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4.

HIGH-SPEED RAIL, SERVICE INNOVATIONS AND URBAN AND BUSINESS TOURISM DEVELOPMENT

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ABSTRACT

The East European High-Speed Rail started in June 2007. Economic actors of connected areas are expecting a lot of positive effects such development of urban and business tourisms. The analysis of past experiences shows in fact that these kinds of tourism can benefit from the High-Speed Rail link as soon as amenities really exist as well as specific resources in tourism (patrimonial and historical). But it also underlines that positive effects of a

High-Speed Rail link on tourism depend from existing appropriate policies. More precisely, the collective appropriation of the innovations linked to a High-Speed Rail service seems to be central for generating positive effects. Indeed, this collective appropriation constitutes a relational innovation, which may give birth to additional services innovations in tourism that could enhance value from existing specific resources (historical, cultural, gastronomic...) and transform them in assets. Thus, if the availability of specific resources plays a specific role for the served cities, coordinated efforts of actors to promote the tourism development of the city are also decisive. We will illustrate our subject with the lessons that can be learnt from cities that have experienced a HSRS implementation and more specifically with the case of Rheims.

4.1 INTRODUCTION

The East European High-Speed Rail (HSR) service started in June 2007. It modifies the French and European transportation map and the accessibility of the served cities. Economic actors in these cities do expect a lot of positive effects: economic dynamism, new firms and population arrival, third sector or tourism expansion.

But as much as it is still very present in political speeches, the myth according to which transport infrastructures have a positive effect on economic growth has been for a long time challenged by economists. In fact, several researches show that in the field of economic dynamism, no significant effects result from infrastructures alone [1, 2, 3, 4, 5, 6, 7]. This does not mean that they do not contribute to new dynamics for these territories but they are not sufficient [8].

The aim of this paper is to establish the necessary conditions for a HSR to contribute to an urban tourism value enhancement and more specifically to business tourism. The analysis of past experiences [9, 10] shows in fact that these kinds of tourism can benefit from the HSR provided that amenities as well as specific resources (patrimonial, historical, etc.) really exist in tourism [6].

But it also underlines that positive effects of a HSR on tourism depend from existing appropriate policies. More precisely, by analyzing the arrival of a High-Speed Rail Service (HSRS) in a local area as a set of innovations, we will show that the collective appropriation of these innovations is central to generating positive effects. From this appropriation can emerge additional

service production in tourism, which can enhance value from existing specific resources and transform them into assets (4.2).

Thus, if the presence of an historical, cultural or gastronomic heritage is important for served cities, coordinated local efforts to promote tourism development in a city are decisive. We will illustrate our subject with the analysis of past experiences and more specifically with the case of Rheims area. Located 150km northeast of Paris, this city has specific assets such as Champagne and the Cathedral, where French Kings were crowned and where the HSR has had stops since June 2007.

If the hopes related to an increase in value of urban and business tourisms due to HSRS are built on these undeniable advantages, their fulfillment is due to the collective appropriation of these transport innovations; this appropriation being really central to a touristic development project of the city (4.3).

4.2 THE HIGH-SPEED RAIL SERVICE, A SET OF INNOVATIONS WHOSE APPROPRIATION IS CENTRAL TO THE DEVELOPMENT OF SPECIFIC RESOURCES IN A CITY

The existing specific resources in a city can be developed through the establishment of a HSRS which can be regarded as a set of innovations for served cities (4.2.1). Like any innovation, its impact is linked to the conditions of its adoption or its appropriation by the actors located in served cities (4.2.2).

The enhance value of the infrastructure will depend on these conditions. Beyond an individual appropriation by the main actors, this appropriation must also be collective through relational innovations in order to transform the specific resources of the local area into major assets (4.2.3). We will illustrate this assumption by analyzing the case of some French cities (4.2.4).

4.2.1 The HSRS, a set of innovations central to the development of specific resources in a city

If some local areas have specific resources, these have to be activated (4.2.1.1). We argue that a HSRS, which can be analyzed as a set of innovations (4.2.1.2), can be a tool for such an activation.

4.2.1.1 Specific resources in a city, resources to be activated

If the concept of resources was first seen in terms of production from the soil, gradually assimilated to inputs (land, capital, labor), this concept was then extended to the collectively produced resources. It is possible to distinguish between generic resources (homogeneous, considered for themselves and independent of the production process in which they are used) and specific resources (with special features linked to the production process itself) [11].

