Belgeo

Revue belge de géographie

3 | 2016

High-speed rail and the city: urban dynamics and tourism

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Electronic version

URL: <http://journals.openedition.org/belgeo/18153>

DOI: 10.4000/belgeo.18153

ISSN: 2294-9135

Publisher:

National Committee of Geography of Belgium, Société Royale Belge de Géographie

Electronic reference

Carmen Bellet Sanfeliu and Luis Santos Ganges, « The high-speed rail project as an urban redevelopment tool », *Belgeo* [Online], 3 | 2016, Online since 30 September 2016, connection on 01 May 2019. URL : <http://journals.openedition.org/belgeo/18153> ; DOI : 10.4000/belgeo.18153

This text was automatically generated on 1 May 2019.

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The high-speed rail project as an urban redevelopment tool

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Le projet de ligne à grande vitesse comme un instrument de réaménagement urbain. Les cas de Saragosse et Valladolid

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This research was financed by the Spanish Ministerio de Economía y Competitividad – Subdirección General de Proyectos de Investigación: Patrones de transformación urbana y estrategias asociadas a la alta velocidad ferroviaria en España (URBATAV) - CSO2012-34629.

Introduction

- 1 The construction of new railway infrastructure tends to go hand-in-hand with significant urban (re)development projects at a local scale (Bruinsma & *al.*, 2008; Van den Berg and Pol, 1998; Roth and Polino, 2003). The reorganisation of the railway system following the arrival of high-speed rail (HSR) offers opportunities to improve the integration of railway spaces within the existing urban environment and to palliate the barrier effects associated with the earlier introduction of many traditional railway installations by urban growth (Bellet and Gutiérrez, 2011; Santos, 2007). However, in many cases, the arrival of the high-speed train (HST) has also been used as an excuse to embark upon important development projects around stations which, in some cases, have involved former railway land (Bertolini and Spit, 1998).
- 2 In Spain, several city councils have taken advantage of the arrival of HSR to rethink the whole local railway system. These rail transformations have caused major changes to the physical urban environment and have also been accompanied by property development projects that were initially planned during a period of economic expansion associated with a boom in the property cycle (2003-2008). Those have fuelled both rail infrastructure and urban development projects (Gaja, 2008; Rullán, 2011). In some Spanish cities, the

introduction of HSR has also been accompanied by specific issues relating to the conception and the management of these projects and associated governance issues :

- The new railway infrastructure goes beyond the simple introduction of new rail projects. In fact project has focus on maximalist infrastructural interventions whose main aim is to eliminate the barrier effect associated with the traditional railway system. In the majority of cases, the introduction of HSR also implies a complete remodelling of the existing railway system, which constitutes an original solution within the wider European context. Furthermore, from the technical point of view, it offers a powerful argument for designing a large and ambitious project associated with urban renewal and development.
 - The larger rail and associated urban development/renewal projects have mainly been managed by the public sector and involved all the levels of public administration plus the Spanish rail administrator (ADIF) and Spain's national rail operator (RENFE). The option that was chosen over other alternatives based on public law (including special offices, consortia, agencies, private foundations based on public initiatives) moved this public service into the domain of private law (Santos, 2013).
 - A third specific characteristic of Spanish cases lies in the way that all of these rail and urban interventions were supposed to be financed. They were all designed to be "self-financed" projects, in which the profits from associated urban development and redevelopment (including real-estate income) projects would cover all of the costs of these ambitious railway and urban interventions.
- 3 The combination of these factors has resulted in some of the most ambitious urban renewal and redevelopment projects ever planned in Spanish cities (Bellet and Gutiérrez, 2011). This is particularly evident in the cases of two large intermediate cities: Zaragoza, on the Madrid-Barcelona-French border HSR line, where the new train service arrived in October 2003; and Valladolid, on the northwest HSR line, which received the HSR service in December 2007. Both cities are medium-sized agglomerations of the Iberian Peninsula and interior capitals of their respective region, situated between Madrid and the northern zone of the country.
 - 4 In both cases, the project for the implementation of the new railway infrastructure led to a major transformation of the railway system within the city. This has also been used as an argument in favour of carrying out large, ambitious, urban development projects. In this paper, we have undertaken a comparative analysis of the two cases highlighted, focusing on: railway and urban transformations associated with the arrival of HSR; the coherence of these transformations with respect to existing territorial and strategic planning; the management of rail and urban projects; and the current level of execution of the plans originally presented.
 - 5 The case analysis has been developed on the basis of several different hypotheses:
 - From an operational viewpoint, the fact that this kind of limited company corporation has managed these macro-scale urban development projects has, at the same time, been an innovative experience in urban management and a source of problems in Spain;
 - Self-financing is a poor principle and one that undermines urban planning;
 - The definition of new areas of centrality and urban development projects are not strategic aspects in themselves, but rather a consequence of the maximalist railway interventions to solve the problem of barrier effects.
 - 6 The two case studies chosen describe the current state of these projects within the present context of a serious financial and economic crisis, identifying a series of issues that could equally apply to other examples in Spain. Our main sources have been: an

