THE SPANISH TERRITORIAL CONTEXT: AN ANALYSIS IN LIGHT OF THE EUROPEAN URBAN SUSTAINABLE MOBILITY PLANS

MARÍA EUGENIA LÓPEZ-LAMBAS, CRISTINA LÓPEZ-GARCÍA DE LEÁNIZ TRANSYT-Universidad Politécnica de Madrid mariaeugenia.lopez@upm.es; clopez@caminos.upm.es

ABSTRACT

The current land use patterns (low-density, sprawl, etc.) and their impacts on transport and mobility force to the implementation of Urban Sustainable Mobility Plans (USMP) as a strategy to achieve urban sustainable mobility. Those plans already existing in some European countries have been recently implemented in Spain; the core of those strategies lays on the territorial and administrative structure of each country, the main aspect examined by the authors, together with the impact of different policy documents from the European Commission (Action Plan on Urban Mobility, Urban Environment Strategy, etc.)

In this paper the authors have analyzed the territorial and administrative contexts from countries that could be considered as pioneers in the adoption of USMP, the role that both mobility and transport issues play (if so) and, hence, the barriers and constraints to implement those plans. Given their similar government structure, Italy and Spain are the cases finally selected to make a comparison.

Legal competencies on land use and mobility of the different levels of authorities, have been analyzed, showing, in the Spanish case at least, the lack of integration of the USMP in the land use planning with a remarkable exception: the Law on mobility of the Catalonian regional government. The Italian case, different as the integration is well defined in the legal realm, fails its aplication due in part to the many sectoral planning regulations.

As main conclusions, the authors outline the most significant barriers for the implementation of USMP, the need of a compulsory framework to develop integrated land use/transport strategies, the problems that the so called *subsidiarity principle* entails, since this process should be lead by the highest institutional levels (European Union and National Governments), and some feasible actions that could be taken from the different administrative levels to overcome these constraints.

Keywords: Sustainable urban mobility, land use planning, town planning regulations, territorial integration.

1. INTRODUCTION

"*Urbanisation has been a clear trend in the past decades and is expected to continue, with the proportion of European population residing in urban areas increasing from 72% in 2007 to 84% in 2050. The proximity of people and activities is a major source of advantages that drive urbanisation. However, in the past 50 years, the growth of urban areas across Europe was even larger than that of the resident population. This urban sprawl is the main challenge for urban transport, as it brings about greater need for individual transport modes, thereby generating congestion and environmental problems*" **(COM 2009) 279**.

Prior to this statement, in May 2007, the **Leipzig Charter on Sustainable European Cities** was signed with the aim to improve the policy setting for integrated urban development, with a particular focus on deprived communities. To achieve such overarching objective would be necessary to strengthen the coordination at local and city-regional level, as well as getting to all stakeholders (economic agents, citizens, etc) involved.

The Chart emphasized the need to improve the quality of life and the environment through sustainable, accessible and affordable urban transport, with coordinated links to the city-regional transport networks; this is exactly one of the main objectives of the Urban Sustainable Mobility Plans (USMP). Such willingness is found in the Spanish Law 2/2008, on Land Planning, since, for the first time, a national law states the principle of urban and regional sustainable development (art. 2).

There are other documents inspired by the same principles, among them the EC's Thematic Strategy on the Urban Environment **(COM 2005),** where the role of the urban areas in order to fulfill the UE's sustainable development strategy is clearly remarked. In fact, this Green Paper also stresses a range of problems, from poor air quality, congestion, noise, poor quality built environment, green house gas emissions, etc., to urban sprawl, as the main consequences of a way of life strongly dependent on private car and fossil fuels, exhorting local authorities to implement USMP.

More recently, the EC has launched its Action Plan on Urban Mobility **(COM 2009 490),** aiming at applying different measures on urban mobility from 2009 to 2012, starting with a strong will to designing USMP, first helping local authorities in measure implementation them and then, and then focusing on develop regional strategic objectives.

The linkage between sprawl and mobility is evident and highlighted on and on through

documents of various level of enforcement, showing both opportunities such as reversing chronic trends in current land use –urban sprawl- and creating a common regulatory

framework, and challenges such as reducing the negative externality effects of transport on the urban environment[1].

In this context, an USMP provides cities with a planning tool found by a set of actions aiming at the implementation of more sustainable ways of travelling into the city (i.e: walking, cycling and public transport). These transport modes make compatible economic growth with social cohesion and environment protection, guaranteeing a better quality of life for all[2]. USMPs become an effective instrument to curve the damaging effects of the current urban mobility trends.

