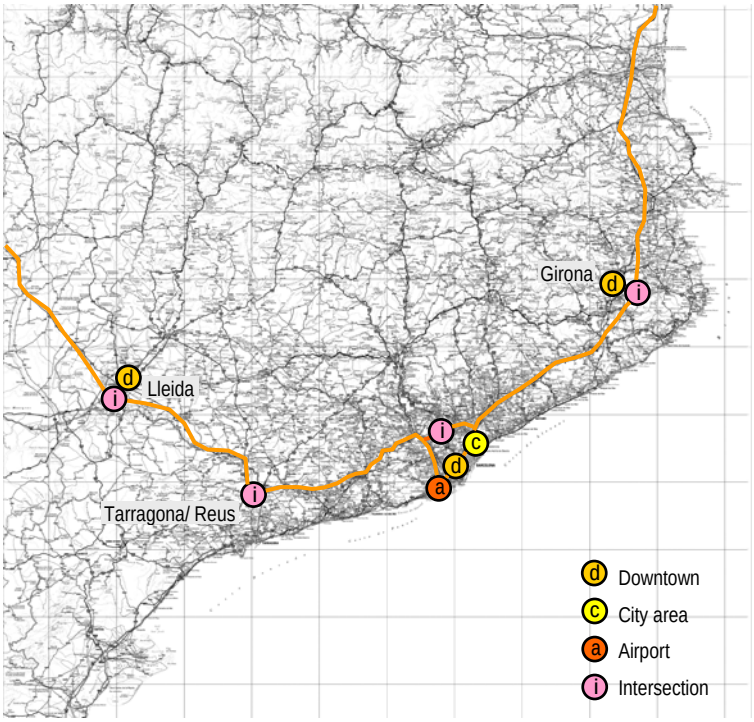
5 Case study Barcelona/ Catalonia

In comparison with the cases discussed above, the Transeuropean HST network implies the most significant change of perspective for Spain. This is due to the fact that the railway gauge in Spain differs from the central European one, but also because the alteration of the radial configuration of the national (railway) infrastructure network. Two East-West axes connecting Spain with France shift the focus towards the East, both with the priority status of a “missing link”: one in the North through the Basque country, the other in the South crossing Catalonia and Barcelona.[1]

The plans for the integration of the HST in Catalonia currently envisage the creation of three regional stops in the peripheries of Girona, Lleida and Tarragona/ Reus, where the HST will equally be able to serve the respective central stations. Furthermore, there are three stops foreseen within the Barcelona agglomeration — a fourth stop at the edge of the agglomeration (Vallés) is still under discussion.

The future main station of Barcelona (Sagrera) will be located in the northern city area. Here, the conversion of 230ha of former railway land gives rise to a major urban transformation. 40% of the total area is designated for real estate development (1.42mio.m^2 GFS). The new station will be connected by tunnel to the present main station at Sants, since all rail infrastructure inside Barcelona is *already* built underground. Towards the south a track-loop will be built to connect with the international airport of Barcelona and the adjoining port area. In this sector, a large-scale extension of the airport and port facilities is planned, and a new logistic zone and trade fair extension are by now being built (Fig.IV.35+36)

Fig.IV. 35: Planned integration of the HST in Catalonia and the Barcelona region; source: Institut Geográfic de Generalitat - *modified*



[1] cf. chapters III.2.2, IV.0.3

Fig.IV. 36: HST station locations in the Barcelona region: Sants, Sagrera, Barcelona airport and Vallés; source: PTMB 1998, 45 - *modified*

5.1 Context analysis – space and institutions

5.1.1 Space-functional structure and dynamics

Similar to France, the urban geography of Spain shows a relatively small number of major centers spread over a vast territory with a low average population density. Madrid and Barcelona form the principal urban agglomerations, followed by Valencia, Sevilla and Bilbao that are considerably smaller. The political control from the centrally located capital Madrid has favoured the present radial structure of the road and rail transport networks in Spain. Moreover, there are only two major airports, Madrid and Barcelona, which concentrate the international air traffic flows.[2]

Inside Catalonia urbanization shows a massive concentration in the Barcelona region, balanced only by the intermediate centers of Girona, Lleida and Tarragona/ Reus. The Barcelona region itself comprises the central agglomeration, a highly densified urban continuum across 27 municipal borders, and several medium-sized centers.

Especially during the 1990s Barcelona has experienced an intensive process of suburbanization under a weak authority control. The construction of new road infrastructures has intensified a selective concentration of new economic activities and the sprawl of residential areas, especially along the northwestern edge of the urban region (Vallés). In parallel, the city has experienced a substantial

[2] The second largest airport of Spain in terms of passenger volumes is actually Palma de Mallorca, but it is not considered here for obvious reasons.

requalification of its urban fabric and infrastructures, turning Barcelona into one of Europe's most attractive business locations.[3]

5.1.2 Institutional framework: Actors involved in HST planning

Government structures and competencies

Although spatial planning has a long history and tradition in Spain, its status both in national institutional structures and on the policy agenda is fairly subordinated at present. Since the establishment of a democratic system after 1976, planning practice has been orientated by a general codified law that regulates instruments (zoning plans) and construction standards (*Ley de urbanismo*). However, no spatial development plans have been elaborated at the national level so far. The understanding of national spatial planning is also reflected in the present distribution of pertinent responsibilities between the ministry of public works and transport (*Ministerio de Fomento* - MF)[4] and the ministry of the environment (*Ministerio de Medio Ambiente* - MMA).

However, the state has a decisive influence on the provision, regulation and operation of transport infrastructures. For rail, air and ship transport, with a single exception (Iberia) all entities involved are nationally owned. The government is responsible for the planning, financing and realization of national infrastructure projects, laid down in an overall structure plan with a mid-term horizon (*Plan Director de Infraestructuras* – PDI). Thus, the principal national orientations for spatial planning are given by the infrastructure developments contained in the PDI, and by legal regulations with relevant spatial implications, such as the law for the designation of building land reformed in 2000.[5]

Large-scale spatial planning is only carried out by the 17 regional governments. Their competencies in this respect differ considerably, depending on the degree of autonomy defined in the Spanish constitution of 1978. Catalonia is one of four "historically autonomous" Spanish regions that have a "statute of autonomy" which delegates them fundamental powers (legislation, execution, jurisdiction).

In Catalonia, the responsible authority for spatial planning is the department for public works and territorial policy of the regional government (*Generalitat*). Two basic instruments have been devised to influence regional spatial development: For the whole territory, general orientations are given by an overall plan that contains guidelines for zoning and infrastructure development (*Pla Territorial General de Catalunya* - PTGC). The region is then divided into six subareas, for which more detailed plans are elaborated in accordance to the PTGC (in Barcelona: *Pla Territorial Metropolità de Barcelona* - PTMB). After approval by the regional parliament, both plans are binding for lower tiers.

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[3] cf. Font/ Llop/ Vilanova 1999

[4] Until 1992: Ministerio de Obras Públicas y Transporte – MOPT; between 1992-'96 incorporating environmental competencies: Ministerio de Obras Públicas, Transporte y Medio Ambiente – MOPTMA; since 1996 seperated in: Ministerio de Fomento - MF, Ministerio de Medio Ambiente – MMA. Note: Unlike the English term "fomentation", "fomento" has a *positive* connotation in Spanish and is interpretable as "promotion" or "encouragement".

[5] This law inverted the perspective of zoning by defining all land as principally urbanizable, if no other specifications are provided – a drastic measure to enhance the national construction activity and contribute to meet the criteria of economic convergence. (*Ley 6/1998, de 13 de abril, sobre régimen del suelo y valoraciones*)

Administratively, Catalonia is divided into four provinces (*Provincia*) that do not coincide with the subareas for planning, but they only have executive functions.[6] These areas are further distributed into counties (*Comarca*), which exercise a certain influence on spatial planning through the cooperation between their councillors of urbanism (*Consell Comarcal*), although this remains mostly sectoral and does not imply any additional competencies.

Yet, in the case of the county of Barcelona, this kind of cooperation led in 1974 to the creation of a common entity for spatial planning and services (*Corporació Metropolitana de Barcelona*). Here, the delimitation of the county coincided with the territory of the central agglomeration, usually referred to as "*àrea metropolitana*", and a common zoning plan was elaborated and approved in 1976 (*Plà General Metropolità* - PGM). This plan replaced the different single municipal plans and is still valid today. However, since the regional government increasingly perceived this organization as a competitor that had become too influential in decisive policy matters, it was dissolved by regional law in 1987.[7]

In its place, the *Generalitat* created common authorities for transport, public services and water/waste treatment, however with different delimitations comprising 18, 27 or 32 municipalities respectively. These entities became associated in a common organization, presided by the mayor of Barcelona (*Mancomunitat de Municipals del Àrea Metropolitana de Barcelona* - MMAMB).

The smallest delimitation now corresponds to the transport authority (*Entitat de Transport Metropolità* - ETM), responsible for the planning and maintenance of the public transport system (metro, bus). Other types of supramunicipal cooperations especially beyond the boundaries of the agglomeration have been discussed frequently but encounter the resistance of the *Generalitat* and partly the municipalities in the urban region. Hence, these ideas currently lack any perspective of realization.

Finally, at the urban level planning is a prime competence of the municipalities. For those with more than 5.000 inhabitants, the elaboration of a general urban development plan that contains precise zoning delimitations is obligatory. These plans are binding for public and private actors and represent the key instrument for municipal land supply, as they define their territory in the three categories of "urban", "urbanizable" and "non-urbanizable". Partial changes in these plans can be introduced by special plans for development areas (*Plà Especial de Reforma Interior* – PERI).[8]

The municipalities also have the possibility of recovering part of the value added that is generated by zoning changes through charging an urban development fee from investors (*carga urbanística*). Due to the absence of redistribution mechanisms, tax yields (economic activity, land) remain with the municipal budgets.

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[6] Lleida, Tarragona, Girona and Barcelona

[7] This is the same year that the British government (M.Thatcher) abolished the corresponding entity for London (Greater London Council). Beyond the level of local interest conflicts, this fact reflects the rise of neoliberalist policies at that time.

[8] The PERI is only applicable for land classified as "urban". For "urbanizable" land, the instrument is the Plà Parcial d'Ordenació Urbana – PPOU.

Railway transport – RENFE, GIP

For the analysis of railway development on the Iberian peninsula, a basic technical distinctive has to first of all be taken into account: The entire network has been built with a different gauge.[9] Thus, passengers were obliged to change the train when arriving at the French border, while freight transport was practically excluded. It was not until the 1980s that a direct railway connection between France and Spain has become possible through a new generation of rolling stock for passengers and light cargo, capable of adaptation to the different gauges (Talgo RD).

Due to this technical feature of the railway network in Spain, the development of HST lines compatible with the UIC standard has a triple implication from the start: First, any line has to be *newly built* as a dedicated track, both inside and outside urban areas, and thus also requires new platforms in the stations or even a new station.[10] Second, interoperability between the Spanish railway network and the new HST lines is conditioned by the use of adaptable rolling stock and the construction of the corresponding installations. This increases the importance of those nodes where an exchange from one system to the other will be possible. Thirdly, the direct connection with the European railway network will allow the transport of freight to become an especially relevant use of the new tracks.

Together these considerations illustrate that for Spain, the integration of the HST has an additional weight at all levels of spatial planning, not the least of which concerns the enormous expenditures for the necessarily new infrastructure and the requirements of urban integration. This marks a significant difference compared to the cases analyzed before.

The national railway company (*Red Española Nacional de Ferrocarriles Eléctricos* – RENFE) was created in 1941 through the expropriation of private networks and their operators. In 1987, RENFE was transformed into an autonomous public enterprise by law while in 1989 part of its network was given back to regional railway companies, especially the narrow tracks (e.g. the *Ferrocarrils de la Generalitat de Catalunya* – FGC).

Although a thorough restructuring of RENFE took place in the following years, this has not (yet) changed the public ownership of its entities. First, the operating units for the urban-regional trains (*Cercanías*), long distance trains, the HST (*Alta Velocidad Española* - AVE) and for freight transport (*Mercancías*) have become split. In a second step, operation as a whole has been separated from a branch for infrastructure maintenance and regulation that also administrates the land and railway facilities owned by RENFE (*Dirección de gestión de infraestructuras*). These changes were confirmed in 1994 by a royal decree, referring to the EC directive 91/440.[11]

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[9] Mainly 1668mm, at the urban level also 1000mm, instead of the 1435mm UIC standard. The original reason for this consequential decision was probably a confusion: In 1844, the two engineers in charge of the technical studies for the first Spanish railway line Barcelona-Mataró believed there was no common standard gauge on the other side of the Pyrenees. (Salmerón 1998, 24). Other authors speculate about a possible military-strategic background of this decision (LeDuc/ Baye/ Drouet 1995, 87).