analysis of urban planning documentation (Master Plans and specific development plans for areas around railway stations); a historical analysis of local press articles; and a number of in-depth interviews with local government staff and people responsible from urban planning in the corresponding local administrations.

The arrival of HSR as a key component of urban projects

- 7 The introduction of new infrastructure inevitably has a spatial impact on the local territory. This is even more pronounced when it involves the incorporation of a piece of transport infrastructure because, in addition to the changes generated by its very construction, this also implies substantial modifications to spatial accessibility. These transformations are all the more important when the transport infrastructure in question needs to be integrated into a more or less consolidated urban environment. As a result, studies of the introduction of HSR services in cities tend to focus on a very specific scale: the station and the neighbourhood in which it is located, whether these are of relatively new creation or have been generated by urban renewal (Bruinsma & al., 2008, Van den Berg & Pol, 1998).
- 8 In some cases, urban planners can take advantage of this remodelling to move railway installations that had previously been trapped within the urban fabric (such as technical and freight facilities and railway repair workshops) out to the edge of the city. Such actions free centrally located land which can then be used for urban re-development projects associated with the new-found centrality (Bruinsma & al., 2008; Santos, 2011). Urban projects associated with HSR stations in Europe could also be analysed using the same logic that has been applied to other iconic interventions associated with neoliberal urbanism (Thornley & Newman, 2011). In this context, railway stations have emerged as key sites for property-led capital accumulation and as engines for local development strategies (Peters & Novy, 2012). However, for many European cities, the arrival of HSR has formed part of an urban development project that has not only been capable of transforming the areas around stations (and the stations themselves) but also of leaving its mark on the wider structure of the city (Loukaitou-Sideris & al., 2012). In this way, new HSR services can produce local-scale urban development projects which are capable of modifying not only station areas but also the physical and functional structure of the whole urban area (Bellet and Gutiérrez, 2011; Peters, 2009). Indeed, in several Spanish cities, high-speed rail has been used as an argument in favour of modernity, serving as an excuse for the construction of new railway systems and new stations.
- 9 Although the introduction of HSR infrastructure in Spanish cities has opened the way for major urban transformations and redevelopment projects, it is still difficult to qualify the integration of the railway within Spanish cities as satisfactory (Santos, 2007). Urban decay in station neighbourhoods, tracks and infrastructure trapped within the urban fabric and that act as barriers, and railway spaces that lack functionality are all frequent features of Spanish city-centres. Historically speaking, urban planning and railways have been two very separate and unrelated phenomena. This perhaps explains why railways have traditionally been regarded as a nuisance in urban areas and why, in Spain, projects that introduce and/or integrate new HSR infrastructure and services have tended to propose radical or “hard” solutions. These solutions, which have generally implied covering or

burying centrally located stretches of track, or building new external lines, have tended to treat the railway as an urban problem whose effects need to be palliated. As we shall see, these “hard” solutions, which tend to be complex and to require important levels of investment, are both intense and far-reaching. Choices were originally influenced by the anticipated property gains from the sale of former railway land and the subsequent displacement of old railway installations to new peripheral locations. Although such profits were initially expected to cover most of the costs associated with the wider projects, the current economic crisis, which has proved particularly long and difficult, has posed serious doubts about the future of many of these urban development and railway projects. As a result, many projects, including those of Valladolid, Zaragoza, Madrid and Barcelona, have been almost completely paralysed (Bellet & *al.*, 2012).