This paper has explored different approaches in Europe on this matter, finding a common starting point: a previously existing legal framework, most limited in the Spanish case.

COUNTRY	LAW	YEAR	INSTRUMENT
France	LOTI (Loi d'Orientation des Transports Intérieurs)	1982	PDU (Plans de Déplacements Urbains)
UK	Transport Act	2000	LTP (Local Transport Plans)
Italy	Legge 340/2000 (Disposizioni per la delegificazione di norme e per la semplificazione di procedimenti amministrativi)	2000	PUM (Piano Urbano della Mobilità)

Table 1: Legal framework in several European countries

After the analysis, an apparent conclusion emerges: the lack of accountability regarding the funding, coupled with poor statutory development seems to be on the basis of the slow implementation of such these plans.

The authors have chosen the cases of Italy and Spain since they both have a similar decentralized territorial and administrative regulatory environment.

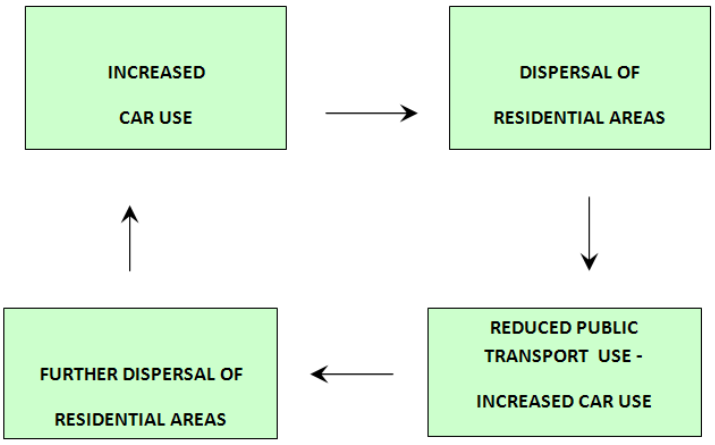
2. NEED FOR AN INTEGRATED LAND-USE AND TRANSPORT POLICY

[1] According to the EC, urban transport accounts for 40% of CO2 emissions and 70% of emissions of other pollutants arising from road transport (COM 2009) 279.

[2] Following the definition provided by the IDAE's Guide (2006), to which the authors contributed.

Regardless of the negative impacts of urban mobility, it can not be ignored that around 85% of the EU's GDP is generated in cities, since urban areas are key to growth and employment.

To make sustainable mobility (or transport) compatible with urban competitiveness, there is no other way than to look for land-use policies which help decision makers cope with the increasing negative transport impacts (**NZTA, 2008**). Some of these are:



- Parking regulation and management: Removal of minimum parking requirements with public parking priced to reflect the underlying land value and demand.
- Flexible zoning and urban containment: Applied to discourage development in isolated and distant areas until transport costs are directly and efficiently charged to users.
- Development incentives: To stimulate development in identified growth areas.
- Urban renewal and Transit Oriented Development (TOD): Facilitated through increased investment and / or reduced compliance costs.

Nevertheless, as stated by **May et al (2008):** "*Few local transport plans can be considered as truly "integrated" in their approach; they are limited in particular by the resources available, the unacceptability of demand management measures, the need to negotiate with*

operators on public transport service levels and fares, the lack of understanding of interactions between transport and land use, and the timescale for implementing innovative solutions".

The EC's **Action Plan on Urban Mobility (2009)** is a good step towards this direction. The Plan proposes twenty measures to encourage and help local, regional and national authorities to achieve their goals for sustainable urban mobility in order to facilitate their policy making. The proposal regarding planning is quite simple: integrated planning can adequately provide solutions to the many mobility challenges that cities are currently facing. For a better understanding of the problem and to facilitate the take up of quick responses, the Commission is preparing information material and launching promotional activities over the next four years. In 2012 it will conduct a review of the implementation of this Action Plan as well as an assessment of the need for further action.

3. THE SPANISH CONTEXT FOR MOBILITY AND TOWN PLANNING

The XXI century claims for major dynamism in passenger and freight transport. In this regard, what always was considered as an advantage for urban development and the citizen's quality of life, is more and more becoming one of their main threats, and nowadays most cities suffer from environmental problems, such as poor air quality, congestion, noise, urban sprawl, waste, etc., in a great deal due to transport.

Local administration plays a significant role in improving the urban environment; but any isolated action is not impactful if not followed by other ones at a highest level, such as regional or national.