[10] Although initially variants have been developed e.g. changing the gauge of the existing tracks or asymmetrically adding the more narrow international track, these have been discarded in respect to longer travel times and operation problems (Salmerón 1998)

[11] LeDuc/ Baye/ Drouet 1995, 89

In 1996, the government has additionally created a public entity responsible only for the construction and regulation of the HST lines in Spain (*Gestor de Infraestructuras Ferroviarias* – GIF), in the hands of the ministry of public works and transport (MF). Investments of the GIF are supposed to be covered by the national budgets, contributions from the European cohesion fund, and the pay-back from the future operator(s) (30% of the total). The first task of the GIF has been the planning of the HST line Madrid-Barcelona, which is scheduled to be finished in 2004. For this project, the aim was also to attract private investment, but this has not yet been achieved.[12]

Air transport

In the air transport sector, the management and regulation of all Spanish airports is carried out by a central administration located in Madrid (*Aeropuertos Españoles y Navegación Aérea* – AENA).[13] This entity also owns the territory of the airports. Only in the case of Barcelona have planning and management competencies been partially delegated to the local AENA administration in 2000. While discussions about different modes of privatization and decentralization of AENA have not yet led to any conclusion, the formerly national airline Iberia became privatized in April 2001.

The position of the Barcelona airport in the air transport market is therefore strongly influenced by this centralist context and the development of the airport in Madrid (Barajas), principal hub of Iberia. For Iberia as well as for AENA, the focus in terms of investment has been Barajas since its central geographical position in Spain allows an optimum exploitation of the market if fast ground transport connections are assured. However, a direct connection of Barajas to an HST line has not been possible due to the location of the airport, but it can be reached by metro from the central HST stations.

The third Spanish airport in terms of passenger traffic volume, Barcelona, is not currently used as a hub by any other airline. The access to the airport is mainly road based since the existing railway connection is a single track that allows only low frequency services. Nevertheless, between 1990 and ‘98 the air traffic volume in Barcelona has doubled to 16mio. passengers and 100.000t freight per year. If a continued average annual growth of 6% is assumed, the capacity limit of the current installations would be reached by 2003. Therefore, the expansion of its facilities is currently envisaged, as well as a connection to the HST line Madrid-Barcelona-French border.

Within the scenario of global and European air traffic development, conditions in Barcelona can be regarded to be favourable for further growth. No other hub is situated within a 600km radius, and with the HST connection, the catchment area could include up to 16mio. inhabitants. The physical expansion possibilities of the location, however, largely depend on the value attributed to the ecologically sensitive biotopes in its environs. Responsible for the urban development around the airport is the municipality of Prat del Llobregat, which belongs to the *área metropolitana* (MMAMB).[14]

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[12] Julià 1998

[13] The nation state also owns and manages the Spanish ports, but here the organization is decentral through local port authorities (e.g. Port de Barcelona).

[14] AENA 1999; Depana 1996

5.2 Process analysis - plans, policies and decisions

In the case of Barcelona, four principal stages have been identified in the planning process for the integration of the HST. The basic conditions were set by national infrastructure policy and the decision for the introduction of the UIC standard gauge in Spain. In parallel, the subject of HST integration was incorporated at the regional level in the preparation of the regional structure plan (PTGC) and, at a smaller scale, the PTMB. At the level of the agglomeration, a third stage comprised the appearance of the HST in the context of a new planning procedure and the institutional dynamics that accompanied them: the Barcelona strategic plans. Finally, after the general elections in 1996 the change of government and the creation of the GIF implied a new power constellation between local, regional and national authorities, which also affected the plans for the integration of the HST.

5.2.1 National frameworks: Change of gauge and infrastructure planning

The introduction of the international gauge for new HST lines in Spain got off to a dramatic start. In April 1987, RENFE published a long term investment program for the renewal and restructuration of the railway network (*Plan Territorial Ferroviario* – PTF). In spite of the plans and initiatives at the European level aiming at the creation of a Transeuropean railway network, the PTF did not envisage the use of the UIC standard gauge. For many good technical reasons, all new lines were planned with the Iberian gauge, including for HST.

Already in 1986 the government had decided to realize a first HST connection between Madrid and Seville. The construction was started immediately according to the PTF, by then still unpublished. The opening of the line was scheduled to coincide with the 1992 “EXPO” in Seville and the featuring of Madrid as “European cultural capital”. Despite the apparent coincidence with the Summer Olympics in Barcelona, equally planned for 1992, the connection to Andalusia was given priority as a measure of “structural policy”.[15]

But to everyone’s surprise, in October 1987 the government announced its decision to adopt the international standard track gauge for all new HST lines in Spain. With this decision, the PTF resulted in being obsolete at once. It obliged to conceive of the Spanish railways in a completely different way. Furthermore, the subsequent explosion of costs for the Madrid-Seville project also made it necessary to cut back investment in the rest of the network. At the same time, the adoption of the standard gauge restricted the utility of the new line for freight services because it remained isolated in the network.

The reasons for this policy U-turn have never been made explicit. However, it has to be assumed that the political pressure from the Catalan and the Basque regional governments, both with a particular interest in the connection to France, as well as from the European railway and industry lobby have played a major role here. Also the entry of Spain into the EU in 1986, and the individual positions of the vice president

[15] Belil 2001

(N.Serra, Catalan of origin) and the prime minister (F.Gonzalez, Andalusian and a declared advocate of European unification), have probably been decisive.[16]

Nevertheless, the new HST line Madrid-Seville was finished as a “pioneer” project, not following a comprehensive planning approach or integration concept, but rather particular strategic interests. In December 1988 a government decision fixed the priority of the HST connection Madrid-Barcelona-French border and therefore the continuation of the line to Seville.

After the realization of the Madrid-Seville project the first national planning document that developed a general vision for HST in Spain was the national infrastructure plan PDI 1993-2007. The PDI still represents the only planning document elaborated by the government that indicates strategies and objectives in terms of national spatial development.[17] It is a fairly rough framework for the integration of the HST, but provides fundamental orientation and the financial means for realization as it envisages the creation of a nation-wide HST network.

5.2.2 Regional ambitions and structure plans

Even before the elaboration of the PTF by RENFE in 1987, the Catalan government had begun to study the implications of a railway connection Barcelona-France using the international gauge. Here the focus was not the operation by HST but the possibility of a *connection* with the French (and European) railway network. The responsible regional ministry thus came up in 1985 with a proposal for the construction of a new track, linking Barcelona with the French border. It was conceived for a mixed passenger and freight operation, since a main incentive for the line had been to allow international freight trains to arrive at the port of Barcelona.

Apart from that, the main stop for the passenger trains and the HST was envisaged in the northern city area at Sagrera where a major freight station and railway facilities were located. This scheme also corresponded to earlier railway infrastructure layouts for Barcelona, ranging from the *Plan Cerdá* (1864) to the *Plan de enlaces* (1969). Alternatively, a stop at the present main station at Sants, and one in the northern periphery were suggested (Vall d’Hebron).[18]

At the same time, the *Generalitat* came to the conclusion that the central station of the entire Catalan railway network would actually be located in the Vallés area, 20km north of Barcelona. This is the place where the two parallel railway axes along the coast cross each other, thus forming what is known as the Catalan “8” (see Fig.IV.35). The exact location of this station, however, has not been defined. Options existed at Rubí and St.Cugat, where the regional railway lines towards Barcelona would cross the international track, and in Cerdanyola where the zoning plan of 1976 (PGM) had reserved land for the creation of a center for administration and services (*centro direccional*). Nevertheless, the *Generalitat*

[16] Julià 2000; Belil 2001

[17] A revision of the PDI is being prepared for the period 2003-07.

[18] Julià 1998

tended to prefer the latter alternative, because the regional urban development agency (*Institut Catalá del Sol* - INCASOL) owns the designated land.[19]

Furthermore, the plans envisaged the creation of three new regional stops along the international track. In Lleida, Tarragona and Girona, the principal urban centers in the region, peripheral stops were proposed that allowed the construction of the new track as a bypass that could avoid the urban areas. For Tarragona and Girona, the stations were suggested to be located at the respective regional airports (Reus and Caçà), thus speculating on an interaction between both transport modes. Yet, the stop at Tarragona was seen rather as a long term option related to a possible prolongation of the new tracks along the coast towards Valencia. Despite these considerable planning efforts, the central government refused all suggestions categorically referring to the costs, since most of the infrastructure works fell under national responsibility.[20]

Ten years after, the *Generalitat* passed its first regional structure plan in 1995 (PTGC).[21] With respect to the HST, this plan fixed essentially the same orientations contained in the proposal of 1985: The connection of Sagrera and the port of Barcelona with international gauge tracks, the bypass of the agglomeration through the Vallés area and the "central" station there, as well as the continuation via Madrid and the French border with stops at Lleida, Tarragona and Girona respectively. In particular, the idea of interconnecting all Catalan airports by HST was further elaborated (Fig.IV.37).

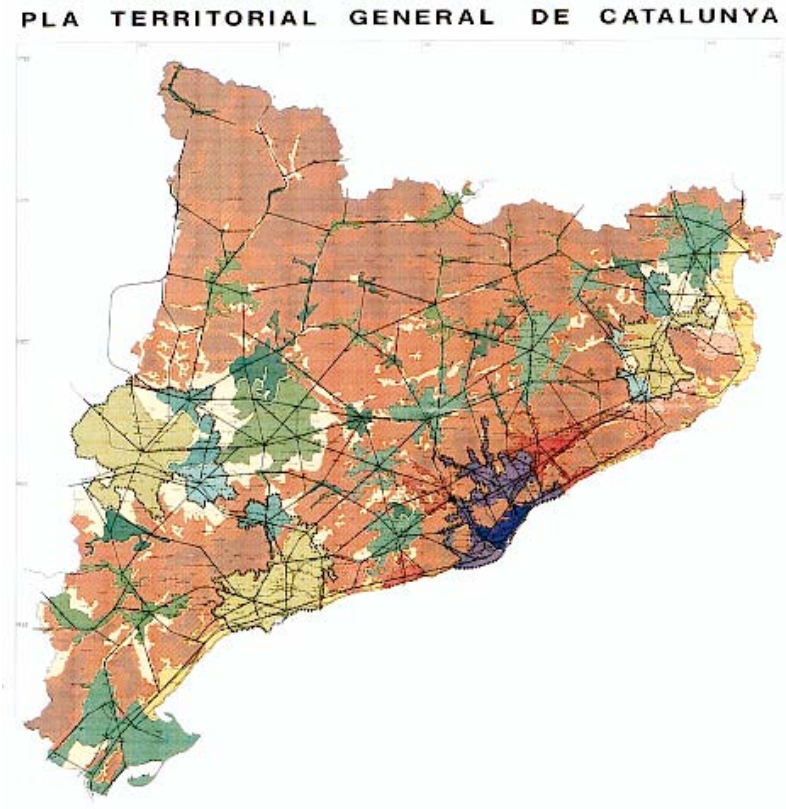


Fig.IV. 37: Overall infrastructure networks and the territorial (re) distribution of the population were the main subjects of the PTGC – the integration of the HST remained largely abstract; source: Generalitat 1995, M28

[19] Herce 1999; Julià 2000; Belil 2001

[20] Julià 1998; Herce 1999;