Railway and urban transformation associated with the arrival of the HSR in Valladolid and Zaragoza

- 10 In Zaragoza and Valladolid, the restructuring of the railway system was seen as a major instrument of urban planning. Both are important urban areas within Spain’s urban system and have large areas of influence over their surrounding territories. Zaragoza, with a population of 664,953 (2015), is Spain’s fifth largest city by population and is the capital of the autonomous region of Aragon in the northeast of the Iberian Peninsula. It is about 310 km from Madrid and occupies a strategic position in the Ebro Valley corridor, which connects the centre of the peninsula to Barcelona and the French border. It is an important logistical and industrial node, which has notably specialised in the motor industry and in auxiliary appliances, paper and agribusiness.
- 11 Valladolid, which had 303,905 inhabitants in 2015, is the most important urban area in the northwest of the peninsula and is approximately 210 km from Madrid. Its strategic position for communications, through a wide network of transport corridors, and function as a logistical node within the European Atlantic Corridor, will continue to allow it to specialise as the main industrial pole in Castilla y Leon.
- 12 Both rail projects were mainly based on the construction of external railway lines for passing traffic which were supposed to make it possible to transfer freight and other more extensive rail installations to the urban periphery. This policy was to keep the main stations in more or less central locations and also to involve covering extensive sections of track passing through the central areas of the city.

Figure 1. Zaragoza and Valladolid in the Spanish HSR context (May 2015).

SOURCE: THE AUTHORS' OWN WORK BASED ON ADIF

- 13 The displacement of major railway facilities to the periphery was to allow the transformation of central urban spaces, taking advantage of the property gains that would be generated from the sale of former railway land. In order to achieve this goal, specific urban renewal projects were designed for the land that was to be freed in central locations.
- 14 In both cities, the number of resulting residential uses has, however, been far greater than that of tertiary uses. This sharply contrasts with what occurred in similar urban projects carried out in other European cities, such as Lille and Lyon, in France (Fraser and Baert, 2003; Colomb, 2007; Hall, 1995). However, the urban planning strategies used by these two local government organisations are what most differentiate these cases. In Zaragoza, the combination of several different strategies has taken the form of major, inter-connected urban projects. In contrast, Valladolid's urban development and rail project have not been accompanied by any other kind of global urban strategy.

The implementation of the HSR project in Zaragoza

- 15 In Zaragoza, the arrival of HSR could be understood as the introduction of an instrument capable of delivering the new urban plans and projects on which the city had already been working since the early 1990s. The first version of the Strategic Plan for the metropolitan area (Ebrópolis) was passed in 1998. The urban Master Plan (*Plan General de Ordenación Urbana*) was subsequently passed in 2001. Other urban projects of significant size and importance included: the Plan to Recover the Banks of the River Ebro; the Expo 2008, international exhibition; and the construction of one of the largest logistical platforms in Europe (Plaza).

- 16 After tough negotiations, and much debate in the city concerning the best location for the new rail services, it was eventually decided to build a new station on the western side of the city, where there were already several other activities related to the classification of rail freight. However, the choice of this location implied a major remodelling of the railway system within the city. These changes to the railway system were expected: to provide opportunities to improve the general organisation of the city's physical urban structure; to help to remove certain barriers associated with the railway; and to foster the development of a new city model that formed part of the Master Plan (*Plan General de Ordenación*) (Alonso and Bellet, 2009; Ureña & al., 2009).
- 17 A bypass for passing traffic was built to the south of the city. This was accompanied by the construction of a new freight station, located in an area where there were plans to build the PLAZA logistics platform. This platform, which was projected as one of the largest intermodal logistics platforms in southern Europe, with an area of more than 1300 ha, currently accommodates the premises of several important national and international companies, including Inditex, DHL Express, TDN, BSH, Barclays Bank, Imaginarium, Decathlon and Mann-Hummel Ibérica. The inter-modality of this logistics platform (which provides lorry, rail and plane connections) is one of its major strengths.

Figure 2. The new railway system in Zaragoza, following the arrival of HSR.