This is why all the mobility policies should not keep confined to just one administration's domain and get the citizen's support. Land Planning Authorities along with Transport Authorities are those with the higher possibilities to act in this field, as land use planning defines the city model. In fact, land use and mobility are at the core of SUMPs (Sustainable Urban, called LTPs – Local Transport Plans – in the UK, PDUs – Plans de Déplacements Urbains – in France, PUMs – Piano Urbano della Mobilità – in Italy and PMUSs – Planes de Movilidad Urbana Sostenible – in Spain); all of them (except for the latter, as we will further explain) legally bounded by a key feature in common: the coherence with national/regional strategies.

Nevertheless, the different territorial organization (as well as administrative) of these four approaches has led us to constrain the analysis to Italy and Spain, given that both countries seem to have a more similar decentralized territorial division.

In the Spanish case, those "integrated strategies" could be –or are being- carried out through a scheme where legislative and executive competencies are well designed. Since the Constitution of 1978, Spain has become a complex decentralised State made up of different hierarchical levels with special relevance on the territorial field, namely:

- European Union
- National Government
- Autonomous Regions (AR): 17, plus two autonomous cities (Ceuta and Melilla, in the North of Africa)
- Local Administration: 50 provinces and more than 8,000 municipalities.

Under this *constitutional umbrella*, all those competencies not specifically attributed to the national government, are assigned to the AR, according to their Statute of Autonomy. All those competencies not assumed by those statutes are developed by the national governement, under the principle of subsidiarity.

ADMINISTRATION LEVEL	*COMPETENCIES*
NATIONAL GOVERNMENT	*Public interest infrastructure, or affecting more than one AR* *Air transport* *Rest of modes when affecting more than one AR*
AUTONOMOUS REGIONS	*Land planning* *Territory* *Housing*
LOCAL	*Passenger public transport in those municipalities with more than 50.000 inhab.* *Housing developing and management* *Environmental protection and public health* *Waste*

Table 2: Territorial competencies by administration level

3.1. National Government

In April 2009, the national governement approved the Spanish Sustainable Mobility Strategy. This policy document contains a number of action proposals to be adopted by the Public Administration, private companies, social agents and citizenship in general, with the aim of bringing about a change in the current mobility model towards a more efficient and sustainable one.

These action proposals will mainly focus on transport, land use and energy planning processes given their direct effect on mobility. To do so, a development of the basic legislation on the sustainable mobility principles will have to be promoted.

The *Sustainable Economy Bill* (2009), is articulated over three major pillars: improvement of the economy, strength of its competitiveness and its environmental sustainability. Within the

latter, there is specific focus on transport and sustainable mobility. In this respect, the main actions to be taken are:

- Creation of the *Sustainable Mobility Committee*, a consultant, advisor and cooperation body for all the *mobility stakeholders*. Among its functions, to coordinate among the various Public Administrations, to evaluate the actions adopted, and to inform about any legal project affecting mobility.
- Promotion of *Sustainable Mobility Plans*, according to the Spanish Sustainable Mobility Strategy, as the only way to be eligible for public funding to support the public transport system.
- Promotion of *Green Transport Plans* to foster the use of public transport and sustainable mobility among the employees.
- Promotion of *clean* road transport, by applying specific rules for the acquisition of clean and energetically efficient vehicles by the Public Administrations.
- Promotion of the electric car usage.
- Adjustment of the basic freight railway network to make feasible the circulation of trains with at least 750 m length, and improvement of the road and railway connections with the ports of public interest.

As it will be shown, most of land use regulations keep on decoupling land use planning from mobility, despite the fact that the last National Law (RDL 2/2008, June 20th) claims for sustainable development as its main goal: "*An urban environment where the land occupation is efficient, with sufficient infrastructures and services, and where land uses be combined and implemented in a functional way, as they fulfill a social function" (art. 2.2.c)*

3.2. Autonomous Regions (AR)

Currently, except for Baleares, the rest of the Autonomous Regions have passed its own land use planning law. ARs have the competence to approve the Land Use Master Plan, where the model of the city to be developed is defined. In addition, each AR counts with an environmental agency that supervises the compliance with sustainable urban development depends.

A detailed analysis of the various regional laws showcase a significant decoupling between land use planning and mobility, with few exceptions.