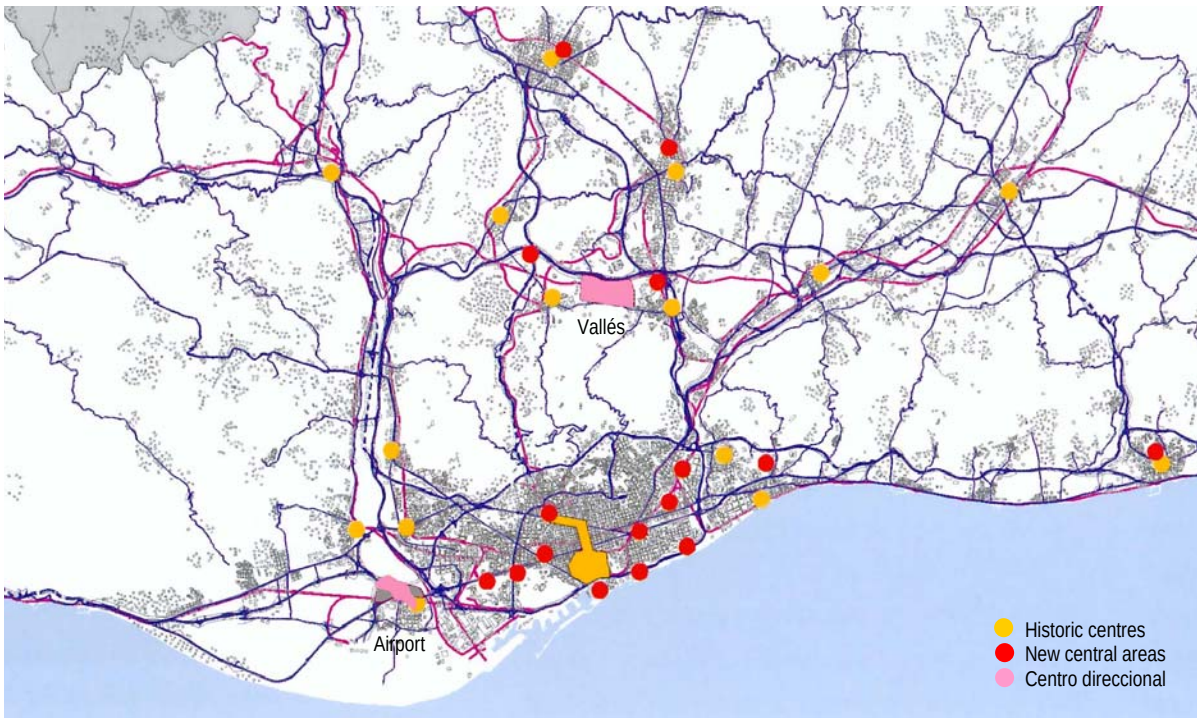
[21] Generalitat 1995

The PTGC has received much criticism for the considerable delay of its completion, which has possibly been caused by methodological aberrations and political tactics. In the meantime, not only the planning practice within Catalonia, but also national plans such as the PDI (1993) have been elaborated without any orientating references for regional spatial development. This situation has favoured a rather casuistic approach of the regional government and undermined its ability to play an active role regarding the integration of the HST.[22]

In April 1998 the *Generalitat* published a draft version of the structure plan for the Barcelona region (PTMB).[23] It is one of six sub-regional structure plans that together should cover the entire territory of Catalunya, although none of them has been approved by parliament so far. Since debates have been polemic and administrative procedures are complicated, the approval of the PTMB is expected for 2002.

Following the PTGC, this plan further detailed the proposals for the integration of the HST at the scale of the urban region. In particular, it advanced the idea of creating a centrality in the Vallés area around a new HST station. However, it equally emphasized the connection of the Barcelona airport to the HST, where a similar centrality with additional functions should be developed. This suggestion also referred to the corresponding designation in the PGM of 1976. Again, due to its unresolved legal status, the PTMB could not directly influence the planning process, but represents an important reference for the identification of the regional government's position (Fig.IV.38).

Fig.IV. 38: "Areas of centrality" in the PTMB – highlighting the two centers for administration and services (*centro direccional*) at the airport and in the Vallés coinciding with the HST station areas; source: PTMB 1998, 216 - *modified*



[22] Belil 2001

[23] PTMB 1998

5.2.3 Large-scale projects and the Barcelona strategic plans

"New central areas" and the re-development of Sagrera

In 1987 the city of Barcelona presented a new strategy for physical planning that also formed the basis for the Olympic projects.[24] By then, the city had advanced towards a difficult situation resulting from economic structural transformation and changing sectoral demands. In spite of the good prospects for tertiarization, the urban development potentials within the downtown area were limited and its accessibility was suffering from massive road transport growth. Specifically, the creation of new office space, business facilities and hotels as well as the trend towards large-scale (retail) units meant a considerable challenge.

Therefore, the construction of a new ring-road was proposed and it was hoped that it would relieve the city from traffic congestion. Additionally, also the railway lines along the coast were partly suppressed and partly deviated, which allowed recovery of the harbour areas and the coastal strip for leisure and retail functions, urban parks and housing.

Together these infrastructural interventions were expected to significantly modify the accessibility of the urban area. Certain peripheral sectors now appeared in a favourable position, both in respect of their accessibility by car and the availability of land for urban development. This change of perspective thus served for the identification of 12 "new central areas" (*Àrees de nova centralitat*), secondary centers mostly located in the periphery of the city that should compensate for the lack of space in the downtown area by offering new development opportunities.

Four of these centers became Olympic projects[25] and for their development, a partnership with public and private capital was formed (Barcelona Olympics Holding SA). While these four areas could be finished by 1992, others advanced at a slower pace.[26] Another new central area was Sagrera for which a large-scale urban development project was envisaged. Yet, this project was given low priority since it was conditioned by the choice for a particular railway infrastructure configuration. This choice mainly depended on higher tiers and the, by then, still hypothetical project for the HST line Madrid-Barcelona.

In particular, the re-development of the old port area (*Port Vell*) into a large-scale entertainment center was advanced quickly. Here, a multiplex cinema, a 3D-cinema, an aquarium and a shopping mall with bars and restaurants were built within a short period. Together with the ongoing rehabilitation of the downtown area through the construction of housing, new museums, a convention center and the extension of the opera house, the touristic and leisure functions of the city center, anyhow the principal concentration of cultural heritage, became massively reinforced (Fig.IV.39).

[24] Ajuntament de Barcelona 1987

[25] Vall d'Hebron, Poble Nou, Montjuïc, Port Vell

[26] CarrerTarragona, Glòries, Diagonal/ Sarrià

Fig.IV. 39: Ring-road construction and the 12 “new central areas”; against the priority of the Olympic projects, Sagrera remains a “long-term opportunity”; source: Ajuntament de Barcelona 1987, 8 - *modified*

In 1990 parallel initiatives were then dealing with the future development of the Sagrera sector. Different proposals for an urban project based on the creation of a new HST station were launched by the city hall and the largest technical university[27], but also the land owners and interested real estate developers commissioned a project study for Sagrera.[28] The focus was here on the urban development potential of this sector, the repercussions for the neighbouring areas, and the implications for the city in terms of public transport if Sagrera would become the main railway station with all railway tracks built entirely underground.

These proposals provided input to the city’s planning department for the formulation of a structure plan for the Sagrera area, approved by the city council in 1994 and valid today. In the place of the railway tracks, this plan envisages the creation of a new central park, which turns out to be the key element of the sector. Approximately 60% of the urban development land is owned by three public agents (RENFE, Barcelona public transport company TMB, Spanish army), and 40% by private agents (CAH, Gec-Alsthom, Bayer AG, Mercedes-Benz AG). Mainly public land will be converted for the design of the urban park..

According to the structure plan, 40% of the total 230ha conversion land would become available for real estate development. The plan allows the construction of 1.42mio.m^2 gross floor space, of which more than 50% is dedicated to dwellings (7.500 units). For the financing of the underground infrastructure, part of the added value will be recovered through the urban development fee.[29] Following the structure plan the development of different sub-sectors has been further detailed through the elaboration of partial plans

[27] Universitat Politècnica de Catalunya - UPC

[28] cf. Arenas/ Basiana et al. 1995

[29] Ajuntament de Barcelona 1996, 19-22

(PERI). Several smaller urban projects have already been realized on this basis e.g. a shopping mall, office- and housing complexes.

In 1996 the city hall published a planning document titled “The second renovation”.[30] It placed the development of the Sagrera area in a broader context that included the entire eastern sector of Barcelona. Different major conversion areas appeared interconnected in a scheme for large-scale urban transformation aiming to qualify the remaining land reserves of the city. In terms of order, Sagrera formed the first priority among the affected areas. The objective of creating a major urban park that defines the borders of the mostly deficient urban surroundings was maintained (Fig.IV.40)

Fig.IV. 40: “Second renovation” of Barcelona: transformation of the eastern sector including the HST station at Sagrera; source: Ajuntament 1996,

The Barcelona strategic plans

During the 1990s, the city of Barcelona then kicked off a process of institutional dynamics, which led to the successive creation of three strategic plans that represented a new experience and instrument in planning. Apart from general implications for the social, economic and urban development of the agglomeration, these plans also forwarded the conceptions related to the integration of the HST.

The initiative for the first strategic plan, approved in 1990, had been taken by the Barcelona city council. [31] Several motives may have been important for this step, in particular the identification of deficits in the institutional planning practice. The ineffective and inefficient territorial delimitations and distribution of

[30] *ibid*.

[31] APEB 1990

competencies and financial resources caused the city planners to conceive of a different approach with an emphasis on feasibility and flexibility. Also the increasing competition between center and periphery as an effect of continued suburbanization reinforced the idea to achieve recognition of the need for institutional cooperation across boundaries.

Furthermore, there was a general concern about the post-Olympic period. The cycle of economic expansion which started through the preparation of the 1992 Summer Olympics was feared to be interrupted after the event if no concrete strategy was designed. Finally, the general perception of modernization and political change has also contributed in that the implications of economic structural change and European integration were deemed decisive for the future development of Barcelona.

Led by the city council, the elaboration of the first strategic plan took place in six technical committees under the participation of 190 organizations and individuals. The work was coordinated by two commissions also responsible for the final approval of the plan. These commissions were composed of representatives from key organizations of the economic sector.[32] As an institutional umbrella an association was founded that assembled all participants (*Associació Plà Estratègic de Barcelona* - APEB).

The new association elaborated three strategic plans in 1990, 1994 and 1999. The plans formulate overall goals and derive sub-goal for different sectors, derive lines of action and define priority areas for intervention. Among these the connection with the HST and the related urban projects, the expansion of the airport and the creation of logistics and business facilities have turned out to be essential demands.

The second and third strategic plans contained an evaluation of the progress made compared to the goals set in the previous plans. Concrete proposals for locations or projects were not included as the plans mainly focus on the creation of favourable framework conditions for projects to materialize.[33]. Since all plans received a broad support from public and private institutions in the entire agglomeration, they represented a clear positioning of the local actors in contrast to the regional and national governments.

Barcelona Regional and the Delta Plan

In December 1993 the planning agency Barcelona Regional was founded as a successor of the Barcelona Olympics Holding SA. Its official task consists of the coordination of major infrastructure projects carried out by different authorities at the scale of the urban region. The main shareholders are the city, the county of Barcelona and the public transport entity of the agglomeration (TMB). Through their participation in the consortium responsible for the development of the old port, also the national government, the employers organization and the Barcelona chambers of commerce form part. In a second step, RENFE, the port authority and AENA were incorporated as well.[34] In spite of this seemingly broad institutional basis, the creation of Barcelona Regional was essentially an initiative of the city that

[32] Barcelona chamber of commerce, Catalan employer's organization (*Fomento de Trabajo*), port authority, trade fair company, unions (CCOO, UGT), university (UB), and an independent association (*Cercle d'Economía*).

[33] APEB 1990; *idem* 1994; *idem* 1999

[34] Barcelona Regional 1996c

also managed to ensure its influence through the maintenance of staff from the Barcelona Olympics Holding SA.[35]

The need for coordination was urgent, since the different administrations were advancing various large-scale infrastructure modifications independently, although their coincidences were apparent. This refers to the plans of AENA for the airport and of the port authority for the (industrial) harbour, the HST connection Madrid-Barcelona planned by the national government, the construction of new motorways envisaged by the *Generalitat* and several urban projects controlled by the local authorities (logistic zone, Sagrera). Thus the airport sector located in the delta of the Llobregat river, in particular, appeared to be affected by combined impacts.

For this area, already in April 1994 an agreement was signed between the government, the *Generalitat*, the metropolitan area (MMAMB) represented by the mayor of Barcelona, and the county and municipality concerned (Baix Llobregat, Prat del Lobregat). This agreement, known as the "Delta Plan", fixed the coordination and commitment for the different infrastructure expansions and environmental impact studies with a common schedule.[36] However, it does not mention the integration of the HST although its implications are obvious.[37] The subject had seemingly been postponed due to a lack of consensus concerning the layout of the track and the HST stop at the airport.

One of the first tasks of Barcelona Regional in this context was a study commissioned by the government and RENFE on the definition of the rail system and its effects on urban development in the Sagrera sector. Finished in 1995 this study clearly recommended the creation of the main railway station and the only urban HST stop at Sagrera, thus backing the intentions of the city.[38]

These suggestions were then further elaborated and published in 1996 in a proposal that encompassed all major infrastructure projects in the Barcelona region.[39] It represented an answer of Barcelona Regional to the PTGC of the region and the Delta Plan that were both issued at a time when the agency was still in formation. It equally stood for an effort to continue the development strategy applied for the Olympics based on interadministrative alliances for concrete projects, including private partners.