SOURCE: THE AUTHORS' OWN WORK BASED ON THE RAILWAY PROJECT

- 18 The construction of the by-pass pulled the city out towards the south, thereby generating great expectations for further urban growth between the urban centre and the new external (road and rail) rings. Development projects were subsequently passed for several of the large plots of land created within the same process. These were then prepared for urbanisation and developed during the boom in the property cycle. However, a large

number of the initially projected developments subsequently failed to emerge as a result of the property crisis and much of the land in question currently remains undeveloped.

Figure 3. The new railway station and the development plan for Delicias.

SOURCE: BASED ON ZARAGOZA ALTA VELOCIDAD, S.A

- 19 In the city centre, the old central station (El Portillo) was dismantled and the surrounding area was subjected to a renewal project which sought to develop a new urban centrality affecting a total surface area of around 9.3 hectares. These operations freed almost 105 ha of land near the centre of the city. The redevelopment plan for the Portillo area, which was passed in 2005, initially envisaged the construction of an area of housing and a series of important cultural amenities that were supposed to reinforce the traditional urban centrality of this area. However, this project has so far only delivered the cultural CaixaForum building (inaugurated in 2014) and a metropolitan railway station. The rest of the project has yet to be undertaken; the old railway station is still waiting to be demolished and a post office building has yet to be moved to a site near the new station.
- 20 Meanwhile, in the western part of city, a completely new station (Zaragoza-Delicias) has been built on land that had previously been occupied by the old freight station. This operation, which affects 95.8 hectares on the west side of the city, aims to open up this part of the city to the river, to connect the neighbourhoods on the west side of the metropolitan area (Delicias and Almozara), and to pull centrality outwards from the existing city centre and towards the location of the new station.
- 21 The new intermodal station has been equipped with a hotel and with commercial and restaurant services, but it has so far been unable to attract any major uses to its immediate vicinity. This was initially largely due to problems deriving from the economic crisis, but it has also been a result of an overambitious policy to create areas within the

city earmarked for tertiary sector activities and which were supposed to share centrality throughout the urban area.

- 22 Urban development around the Delicias station, which included general operations and work to improve accessibility, progressed at a good rhythm between 2003 and 2008, when Zaragoza hosted Expo 2008, the international exhibition. However, the land to the west of the station, where the majority of 3,000 units of social housing were supposed to be built, has since remained undeveloped. Problems deriving from the management of this land, combined with the onset of the economic crisis, subsequently led to the paralysis of the development projects that had initially been reserved for this site. This has left an enormous urban void, which is currently surrounded by fences (Bellet and Alonso, 2016).

Figure 4. The development plan for the Portillo (old station) area.

SOURCE: BASED ON THE SCHEME PROJECT PRESENTED BY ZARAGOZA ALTA VELOCIDAD, S.A

- 23 The initial aim of Zaragoza City Council was to establish a technological development project, called the “Digital Mile”, in the area between Delicias and El Portillo. In this way, it sought to take the fullest possible advantage of the urban development located between the two railway areas (107 ha) and to organise a space dedicated to new technologies and the knowledge and information society. These projects area mainly related with the availability of land available after the urbanisation of former rail installations. As well as housing units, this project also foresaw the construction of a series of unique buildings that were meant to stand out on account of their specific functions. These were to be related to multimedia technologies and to provide digitalised public spaces and technological and cultural amenities.

Figure 5. The current state of work in the Portillo (left) and Delicias (right) areas.

Source: photos by the authors

- 24 To date, however, only two of the amenities associated with these new uses have come into service: the Digital Mile Nursery for Business Activity (located in the Zero Emissions Building) and the Etopia Centre for Art & Technology (CAT).