REGION	***LAW***	***ARTICLE***	***CONTENT***
Madrid	*Ley 9/2001, de 17 de julio, del Suelo*	*Art. 48.2.*	*The Partial Development Plan for the programmed urban land must include specific studies for the connection, enlargement or strengthening of each infrastructure, facilities, local and supra local public services for the future population…,urban and regional public transport by road or railway….*
Cataluña	*Ley 2/2002, de 14 de marzo, de urbanismo*	*Art. 56.1.b)*	*Urban Master Plans.[….] must include guidelines on urban sustainable development, mobility of people and goods and public transport.*
		Art. 66.1.g)	*Partial Development Plans must justify the compliance with the general land use planning on sustainable mobility.*
País Vasco	*Ley 2/2006, de 30 de junio, de Suelo y Urbanismo*	*Art. 3.3. c)*	*The town planning will assume as guidance criterion…..a) a sustainable land cover oriented to revamping and reusing, as well as the utilization of empty houses better than new developments, avoiding zoning and sprawl…aiming to reduce mobility generation…b) sustainable mobility oriented to reduce the unnecessary use of motor vehicles, giving priority to all those modes environmentally friendly, through an integrated planning.*
Castilla- León	*Ley 4/2008, de 15 de septiembre, de Medidas sobre Urbanismo y Suelo*	*Art. 36.2.a)*	*In urban and programmed urban land, the thoroughfare network will be designed according to the public transport and pedestrian routes need.*
Aragón	*Ley 3/2009, de 17 de junio, de Urbanismo*	*Art. 24.c)*	*In not consolidated urban and programmed urban land, developers must [….] afford and implement, where appropriate….public transport infrastructures to guarantee a sustainable mobility according to the traffic generated.*

Table 3: Autonomous Regions' main Laws on town planning

Specifically regarding mobility, only the Catalonian Government has passed a Law (9/2003), which actually aims at integrating land use planning and sustainable urban development. The law's objectives are the following (art. 3):

- To integrate economic,urban development policies and mobility policies in order to minimize the number of trips, guaranteeing the accessibility to the work place, home and other culture, leisure, social, health, etc. areas, at the least environmental cost possible.
- To plan and implement infrastructures and transport services under sustainability criterion.
- To link land use planning with the public transport supply.

Its aims and principles could be resumed as follows:

- To develop a sustainable development model to allow the citizens enjoy a higher level of quality of life.
- An integrated vision of mobility, giving priority to the more sustainable means: public transport, bike and pedestrian complementarily to the rational use of the private car.
- To foster intermodality, maximizing the efficiency of the transport resources.
- To minimize energy and land consumption.
- To promote the use of ITS.

3.3. Municipalities

Local Governments design the Land Use Master Plan (so called General Plan), which has to be approved by the AR. Each General Plan defines the territorial model of the municipality and establishes the land use regime.

Additionally, Local Governments also define the detailed zoning (Plan Parcial), so they decide the location, intensity and typology of the land uses, as well as the road network and parking policy. In other words, they rule on the urban space organization and mobility demand (in fact, they elaborate and implement the Sustainable Urban Mobility Plans) (POZUETA, 2000).

Hierarchically speaking, the last link in the chain of the mobility planning is the Urban Mobility Plan, compulsory for those municipalities with more than 100,000 inhabitants and which has to be updated every 6 years.

In Spain, the large municipalities such as Madrid, Barcelona, Valencia or Bilbao are considered metropolitan areas, turning the mobility analysis into a supra municipal subject. On one hand, Madrid has an unresolved mobility matter since there is not a territorial planning tool able to manage the great influence of its vast metropolitan area on the municipality and vice versa.

On the contrary, Cataluña has created the so called *Consorcio del Área Metropolitana de Barcelona (Barcelona Metropolitan Area Consortium)*, made up of the Association of Municipalities of the Barcelona Metropolitan Area, the Metropolitan Transport Authority and the Metropolitan Environmental Authority. The Consortium shares a common territorial space, densely populated, with open spaces, services and infrastructures of intense use.

Thus, the authors have considered Cataluña a good case study for the aim and scope of this paper, despite the fact that there are not yet consolidated results as the measures have only been recently launched.

