1. Portugal and Porto

1.1 Formal/ Legal and Traditional Road Planning

In Portugal, the local authorities are responsible for the management and administration of the urban road network, constituted by the roads and municipal streets. Their line of action includes the approval of new roads in new urban allotments, the definition of the hierarchy of the different urban roads and its management according to various factors of safety.

National and Regional road networks are managed by the Central Government. The National Road Network Plan establishes the level of service required of the roads that integrate the national network, whereas the geometric, dynamic and environmental characteristics of the roads are based on the Design Standards proposed by JAE/IEP (Institute of Portuguese Roads) and on other legal criteria.

Any changes in the geometry, regulation and/or management of the road axes must be reported and submitted for approval by the responsible entity.

The definition of the municipal network is made by the City Council of Porto, following proposals by the Planning Services, based on territory management tools. This is described in the PDM (Municipal Directive Plan), which consists on the following documental contents:

- Legal guidelines;
- Territory Management Plan - graphical element, highlighting new proposals based on the existing situation;
- Restrictions Plan - identification of the infrastructures network and associated public restrictions.

The conception of a new PDM for the City of Porto is currently under revision. The first PDM was approved in 1993 and was later replaced by Legal Provisional Guidelines which will expire soon, supporting the implementation of the new PDM. This is being formulated based on the assessment of the performance of the previous documents.
allied with new development ideas and is being designed to become a practical tool of architectural planning for the city.

The Co-ordination Commission for the North of Portugal (CCRN) is an important de-centralized public organization, part of the Ministry of Cities, Territory Management and Environment, which specific focus on the development of the North of Portugal. In what concerns the planning of transport and of network routes in Porto, CCRN is in charge of the following:

- Sponsorship of projects for the improvement of the road network, using National and European Funding;
- Study, analysis and approval of PDMs;
- Promotion and development of studies for Project Viability.

1.2 Financial Structure

At a central level, the financial resources come from the Government budget and the European Union contribution, through specific programmes (FEDER). Recently, the Portuguese government approved the creation of SCUTs (Highways without Charges for the Users) which allows for the tender of certified private entities to design, build and operate highways. Prior to this decision, there was only one recognized public institution (BRISA) managing and controlling the Portuguese highway network.

1.3 Reconstruction, experience and tradition

In Portugal, for the past few years, there has been a very strong commitment towards the improvement of the national road network, by the creation of other road connections as well as by renovating and refurbishing the existing network, mainly in terms of the re-paving of the carriageways. Nevertheless, according to the latest version of the PRN (National Roads Plan), there is still a lot to be done, such as the establishment of new links in the road network. In this document, is also proposed the conception of “a programme for the construction of new roads, alternative to the crossing of urban centres, considering the relative importance of local and passing-through traffic, the inhabiting population and the respective PDM” (Article 11).
On the other hand, in cases where the urban centres are located at the junction of important road axes, it is suggested the creation of circular routes.

Finally, whenever black dots are identified, representing areas of high incidence of accidents, beyond established limits, these are immediately signalized until proper correction measures are implemented (Article 4).

There are many design guidelines, published by JAE/IEP, virtually obligatory, with a few exceptions for special cases, appropriately identified. As an example, a few of these guidelines is presented in what follows:

- Manual of Temporary Signaling
- Guidelines for Designing Junctions
- Guidelines for Designing Horizontal Signaling
- Guidelines for Designing Vertical Signaling and Orientation
- Guidelines for Designing Highway Junctions
- Guidelines for Designing Road Outlines

There are also some technical recommendations produced in Portuguese Universities containing relevant information about the design and conception of the elements of road infrastructures, with recommendations regarding the intervention techniques.
2. City of Porto

2.1 Policies and Rationales

The City Council of Porto is responsible for the urban road network which comprises all the streets within the local municipal network. This implies that any renovation in terms of geometry, paving, signalizing, etc. must be submitted for approval to the Municipality of Porto. The same applies for the construction of new roads and these have to be approved also by the Local Government.

The document that rules the “Guidelines for Research, Objectives and Methodologies for Circulation and Transports” is the PDM (Municipal Directive Plan) which must be approved by the Local and Central Government, in order to be applicable.

For the case of the National and Regional network roads crossing the City of Porto, the management and administration is conducted by the Central Government. However, in the event of changes or geometric corrections in the existing roads, or even for the construction of new roads, the City Council must be consulted and those projects have to be submitted for approval.

In terms of Public Transports, the City Council provides the authorizations for the route lines as well as for the location of all stops. For urban routes, the private providers present the route and stops scheme for analysis and approval and eventually alternatives are proposed; it should be assured that there is no overlapping or superposition with the existing routes and that all stops are adequately located. For interurban routes, the City Council tries to limit the number of bus terminals around the city, towards a concentration in predefined places; the route should be as the shortest possible between the council boundary and the respective terminal.

As previously mentioned, works in the public realm must be explicitly authorized by the City Council. The approval process implies that all entities using that road (EDP - Electricity of Portugal-, STCP -Porto Public Transport Network Service-, SMAS -Water and Waste Municipal Services-, PT -Portugal Telecom) are notified and informed of the
expected commencement and conclusion of the works, in an effort to merge the interests of all parties involved.

The renewal projects for the existing roads or the construction projects for new ones are generally developed in and designed by private engineering companies, after a tender process or consultation.

The initiative is usually raised by internal departments within the City Council and the public intervention is very incipient.

In the last few years, the major traffic measures and urban renewal were applied for specific major events:

- Porto 2001
- Euro 2004
- Iberian-American Meeting

Or to comply with special transport needs:

- Metro
- Gertrude Signalized Traffic Control System
- V.C.I. (collector road, IC 23)
- Speed limit control for VCI

The compliance with the Traffic Code in the urban area is supervised by the PSP (Public Security Police) and by the Municipal Police, which is dependent on the Local Government organization.

The road accidents incidence within the City of Porto is analysed by a Road Safety Commission, which is in charge of proposing adequate measures for the reduction of the number of the accidents.

The budget proposed by the City Council of Porto must be approved by the Local Government and the obtained revenue proceeds to the local finances, as well as 36% of the overall value of the fines related with the violation of the Traffic Code.