The implementation of the HSR project in Valladolid

- 25 The HSR line between Madrid and Valladolid finally opened towards the end of 2007. This followed a protracted period of technical studies that had begun back in 1987, with the General Plan for Railway Transport (*Plan de Transporte Ferroviario*), which in turn followed a series of somewhat contradictory prior studies that were presented over a period of twelve years.
- 26 The new railway infrastructure for Valladolid was ultimately conceived, not as a node and point of departure and arrival for rail travel, but rather as the main centre for a future tree-shaped HSR network that would be connected to the northeast and north of Spain. Its construction and entry into service were first delayed, and then paralysed, over a period of five years. Here, HSR formed part of a project for the urban renewal of Valladolid which had been passed by the local government administration back in 2001.
- 27 This study included informative studies for the Central Railway Corridor (*Pasillo Ferroviario Central*), the Eastern Variant and the New Railway Complex which were approved by Spain's Ministry of Public Works (*Ministerio de Fomento*) in December 2005. It was followed by the corresponding Public Information period and the drafting of the construction projects.
- 28 In June 2005, the firm High Speed Valladolid (*Valladolid Alta Velocidad*) awarded the task of drafting the PGOU of Valladolid and the Special Plan for the reorganization of the Central Rail Network to a team led by the Richard Rogers Partnership. It was first necessary to design urban strategies and general proposals for the areas freed from railway uses, within a process that involved the drafting of what was, somewhat inappropriately, called a Master Plan. This document, which established the overall structure for the area and laid down the main guidelines for its urban design, has since inspired the reorganization of the general urban plan for Valladolid with respect to the Central Rail Network.

Figure 6. The new railway system at Valladolid following the arrival of HSR.

SOURCE: THE AUTHORS' OWN WORK BASED ON THE RAILWAY PROJECT

- 29 This modification was initially proposed between March 2008 and July 2009 and finally approved in 2010. This railway operation initially consisted of burying part of an 18 km-long Railway Corridor (using a 0.67 km-long tunnel on the urban periphery and a more central, 4.67 km long, tunnel leading to a new underground station) and building a 10 km-long stretch of standard gauge railway line (the Eastern Variant), which would also receive a New Railway Complex (with a central repair workshop, maintenance workshops, a marshalling yard and a freight terminal).
- 30 The eventual relocation of these installations to the by-pass will free an area of almost 100 ha in the city centre and the remaining stretches of track will be covered. This will allow the development of the largest urban renewal operation in the history of the city, at a cost that could exceed a billion euros.
- 31 Of the discontinuous area of some 995,549 m² of land that was to be released from railway uses, the general plan for reorganization allowed 666,990 m² to be released for residential uses (this implied enough land for around 6,065 new houses, or to accommodate 20,000 people, in a city of 130,000 inhabitants), 170,200 m² for offices and hotels, 6,000 m² for trade, catering and non-residential uses, and 5,000 m² for private amenities (a total of 181,200 m² for tertiary uses, or 21% of the sector's total development potential) (Santos, 2006).

Figure 7. The integration of the railway in the centre of Valladolid.

SOURCE: COMPILED BY THE AUTHORS BASED ON IMAGES OF THE "BINDING MEMORY ON THE MASTER PLAN MODIFICATION – PLAN FOR CENTRAL RAILWAY NETWORK" (JULY 2009), P. 76

Figure 8. The new Valladolid: the Rogers partnership project.

SOURCE: COMPILED BY AUTHORS BASED ON IMAGES OF THE "BINDING MEMORY ON THE MASTER PLAN MODIFICATION – PLAN FOR CENTRAL RAILWAY NETWORK" (JULY 2009), P. 84

- 32 The in-depth reorganization of the sector (with a total development capacity of 848,190 m²) was established through five intervention units (*Unidades de Actuación*) that divided the sector into different integrated management areas. According to this plan, half of the new housing was to be built in the most central area (Santos, 2006).
- 33 The proposal for an “Equipped Sustainable Corridor”, which was supposed to occupy a large part of the “Central Railway Corridor” (around 7 ha), subsequently turned out to be one of the best proposals within this urban intervention. It helped to balance the corridor concept by adding transversality and providing an urban articulation. It did this by providing the Central Railway Corridor with a number of public spaces for the use of pedestrians and cyclists: a platform reserved for public transport; a space, equivalent to at least 5% of the total area, dedicated to sports, recreation, leisure, meetings and hotel uses; a design compatible with road use; and a space equivalent to at least 85% of the total area dedicated to parks and gardens.

The role of “Zaragoza Alta Velocidad, S.A.” and “Valladolid Alta Velocidad 2003, S.A.”