3.4. The Catalonian Autonomous Region

The basic pillars of Cataluña's mobility are as follows:

	INSTRUMENT	*OBJECTIVE*
PLANNING	*Regional Mobility Guidelines (DRM)*	*Set up criteria, time objectives, proposal and performance indicators*
	Master Mobility Plan (PDM)	*Territorial development of the DRM*
	Urban Sustainable Mobility Plan (PUM)	*To shape the municipalities' sustainable mobility policy*
MANAGEMENT	*Territorial Mobility Authorities (ATM)*	*Elaborate and manage the PDM*
MONITORING	*Catalonian Mobility Observatory*	*Gather and dissemination of mobility information*
PARTICIPATION	*Territorial Mobility Board*	*Advisory and participation body*

Table 4: Cataluña's main mobility planning instruments

The so called DRM[3] was passed by the 362/2006 Decree, and its main objective is the improvement of competitiveness, the increase of the social inclusion (through the universal accessibility concept) and the increase of the quality of life. In short, the DRM tries to establish sustainable mobility patterns among citizens.

From a total of 20 guidelinesprovided, those with direct incidence in land use matters pursue the following aims:

- To "introduce" public transport, pedestrians and bikes accessibility, both into the planning process of the new developments and into the urban areas already consolidated.

[3] The original name "National Mobility Guidelines" could lead to a certain confusion; hence, we have opted for change the term "national" for "regional".

- To improve load/unload and freight distribution withinthe planning process of the new developments and urban areas already consolidated.
- To develop the different planning mobility tools, considering accessibility in public transport to those areas far from the urban zones.

The Barcelona Metropolitan Area's PDM covers a surface of 3,236 km^2, a population of 4.84 million of inhabitants, and is made up of 164 municipalities. It diagnoses the mobility system, leading it towards the need to integrate land use planning and mobility in order to stop the unsustainable urban sprawl (both residential and industrial), therefore guaranteeing sustainable mobility to all citizens. The PDM´s proposed measures include the following:

- To foster a polycentric territorial planning by grouping the industrial areas to make them share the different services.
- To integrate the PDM´s objectives together with those of the sectoral plans, such as road safety, environment, etc., in such way that would allow certain infrastructures (parking, park and ride, for trucks, etc.) to be built since there would have been a previous "land reserve".
- To develop land use regulation that make compulsory the location of activities according to the existing road and railway network, the need for working or office space, the type of logistics, and the presence of housing.

The Decree 344/2006, of Evaluation Studies of Generated Mobility, represents a big step towards linking actual land use development and mobility forecast from the initial phase of planning. New land use development projects have to incorporate a study on mobility, guidelines and procedures as well as to provide funding for it.

3.5. Urban Sustainable Mobility Plans in Spain

In Spain, the implementation of Urban Sustainable Mobility Plans (Plan de Movilidad Urbana Sostenible – PMUS) is not compulsory, with the remarkable exception of the Mobility Law passed by the Catalan Autonomous Community in 2003. In fact, the PMUSs were launched within the framework of a strategic plan, formed by both the National Master Plan for Infrastructures and Transport and the Energy Savings and Efficiency Strategy.

Notwithstanding, in 2006 a national guide recommending the adoption of PMUSs to those municipalities with more than 50,000 inhabitants, was launched. The guide contains the main characteristics, measures, implementation methodologies, stakeholders, public participation process, good practices, etc. Given that PMUSs are not compulsory, and in order to foster their implementation, national funding is provided for.

Depending on the kind of measures to be implemented, the time horizon varies from 2 to 8 years. As for the objectives, the guide does not provide a list beyond those that the word "sustainable" suggests: the plan will depend on each particular case, since the needs of each city are different, but it is recommended that the plan be kept within a regional strategy, in coordination with the municipal and regional levels.

Since PMUSs are not enforceable by law, the only way to make somehow obligatory their implementation is, obviously, the promise of funding (**López-Lambas, Corazza et al, 2010**). In this regard, the monitoring of the plan appears as a key instrument to control the investments, since only by linking funding to results the success of the plan could be more or less guaranteed.

However, the real nature of the Spanish PMUSs shows up in a recent example, in Valdemoro, a little city 30 km South of Madrid (63,000 inhabitants). Conscious that land-use planning can be an effective means of defining suitable goals, but requires consistent implementation over many years to be successful, Valdemoro's PMUS remarks that it is not a construction project. In this sense, it does not present a rigid structure -forcing how to design a particular junction, to set an example-, but it is structured step by step, in stages. So, what it is now a proposal tomorrow will be a real project; for example, now the need for improvement of the pedestrian network it is presented, but will be tomorrow when the "*where*" will be decided.

4. THE ITALIAN CASE: A BRIEF APPROACH

In Italy, the layers of government are similarand, hence, the Italian territorial context also seems to be the same that the Spanish one. Given the fact that Italy is among the first European countries to implement Urban Mobility Plans, we have considered of interest the comparison between the Italian and the Spanish legislation, in order to find out where the keys for a successful land use and mobility planning could lie.

