking (Park and ride)*</u> - Reduction of parking in the streets to improve or expand pedestrian, cyclist or public transport space. - Disabled (provision, location and design) - Standards review for facilities, work places and residential areas (<u>increase</u> vs. supply reduction)

Some plans advocate for traffic fluency and propose the expansion of infrastructures as a solution for congestions. In addition, some interventions over the street system in order to improve traffic efficiency, like the simplifications of intersections or reduction of the possible directions in main axis. However, it is demonstrated that road expansions or better connections do not necessarily solve congestion. Because of new cars attraction effect, the new infrastructures capacity is fulfilled in short time terms. About the actions on intersections and directions, it is important to notice that in many cases it ends up to penalize other users, specially pedestrians and cyclists.

About parking, any improve of the current offer encourages ownership and more car use, since car displacement depends on the existence of parking in origin and destination. Therefore, when plans talk about *Dissuasive parking* (term usually applied in Spain referring to *park and ride*) they fall into a contradiction and generate some expectations that will not be fulfilled. It is important to highlight that this parking modality might dissuade long distance trips from periphery neighbourhood to cities' centres. However, at the same time, it generates a local displacement by car, that should be solved better walking, by bicycle or local public transport.

Pedestrians	Bicycle
<ul style="list-style-type: none"> - Pedestrian Network (variety of schemes: superblocks, principal and local, themed itineraries) - Universal accessibility (removing barriers) - Extension of pedestrian space (sidewalks, coexistence, and pedestrian streets) - Improving itineraries continuity and cross-permeability - Improving crosswalks - Improving environmental quality (biodiversity, soil permeability, visual contamination and noise control, furniture,...) - Pedestrian signposting - Vertical public transport (urban elevators) 	<ul style="list-style-type: none"> - Cycle network Implementation (variety of schemes) - Public bicycle-sharing systems - Bicycle parking network - Signposting to improve coexistence with other modes - Intermodality with public transport) - New municipal ordinances

For pedestrians and cyclists, the most interesting advancement in the technical approach in the introduction of concepts like *network and itinerary*. The idea that walking and cycling are important modes of functional mobility leads to the necessity of a specific functional network. To be comprehensive regarding territory and land uses, networks must include a series of itineraries, which connects the residential areas with the main centralities (public facilities, green areas, work places and commerce, at different scales, from the very local to the city scale). In turn, in this technical glossary, *itinerary* means as a group of streets and public spaces that provide access to the different destinations attending to the specificities of the different users in order to assure safety, comfort, and universal accessibility. The consolidation of both concepts, *itineraries and network*, in the planning literature and instruments, is fundamental to establish a more balanced “negotiation” with other modes of transport in the public space share.

Complementary measures	
Logistics	Other
<ul style="list-style-type: none"> - <u>Spatial and time distribution regulation - Ordinance and places allocation for goods loading and unloading operations</u> - Neighborhood logistical hubs - Information systems 	<ul style="list-style-type: none"> - Mobility Plans at workplaces - Safe roots School - Communication Plan: awareness-marketing - Plan for the integration of mobility in urban policies - Plan for demand for mobility management - Public space - civic space - Training and education programs - Road Safety Plan - Accessibility Plan

Logistics and transport of goods have a crucial role in the cities daily life, and should have more prominence and complexity in urban mobility planning. It not helpful to assign a secondary role to this activity in the planning instruments. The result of this approach is a subsidiary relation with other types of transit, mostly private cars. Space and time distribution regulation for load and unload operations usually has the aim of reduce interference with private motorized traffic in the rush hours. By this way, to favor traffic flow, policies ends up to generate new problems, like noise and annoyance of neighbors during inappropriate hours or the reduction of the environmental quality of local public spaces.