The last ones cannot be transferred and contribute to the emergence of relative and comparative advantages [12, 13]. They are produced by an innovative action generated by a local area through network relationships and a specific coordination between the main actors [14].

The availability of specific resources results either from specific historical conditions having shaped the local area, or from the existence of natural resources in this area.

Nevertheless, these resources are not sufficient and have to be activated [15]. An activated resource is an asset opposed to a latent, non-activated resource.

The question of the activating specific resources is very important for the emergence of comparative advantages. Consequently, if specific resources allow a lasting differentiation and therefore an increased attractiveness, from the point of view of the local area, the question is to identify the tools that can be used to activating these specific resources. It is in particular necessary to identify the vectors that will enhance the value of these latent resources (undeveloped or underdeveloped resources).

These vectors can be exogenous: the implantation of a firm coming to develop specific skills untapped in the local area, a crisis motivating the actors to find new policies leading to tap into their latent resources, arrival of a new transport infrastructure, etc..These vectors can also be endogenous, such as the differentiated capacity of actors to renew their strategies, a capacity which itself depends on the relationship between the actors, their history, their economic or cultural specificities, etc.

These vectors can also be a combination of the two dynamics (endogenous and exogenous) and lead to the activation of an endogenous dynamic by the exogenous one.

Thus, if a local area has specific resources, they are not necessarily activated. The HSRS can be the source of such an activation.

First exogenous, this service can be considered as a set of innovations, and give rise to endogenous dynamics reflecting its appropriation by the actors.

4.2.1.2 The HSRS, various kinds of innovations

A HSRS can be analyzed as a set of innovations [16]. First, it can be seen as an ameliorative innovation which improves the quality of services. Indeed, using the analysis of Saviotti, Metcalfe [17], and of Gallouj and Weinstein [18], and of Gallouj [19], inspired by Lancaster, this service can be analyzed both as a product with technical characteristics and a service with specific characteristics.

The HSR can be seen as an ameliorative innovation of technical characteristics (motor power, train stability ...). Consequently, the HSRS speed has been improved, reducing journey length and in some cases transport interchanges and allowing access by train to new destinations. The magnitude of this service innovation will be even stronger as the service is important.

Second, it can also be understood in terms of incremental innovation concerning the services characteristics (here railway transportation). It can be seen as an innovation that corresponding to the addition of increments, *id est* new characteristics of services that increase the utility of playing agents who use it (in the terminology of Gallouj[19]). Indeed, the HSRS adds to the traditional rail service a characteristic in terms of modernity.

Thus, beyond the direct use of services in terms of accessibility, which correspond to services innovation, the modernity associated to the HSRS can be considered as an additional service feature to railway transportation, which we describe as semiotic in the sense that it conveys a sign to many actors either served or not areas. Like a fashion brand has a specific utility which is to distinguish the person who wears it, the HSRS provides a sign of distinction to the connected areas.

Third, the production of the HSRS itself can also be analyzed as a relational innovation because its production, its realization and its funding are jointly carried out by several actors in the French case (the State, local authorities, RFF (which is the French Railway Infrastructure Manager and the SNCF (The French National Railway Company)). Fourth, a new HSRS can also be accompanied by innovations of complementary services directly related to the transport in its physical component or its commercial one such as the organization of taxi-cabs, the reorganization of the ERT (Express Regional Train), rental car service in a station, the new ways of managing customer relationships in the transport service, new services directly related to transport [16].

Finally, it can produce relational innovations in the territory, *id est* the emergence of new relations between actors of the served area, in order to produce products/services innovations. But the HSRS alone is not sufficient to induce real effects to emerge. Indeed, effects realization depends on the way playing agents, likely to profit from it, will take over the various innovations that it implies; in other words, how they will integrate them in their behaviors, and even produce new ones. Thus, if the HSRS opens up potentialities, their fulfillment depends on the actor's competencies and willingness to use it.

4.2.2 The appropriation of the set of innovations linked to HSRS by a local area

The appropriation we are talking about here is an appropriation by the users of the innovations. Beyond the HSR as a technical object, we underlined it also as a service to which actors have access or not. It is also an object of which they have a representation, in the sense that they have an image of it, that they can or cannot use in a more or less important way and that they can, finally, integrate in their behaviors.