Furthermore, Italy´s consolidated experience on urban mobility plans allows us to draw some results and conclusions, otherwise impossible to do since in Spain only very recently the Urban Sustainable Mobility Plans have opened its path.

Land use planning regulation in Italy lays, mainly –as in Spain- on the Regions and Communes (municipalities). Both are compelled to consider in their planning tools two main issues: the concept of "sustainable development", derived from the European policy (i.e. Agenda 21 and EMAS –Eco-Management and Audit Scheme), and the rules on Impact Environmental Assessment, mostly for urban areas (Law 443/2001).

On the other hand, for transport regulation, the main planning instrument is the Master Transport Plan (Law 245/1984). This Law entitles the Government to coordinate and harmonise the national, regional and autonomous provinces´ competences. The Plan is passed by the Cabinet and is updated every 3 years.

At the regional level, the Regional Transport Plan (Law 151/1981) entitles the Regions to define the regional transport policy in coordination with the objectives of the national Master Transport Plan, along with the territorial settlement and economic development forecast, in order to integrate and coordinate the railway network to avoid undesirable concurrence.

Finally, according to the 285/1992 Decree, from April 30th (Nuovo Codice della Strada), in Italy only Urban Traffic Plans (UTPs) are compulsory for all cities with more than 30,000 inhabitants. The Decree also states that those traffic plans must take into account all the urbanism tools –as well as transport plans (art. 36). Furthermore, they must respect the rules emanated from the Public Work Ministry according to the general objectives of the territorial planning.

Eight years later (2000), the 340/2000 National Law prompted (but did not require) municipalities with more than 100,000 inhabitants to enforce plans to manage local mobility problems under the name of Piano Urbano della Mobilità (Urban Mobility Plans-UMP). In practice, since 2000, UMPs must be considered an evolution of former regulatory tools– UTPs- whose main aim is at enforcing regulations on private traffic issues, such as congestion or parking management. In fact, many municipalities, entitled to implement such plans, have adopted UMPs, whereas UTPs are still in the making due to the broadness of the scope of the UMPs, which include the provision of long-term strategies to manage private traffic, transit and parking, etc., enabling decision makers with the opportunity to manage all the mobility-related problems with just one planning tool (**Lopez-Lambas, Corazza et al, 2010**). Thus, it could be said that UMPs have substituted UTPs, which, in turn, have adopted their primary function: the traffic and road network regulation.

In 2002, a first set of guidelines for the implementation of UMPs were launched making compulsory the coordination with environmental and territorial programs (i.e. plans regarding to industrial, leisure and residential development -all of them regional planning instruments).

Thus, the current situation could be summarized as follows:

- UMPs must be coherent with the territorial planning, in order to produce a more integrated system aimed at the development of industrial, commercial and leisure sites, tourism promotion, urban regeneration, and urban re-zoning.
- Regional Planning provides the rules for drawing up the UMPs, but the definition of the strategies and measures relies on the local authorities who must choose the best solutions from the economic point of view, as well as the financial and technical feasibility for each measure included in the plan.

The approval from the Region regarding the coherence and compatibility with the regional planning is compulsory; otherwise the funding is not provided with, a measure which seems to be the only practical way to enforce the law.

To set a good example, the Peruggia's Regional Transport Plan (RTP, Umbria Region), approved in 2003 for a time horizon of 10 years (2004-2013), envisages the integration of the railway network with the road network. Furthermore, the RTP provides the guidelines for the elaboration of the Peruggia UMP that, coherently, includes several actions such as interchanges, railway connections, etc.)

So, it seems that, contrary to the Spanish situation, in Italy land use planning and mobility planning seem to be complementary, and provide a good example of integration. However, this "complementarity" appears truer in the *legal realm* than in practice: it is linked to an obsolete hierarchical system, at least from the point of view of the most advanced existing practices from both disciplines **(AIPCR, 2006)**, due in part to the many sectoral planning regulations: parking, road safety, traffic**,** etc.

5. DISCUSSION, CONCLUSION AND FURTHER RESEARCH

5.1. Discussion

There exist many complex interactions between transport and land use but effective planning can help ensure that development encourages sustainable travel behavior. It has been verified that applying land use planning successfully as an instrument to influence transport activities requires long-term thinking (25–30 years); this is why it is time to act bearing in mind that the sustainability of the transport system goes through the rationalization of the urban process. For instance, establishing targets on environmental impacts is one way to start formulating a long-term vision with effects on the short/medium term; but since the responsibility falls on the national, regional and local authorities, we can easily understand that the lack of coordination makes territorial authorities to be lost in confusion, as the cases here analyzed have confirmed.