In terms of HST, the proposal confirmed the solution with a single stop at Sagrera as main station and its direct connection with the airport. It was suggested that the HST bypasses the station at Sants, which was considered to be incompatible with the arrival of the HST. Regarding the connection of the port to the new track running through the Vallés area, the possibility for a station there was mentioned but not further detailed.[40]

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[35] Julià 2000

[36] The "Delta Plan" does not contain any orientations for the coordination of the physical infrastructures.

[37] Ajuntament del Prat de Llobregat 1994

[38] Barcelona Regional 1995

[39] *idem* 1996b

[40] *idem* 1996a

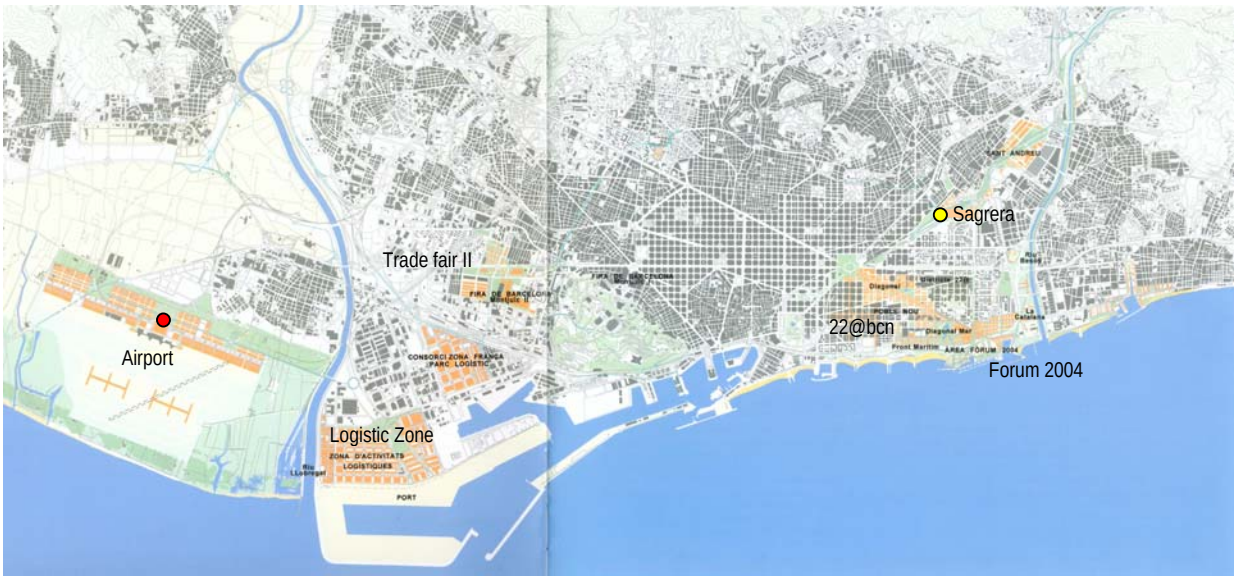
Large-scale projects of the "second renovation": "Forum 2004" and "22@bcn"

In parallel, the city of Barcelona had advanced the plans for another international event to take place in 2004. This event has been designed to enhance the urban re-development of the Besòs river sector in the East, one of the most problematic areas of the agglomeration. After a first proposal had been launched in 1993 by the mayor (P. Maragall), the project obtained a new dynamic during 1997 when the city achieved the support of the UNESCO for the celebration of a "Universal Forum of Cultures 2004". The physical transformations linked to this event comprise the rehabilitation of the Besòs river and the coastal strip, the relocation of the zoo from the inner city, the construction of a congress hall, hotels, commercial facilities and dwellings, as well as the technical improvement of the power-, sewage- and incineration plants located in the area.

Another project initiated in parallel focuses the creation of a development pole for high-tech industries in an area south of Sagrera station. This project, promoted under the marketing name of "22@bcn", envisages the conversion and densification of industrial and brownfield sites for the location of enterprises from promising growth-branches and the creation of additional business facilities.

The framework for all these projects has been elaborated by Barcelona Regional. As with the Olympics, it is therefore intended to enhance their realization through the design of a temporal international event that could trigger a second development "boost". In this perspective, the HST station at Sagrera figures as the main entrance for the expected visitors and forms the principal node for the distribution of urban and interurban passenger transport flows (Fig.IV.41).[41]

Fig.IV. 41: "New projects" for Barcelona – concentration of large-scale urban transformations in the eastern and the western periphery, coinciding with the new HST stations; source: Barcelona Regional 1999, 8



[41] Barcelona Regional 1999

Power shifts, conflict and compromise

Until 1996 the different proposals and preferences of the *Generalitat* and the city concerning the integration of the HST in the Barcelona region had been developed in parallel without significant interaction. The national government had given priority to the connection of Seville but indicated in the PDI that a continuation towards Barcelona was envisaged, yet without more details. For the peripheral HST stations at Lleida, Tarragona and Girona, the planning process did not lead to any significant confrontations. But for the Barcelona region, the opportunity to clarify the subject had been missed in 1994 with the agreement about the Delta Plan.

After general elections in 1996 the actor constellation concerning the integration of the HST became modified substantially with the change of government from the socialist (PSOE) to the conservative party (PP). The new government depended on the support by the nationalist parties from Catalonia (CiU) and the Basque Country (PNV), both governing in their respective regions.

In the same year the ministry of public works and transport (MF) complemented the restructuration of the RENFE through the creation of the HST planning agency (GIF) as a strong instrument for the enhanced realization of new lines. The first task of the GIF was the creation of a concrete proposal for the HST connection Madrid-Barcelona-French border. In November 1998 the MF, the GIF, the *Generalitat*, Barcelona Regional and the city of Barcelona then came to a first agreement about the project. It envisaged the entry of the HST to Barcelona by 2004 via the Llobregat river, thus discarding the option of an access from the North directly towards Sagrera. Stations were foreseen at the airport, Sants and Sagrera, but also in the Vallés, at the old port (*Estació de França*), in the city center (*Passeig de Gràcia*) and at another location between old port and Sagrera (*Clot*). Apparently, this proposal largely attended the demands of region and city as it left multiple options for operation.[42]

However, with the national elections of March 2000 the governing party (PP) achieved an absolute majority. Thus, the support of the regional governments from Catalonia and the Basque Country was no longer needed. In turn, after regional elections in Catalonia the *Generalitat* resulted in depending on the votes of the PP. Within a few weeks the institutional power relations therefore resulted in being turned upside down.

Against this backdrop, the government presented a new proposal for the HST connection of Barcelona already in September 2000. This proposal opened a new controversy about the quality of the airport connection and the connection between Sants and Sagrera. Although it had always been assumed that the airport station would be located on the main track running from Sagrera towards Madrid, the plans now envisaged entry directly towards Sants *without* passing the airport. Instead, a loop for optional service was foreseen (Fig.IV. 42).

[42] Barcelona Regional 1998a

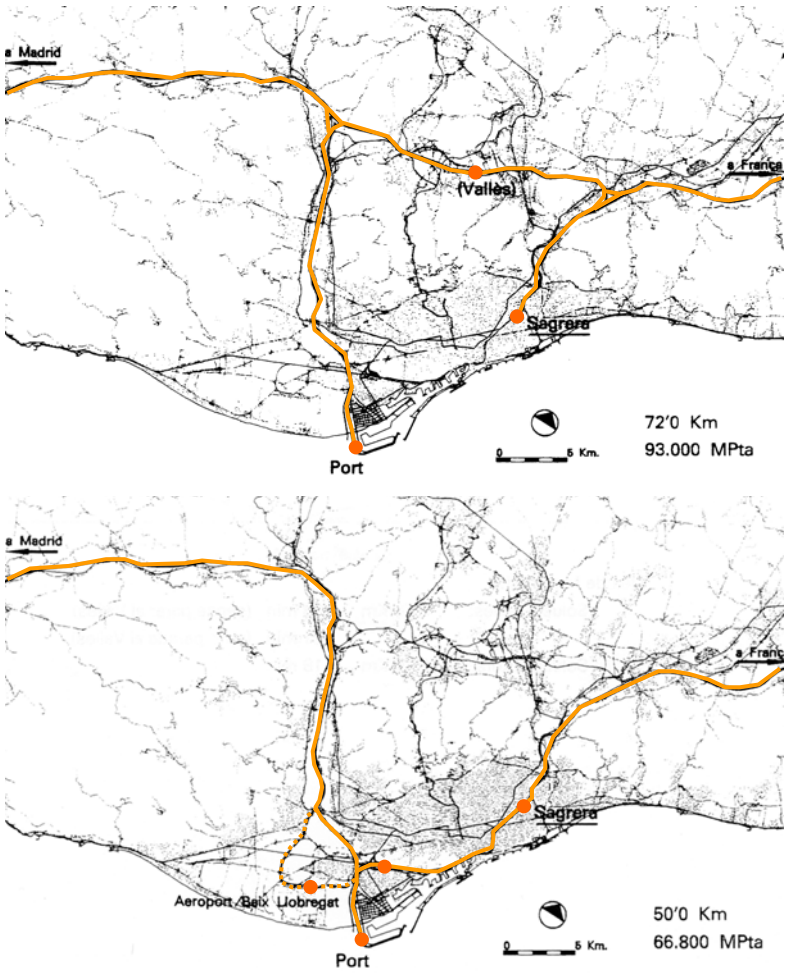


Fig.IV. 42: Alternatives examined by the MF: HST access through the Vallés and along the coast. Finally, a combination of both has been decided; source: Barcelona Regional 1998a, 12 - *modified*

The master plan for the airport expansion presented by AENA in 1999also caused frictions. Negotiations between all actors finally led to a modification of the master plan and an agreement for the HST connection in April 2001. The airport station and urban development were re-located outside the airport territory, which now also allows a direct connection to the metro.

However, in respect to the track layout only the bypass solution was decided, while the *Generalitat* assumed the costs for the infrastructure. The support of the surrounding municipalities and counties for a fully-fledged connection of the airport and the Vallés station remained entirely without effects. But also the city now had to provide a substantial financial contribution for the realization of the underground infrastructures in the urban area, while the number of HST station locations was reduced to two: Sants and Sagrera. The schedule for the arrival of the HST in 2004 was confirmed, but this no longer includes the airport station.[43]

[43] MF 2001; La Vanguardia 18.4.2001; 16.2.2001; 9.2.2001

5.3 Text analysis - planning documents and publications

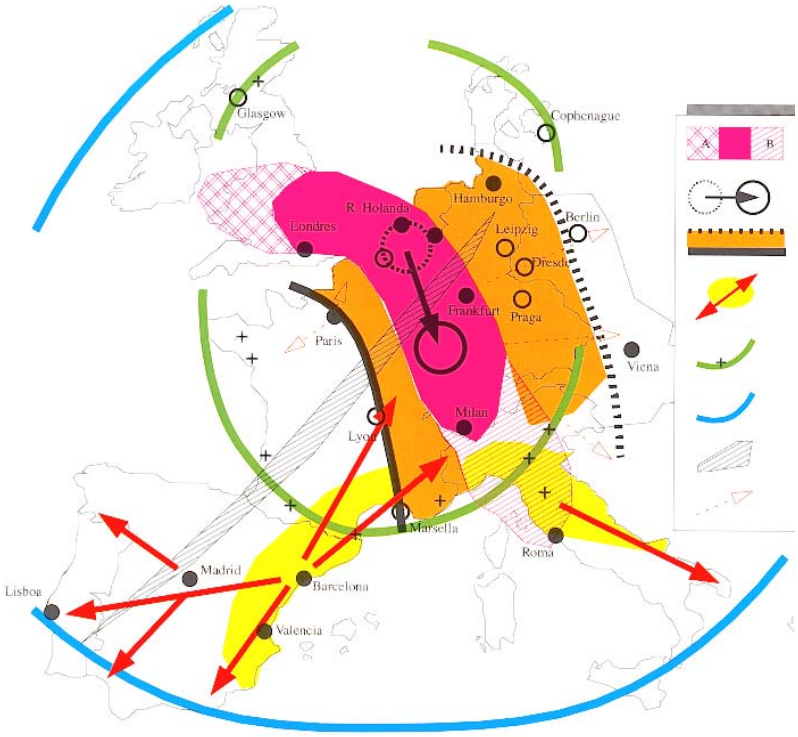
5.3.1 National government

In spite of its changing composition, the argumentation of the central government revolves around four basic concepts. The Transeuropean networks and their implications for Spain are the first orientation that guide the plans for the HST. From the PDI to the later studies for the Madrid-Barcelona line, the effects of the national HST network on the competitiveness and cohesion of the Spanish territory form another central idea. Furthermore, a "renaissance" of the railways is identified as an immediate consequence of the deployment of HST services. Finally, for the large agglomerations the concentration and decentralization of transport flows and urban functions are seen as key implications of HST integration.