Citizen participation

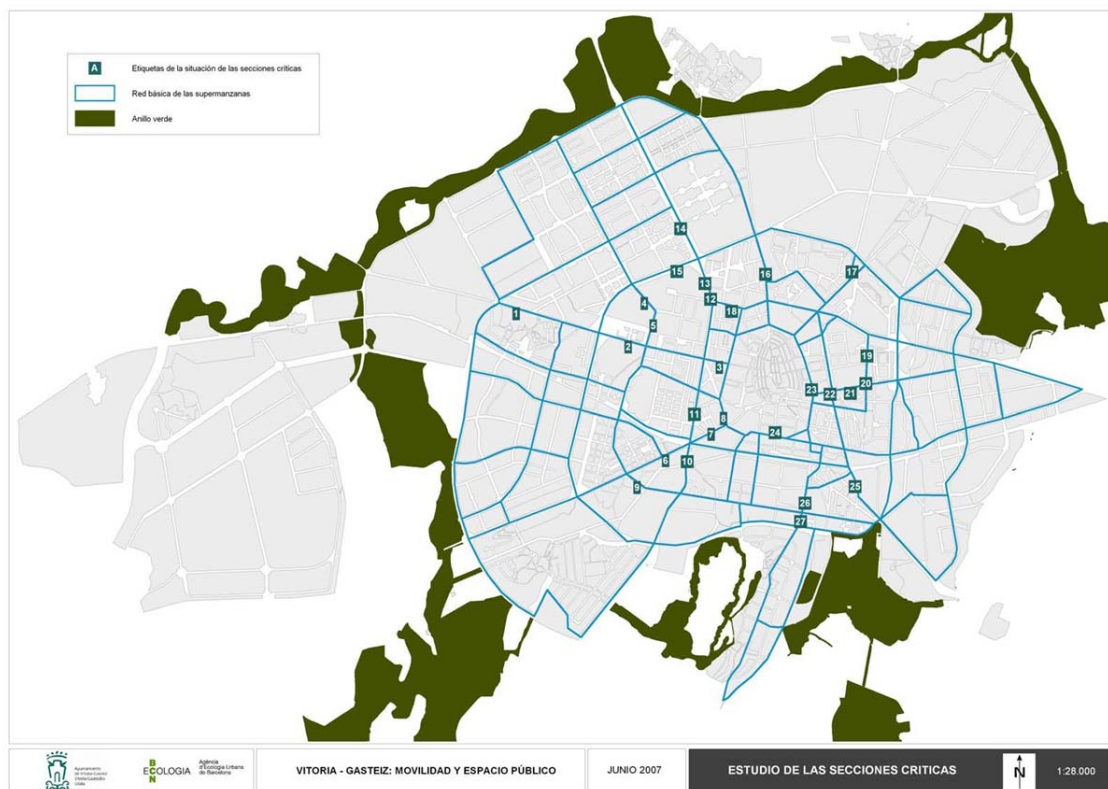
SUMPs' manuals include the citizen participation in different planning phases and implementation processes, as a fundamental feature for its success. Nevertheless, in not all SUMPS there are specific chapters or concrete references about the development or the results of participatory processes.

In the plans analysed so far which include a section to explain the citizen participation and report its results, there is no reference to a pedestrian association or named representative of this collective between the stakeholders. The best advocacy for pedestrian matters come from disabled people associations, usually invited to take part in those processes.

The situation is different for cyclists, which have more consolidated experience in civil organization to include the bicycles in the public agenda. Other stakeholders usually present are political parties' representatives, trade unions and entrepreneurs, mostly from the public transport sector.

Impact on public space

The different modes have to share one single infrastructure that is basically the city's street system. There are more or less possibilities for pacific coexistence or segregation between flows according to the role assigned to each axis. In the "new" hierarchy usually proposed by SUMPS, the network called *principal* or *basic* is the one devoted to the mayor traffic flows. Therefore, they must offer the correspondent traffic high capacity, what implicates restrictions for liveability and other modes circulation, especially pedestrians.



