

THE TRAMLINE, THE FOCAL POINT OF BORDEAUX'S URBAN PROJECT

At an international level the name of Bordeaux is generally associated with its wines, several of which are considered to be among the best in the world, since ancient times. As such Bordeaux is the best-known French city, after Paris, and a must-see during any tour of Europe. Visitors will be surprised to discover a pretty city, which is surprisingly modern; a city, which, in only a few years, has managed to complete a major transformation, by mobilizing all its forces to complete an ambitious urban planning project. The structuring force and figurehead of this project is the city's tramline. In many cities projects involving a public transport on a reservation, and tramline projects in particular, have usually resulted in the city being restructured around these networks. Bordeaux, however, has been particularly successful in this as it managed to mobilize the capital and technicians needed on the one hand, as well as leading urban planners, architects and landscape architects on the other.

1) CONTEXT

Geography: Bordeaux is a very old city. It is located in south-western France, on the banks of the Garonne River, just a few kilometres before the river joins the Dordogne to become the Gironde River, which eventually flows into the Atlantic. The city is located near a vast triangle of heath, with pinewoods, which is protected from the sea by a dense stretch of dune, and is based on the floodplains or alluvial terraces of the river, mainly consisting of « graves¹ ». Its strategic location between the ocean and the route to the Mediterranean, on the north-south axis towards the Pyrenees, led the Romans to construct a camp and a port, on the site of a Gallic village, in early Christian times. As is often the case, the outline of this *castrum*, with its two main streets, the *cardo* and *decumanus*, is still quite visible and continues to structure the city.

Nowadays, the agglomeration of Bordeaux, with its 660,000 inhabitants is the 7th largest in France. The urban community, which was created in 1967, groups 27 municipalities. The municipality of Bordeaux itself has 215,000 inhabitants or one third of the agglomeration; two municipalities, Mérignac and Pessac, have more than 50,000; 8 municipalities more than 20,000 inhabitants; the smallest has 1,100 inhabitants. As the capital of the Region of Aquitaine, the prefecture of Département de la Gironde, the rectorate of the Académie, and as a university city, Bordeaux is an attractive city. It grew by 6.2% between 1990 and 1999, and managed to attract a young population.

Bordeaux is a densely-structured city, surrounded by villages that have become diffuse cities. As is the case for many western cities, Bordeaux is surrounded by a border of modest villages of a more agricultural nature; the land is mainly owned by townspeople and religious institutions. There are still traces of these village structures today: around the town hall and/or the church, you will generally find a market square and some old, usually rather low (GF+1) buildings. Since the beginning of the twentieth century and mainly during the 1960s a formidable wave of urban development was triggered, by juxtaposing housing estates comprising individual dwellings, multifamily housing projects (social and other), shopping complexes and, to a lesser extent, industrial zones along existing roads. In the area between the boulevard and the ring road, the disorder as regards urban planning, is complete. Beyond the ring road, which is largely surrounded by industrial zones, the heath (left bank) and the vineyards (right bank) are characterized by a rather diffuse urban development.

¹ Graves: or gravel land consisting of rocks that have been polished by the river. This gravel determines the quality of Bordeaux soil. The name also refers to one of the « appellations d'origine contrôlée » of the Bordeaux wines region, which covers part of the Bordeaux agglomeration, to the west of the city.

Bordeaux has experienced an extraordinary measure of political stability, since only three « real » mayors were elected between 1947 and the present day: Jacques Chaban-Delmas (1947-1995), Alain Juppé since 1995, and Hugues Martin, as mayor *ad interim* between 2002 and 2004. J Chaban-Delmas and A. Juppé also served as Prime Minister of France.

Although the Urban Community of Bordeaux was sometimes presided over by an elected official, whose political colour conflicted with that of the city's mayor at national level, there have never been any violent clashes. The officials have always managed to ensure that the community's best interest prevailed, as is clear from the unanimous votes on structuring projects and the tramline in particular.