- 34 Large-scale urban interventions of this type have far-reaching implications, which largely explain why limited companies were created in both cities to manage their actions. These corporations (which tend to be limited companies subject to public control) were created in order to manage macro-scale urban development projects associated with railway infrastructure. They were set up with public capital, following the signing of specific agreements between the national, regional and local administrations. The funding for these urban projects was almost exclusively based on the property gains to be produced by the sale of former railway land and its subsequent urbanisation. However, these property gains and values were calculated when the property market was still growing. At the beginning of the 21st century, the income to be obtained from the sale and development of property was expected to cover the cost of these large-scale urban rail projects. However, contrary to the initial expectation that the economy would continue to grow, the property bubble soon burst.
- 35 These companies, which had been set up with very little initial capital, then had to source external funding if they were to cover all of the requirements laid out in the development process: the assignment of construction projects and railway work and urban planning and the reorganization and development of units of action. The financing and timing of these actions was an essential part of the project, but the “self-funding” part of the process proved completely inadequate. A “self-funded” urban-railway action is supposed to be financed by the profits accruing from the use of former railway land released from rail-related functions. Administrations therefore tend to rely on only a minimum quantity of direct income and to seek the majority of their funding from property investment; this is a strategy that involves a significant level of risk (Santos, 2013).
- 36 Publically funded companies were created in both Zaragoza and Valladolid: *Zaragoza Alta Velocidad 2002, Sociedad Anónima -ZAV-* (<http://www.zav.es/>) and *Valladolid Alta Velocidad 2003, Sociedad Anónima -VAV-* (<http://valladolidaltavelocidad.es/>) and governed according to similar rules and regulations. Their resources were provided, in equal parts, by the state and the corresponding regional and local administrations and also by ADIF (the Spanish rail administrator) and RENFE (the Spanish rail operator). These companies were

headed by the Secretary of State for Infrastructure, who then proposed a General Director to run each company.

The role of “Zaragoza Alta Velocidad, S. A.”

- 37 In 2002, the different administrations involved in the project (the Ministry of Public Works, the Regional Government of Aragon and Zaragoza City Council) all signed an agreement covering the management, financing and execution of the work required to transform the railway and the contiguous urban landscape. The objectives of this agreement could be summarised as follows: to manage the urban development of the land that would not be destined for railway uses; to carry out the work required to provide the new rail infrastructure; and to ensure that the latter covered existing needs. To ensure that these objectives were met, the same partners, in collaboration with ADIF, created the public company *Zaragoza Alta Velocidad (ZAV)*.
- 38 The value of the projected investment increased over time and currently stands at over a billion euros. The initial idea was to reinvest the profits that were to be obtained from the sale of land and its associated urban development in order to finance the corresponding railway and urban development operations (Alonso and Bellet, 2009). Managing this process did not, however, prove as simple as had initially been envisaged and, even before the onset of the economic crisis, a series of problems emerged with respect to property management. While all of the plots should have been registered within a period of two years, the economic and financial crisis effectively paralysed many of these operations. In fact, even today, most of these plots remain unsold and all of the development operations that have been carried out to date have had to be funded by the partners who signed the initial urban development agreement (Bellet and Alonso, 2016).
- 39 In addition to the problems associated with the management of railway land, the venture also suffered the consequences of its excessive number of obligations and urban projects and the cost of financing them; this far exceeded that of the urban transformation required to prepare the city for the arrival of the HST. When the property crisis arrived, it effectively put a block on urban development and put an end to the dream of achieving a rapid urban transformation. Even today, the plots of land in the vicinity of the station that had been left free for future development, which should have been sold off to finance the project, remain fenced off and unsold. In fact, ZAV is currently offering land for sale at prices that are 60% cheaper than those of 2002, in an attempt to offset part of the enormous debt that this company contracted as a result of its initial operations. Indeed, the company currently has more debts than assets. The ZAV debt amounts to € 400 million, with payment to banks due in 2019, whereas the current value of the land is € 214 million, compared to around € 500 million before the crisis (ZAV, 2014).
- 40 The bursting of the property bubble effectively put an end to one of the most important and ambitious urban transformation projects that Spanish cities have ever seen.