Lack of financial support used to be a source of problems. Therefore, any incentive policy coming from the European Union to support local authorities in investing in public transport and in developing integrated mobility plans must be taken into consideration. Nevertheless, sometimes the problem does not come properly from the
lack of financial support (there are always financing mechanisms at different level, from local to European), but from the lack of coordination, in absence of a real integrated land use/transport policy that would make compulsory the dialogue between authorities in the field of their competences. Greater coordination among authorities will benefit not only the sustainability of the whole system, but will help to reduce costs since synergies should (must) be generated, avoiding undesirable overlapping.

On the other hand, at the European level, the Action Plan on Urban Mobility (2009) is a good step towards this objective. The Plan proposes 20 measures to encourage and help local, regional and national authorities in achieving their goals for sustainable urban mobility in order to facilitate their policy making process. The proposal regarding planning is quiet simple: integrated planning can provide a good response to the many mobility challenges that cities are currently facing. In order to better understand the problem and to facilitate quick decisions, the Commission is preparing information material and launching promotional activities over the next four years. In 2012, a review of the implementation of this Action Plan will be conducted as well as the assessment of the need for further action.

5.2. Conclusion

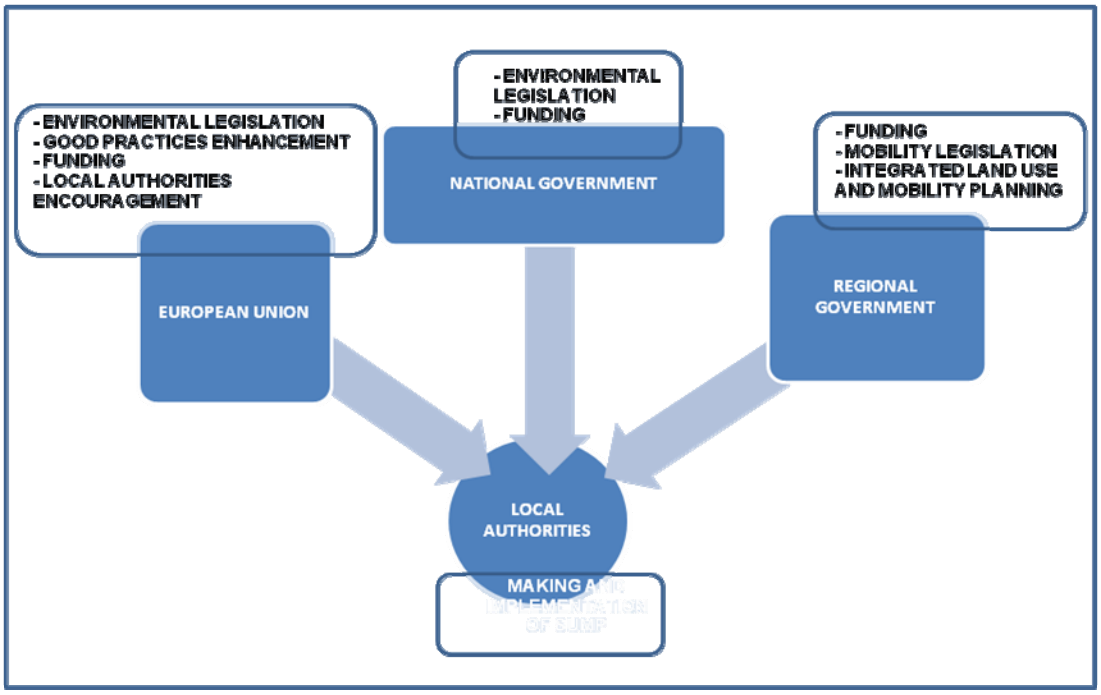
For all we know, the need to insert transport planning into land use planning regulations emerges as an obvious remark. But it is important as well to bear in mind that the more far apart the authorities are - from a hierarchical point of view-, one from another, the less this required integration will be effective. "*High level*" and "*isolated*" rules will not produce any substantial effect on the "*people in the streets"* mobility patterns. As the Italian case confirm, transport planning should be included "*organically*" into the land use planning, not into sectorialised instruments that normally are not put into practice due to different reasons, from lack of funding to lack of willingness. In this sense, the Catalonian mobility scheme, through the integration within the urban mobility planning of the Master Mobility Plan objectives, sets a precedent towards the right direction.