The « Chaban era », as it is referred to by the people of Bordeaux, is marked by several large-scale urban projects, such as:

- the Grand Parc: a large subsidized housing project (tall and long buildings) by Jean Royer
- Mériadeck: business district (high-rises on flagstones), by Jean Royer, succeeded by Jean Willerval and Paul Lagarde
- Bordeaux Lac: different hubs distributed around the lake (dwellings, offices, commercial centre, exhibition centre, sports and leisure facilities) by Xavier Arsène-Henry.
- The creation of a protected zone in order to enhance the historic city centre.

During the 1980s, Jacques Chaban-Delmas launched the Bastide project, aimed at restructuring the right bank of the Garonne River, a project entrusted to Ricardo Bofill, and the studies for the VAL². Both projects did not materialize. Bordeaux was thus qualified a « sleeping beauty ».

In 1995 Alain Juppé was elected mayor and from 1996 onwards, he pushed the tramline project, and its studies, which garnered favour both with officials and the population. This public transport project profoundly changed the face of the city and its agglomeration, which restructured themselves around this network. The tramline thus turned into a real urban restructuring tool, by reconciling the city with its river, by making the centre of the city attractive once again, and by serving the peripheral municipalities in an equal manner, specifically those areas that were struggling and were undergoing renovation as part of an urban renewal process. Moreover he entrusted the Bastide project to Dominique Perrault and Alain Charrier and the planning of the embankments and river fronts to Michel Corajoud³.

It all started with a tramline

Faced with the rate of saturation of public transport, notably with regard to the line serving the university, and saturation issues of the road network, the CUB on 27/01/1986 voted unanimously in favour of a fully automated light metro, the VAL, which was also chosen by Lille, Rennes and Toulouse. After the municipal elections in 1989 this unanimous consent floundered and the project was highly contested. In spite of this, the project was declared to be of public use, after a widespread public enquiry. A number of associations appealed the decision and won: the administrative court revoked the Declaration of Public Interest.

As soon as he was elected in 1995, Alain Juppé took note of a new consensus regarding a tramline project, which was unanimously approved on 07/02/1997 by the Urban Community of Bordeaux. He understood that the project constituted a unique opportunity to restructure and modernize the city and its agglomeration and to forever overturn its image of « sleeping beauty ». The project was more than just a transport project; it involved an urban project around three of the network lines.

² Automated light metro, developed by Matra, which at present is operated in the cities of Toulouse, Rennes and Lille.

³ Grand prix de l'urbanisme, 2003

The project also dealt with other elements of the urban diagnosis, which generated a consensus: the impoverishment of the city centre, and more specifically of the neighbourhoods near the Garonne River; the high attraction of the periphery, which « drained » the centre; the existence of vacant industrial sites near the city centre; the isolation of struggling subsidized housing districts.

At city level this project also strengthened three other objectives: to valorise some top-notch architectural and urban heritage, notably the facades on the Garonne, which were designed by the atelier Gabriel⁴; to achieve the restructuring of three vacant industrial zones, the so-called « 3Bs » - Bacalan to the north, Bercier to the south of St Jean Station and Bastide, on the right bank; to achieve a reconciliation between the city and its river by rezoning the embankments and the river front.

At metropolitan level the project dealt with two objectives: to revive and stimulate the heart of the agglomeration and a qualitative control of peripheral development.

The tramline

The route itself: the network has three lines, which cross one another in the centre of the city:

- Line A runs from east to west, from Mérignac, and, after it crosses the Garonne, on the old bridge, splits on the right bank to head to Cenon in the south and Carbon Blanc to the north. It is connected to the rail network in Cauderan and in Cenon station – Pont Rouge.
- Line B runs from Bacalan in the north-east to Pessac station in the south-west, with stops at St Jean Station (TGV) and the Talence university campus.
- Line C runs from Aubiers to the north towards Bègles in the south-east.

In the centre of the city the tram runs along the embankments, cours Alsace-Lorraine, rue Vital Carles, cours de l'intendance, and place des Quinconces. Three junctions ensure transits: Quinconces, Hôtel de ville, Porte de Bourgogne. The four-sided network created by the lines almost reprises the limits of the old Roman *castrum*.