The role of “Valladolid Alta Velocidad 2003, S.A.”

- 41 The *Estudio Informativo* (a preliminary report drawn up prior to the project) corresponding to the remodelling of Valladolid’s Arterial Railway Network and its urban integration, which had been commissioned by the Ministry of Public Works, was drafted in 2000. At that time the local administration also presented a report, entitled *Iniciativa*

para el Desarrollo de Valladolid (Initiative for the Development of Valladolid), which laid out the different options for covering the railway and carrying out urban development. This report also examined the economic and financial viability of the operation, based on the profits to be obtained from the reconversion of urban land released from railway use.

- 42 Building on this base, in November 2002, the local, regional and state administrations signed a collaborative agreement to launch this urban-railway operation. Then, in January 2003, they founded *Valladolid Alta Velocidad 2003 S.A. (VAV)*, a company created with public capital, but subject to private law. The task of VAV was to produce the reports and projects required to manage the associated urban development and to carry out work to install infrastructure on the land which would no longer be required for railway purposes once the railway installations had been moved. Its main purpose was therefore to coordinate the work of all the different entities involved in this vast city project, relating both to the railway and to urban development (Santos, 2013). The value of the projected investment increased over time and currently stands at over € 1,100 million.
- 43 This limited company was initially established with a capital of € 600,000. Of this, the Railway Infrastructure Administrator (ADIF) had a share of 37.5%, the railway operator RENFE 25%, the Regional Government of Castilla y León 25% and Valladolid City Council 12.5%. The balance sheets corresponding to the first five years of the company's existence showed relatively little activity, although it has since contracted work to a value of over € 140 million. The company is therefore effectively being funded by a bank credit based on expectations of future property gains which have obviously not been forthcoming during the recent period of economic crisis. However, some market surveys have recently highlighted a loss in the value of the land: from € 1,065 million to 594 or 397 million depending on the survey (Norte de Castilla, 2015). The debt of the company is currently about € 400 million in 2015 and has asked to defer payment.

The economic crisis and the current state of these projects

- 44 The economic and financial crisis, and particularly the real property crisis, has brought the development of these macro-scale urban projects, and especially those involving property developments, to a grinding halt. Although the success of these projects essentially depends on making profits from associated property operations, which are now almost impossible to achieve, the strategies pursued have not changed very much and the development model is still mainly based on making money from property deals associated with the sale of this land.
- 45 Today, some fourteen years after the arrival of the HSR in Zaragoza, much of the project for remodelling the city centre associated with the reorganisation of the railway remains inactive and with little possibility of it being undertaken in the short to medium term. Apart from such basic work as providing railway services, constructing the new intermodal station, and improving accessibility in order to help develop the area immediately surrounding the station, little more has been done to deliver the projects that were initially envisaged.
- 46 The large urban voids that characterise the urban landscape between the new Delicias station and the land occupied by the former El Portillo central station are particularly desolate. In this part of the city, metallic fences are the predominant feature of the urban

landscape. The project has yet to be completed and will probably need to be extensively revised, taking into consideration the present economic context and the current financial situation of ZAV.

- 47 In Valladolid, the rail infrastructure and equipment required to move the freight and maintenance services are currently under construction. This will make it possible to release several hectares of centrally located land and to generate income through property sales. The Eastern Variant and the New Railway Complex are also currently at the work stage, and the transfer of RENFE's General Workshops is expected to take place in 2015.
- 48 VAV has obligations and investment perspectives that are hundreds of times greater than its initial social capital. It continues to work with the support of bank loans, but has an urgent need to raise capital, as its financial situation is becoming increasingly unsustainable. This explains why studies are currently underway to reduce the scale and cost of the initial operation and to find the best way to obtain income from related property operations.

