

The “Train 2014” plan was presented in 2006. It consists in an innovative railway planning approach developed by the Association for the Promotion of Public Transport, PTP, a Catalan NGO, with the aim to duplicate the number of passengers by train and to provide more reliable rail freight transport in Catalonia. “Train 2014” is a finalist plan which pursues its goals through a vast number of small interventions, following the Swiss approach posed in the so-called “Bahn 2000” plan, instead of those pharaon-like projects with poor results in terms of split share, as it has been shown in Spain over the last years, or with minimal possibilities of becoming a reality.

The aim of “Train 2014” is to generate a political and technical debate in the Spanish context of large investments in high speed lines while the conventional lines for main passenger and freight transport trend to the decadence, obsolescence and present problems of maintenance, without any extension since the 1980’s, even though the share of these lines is more than the 90% of passenger-km. **The main contribution of “Train 2014” is the necessity of moderation and finalist planning instead of large infrastructures planning without studied objectives that will hardly be reached at any time.** The date of 2014 was selected because of the deadline of a special infrastructure finance program agreed between both Spanish and Catalan governments.

“Train 2014” has got the strong support of the majority of political groups in the Catalan Parliament, from the greens to the democrat liberals. “Train 2014” raises the infrastructure development in order to maximize the benefits and minimize the investments. As in the Swiss experience, “Train 2014” wants to develop the railway network through a set of punctual interventions in terms of capacity, track improvements and new extensions according to the following criteria:

- **Competitiveness in main corridors.** For every case a detailed study is presented with a travel time comparison by road, by the existing infrastructure and by the new service provided with “Train 2014”. This new service includes a bunch of different solutions for improving the commercial speed in regional trains.
- **Increasing of capacity for passengers and freight through the intervention in bottle-necks.** The plan provides a solution to solve the most crowded commuter train tunnel in Spain, located in Barcelona. “Train 2014” claims the duplication of railway capacity in Barcelona, from the current situation where 32 trains per hour cross the city in each direction through two tunnels, to a future situation allowing 65 trains hourly thanks to a third tunnel.
- **Accessibility to 94% of the Catalan population to the railway service,** serving every single city larger than 30.000 inhabitants.
- **Development of competitive freight transport** according to *Fermed* proposal, including the implementation of the UIC gauge in the Mediterranean corridor.

With the same amount of money invested in the HSL Madrid-Barcelona or in the Catalan Government proposal for a HSL between Girona and Lleida by-passing Barcelona, with a budget of 7,000,000,000 € each one, “Train 2014” generates a feasible and detailed list of investments, trainsets included, distributed along the region for a period of eight years. Every action has to provide benefits in a separate way but at the same time is also ready to multiply its effectiveness when it is accompanied by other actions. The next table summarizes the main figures and goals of the rail development:

	Duplication of tracks (km)	Addition of a third or fourth track (km)	Extension for passenger and freight (km)	Light-railway extension for passenger (km)	Conversion (km)	TOTAL (km)
Phase 1	30,8	40,8	80,8	16,5	18,7	187,6
Phase 2	47,85	27,2	0	78,75	55,65	209,45
Phase 3	126	127	119,5	0	12	384,5
TOTAL	204,65	195	200,3	95,25	86,35	781,55

Furthermore, “Train 2014” incorporates some European innovations that were not common in 2006 in railway planning in Spain, such as:

- Integrating the high speed lines (UIC gauge) and the conventional lines (Iberian gauge) into a single and unified network.
- Planning and preparing the infrastructure for a robust exploitation, reducing the number of routes, avoiding crossings in crowded lines, increasing the service offered and establishing a maximum of 25 trains per hour in each direction in every tunnel crossing Barcelona.
- Proposal to increase the number of tracks to 3 or 4, or alternatively the use of the HSL in main corridors for the coexistence of metro and express services, which nowadays have problems to run at their maximum speed due to the congestion.
- Planning of a third tunnel in Barcelona for metro and regional trains, consistent with the proposal of increasing capacity in main corridors
- The extension of railways using light infrastructure (the so-called tram-train formula) to avoid too much expensive and complicated construction of urban tunnels in semi-dense areas.
- Proposals to avoid the handicap of the Iberian gauge with new gauge changers and the prevision to convert some of the lines to UIC gauge, with a programme of works divided in several phases.
- Linking of lines to increase the competitiveness of both freight transport and intercity services, thanks to the reduction of handling and the reduction of kilometers of route

"Train 2014" has been presented and debated in important forums such as the Parliament of Catalonia, the Industrial and Civil Engineering Association and the Civil Engineering School. The result has been a outstanding influence in the planning railways in Catalonia when they have been updated.