The bus lines were also restructured in function of the tramline and service was improved by instituting a main hierarchical network and a local network.

Seven trams are operated; in the long-term there will be 15, for a capacity of 5,000 passengers.

The design: one interesting fact about the Bordeaux tramline project is the care taken as regards architecture, design and the landscape. Contrary to the habits of the technical services of French public transport, which usually manage the project and contract it in house, the CUB decided to entrust the project to some master designers: the architects Brochet, Lajus and Pueyo, the designer E. Deportzamparc, and the landscape designers of the agency Signes⁵.

Thus each line and each station were carefully designed and their surroundings were restructured and redesigned in the same manner, restoring the quality of the public space, which had been lost to some extent to the road network and its encumbering road sign system. The redesign of the embankments of the Garonne, which were largely planted with grass, thus valorises the eighteenth-century facades, designed by Gabriel and which had been recently renovated, by eliminating two

4 A nineteenth-century family of architects, who among others created the Petit Trianon in Versailles and place de la Concorde in Paris.

5 Agency established in 1990 by Alain Cousseran

carriageways. This is a perfect example of the care that is now being accorded to the urban landscape.

The fact that the network passed through the protected city centre meant that an innovative technology of ground-level power supply, also known as surface current collection, without overhead wires had to be used.

Outside the centre of the city, the network fans out in a star-shaped structure; it does not allow for lateral connections, notably near the motorway/ring road, which serves the main industrial employment hubs. The international airport, the congress centre and the expo/fair grounds are currently not included in the network. Moreover, the tramline only crosses the Garonne once, on the Pont de pierre, which was commissioned by Napoléon I in 1807: the bridge project (€ 120 million) across the Garonne between Bacalan and Bastide is currently in the public enquiry stage. This project will include public transport lines in their own reservation, but not the tram.

The tramline's use⁶:

The tramline was an immediate success and the population rapidly adopted this transport mode, available between 5 a.m. and 1 a.m., which at present represents 53% of all urban public transport, and transports 110,000 travellers per day⁷.

The success of the tramline is tempered by however by the following: even though the decrease in traffic in a dense urban zone, the city centre, is significant, the agglomeration continued to expand on both sides of a saturated ring road. The bypass project to the west of the agglomeration, which would run through wetlands or forestland, has been planned for a long time, but it is not written in stone in the plan document, and is violently contested by environmental protection associations.

Cost and financing:

The project's total cost was more than one billion euros; 65% of the cost is covered by revenue, 15% by public subsidies and 20% was borrowed. All the public institutions involved contributed to the financing of the project; this included the State, which since then, has withdrawn from such financing. In view of such a sizeable budget, it was evident that the urban planning would have to be of the same quality as the tramline itself, for an additional cost, which all in all was negligible at this scale.

The mobilization of such a budget served as considerable leverage for Bordeaux businesses, which did not hesitate for a second to invest in a resolutely dynamic agglomeration.

The impact of the project on local tax in Bordeaux was not published⁸, as revenue and spending are separated in French public spending. The cross-financing makes it difficult moreover, to include the charges, for every local government, including the CUB, as regards expenditure on the tramline, on the tax sheet of the taxpayers, whether they are directly served by the tramline or not.

2) MAIN CHARACTERISTICS OF THE PROJECT

Parties involved:

6 CUB figures

7 CUB 2007 figures: line A: 40,000 travellers/day, line B: 52,000 travellers/day, line C: 18,000 travellers/day

8 Nor is this the case for the other projects.

What is remarkable about how the Bordeaux urban project was conducted, is the intelligence and efficiency of its organization, in a context of numerous political, technical and financial parties and multiple and complex actions.

The French political system is currently undergoing a major change since the Decentralization Act of 1982. Prior to this, the system, inherited from the Revolution, was centralized, while governmental services were deconcentrated and transferred to well-defined territorial levels. They effectively replaced the local community services. The system was based on the municipality, the département and the State. Regions had been created – although they did not have elected assemblies – as well as urban communities, which were established in 1967 for all agglomerations of more than 500,000 inhabitants. From the end of the nineteenth century onwards, groups of municipalities were allowed in order to manage public facilities. After 1982 the competences of the départements and regions were expanded. In 1999 the Chevènement Act strengthened intermunicipal structures, while the loi Solidarité et Renouvellement Urbain (Urban Solidarity and Renewal Act) signified an in-depth reform of planning tools.