Conclusions

- 49 In many cities, the arrival of the HST generated great expectations for urban renewal and urban development based on the property boom, favourable economic prospects and a host of neoliberal urban planning projects (Bellet, Alonso and Gutiérrez, 2012). However, the present economic crisis has called into question the viability of this type of project since most of the operations planned still remain unfinished. Even so, despite the very difficult economic context, it must be stressed that these railway and urban development projects have not been abandoned; they simply remain paralysed, waiting for a change in the property market.
- 50 In this work, we have examined two examples of this phenomenon: the arrival of the HST in Zaragoza and Valladolid. In both cases, the HST was seen (both directly and indirectly) as a strategic instrument that would bring about urban change and transformation.
- 51 These projects were conceived during a period of economic boom, when there were great expectations of obtaining considerable profits from property-based operations associated with the sale and reuse of former railway land. The initial plan was then to use this revenue to finance the projected rail and urban transformations. To co-finance and make these rail and urban development projects effective, local and regional authorities established public limited companies under publically controlled partnerships, in collaboration with ADIF (the Spanish Rail Administrator) and RENFE (the Spanish rail operator).
- 52 These unrealistic macro-projects call for economic and financial resources that far exceed those available to most administrations. They first appeared within a period characterised by a clearly neoliberal approach to urban development, but the current economic reality has since put them into perspective. It is now obvious that the property market expectations on which the actions of limited companies under public control such as *Zaragoza Alta Velocidad* (ZAV) and *Valladolid Alta Velocidad* (VAV) were originally based were unrealistic within a context of economic crisis. Faced with the problem of not being able to undo what has already been done and a current lack of public funding, the companies and entities involved in these ventures now find themselves having to

continue to follow strategies that had been adopted prior to the crisis. Continuing to work in this way, only an upturn in the property cycle or a major financial commitment on the part of public administrations is likely to save these projects.

- 53 In both of the study cases, the debts incurred must be renegotiated with banks. There are also other Spanish cases in which no action has yet been initiated. These cases largely explain why everything has been paralyzed and some companies have even been liquidated. In the cases of Zaragoza and Valladolid, however, the only real option -at least officially- is to limit the ambitions of the initial projects in order to try to reduce costs, and also to seek refinancing based on public guarantees while waiting for a change in the economic cycle.

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ABSTRACTS

In Spain, several local councils have taken advantage of the arrival of high-speed rail to rethink the whole railway system within the city. These rail transformations have caused major urban changes and have also been accompanied by property development projects that were planned during the economic expansion of the 1990s and first decade of 2000s, prior to the arrival of the economic crisis in 2008. The combination of these factors has resulted in some of the most important urban renewal and redevelopment projects ever planned in Spain. This has been the case in two large intermediate cities: Valladolid (303,905 inhabitants in 2015), located on the northwest HSR line, which received new services in 2007, and Zaragoza (664,953 inhabitants in 2015), located on the Madrid-Barcelona-French border HSR line, where the new train service arrived in 2003. In Spain, the introduction of HSR services has been accompanied by certain specific issues relating to their initial conception, subsequent management and associated governance; these are illustrated in the article through case studies of Valladolid and Zaragoza.

En Espagne, plusieurs conseils municipaux ont profité de l'arrivée du train à grande vitesse pour repenser l'ensemble du système ferroviaire dans la ville. Ces transformations ont provoqué des changements urbains importants et ont également été accompagnées de projets de développement immobiliers, prévus lors de l'expansion économique des années 90 et pendant la première décennie de l'an 2000, jusqu'à l'arrivée de la crise en 2008. La coïncidence de ces différents facteurs a conduit à une série de projets urbains de réaménagement et de redéveloppement parmi les plus importants jamais conçus en Espagne. Cela a été le cas dans deux grandes villes espagnoles: Valladolid (303 905 habitants en 2015), sur la ligne nord-ouest à grande vitesse, qui a bénéficié d'une nouvelle desserte en 2007 et de Saragosse (664 953 en 2015) sur la ligne à grande vitesse Madrid-Barcelone-frontière française, où le train est arrivé en 2003. En Espagne, l'introduction des dessertes TGV s'est accompagnée de modalités spécifiques quant à leur conception initiale, puis en termes de gestion et de gouvernance; ceux-ci sont illustrés dans l'article à travers l'étude des cas de Valladolid et Saragosse

INDEX

Keywords: urban redevelopment, high-speed rail, urban structure, rail and the city, Spain, Valladolid, Zaragoza

Mots-clés: réaménagement urbain, train à grande vitesse, structure urbaine, le chemin de fer et la ville, Espagne, Valladolid, Saragosse

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