"TEN integration": "Overcome backwardness" and assure infrastructure financing

In the PDI the Transeuropean networks are presented as a development opportunity for Spain in a twofold sense. First, the plan clarifies the Spanish priorities in respect to the development of the Transeuropean networks. These priorities are illustrated in a geo-strategic map that highlights the different development dynamics in Europe and the peripheral position of Spain in relation to the central European "Megalopolis".[44] Although affected by the "orbit of underdevelopment" and the "diagonal of difficulties", positive prospects underline "new developments" in the Mediterranean, Barcelona and Madrid. It is underlined that the connection to the Transeuropean networks promises to approach Spain to the economically dynamic European center (Fig.IV.43).[45]

Fig.IV. 43: Spain in the periphery of Europe – the HST as a development orientation; source: MOPTMA 1994, 9



"The peripheral situation of Spain in respect to the areas of major centrality in the European economic space is a conditioning factor in order to reach the objectives of convergence. The center of gravity in Europe is shifting towards the South and towards the Mediterranean coast" (MOPTMA 1994, 9; *translation*)

[44] This graph had been elaborated by the research center GIP-RECLUS in Toulouse.

[45] MOPTMA 1994, 5, 9

As a consequence of this analysis, the need to maintain the above-average level of annual infrastructure investment is stated.[46] For the financing of the entire infrastructure programme it is assumed that 70% could be covered by the national budgets, while the rest would have to be provided by private investment and funding from the EC. The projects envisaged for "mixed financing formulas" are those promising the highest return, i.e. the HST lines, the airports and the ports.[47]

> "Inspite of this effort, Spain continues to show a deficit in infrastructure endowment compared to its principal associates in the Community" (MOPTMA 1994, 17; *translation*)

Therefore, the second implication of the Transeuropean networks consists in the funding from the EC. It is argued that "the cohesion funds have been linked to the conformation of Transeuropean networks". In this perspective, the PDI thus appears to respond to the requirement of providing an adequate planning framework in order to ensure the continuity of EC infrastructure funding.[48]

National transport networks: "Competitiveness" and "territorial cohesion"

The main incentive for the elaboration of the PDI indeed results in being the integration of Spain into the EU. The "new economic perspective in the frame of sustainable development considered in the EU treaty" is said to change the notion of competitiveness between nations towards a "competitiveness of the territories". This is defined as the "availability of an environment adjusted to business activity: infrastructure, landscape, qualified human resources, quality of life, etc.".[49]

New transport infrastructures should anticipate the growing demand and are presented as a condition for the spatial equity between regions, for the "quality of life" and as a contribution to regional competitiveness. The complex geographical structure of the country thus results in forming an "obstacle" for these objectives.[50]

> "The improvement of the territorial competitiveness is a mid-term priority objective in respect to the attraction of activities in a context of free mobility of capital, people and goods." (MOPTMA 1994, 9; *translation*)

The road is considered the "basic mode" of the transport system that "facilitates social and economic cohesion" and "guarantees the diffusion of development" through accessibility. The planned investments

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[46] The perceived urge to "catch up" can be acknowledged from the fact that public infrastructure investment in Spain has doubled to 1.2% of the national GDP from 1985-'90 while the European average dropped to 0.9% (MOPTMA 1994, 6).

[47] MOPTMA 1994, 19

[48] *ibid*., 5

[49] *ibid*., 9

[50] *ibid*., 8, 10

(51% of the total budget) would focus on “bottlenecks”, the connection “with Europe”, “linking networks” and “correcting the excessive radial structure”.[51]

For the railways, the “HST network” figures as the principal structure around which the “basic network” should shape up. It is said to provide both international connections and fast links between the major Spanish cities. This is underlined by a comparison table for travel time reductions in domestic transport that would be achieved by 2007.[52]

The proposal for the integration of the HST in Barcelona presented in 2001 (pre-study) takes up this argumentation. In respect to the geography, the demographic structure and the income distribution, the HST is considered as the “ideal transport mode” for Spain. Since the “socio-economic evolution” would have “led” to the present radial structure formed by Madrid and the “periphery”, the transport flows on the radial axes have become the most intense. Therefore, the HST would respond to this demand situation, it is argued, provide a “backbone” for the territory, “approach the cities”, “integrate the economy” and “make the country smaller”.[53]

“Railway renaissance”: Rationalization and “market share increase”

With the PDI the government started to argue that the railways should be transformed into a specialized and competitive transport mode. Thus, a concentration of services on HST, regional express lines in the large agglomerations (*Cercanías*) and combined transport is foreseen.[54]

In the pre-study the basic ideas for the development of the HST are given briefly in the introduction. The HST brings about a “railway renaissance” in Spain, it is said, which results in improved market shares, greater demand, shorter travel times and higher service quality. Even employment creation and higher staff qualification in the railway sector are mentioned. The relevance of the project is further underlined by the partial financing through the EC, since the line Madrid-Barcelona-French border would be one of the 14 priority projects in the TEN scheme.[55]

> “The construction of the new high-speed line Madrid-Barcelona to the French border can be considered a transcendental milestone for the renaissance of the railways in Spain.” (MF 2000, memoria 1.1; *translation*)

The improvements that are emphasized as a consequence of the “golden opportunity” to realize the HST are the faster connection between Barcelona and other Spanish cities based on a massive use of adaptable rolling stock, the free capacity in the rest of the network that could be used for regional and freight services, the re-organization of the regional rail services, the modernization of the stations and the connection of the Barcelona port to the European railway network.[56]

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[51] *ibid*., 21

[52] *ibid*., 24

[53] MF 2000, memoria 1.1

[54] MOPTMA 1994, 12

[55] MF 2000, memoria 1.1, 1.2

[56] *ibid*., memoria 1.4

Metropolitan areas: "Concentration" and "decentralization"

In respect to the implications of transport infrastructures for the urban structure of the agglomerations (*áreas metropolitanas*), the PDI attributes different functions to road and railways. The development of the road network should aim to "support decentralization, structure the urban periphery, provide bypass-roads for transit, limit the car-access to the city centers."[57] By contrast, the railways should pursue other aims:

> "Support the main radial flows and become competitive with the private vehicle: Express services; Increase the area of influence of the existing corridors: Station access, new stations, operations of new centrality; [. . .]" (MOPTMA 1994, 33; *translation*)

Thus, the concentration and specialization of the railway services is contrasted with the concepts of "decentralization" and "structuration" through the "basic mode" road.

Specifically for the HST, the pre-study also refers to urban development implications. The argumentation underlines the concentration of demand as a condition for competitive HST operation. Therefore, the entry of the HST through the Vallés area is discarded, as this would not correspond to the exploitation requirements of the HST. However, this decision would not contradict the future option for a station in the Vallés.[58]

> "We consider the abandonment of this idea fully justified, since it is a general principle that the travellers desire and need to access the center of the city in the shortest time possible. If this is not the case, the railways lose an important comparative advantage to the competing air travel mode." (MF 2000, 2b 1.3; *translation*)

Furthermore, within the city area of Barcelona the decentralization of transport flows as a consequence of a new configuration of station locations is highlighted as a positive effect of the integration of the HST. By servicing different stations within the agglomeration (Sagrera and Sants) the HST is said to "positively contribute to a decentralization of transport flows and facilities", as against a solution with a single main station at Sagrera.[59]

Concerning the effects of the HST stations on the urban structure, a development impulse is expected, but it appears to condition the HST operation, not vice versa. In respect to the project at Sagrera, it is emphasized that "from the viewpoint of the railways, this rehabilitation should not be done at the risk of deteriorating conditions of [railway] operation". By contrast, the use of Sants station would be "favourable for the urban rehabilitation of an important zone of Hospitalet[60], which represents a historical landmark for that city". Additionally, the "rentability from the first day of operation" is examined as a separate criterion for the comparison of the examined alternatives, inferring that the use of the existing station at Sants would guarantee better exploitation prospects without the risk of possible delays at Sagrera.

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[57] MOPTMA 1994, 33

[58] MF 2000, 2b 1.3

[59] *ibid*., 2b 4.22

[60] L'Hospitalet is a neighboring municipality of Barcelona.

> "Today, the decisively more favorable situation of Sants in terms of access, connections, metro, etc. contributes to guarantee a better rentability of the large investments for the HST from its operation start, from the first day, whereas at Sagrera the conditions of the surroundings hardly can offer the same features of access, facilities, etc. in time." (MF 2000, 2b 4.22, *translation*)

With respect to the airport station, the pre-study argues in favour of a connection with limited frequencies. The decision concerning the exact station location is not made a subject. However, the new station is envisaged to be connected with a by-pass loop, and not with the main track. This relative restraint of the HST access to the airport has been justified later by the MF, arguing that a station on the main track would "punish all HST users with a delay of 20min." as most people would want to arrive in the center of Barcelona. It is seen as a "contradiction to the optimization of travel times with speeds of 350km/h", which would also question the envisaged finalization of works in 2004.[61]

5.3.2 AENA Barcelona

"Airport city" and "hub development"

Although a part of the national entity AENA, the local administration of the Barcelona airport has uttered different expectations concerning the HST connection. Its 1999 development master plan aims to make strategic alliances with airlines in order to maintain the airport's position among the 15 principal European ones. It envisages to "generate economic activity" in its surroundings and establish an "airport city".[62]

To achieve these goals, various measures are proposed in order to increase the offer in terms of transport capacity, integrated services and building land, and to create the corresponding demand.[63] Most of all, the "multimodal ground accessibility" would have to be improved. Given the limitations of the present railway access, a new railway station for HST and regional express lines (Iberian and international gauge) is envisaged, fully integrated into a new terminal building located on the airport territory between the runways.[64]

Even if the plan does not explicitly define the quality of this connection, the described development objectives point to the importance of a high frequency HST access that effectively enlarges the catchment area. For instance, the internationalization and positioning of Barcelona and Catalonia, the attraction of strategic activities, and the "confirmation of the city's area of influence" are said to require improvements in the external accessibility of Barcelona and the airport.[65]

> "The improvement of the airport facilities and access play an essential role for Barcelona to be confirmed as the directive center of the macro-region in the ambit of the C6" [66] (AENA 1999, 3.5; *translation*)

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[61] La Vanguardia 5.3.2001

[62] AENA 1999, 3.4

[63] *ibid*., 3.11

[64] *ibid*., 3.13

[65] *ibid*., 3.5

[66] The C6 city network comprises: Barcelona, Montpellier, Toulouse, Valencia, Zaragoza, Palma de Mallorca

5.3.3 Generalitat de Catalunya

The regional government sustains an ambivalent image of the region, oscillating between a being "European vanguard", or a victim of geoposition and backwardness. Nevertheless, both perspectives appear to serve as a justification for the HST connections in Catalonia. The HST is promoted as a means to assure the competitiveness of Catalonia, especially with a view to the process of European integration.

Inside the region, the HST is interpreted as an instrument to achieve territorial equilibration at the regional and the "metropolitan" level. This concerns in particular the objective to counterbalance the urban concentration Barcelona represents for the region. Based on the definition of new station locations and "dynamizing areas" at the airport and in the Vallés, but also through the regional stops at Lleida, Tarragona/ Reus and Girona, the HST is therefore expected to enhance "spatial decentralization".

Apart from territory and economy as "basic axes" of development, a third orientation is then formed by the concept of "quality of life" that subsumes social and environmental aspects, but does not relate explicitly to the HST.