The following institutional actors were involved in Bordeaux :

- The city of Bordeaux and the peripheral municipalities : they are responsible⁹ for municipal public roads, parking, the planning of public space, public neighbourhood infrastructure.
- The CUB: it is responsible for urban planning (the Local Urban Development Plan was approved on 21/07/2006), the organization of all city transport, and the planning of urban transport (Plan de Déplacements Urbains, approved on 26/05/2000), housing and the planning of dwellings (Programme Local de l'Habitat approved on 14/12/2001 and upgraded on 28/02/2003), for all public roads of a community nature, for economic development (charte du développement économique), for planning projects of a community nature (18 Zones d'Aménagement Concerté)
- The SYSDAU (Syndicat Mixte en charge du Schéma Directeur de l'Aire Métropolitaine Bordelaise (Mixed Syndicate in charge of the Directive Scheme for the Bordeaux Metropolitan Area), approved on 26/09/2001) is in charge of all strategic planning (Schéma de Cohérence territoriale/Schedule of territorial cohesion) across a perimeter of 91 municipalities.
- The AURBA (urban planning agency): it conducts or realises urban planning research for the agglomeration, notably the SCOT and the PLU, and is heavily involved in the PLH, the PDU et and in large planning operations.
- The CCI (chamber of commerce and industry) : is responsible for economic development (industrial zones, observatory for commercial infrastructure) and manager of the international airport.
- The Département de la Gironde: is responsible for all departmental roads and inter-urban passenger road transport.
- The Région d'Aquitaine: is responsible for economic development and territorial planning and for inter-urban passenger rail transport.
- The State: is a financial partner (State-Region Plan contract, agglomeration contract, City Contract) and is associated with all planning measures ; next to this it also ensures the legality of all actions by territorial collectivities.
- The autonomous port : although its name does not indicate it, this is a public industrial and commercial state establishment, regulated by the Transport Minister. It manages all port installations, as well as the installations of the public maritime and river domain (140 hectares in Bordeaux alone).

Without entering into detail as regards the planning documents, which are available on line, it must

9 Only those competences that are directly related to the urban project are indicated here.

be emphasized here that in France, territorial planning and the programming of urban projects are not linked. Better yet, the Urban Planning Code states that planning must be programmed, as soon as projects are declared to be of general interest or public use. The urban planning documents are then revised or updated in order to take these projects into account.

The Bordeaux urban development project was conducted by a restricted management team (the city, the CUB, the Urban Development Agency and the tramway team), which was able to incorporate all the public collectivities concerned and the main forces of the agglomeration in concentric circles, without losing sight of the operational objectives. In addition to a major public consensus, there was also a productive economic and financial consensus in place as well as relative social consensus. The CCI was able to mobilize its networks and position itself as a constructive partner. The Autonomous Port, which took note of the fact that its urban installations¹⁰ were obsolete, opened up the public river domain, thus enabling the restructuring of the embankments.

Community participation:

Following the failure of the VAL project, everything was done to ensure that the tram project would be successful. After the development of a consultation and concertation culture, this process was conducted professionally, with the necessary resources, for all the aforementioned projects.

- Multiple temporary or permanent exhibitions¹¹
- Multiple public debates regarding these exhibitions
- Periodical publications for each of the projects
- Making the global dossiers available online and opening of online forums

For the tramline the following was put into place:

- site mediators and a multi-party committee for the compensation of any residents who suffered damage. The committee met 100 times, examined 1,222 dossiers and granted € 10 million in compensation, i.e. 1.5% of the total budget for the first phase.
- A mission of endorsement among all the companies associated with the Chamber of Commerce and Industry, which met with 2,500 businesses in the field and which held 270 meetings with shopkeepers and other local associations.