However, the existence of a previous legal framework enforcing the development of integrated policies appears as a necessary but not satisfactory condition. There are financial and even cultural barriers still to overcome and, for instance, it has been observed that some municipalities where the adoption of a USMP has not been enforced, the plan has been adopted as part of a strong political eagerness and citizen's participation.

Catalonia, a Spanish Autonomous Region, provides a good example of how mobility and land use planning can succeed together. Moreover,it signals a deep change of mentality in the Spanish territorial context. The national Law of Land Use (2008), whose main concern – territorial and urban sustainable development – has borne fruits in the existence of Autonomous Regions´ legislation, also moves towards such change although it is soon to confirm the results in practice.

In fact, the Autonomous Regions´ regulation has defined the objectives and the measures to be implemented through several ways:

- A top-bottom scheme through the land use plans, starting from regional plans that set the guidelines of the municipal plans, which are defined and detailed in the development plans.
- Demanding from the municipal planning regulation a more sustainable land cover, in order to avoid zoning and urban sprawl.
- A public thoroughfare planning that considers primarily public transport and pedestrian needs before private vehicle´s needs.
- Obliging land developers to share the costs of the public transport infrastructures.



Overcoming the barriers: participation scheme of the different levels of government

Finally, it is key to guarantee that two principles, that is, subsidiarity - according to which the Union does not take action unless it is more effective than action taken at national, regional or local level (Treaty on European Union, art. 5) - and local self-government will be fully respected; even though in practice there are indirect ways to "bind" municipalities: through environmental legislation and through funding mechanisms. In the former, the need to comply with the environmental laws would lead to the Member States to, one way or another, oblige the local governments to adopt a USMP; in the latter, only those municipalities having adopted a USMP could apply for certain European funds or a specific funding system could be created.

As far as the European Commission has committed itself to produce guidelines to implement USMPs, these should act as the umbrella that covers the various national plans, suggesting a minimum content for each one in order to apply a common evaluation framework.That is, the guidelines should offer a set of indicators and goals that promotes, through a benchmarking exercise, the dissemination of good practices. Existing initiatives, such as the ELTIS database, become a good urban mobility observatory, wich offers information and support about solutions already in place, training and educational material and, in short, a practical exchange of experiences.

5.3. Further research

The Sustainable Economy Bill passed by the Spanish Government seems to be the perfect occasion to put into practice a real integrated land use and mobility planning (in fact, this law has made *disappear* in practice the Bill on Sustainable Mobility, still in discussion in the

Spanish Parliament since 2007 and not yet passed). First, a definition of Urban Sustainable Mobility Plan is provided[4] at the national level and is legally enforceable, .Second, it adequates its content to the planning instruments involved, especially those relative to infrastructures, transport and energy saving. Last, because by the first time all USMPs must include tools and mechanisms to allow their monitoring and review.

Nevertheless, the implementation of a USMP is not yet fully compulsory nor in Spain neither in the rest of European countries; in the case of Spain, only the fact that, for the year 2012 all the municipalities and autonomous regions applying for national funding for their public transport systems[5] must have implemented one of these Plans, also coherent with the Spanish Sustainable Mobility Strategy, allows for certain optimism. Within this financial framework, the national Government should play a crucial role influencing local decisions about land-use and transport.

It is worth mentioning the fact that, *mutatis mutandis*, the Spanish Government seems to have followed the recommendations of the European Social and Economic Committee **(TEN 414),** which claimed for the creation of a specific funding instrument derived from the EU's structural[6] and cohesion funds to promote urban mobility subject to the adoption of a USMP. Given the rigorous principle of subsidiarity that prevents the European Union from legislate at the local level, enticing access to funding – along with the enforcement of environmental legislation, will probably indirectly promote the coordination among local, regional, national and EU authorities in order to integrate urban mobility policies.

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[4] Urban Sustainable Mobility Plans are a set of actions which main objective is to implement more sustainable travelling modes developing transport modes that make compatible the economic growth, the social cohesion and the environment protection, in this way guarantying a better quality of life for all citizens (art. 121).
[5] The National Budget Law 26/2009 (December 23rd), allocates 69 million € for the local entities obliged to provide public transport services to its population. In practice, this means, broadly speaking, all those municipalities with more than 50,000 inhabitants.
[6] Only 9% of Structural Fund for transport is allocated to urban transport (TEN 414).

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