"HST connection": From "backwardness" to "competitiveness"

The regional structure plan (PTGC) identifies comparative deficits in the external accessibility, a lower infrastructure endowment and capacity limits of the port and airport systems.[67] The plan thus advocates striving for an "integration of the Catalan economy into the international, maintaining or improving its competitiveness". This should be achieved through "better distribution- and commercialization networks", and by assuring "necessary land for infrastructures and development".[68] Spatial measures are said to aim at promoting the internationalization of Catalonia, reinforcing the interregional transport and ICT infrastructure networks as "determining factors" and "necessary condition" to "guarantee success".[69]

> "Catalonia finds itself in a peripheral situation in relation to the large European economic centers. The reasons need to be searched for as much in the remoteness of the large European economic centers, as in the insufficiency of the own infrastructures, in particular those of international communication." (Generalitat 1995, D43, *translation*)

Conversely, it is also argued that Catalonia would be a "motor region of Europe" with good perspectives due to the process of European integration, in spite of its "limited decision power" in the national context. The challenge of international competition would require it to "prepare the territory" and to "allow the Catalan economy to compete in conditions of equality". Therefore, the HST is considered a "decisive project" that connects Catalonia with the European metropoles and important Spanish cities.[70]

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[67] In reference to the EC infrastructure study group results that attributed a level of 34 to Catalonia (Hamburg region = 100) cf. Biehl et al. 1986 - by error (?) updated from 1986 to 1990; Generalitat 1995, D43

[68] Generalitat 1995, M25, D43

[69] *ibid*., M50

[70] *ibid*., D37, M7

> "In the center, at the crossing of all this Mediterranean and Meridian, Spanish and European world, there is Catalonia and its capital Barcelona." (Generalitat 1995, D3; *translation*)

For the development of Barcelona, the structure plan for the urban region (PTMB) derives the ambition to belong to the "vanguard metropoles" in Europe from a similar trend analysis. Transport infrastructures and communication networks are therefore deemed crucial conditions for the competitiveness of the territory.

> "What is more, the requirements of accessibility are increasing until they come to define the opportunities and competitiveness of the territories at the regional, national, continental and global scale. (PTMB 1998, 251; *translation*)

"Territorial reequilibrium": "Decongestion", "decentralization", "maximum isotropia"

The PTGC argues that the equilibration of the region should be reinforced through "general accessibility", achieving "maximum isotropia" and "decentralizing the congested zones", especially through the location of tertiary activities and the reinforcement of intermediate towns. The HST connection between Barcelona and the four regional capitals is said to support this strategy.[71]

A typology of nine urban areas and corresponding development strategies is defined, the first four of which are relevant here: While for the "central metropolitan area" of Barcelona the development should "slow down concentration" and foster "dis-densification", smaller "centers of expansion and articulation of the central metropolitan system" in the immediate surroundings should still become reinforced by "quantitative growth" and "qualitative development".[72]

Additionally, decentralization should be achieved through areas of "metropolitan reequilibrium" (towns belonging to the urban region) that should "assimilate part of the activity induced by the central metropolitan system", and areas of "territorial reequilibrium" (regional capitals) as an "alternative to the attractiveness of the systems in the metropolitan area". Regional competitiveness, it is concluded, could be achieved by providing a functional counterweight to Barcelona.[73]

> "At the same time, the capital of the functional unit [Catalonia] is strengthened by strengthening the whole, resulting in a spiral of mutual reinforcement. This allows for the capital, Barcelona, to compete with the most developed European regions." (Generalitat 1995, M15; *translation*)

The PTMB equally argues for decentralization and equilibration. Barcelona should be prepared for "interactive collaboration in the functioning of economic activity all over Catalonia" and a "complementary role of a dynamizing center in a diverse Euroregion". The general objectives formulated are to "reduce the excessive disequilibria", achieve "polycentric development" and "plurimodality" of transport.

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[71] Generalitat 1995, M23, D43

[72] western Vallés, Baix Llobregat, Maresme

[73] *ibid*., M15, M46

> "The voluntarist regulation of the future depends on the general improvement of transport of all kinds, decentralizing activities and homogenizing the levels of infrastructure endowment in the entire metropolitan area." (PTMB 1998, 248; *translation*)

HST station locations as "dynamizing areas"

The railway network scheme of the PTGC does not define HST station locations but shows two terminal tracks entering Barcelona: One along the Llobregat river connecting the new line with the airport and with the port, and another accessing the city from the north and ending at Sagrera. All high-speed and international freight services would thus run through the Vallés area, while a connection between the airport and Sagrera or Sants is not envisaged.

The PTMB then modified the concept for the integration of the HST. In reference to G.Dupuy it suggests that "network urbanism" would define centrality in terms of access to the networks.[74] A new spatial category labelled "dynamizing areas" is introduced, specifying the development objectives for new or existing centralities around the nodes of the railway network.[75] The development of these areas would be of crucial importance as they combine various objectives: "Disperse economic activity over the territory", "distribute facilities and services", "create new centralities to structure the metropolitan urban system", and "articulate and reinforce polycentric development".[76]

> "In sum, the dynamizing areas are integrated centers with offices, large shopping malls and small specialized retail, cultural institutions, leisure and other facilities, research centers, business services, large parking lots… They are 'mini-cities', specialized and well organized. They function as urban districts complementary to the present centers, but more related to the metropolitan transport infrastructure." (PTMB 1998, 255; *translation*)

Thus, the HST stations figure at the highest level of a spatial hierarchy based on accessibility.[77] The four stations located on an "8"-shaped railway ring should be connected by direct express lines to all larger centers in the urban region. This configuration would allow a maximum flexibility for operation, especially in the case of different competing operators.[78]

In addition to the stops at the airport, Sants and Sagrera, the PTMB defends the introduction of a fourth HST station located in the western Vallés, between St.Cugat and Cerdanyola. Since the maximum reduction of travel times to Sagrera station could be achieved by an additional tunnel entering the city center from the Vallés, this new station appears as the central crossing of the above mentioned "railway 8". Due to its progressively improved accessibility by rail and motorway for a growing population in the surrounding municipalities, this station would fulfil a complementary role for the entire agglomeration and is equally defined as a "dynamizing area".

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[74] cf. Dupuy 1991

[75] PTMB 1998, 29, 30

[76] *ibid*., 250

[77] *ibid*., 189

[78] *ibid*., 191

> "On the other hand, one has to keep in mind that the potential users of the high-speed railway services are not only those of the central agglomeration of Barcelona, but of all the counties in the Barcelona province, with a total population . . . of 5.5.mio." (PTMB 1998, 195; *translation*)

"Airport system", "HST interconnection", "port metropolis"

Regarding air traffic the PTGC does not emphasize the role of the Barcelona airport, corresponding to the exposed ideas about decentralization. Instead the plan introduces the concept of a "Catalan airport system", distinguishing three airport categories of which the first comprises Barcelona, Girona and Tarragona/ Reus, in concert with the envisaged HST stops. Both smaller airports should become "basic elements" of their territory and contribute to the aim of territorial reequilibration. Without defining a time horizon, further plans for the "airport system" should foresee a minimum passenger volume of 40mio./a — the same transport volume that four years later the master plan of AENA demanded for the Barcelona airport alone.[79]

On the contrary, the port of Barcelona is elevated verbally to a "port metropolis" that should be developed into the "great distribution center of south Europe" and an "active tertiary center". These formulations reflect the importance given to the connection of the port with the international railway network and its economic repercussions, but appear to be somewhat inconsistent with the general emphasis on "decentralization".[80]

The PTMB underlines the economic importance of the Barcelona port and airport for the region, characterizing them as "ports of Catalonia". Therefore, the introduction of the international gauge should "assure by priority" the connection of the port with central Europe and the Atlantic coast. It should equally "facilitate the necessary connection" of the airport for passengers and freight to "enlarge its hinterland", and connect with the city center via Sants and Sagrera.[81] As with the Vallés station, it is underscored that the HST stop at the airport should reinforce the development of a service center, now defined as "dynamizing area". HST station and service center are located outside the airport on the territory of the municipality El Prat del Llobregat.[82]

> "in fact, as it occurs with the port, one should speak of the 'airport of Catalonia', located in Prat and connected with Barcelona, rather than of the 'airport of Barcelona'." (PTMB 1998, 201; *translation*)

"Quality of life" and "environmental protection"

Apart from territory and economy, the PTGC defines a third strategic axis aiming at the improvement of the "quality of life". However, the interdependencies with the measures proposed for the first two axes are

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[79] Generalitat 1995, M63; AENA 1999, 3.6

[80] *ibid*., M61

[81] PTMB 1998, 193, 204

[82] *ibid*., 206

not made a subject. Instead, it appears to be a complementary domain of action that may benefit from the successful development of the "territorial competitiveness". Therefore, the "conservation, protection and restoration of the environment", the creation of "adequate housing and urban space", as well as the provision of services and facilities for education, health and leisure are proposed as main orientations to improve the "quality of life".[83]

The PTMB does implicitly relate the integration of the HST to environmental consideration, since its strategy of decentralization and concentration also aims at the control of urban sprawl. But despite these considerations in the geographical approach, environmental improvements are basically seen to be shaped by technological progress and in turn to condition the success of the development strategy.[84]

> "The conservation and improvement of the environment has to be a consequence of the application of better and more advanced techniques, and not the result of returning to degrees of simplicity in the past. We already know that caring for the natural environs requires abundant resources, but there is no longer a doubt about their social and also economic profitability. Environmental quality will be decisive in the location choices of new activities and the international esteem of a metropolitan system." (PTMB 1998, 137; *translation*)

5.3.4 City of Barcelona

For the city the integration of the HST is linked to various fundamental development strategies. These are partly in course since the 1980s, while others have been derived from the plans for the HST. The starting point has been concepts for large-scale urban development, first aiming at the creation of "new central areas", then at the urban renewal of the entire eastern sector labeled the "second renovation". Both include the redevelopment of the Sagrera station area as a key measure.

With the initiation of the strategic plans the discourse structure of the city actors has increasingly incorporated the concepts of "scale enlargement" and "internationalization", as well as an emphasis on accessibility related to the development of the airport and the HST. These plans have also contributed to create the notion of the "Barcelona model", a multisectoral approach to large-scale projects based on a strong local discourse coalition. Simultaneously, they have established a particular understanding of environmental quality and "quality of life" as aspects of strategic planning.

"New central areas" and "second renovation"

The development strategy proposed under the heading "new central areas" in 1987 is based on two conditions: The limitation of urban growth in the downtown area and the construction of the ring roads. The latter is supposed to bring a radical improvement of accessibility for the city as a whole, but for certain peripheral locations in particular. The required space for new developments is identified in conversion areas or interstitial zones. This coincidence of an "exceptional exploitation potential and

[83] Generalitat 1995, M24

[84] PTMB 1998, 137

notable positional value" is seen as an opportunity for decentralization and to establish a "counterweight" to the old center – an operation that is compared to the project of Cerdá in the 19th century.[85]

Although the development of the "new central areas" should "recognize the metropolitan level", suburbanization is not mentioned. The scope of the strategy is therefore principally the city area itself, seeking for re-equilibration and decentralization through the requalification of "urban voids". In contrast to Italian examples of "service centers" (*centro direzionale*) located on the edge of the city, space for further growth and tertiarization should be provided *within* the built up areas. The assignment of the "service center" in the Vallés by the 1976 zoning plan (PGM) is therefore regarded as "outdated".[86]

In respect to the relation between the new central areas, "complementarity" and "specialization" are envisaged according to their specific characteristics in terms of accessibility and morphology. A system of differentiated centers connected by the main road network would be the result.

> "This demonstrates the concern of the city to intervene in the location and relocation of the mentioned initiatives that can help to reequilibrate the city and avoid cycles of densification, potentializing the decentralization towards diversified areas through the requalification of large urban sectors." (Ajuntament 1987, 6; *translation*)

Two of the "new central areas", Sagrera and Carrer Tarragona (next to Sants), are closely related to the integration of the HST, although in 1987 this debate had not yet started. Therefore, in both cases the relations of the projects to the neighbouring urban areas in terms of physical connections, public space and development dynamic are stressed as key criteria for the design of the proposals, while the role of the railway junctions is only generally mentioned to be favourable for the development of tertiary functions and "new management activities".[87]

The "second renovation" then encompasses all large-scale projects in the eastern sector of the city. The specific importance of this strategy is based on the fact that it concerns the remaining land reserves of the city, bordered by urban areas with multiple problems or deficits. Hence, the envisaged projects are meant to "close the definition" of the city.