3) REASONS FOR SUCCESS

It is easy to venture reasons for success, after the facts, but in Bordeaux the succession of Jacques Chaban-Delmas was not a given and the social-economic situation in the agglomeration was not the best.

Three independent factors came together to ensure the success of this project :

- The attractive character of the Aquitaine region, which shows sustained demographic growth, with a high number of new arrivals (6,500 new inhabitants a year for the CUB). In France, which has sufficient demographic growth, the seaboard is largely more attractive than the national average.
- The rise in the real estate market in general and in the CUB in particular, which stimulated investment in this sector. This trend, at worldwide level in OECD countries, is exacerbated in

¹⁰ A fence and a series of modern docks, which has been badly designed and which for a long time separated the city from its port installations, a speedway which enhanced the separation between city and river.

¹¹ The contribution of the Arc en Rêves gallery, a unique French institution which contributes to urban planning, architecture, design, and landscaping, must be mentioned here.

France, due to a shortage in housing, notably for the working classes.

- French infatuation with a tramline, which is perceived as a vector of modernism, and also guarantees sustainable development. The unexpected success of the Strasbourg tramline served as an example and today French cities, with strong encouragement from the Transport Ministry, have committed to this mode of transport.

Three local factors also played a role:

- The will of a talented politician, with ambitions for his city - Alain Juppé - who managed to unite all the forces in the agglomeration, in a favourable context and local culture of consensus, by setting clear shared objectives and a very tight time-frame.
- Talented teams at public (principal) and private (architect) level, which received the resources from the authorities to realize qualitative urban development projects. Two laureates of the Prize for Urban Planning : Michel Corajoud (2003) and Francis Cuillier (2006).
- A demanding public, whose awareness had been raised as regards architectural and urban planning quality, in a framework where the competition between cities also influenced the quality of urban planning projects.

4) UPCOMING ISSUES

The tramline project is an undisputed success, but was unable to solve the major issues that the agglomeration is confronted with today:

- A change of scale : since 1967 the CUB has proven its use in terms of governance of the agglomeration ; however the latter has today largely expanded beyond the urban area, which integrated the basin of Arcachon to the south-west, Langon to the south-east and Libourne to the north-east. The economic integration in this metropolitan area is on the rise but is blocked by the saturation of the road and motorway networks while the rail network is making an effort to be sufficiently attractive in order to provide a credible alternative. The governance for this territory still needs to be constituted.
- A shift of urban planning issues : if the 'battle' in the city centre seems to have been won, the urban renewal projects are still ongoing in the subsidized housing neighbourhoods, in a context of increasing urban segregation : although Bordeaux was never a blue-collar city, part of the population is extremely deprived. In spite of a policy, which focuses on subsidized housing (building, renovation), the gentrification of the centre of the city, developed around a tramline, might relegate these populations to the periphery. The most fragile parts of the population, polarizing themselves in subsidized housing districts ; other more modest and financially solvent population groups or population groups that have become financially solvent, are fanning out beyond the periphery, outside the CUB, even outside the metropolitan district, where they can find affordable land and real estate, in order to become owners.
- An acceleration of the competition between territories : Bordeaux and its agglomeration are without a doubt more dynamic than they have ever been. However the globalized economy tends to accelerate the competition between companies and territories. The restructuring of the sector of aeronautic maintenance, which has a large presence in Bordeaux, has shown that no sector, no group is spared by the race towards profitability, not even that of the wine industry, which has also suffered some upheavals. The construction of the megajoule laser¹², although it is located outside the CUB, should be a major asset for Bordeaux.
- The emphasizing of environmental issues : the Bordeaux metropolitan area has numerous natural spaces that are under threat from urbanization in general and diffuse urbanization in

¹² A system which is able to simulate the conditions existing in the core of a star or in thermonuclear weapons (substitutes nuclear testing). This project costs well over 2 billion euros.

particular : the coastline (dunes, coastal strip), the Gironde heath (forestation, marshlands), the Gironde estuary and the banks of the Garonne and the Dordogne Rivers (water quality, expansion of the flood lands). The agricultural land and the wine country specifically should be added to these at times remarkable biotopes.