

## **Background: Consorcio Regional de Transportes de Madrid**

### **Overall Winner of the Award for Outstanding Innovation in Public Transport**

The Consorcio Regional De Transportes de Madrid (CRTM) has overall responsibility for policy and coordination of urban and suburban public transport provision in Madrid's Region.

The CRTM main functions are planning the infrastructures of the metro network, interchange stations and bus lanes, planning and authorising the provision of transport services, controlling the service levels, the definition of the fare and ticketing policy, public transport information, marketing and image improvement.

The CRTM board is represented by members of the Regional government, city of Madrid and other municipalities, central government, trade unions, private operators associations and users associations.

### **Project: Madrid's Transport Interchanges Plan**

Transport interchange stations are a crucial part of the public transport system, which allows travellers to make a wide range of trips both comfortably and pleasantly. It is more and more evident that modal integration plays a fundamental role in the transport system's success. The fact that more citizens have abandoned private transport to use these interchange nodes serves as proof that the old concept of railway and public bus stations is no longer valid in today's world.

Madrid's Interchanges Plan is the culmination of this unification process between the interchange points of the intercity bus lines and the Circular Metro line. With the adequate construction and improvement of the new transport interchange stations a modal interchange network has been organized around Madrid's entrances in relation to the highways that access to the city and the circular underground Metro line. Madrid Region has seven important highways that connect the region with Madrid City. In each entrance we have built up an interchange station connected with the Metro underground network for the metropolitan and urban bus lines.

In any case it is an extremely ambitious plan, claimed that there is with nothing like it existing in any city in the world. In other cities they have been able to build one interchange station, but none has built a network of interchange stations that can move more than a million users a day and containing the entire flow of passengers accessing the city from all its entries.

Madrid Transport Interchange stations are an example of innovation and a global benchmark, being the model exposed in most of transport conferences for broadcast.

**New technologies:** In order to guarantee the functional viability of the transport interchange stations, a system is required to supply the stations with data and information efficiently and responsively. This system should provide the user with a comfortable environment where they appreciate the safety, rapidity and integration of all the transport available, through clear, intuitive and efficient information.

**Fire protection:** The design of the installations is based on a fundamental requirement: to limit the evacuation time to six minutes, sufficient time for those in the building to evacuate and be in a safe external space. This requires that the study specifically deal with all the fire safety criteria used as a basis for the development of current regulations.

**Mobility simulators:** As a result of the mobility simulators studies, it was possible to verify the designs, the operational plans and the evacuation times and conditions for the transport interchange stations, making this infrastructure safer and more comfortable for passengers.

**Traffic control:** Management of several thousand vehicles per day, with their stops and waiting times at different points, represents a considerable challenge in itself, on top of the challenge posed by the unique underground configuration of the traffic interchange station, itself.

**Safety plan:** Safety is one of the most important pillars of any transport infrastructure, and this is particularly true of transport interchange stations, which are used on a daily basis by hundreds of thousands of passengers.  
trains.