> "The whole complex of Sant Andreu/ Sagrera/ Diagonal/ Front Marítim with its "S" geometry and 6.5km of new urban axes and open spaces constitutes without a doubt the great project for the second transformation of Barcelona after the [Olympic] games." (Ajuntament 1996, 15; *translation*)

The conversion of the Sagrera area, including the location of the new HST station, turns out to be the priority project. However, the emphasis is put on the intermodal function of the new station and the regional rail access, even if the HST is recognized as a "novelty". For the urban project the creation of a central park forms the key element. Also the restructuration of the local road network, the functional

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[85] Ajuntament 1987, 5, 12; The "Plan Cerdá" of 1859 designed the structure (*Eixample*) for an explosive urban growth process that multiplied the city area within only 50 years by factor 6. cf. Busquets 1992

[86] Ajuntament 1987, 6, 12

[87] *ibid*., 30, 62

optimization of the new railway station as “intermodal center”, the development of the “new central area” around the station, and the continuity and connection of the surrounding districts are underlined. Furthermore, the proposal is said to assure an equilibrium in terms of functions and density, regarding the financing of the infrastructure by recovering added value (urban development fee).[88]

> “The most disseminated aspects of the project have been those referring to the HST, due to the novelty it represents in our city to open a modern system of communication with Europe and the rest of the country. But the great intermodal capacity of the new station proposed at Sagrera and, in consequence, the improvement of the quality of regional transport service is undoubtedly the most relevant implication for the metropolitan system.” (Ajuntament 1996, 15; translation)

“Internationalization”, “scale enlargement” and “external accessibility”

Throughout all the strategic plans the analysis of general trends makes out globalization, internationalization and the interconnection of European economies, as well as technological and sectoral change as driving forces of development.[89] The basic orientations that are derived from this perspective are different forms of spatial “scale enlargement”, the improvement of external accessibility and the provision of infrastructures and facilities to enhance economic structural change.

While the nation state increasingly appears as a potential opponent losing influence as a consequence of globalization, the importance of cities and urban regions is seen to grow.[90] This process would bring about an “expansion of regions that are naturally taking shape”.[91] Thus, the second strategic plan conceives of the city in seven “spatial domains” that would require specific measures: City area, agglomeration (continuous built-up space), “metropolitan area”, “metropolitan region”, “macro-region”, Europe, the World.[92]

> “. . . the cities were an accessory to a national whole that defined its economic development policy. Now, cities have become essential elements in that policy and their interests do not always coincide with those of their states or nations.” (APEB 1994, 10)

The third plan then strictly reduces the manifold spatial terminology to the “Barcelona Metropolitan Region” (BMR) i.e. the urban region. It focuses on this delimitation alone whereas the other definitions completely disappear as a spatial reference. The competitiveness of Barcelona is seen to rely more on the immediate configuration of its own “network of BMR municipalities” than on long-term perspectives for “macro-regional” cooperation.[93]

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[88] Ajuntament 1996, 19-22

[89] APEB 1990, 32; *idem* 1994, 9-12; *idem* 1999, 116

[90] *idem* 1994, 10

[91] *idem* 1990, 32

[92] *idem* 1994, 6

[93] *idem* 1999, 121

The principal measures to support the internationalization of Barcelona are therefore improvements and extensions of the transport infrastructure. This is also where the HST figures as a key project together with the airport expansion. To “hasten the projects for rail links with Europe — track gauge and HST”, as well as to expand the port, to extend the metropolitan public transport system, improve telecommunication networks and to “complete the road network” are the respective proposals of all plans.[94]

> “Paying special attention to the equilibrium of the metropolis, this line of action focuses particularly on the need to finish off the infrastructure that will make Barcelona accessible both internally and externally and on developing the infrastructure for telecommunications as basic channels for the circulation of people, goods and services of all kinds." (APEB 1990, 53)

Furthermore, also the equipment of the city with business facilities in the broadest sense is given increasing attention. This comprises congress and conference venues, a second trade fair site, “industrial parks”, hotels, and facilities for higher education and leisure.[95]

“Barcelona model”: “Large-scale projects” and a “common language”

With the second strategic plan the planning process initiated is now referred to as the “Barcelona model”, based on achieving a consensus between public and private actors to promote certain large-scale projects by priority.[96] The third strategic plan then provides this concept with a historic dimension. In Barcelona, it is argued, important development steps have always been achieved through the challenges of large (urban) projects — from Cerdá’s urban extension plan, to the Universal Exhibitions[97] and the Olympics.[98]

This is precisely the vocation of the “Universal Forum of Cultures 2004”, but the “Barcelona model” also frames the other large-scale projects under way. The “Forum”, the redevelopment of Sagrera, the “22@bcn” area and the second trade fair site appear as key projects that combine different strategic lines. In the frame of the “Barcelona model”, they are the concrete challenges that would allow the next leap forward.

Therefore, the integration of the HST becomes a connecting element between these areas, as well as a key project in itself. The three envisaged stations at Sagrera, Sants and the airport are described as “intermodal connection axis” that links the “new scientific-technical pole” (“Forum”, “22@bcn”), the old center and the “new logistic center” (airport, port, logistic zone).[99] Yet, no mention is made of a possible station in the Vallés.

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[94] APEB 1990, 60; *idem* 1994, 23-27; *idem* 1999,

[95] *idem* 1990, 62-64; *idem* 1994 4;

[96] *idem* 1994, 8

[97] Barcelona hosted the EXPO in 1888 and 1929.

[98] APEB 1999, 134

[99] *ibid.*, 129

> "The history of our city leads us to state that Barcelona is an example of participation and association in relation to great challenges. . . . In this situation, new projects should be identified that stimulate the entities of the city to get to work together, conscious that individually they are incapable of managing them." (APEB 1999, 134)

The third plan also acknowledges the fact that by preparing the three strategic plans, local actors would have established "a common language" which provides the necessary power in conflict situations. The claims of the city on the nation state in terms of competencies for the management and positioning of port and airport are given as an example as they encounter increasing acceptance.[100] Interestingly enough, the plan concludes with a list of 38 "key words". It comprises short expressions such as "economies oagglomeration", "innovation networks", "citizen participation" or "the airport as a strategic value" and represents the essential structure of the local discourse coalition.[101]

"Environmental quality", "quality of life" and "logic of heritage"

In the first strategic plan, "environment and quality of life" are described as "key elements in people's lives". It therefore contains a number of generic objectives in respect to the environment, seeking to establish a "resource management" to reduce emissions and pollution, ensure water supply or increase the capacity for waste treatment. The parallel aim of maintaining a local "quality of life" remains comparatively non-specific. [102]

In the process a separation between the global and the local sphere is also identified that would require special consideration for the latter. It leads to the proposal of specifically "local" measures such as improved public transport, open space protection and housing supply. The aim of becoming a "city of quality" is formulated, which could be measured in the "effective functioning of all services" that would improve the "quality of life and competitiveness of consumers".[103]

> "Cities . . . also have to be a consensus point between commercial logic based on the immediate profitability of capital and the logic of heritage that should take into account the symbols of social and cultural identity of the citizens." (APEB 1994, 10)

The third strategic plan puts a stronger accent on the issues of "social cohesion" and "participation", which together form a new strategic line for the plan. Moreover, for the first time the concept of "sustainability" appears and is repeated as a generic objective. Nevertheless, no reference or definition is provided and the use of the term raises certain doubts about the underlying understanding.

> "The sustainability of the BMR has to be accompanied by special attention to the environment." (APEB 1999, 120).

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[100] APEB 1999, 107

[101] *idem* 1999, 144

[102] *idem* 1990, 38, 62

[103] *idem* 1994, 5, 10, 16

5.3.5 Barcelona Regional SA

Corresponding to its initial tasks, the argumentation of the regional planning agency has focused on transport infrastructure development as a condition for competitiveness in global markets, starting from a position of backwardness. It advocates the concentration on particular projects that should enhance the interregional accessibility and structuration of the "Barcelona region as a network". The creation of the HST station and "new central area" at Sagrera, as well as the expansion of airport and port supported by their connection to the HST represent key measures. Consequently a space functional specialization of the "BMR" is envisaged, fostered by the "second renovation" as part of a general process of "recentralization".

Competitiveness, "infrastructural backwardness" and "project approach"

The starting point of the argumentation is the contrast between the specific demographic and economic weight of the Barcelona region and its low infrastructure endowment, which continues to lead the agenda to the present.[104] Global competition is conceived of as the driving force of development and accessibility and mobility as "determinants" for economic development. Moreover, among the factors that "configure" the cities, infrastructure development is identified as a control instrument "with more margins for public action". The resulting approach to regional planning is said to "give priority to the project before zoning".[105]

> "Therefore, the factors of internal and external mobility are determining for the services the agglomeration offers (especially those linked to logistics) and particularly the airports, which become a central element in the accessibility of the metropolis with important economic implications." (Barcelona Regional 1996a, 44; *translation*)

HST connection: Interregional accessibility, "new central area", "airport city"

In the first overall proposal, the railways are described as a "specialized transport mode" that should orientate at markets where it can be competitive i.e. the HST and metropolitan services. It is distinguished that for Barcelona the HST provides two kinds of services: "connecting with France and Madrid" and "serving the capitals in the C6 region within 1h travel time". Thus, the emphasis for the role of the HST is on "interregional accessibility", the supporting function for the Sagrera project, and the expansion of the airport.[106]

The location of the main station is changed to Sagrera since "for space and cost problems the new line cannot pass via Sants". The new station would allow connection with all regional rail services and two

[104] Barcelona Regional 1996a, 3 - In reference to the EC infrastructure study group cf. Biehl et al. 1986; Barcelona Regional 1999, 2; La Vanguardia 20.6.2001

[105] Barcelona Regional 1996a, 3-11, 44; *idem* 1996b

[106] *idem* 1996a, 13; *idem* 1999, 11

metro lines, as does Sants station today. It should support the creation of a “new central area” that would “boost economic activity in the area” and “link two historically separated parts of the city”.[107]

Due to saturation and deficient possibilities for adaptation at Sants, the HST is envisaged to cross the city in a new tunnel along the coast, connecting directly with the airport as a second stop. The lowest priority is attributed to a third HST station, situated in the Vallés area without specifying location, functions or implications.[108] Later plans only mention two HST stations, one at Sagrera and the second at the airport.[109]

> “The high-speed infrastructure network with UIC gauge has to close a ring around Barcelona with connections to France and Madrid/ Seville, with a principal station for travellers at Sagrera, a second station at the airport and a third station in the Vallés, in this order of priority.” (Barcelona Regional 1996a, 43; *translation*)

For the airport a good growth potential is identified based on its position in international air transport relations, whereas deficits in terms of capacity, service and available space are identified. The HST stop is underlined as an indispensable condition for the development of the airport in terms of catchment area enlargement. A parallel improvement of the public transport access is recognized as the “only way to deal with the envisaged passenger volume”.[110] Thus, by transforming the airport into an intercontinental hub, an “airport city” should be developed that could make up for the job shortage in its surroundings.[111]

> “A differential growth of the Barcelona airport in respect to other airports can be achieved by enlarging its hinterland towards the 10.5mio. additional inhabitants of the five adjoining regions. Without the HST network this objective can be achieved only with difficulties.” (Barcelona Regional 1996a, 6; *translation*)

“Second renovation”, “recentralization” and “specialization” in the BMR

Corresponding to the concepts of the city hall, the totality of projects contained in the initial plans is subsumed under the heading of a “second renovation of Barcelona in the frame of the metropolitan region”. The “new strategic projects” are concentrated in two main areas of the agglomeration, the Llobregat delta and the Besòs sector, each of them with a different functional bias.[112]

The “Delta plan” is especially fostering transport and logistics, including the airport extension and HST connection, the logistic zone, the port, and the trade fair expansion. For the projects in the Besòs sector the focus is on the development of business services, high-tech industry, and large-scale facilities. This concerns the new HST station area, the “22@bcn” area, and the “Universal Forum of Cultures 2004”. Apart from these two focal points a third emphasis is put on the expansion of the (public transport)

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[107] *idem* 1996a, 13; *idem* 1999, 23

[108] Barcelona Regional 1996a, 14

[109] *idem* 1999, 23

[110] *idem* 1996a, 45-49

[111] *idem* 1999, 14

[112] *ibid.*, 2, 10

networks that would increase the market share of this mode and establish links between the different project areas.[113]

In contrast, the "growth potential" of the smaller cities around Barcelona is underlined in relation to their "long industrial history". Here, their "valuable contribution to the whole" seems to be understood as the provision of land reserves for space consuming and (potentially) emission intensive functions such as industries, that should be "kept out of the city".[114]

> "The BMR comprises a group of medium sized cities with a future growth potential and a long industrial history. These cities are in a position to make a valuable contribution to the area as a whole. (Barcelona Regional 1999, 6)
> "An essential pre-requisite for recentralizing urban areas is that the supply of real estate in metropolitan centers meets the demand in terms of quality, quantity, and price." (Barcelona Regional 1999, 34)

Therefore, the general strategy that is followed is described as "recentralization". In an allusion to the "life-cycle" theory for urban development, the term suggests that it is the city's turn to recover what has been lost during a previous phase of suburbanization.[115] Consequently the "urban potential" is described as a question of market supply, providing floor space for the location of new business and housing.