The Basic Network supports the motorized traffic and the public transport. Source: BCN Ecología. PMEP Vitoria-Gasteiz

It is a kind of *inertia* of traditional traffic engineering methods and approach, with no consideration towards social interaction and activity in the public space. The result is a pedestrian friendly realm restricted to the local or residential streets, while the main axes

become a dangerous, contaminated and unpleasant place to be. The problem to this configuration is that those main axes hold the bigger shops, public facilities, banks, etc. Places where pedestrians also need and want to go.

Moreover, some times, parts of the mains streets are tracks of local walking itineraries, to go to school, daily shopping or errand, for instance. Therefore, they should be an important part of the pedestrian network. In other cases, a main street divide a neighbourhood or stablish the relation between two different urban areas. In both cases, the accumulation of traffic in those streets reduce the possibilities of interaction between people from both sides, or isolate parts of the city.

5. Conclusions

The method permits to take conclusions about the hypothesis and it is possible to access pedestrian consideration in SUMP. The sample and the analysis did so far, confirm the work statements formulated at the beginning. Moreover, the results add complexity to the hypothesis and reveal new aspects to investigate:

There is an unbalanced attention to each mode of transportation in the diagnosis and the correspondent proposals' sets. In addition, the balance is more in favour of motor traffic. Public transport and automobiles has the biggest consideration, while pedestrians and cyclists are subsidiary.

Proposals and actions are mainly infrastructural. Furthermore, the way plans addressed infrastructure does not necessarily contribute to a more sustainable mobility.

Pedestrians do not take place in citizen participation processes as an organized collective or stakeholder namely represented. While cyclists, disabled, or entrepreneurs, from the public transport and automobiles sector, have a consolidated presence throughout organized associations.

The public space configuration that might result of the measures application do not fully correspond to pedestrians' necessities. The most common schemes constrain walking as transport mode to the local and residential scale and generate barriers inside the city by means of the concentration of traffic in main streets that compose the so-called "basic" network.

So far, the sample is not enough to extract over-all conclusions, but the methodology leads to interesting results on the comparison between SUMP or between the instrument and the technical guidelines. The research continuation and the sample enlargement, may lead to a general view of its object and average figures about the indicators of analysis.

Despite the identification of different planning methods, SUMP often repeat the contents and structure. The documents mainly devotes to reorganize the road hierarchy and the transport networks. While policies related to other like social matters, education/culture, urbanism, economy/taxes, regulatory framework or demand management, are marginal or considered complementary.

Action programs contain mainly infrastructural and traffic management measures, with the declared aim of promoting lower impact modes. However, the proposed "new" hierarchies of streets remain highly conditioned by traffic requirements. There is little or no consideration at all towards other activities beyond circulation that take place in the street. This bias prejudice especially pedestrian and leads to a low quality public space, with a segregated and reduced use.

Methodologies, exclusively focused on circulation, also neglect other functions of the road system, like being determinant of the urban morphology, cover and distribute urban services (water supply, energy and communications, sewage, etc.) and contribute to the cities' environmental equilibrium (biodiversity, thermal comfort or soil permeability and water cycle). In

addition, the measures for the road network regarding the use of private cars and parking are not always restrictive, but some even promote this kind of traffic.

In any case, in Spain SUMP's represented a great advance in mobility policies and an important space for technical, political discussion and public awareness. The instrument still has a lot of its essence as *traffic plan*, nevertheless it introduced some new design criteria to favour pedestrians and bicycle transit in the municipal policies.

As a strategic document, it projects significant changes in traffic sector, but forget some very important aspects related to the mobility generation: cultural and educational aspects, urbanism or economic constraints, for instance. However, this limited vision is not part of SUMP's legal or technical framework, fact that represents an opportunity to maintain its potential as a useful planning instrument. For that, it is important to improve its diversity in terms of intervention scope, as it is necessary to redefine and enhance its attention towards pedestrian matters and the quality of the public space.

6. Bibliography

7. Team

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