Environmental quality and "quality of life"

The above mentioned concepts and orientations appear to be mostly unrelated to social or environmental concerns. Where these are introduced, a conceptual separation is maintained by stating that the "necessary infrastructure has to be made compatible and complementary" with those measures improving the "quality of life", the environment and the urban structure. In this perspective, even transport logistics are identified as a "clean activity" that contributes to the "environmental qualification of the territory". Vice versa, however, environmental quality is recognized as an important location factor that supports the competitiveness of the urban region.[116]

> "Around the world, a strong interdependence appears between the economies of the developed regions, all competing against each other for the location of productive activities. In this situation, what becomes especially relevant is its geographic situation, the communication infrastructures and the environmental quality." (Barcelona Regional 1996a, 44; *translation*)

[113] *ibid.*

[114] Barcelona Regional 1999, 6, 25

[115] *idem* 1999, 34; cf. van den Berg 1982; Cheshire and Hay 1989

[116] Barcelona Regional 1996a, 9, 40

5.4 Barcelona/ Catalonia - reconstruction of the planning discourse

What appears to be characteristic in the case of Barcelona/ Catalonia is the polarization of actor positions in respect to the integration of the HST following the three levels of public authority: National government, *Generalitat*, city (including Barcelona Regional). This circumstance is remarkable since all players essentially share the same basic concepts that orientate their actions. These are the use of the ("European") HST to overcome backwardness and achieve competitiveness, the orientation of spatial and urban development at external accessibility, the specialization of the transport mode railways, and the "quality of life" or "environmental quality" as parallel objectives. Nevertheless, the integration of the HST in the Barcelona region has been largely at odds.

On the one hand, important differences of interpretation surface due to the *different spatial scales* that form the reference. In particular the objectives of territorial equilibration, spatial concentration and decentralization lead to diverging proposals concerning the HST and its stations. On the other hand, in the case of the national government the emerging conflicts can only be explained by the influence of *other interests* that appear to be covered by the planning discourse.

As a result, while the construction and integration of the HST line as such is unanimously supported, the main actors defend different node configurations, station locations and related urban development options. Thus, since the proposed contents remain conflictive, a compromise had to be achieved through negotiations that mainly reflects the *institutional* power relations at the time of decision making. Nevertheless, city and local actors form an exception here as they explicitly attempt to use *discourse control* in order to increase their relative power position.

5.4.1 Discursive concepts and coalition

TEN: European integration and infrastructure endowment

Although the integration of the HST in Spain had been initiated with an individual approach, political circumstances and the process of European unification have soon led to a radical revision and the adoption not only of the railway track gauge, but also of the *conceptual framework* that came with it. Thus, the TENs constitute an important policy legitimation in Spain. They are the physical expression of the political integration of Spain into the EC, promising economic development and avoiding isolation. At the same time, the financial benefit from the country's EC integration has lowered the threshold of acceptance for external regulation.

Another characteristic of Spain represents the specific emphasis that is put on the perceived general backwardness of the country in terms of infrastructure endowment, a point that is made by all actors. The country is classified by the EC either as objective 1 (zone in delay), 2 (reconversion) or 5 (rural) zone and is one of the main beneficiaries of the structural funds.[117] Therefore, the construction of the HST is defended in the first place as a measure of "connection between Europe" and Spain, Catalonia or

[117] Le Duc/ Baye/ Drouet 1995, 37

Barcelona. It is also portrayed as the "missing link" that would allow the respective territories to keep up with the "dynamic core area". However, concerning the national government the priority given to the Madrid-Seville line reflects that in actual fact, different considerations have been decisive.

The massive extension of infrastructure networks forms a basic principle of public policy.[118] It is understood as a *condition for competitiveness*, where it assures the external accessibility of the territory, and as a *condition for territorial equilibrium*, where it provides internal links between urban centers. Here, the implicit reference is the concept of "cohesion" through overall accessibility as defended by the TENs. This argumentative pattern can be found in the plans of the government and the *Generalitat*, while for the local actors only external accessibility plays a role.

Parallel objectives: "Environmental quality" and "quality of life"

Another apparent coincidence between all levels represents the conceptual relation to social and environmental aspects of development. Compared to the other cases, ecological arguments result in having a considerably inferior weight in Spain, since environmental policy is still a relatively "new" sector and public awareness is very low.[119] Actors therefore hardly invoke the discursively attributed "environmental bonus" of the HST such as transport substitution, public transport promotion or urban concentration.

In the same sense, "sustainability" also scarcely appears as a guiding concept. If it does appear, only vague formulations are offered, e.g. sustainability as a given asset of current development or "accompanied by special attention to the environment".[120]

More importantly, we find "environmental quality" understood as a contribution to the "quality of life" in general. Both concepts are understood as supplementary to the development of infrastructures and economic growth, which form their basic conditions. They are therefore dealt with as *separate strategic dimensions* that require different measures, e.g. protection, impact management, housing provision, etc. The only link that is established repeatedly consists in defining the "quality of life" or environment as location factors for the attraction of economic activities, thus comparable to accessibility or the endowment with business facilities.

The "Barcelona model": Restructuring the metropolis

A particular form of discourse coalition has been established at the local level through the elaboration of the "strategic plans". It implies the city of Barcelona, the agglomeration, local institutions and associations, as well as Barcelona Regional as an important intermediary for infrastructure planning. Together these actors have set up what they themselves have designated as the "Barcelona model", a

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[118] The official journal of the MF/ MMA in August 2000 was entitled: "Challenges of the 21st century". Its cover shows a photo collage: The AVE breaks through a topographic map of Spain, scattered with overdimensional infrastructure projects (MF/MMA 2000).

[119] The Spanish government first incorporated an environmental portfolio in 1992 – until 1996 within the ministry of public works and transport (MOPTMA).

[120] MOPTMA 1994, 5; APEB 1999, 120

strategic approach based on consensus building between public and private actors and the concentration on priority projects and actions. The process of formulating three consecutive plans has led to the definition of shared concepts that outline a common position.

This concerns most of all the importance attributed to external accessibility and the process of “internationalization”. Thus, the integration of the HST and the creation of the new station at Sagrera, as well as the connection of airport and port are identified as the key projects for development. They are complemented by the creation of new facilities for business and logistics that should help to attract new (international) economic activities. The new activities are concentrated in two opposite sectors of the central agglomeration with the implicit aim of enhancing economic structural change. The proclaimed “second renovation” therefore aims to achieve a major urban transformation through accessibility shifts and introducing new functions into areas in decline.

Furthermore, the spatial “scale enlargement” has also turned out as a crucial concept although with changing delimitations. The consolidation of the term “Barcelona Metropolitan Region” eventually emphasizes the socio-economic interdependence at this scale, but it also demands a common institutional framework. Within the BMR, the central agglomeration is seen to play a leading role, expressed in the concept of “recentralization”. Here, the coincidence of excellent accessibility (HST, airport) and the concentration of command functions is contrasted with the industrial development of the surroundings.

Finally, the cooperation between actors has also broadened the legitimation of their arguments. In respect to the different HST station locations, this has allowed the selective establishment of discursive coalitions: With the national government against the development of the Vallés, or with the Generalitat in favour of the airport connection. However, Sants station has remained the principal conflict point, although the categorical denial of its potential may also have been tactical in order to previously strengthen the support for Sagrera.

5.4.2 Diverging arguments and conflict

Geoposition and spatial structure

The peripheral situation of Spain in Europe is mainly considered problematic by the central and regional governments. The local actors are less concerned about this subject as they have already identified new potentials for the urban region, based on its space-functional structure and strategic geo-position in a Europe without frontiers. The HST offers Barcelona the possibility of reinforcing its centrality, attract high-grade functions and establish the BMR as its area of influence.

Yet, both ways of argumentation can be found in the plans of the Generalitat, that presents Catalonia as “European periphery” and “motor of Europe” at once. The argumentation results in priorities shared neither by the government, nor by the lower tiers. Here, the major concern is the weight of the capital Barcelona in terms of population, economic activity (and votes), compared to the rest of the region. This is the dynamic “core area” to which the plans of the region refer, not the “blue banana”.

The *Generalitat* uses the integration of the HST both as a policy legitimation (Catalonia is situated in the European periphery) and as a strategy of decentralization through connection with the “core area” and overall accessibility. The HST plays a key role in this approach through its stops at the regional level (location alternatives, “airport system”), as well as at the urban regional level (Vallés).

Similarly, also for the national government the HST is not only a connection to Europe, but also an instrument for internal structuration. However, at this level *Madrid* represents the “dynamic core area” to which the national periphery should become connected. The HST is therefore envisaged to benefit from the existing radial structure of the main national transport flows, but without attending the specific ambitions of the connected urban agglomerations.

Urban station locations and development strategies

Inspite of the generic conceptual congruencies, all principal actors defend positions that result in being incompatible. This concerns, in particular, the choice of HST station locations, the quality of their transport connection and functional development, and the priority attributed to them.

The future main station at Sagrera is principally supported by the city that sees it as an important condition and support for its development plans. In its argumentation, Sagrera has thus developed from a “new central area” to a “new strategic project”, now closely related to the future “key projects” of the “Universal Forum of the Cultures 2004” and the “technical scientific pole 22@bcn”. It is also part of an “intermodal connection axis” to the airport. Additionally, the “Barcelona model” includes the project in its frame of historic development challenges.

In contrast, the central government considers the focus on the development of the same area a potential risk for the functionality of the railways. It even attempts to curb the plans with allegations concerning a profitable HST operation and the functionality of the railway node. For the government, it is the present main station at Sants that better fulfils the requirements of cost minimization (no need for additional tunnel constructions) and passenger volume (central urban area).

Also the station in the Vallés area remains conflictive. While the city and Barcelona Regional hardly mention anything about this option and the government questions the need for a station there, the Generalitat defends the location as “central station” of Catalonia and the Barcelona region. This is underlined by the classification of the Vallés as “dynamizing area” which materializes the strategy of spatial decentralization.

The airport station forms another subject of confrontation. Although the HST connection itself has never been questioned by any actor, the proposal of the government significantly reduces the effects of modal interaction and thereby growth potentials for the airport. This perspective contradicts the plans of the region, city and Barcelona Regional that intend to transform the Delta area into a major platform for logistics and business services. Due to its institutional proximity to the local actors, the administration of AENA in Barcelona provides support for these objectives as it defends the creation of an “airport city” and “intercontinental hub”. However, the factual intervention of the central government eventually rectifies this discursive aberration.

However, it should not be overlooked that in times of liberalization and deregulation of transport markets the national infrastructure monopole has become especially susceptible to the particular interests of operators and providers. The specific interests of the national operators RENFE and Iberia seem to have been taken into account implicitly, probably also with a view to their future privatization.[121]

RENFE would certainly benefit from the maintained necessity for a shuttle service Barcelona-Madrid, soon realized with its HST. At the same time, the minimization of travel times between Barcelona and Madrid will induce additional trips and thus still increase the demand. During the discussions about the airport connection, the government has additionally argued that in respect to the costs, the realization should better be scheduled in the long run.[122] Yet, both the technical solution and realization delays actually benefit the reinforcement of Madrid airport as an intercontinental hub.

For Iberia this means a considerable advantage since its strategic alliance with Madrid airport (AENA) can be maintained assuring the most efficient organization of its services, while Barcelona could be used as a supporting base without risking that the airport might grow into an intercontinental hub.[123] Furthermore, Madrid airport is already being expanded and the construction of a second airport was decided on in June 2000.[124] Therefore, divergences between argumentation and practice may also point to a tactical use of discursive concepts in order to achieve consensus or sidetrack the debate.

[121] Iberia has been privatized in April 2001. Similarly, also the *Generalitat* has its own expectations in respect of a liberalized transport market as it strives for the control of the Catalan airports ("airport system") and the operation of HST with the regionally owned railway company FFGC. However, these aspirations have not been attended so far.

[122] La Vanguardia 9.2.2001

[123] Iberia and the airlines of its alliance "OneWorld" account for some 60-70% of air traffic in Barcelona (Barcelona Regional 2000)

[124] Envisaged capacity: 100.000mio. passengers/a by 2015 (El País 16.6.2000)