"A new technical object taken at the beginning of its diffusion trajectory can induce an intense mobilization of social imaginary" [20], the HSR thus conveys an imaginary dimension beyond its uses. This imaginary dimension can be positive (the HSR which carries growth and prosperity to the served areas) or negative (the HSR which could transform a city into a dormitory town or which is likely to lead to higher housing prices). Consequently, the question is to identify how the actors, who can benefit from it, use the HSRS.

Various works have raised the issue of regional appropriation of new infrastructures. It is the case for projects for which dispute is a central element, or on the contrary, for projects whose actors await much as regards to local development or attractiveness¹. The regional appropriation of a HSR line reveals how the institutions of the local area are viewed. The form of the finally adopted project (itinerary, localization of the stops, places of interconnection with the other networks) is revealing of the relationship between the various actors in terms of negotiation, opposition or coalition [21].

In this approach, the appropriation would therefore depend on the players' game around the project and its construction but also on the changing local compromises that may result from it. It corresponds to the way in which

¹ See [30] for the East European High Speed Rail, [31, 32] for the North case, [21] for the Bretagne-Pays-de-Loire HSR, [33] for the Wallonia and the Britain cases.

the actors positioned themselves around the project by seeking to specify its integration in local demands. These demands relate to the development of the economic, social, cultural, tourist, residential functions, as conditions to the area attractiveness. It is thus primarily related to the strategies decided upon by the actors. The territorialization of a transport infrastructure is therefore defined by the majority of these analyses like collective appropriation of its functionalities.

But as the HSRS carries many service innovations to which the actors have or not access, and production to which they may have contributed, they may or not use this HSRS, or more or less. They can finally appropriate the HSRS by integrating it into their behaviors. This appropriation must be done for the set of the innovations.

This appropriation goes beyond the mere adoption or simple use, since it is likely to modify the actions of actors. It also depends on the skills they have. Appropriation of a product or of a service implies to control it, to integrate its use in daily life, but it also implies that its use produces “novelty in the life of the user” [22, 23].

Thus access is not enough. It is necessary that appropriation exists. Indeed, appropriation is possible if the agents have an active role in regard to the innovations.

More precisely we suggest to go further and make collective appropriation of the innovations, which a HSRS constitutes, and production of additional relational innovations around it, the central elements in the valorization of the infrastructure. These are indeed this collective appropriation and production of relational innovations, which will make it possible to transform the specific resources of the area into assets. This appropriation is responsible for the territorialization of the infrastructure.

4.2.3 The collective appropriation of the innovations and the relational innovations in the heart of the territorialization of the infrastructure

If HSRS can give birth to innovations for an area (access to new services, with new functionalities, with a new image, cf. supra), those are not necessarily appropriated by the actors. Moreover, this appropriation can also take various forms and be implemented in various ways and by various actors (firms, households, local authorities...). The analysis of the capacity of the actors to adapt to the new service requires identification of how they integrate or not its various innovations in their respective behaviors.

The installation of a transport infrastructure such as a new HSR line and the service innovations resulting may question the capacity of local areas to use it to generate new dynamics and, consequently, be the source of such dynamics. In some newly served areas, many cases study and diagnoses, whose purpose is to map the future development prospects of the local area, are generally produced. These diagnoses, made *a priori* or *a posteriori* to the arrival of HSR², constitute the most immediate appropriation of these innovations.

The second step of this appropriation consists in making them a tool for a development project of activity by a private actor that will integrate it in its strategy by individually supplying product/service innovations. It can be the case for example in tourism if a travel agency incorporates the HSRS in its products. It can also be the case with regards to the image conveyed by the HSRS and which constitutes an incremental innovation. The image is indeed more and more an attribute of an area that local actors use in their willingness to differentiate it from other areas. The appropriation of the semiotic characteristics of the HSRS may for example be done in terms of communication by the actors who, at different levels, are responsible for the local development of this area.

But if the appropriation of these innovations can be individual, the third step consists in making innovations a tool for a development project of the local area [7]. Associated to a HSRS, they can thus give birth to the definition of a project of local area which will lead the actors to innovating in the relationships with the other actors of the local area and to create a new organization with a specific goal. These innovations can then be regarded as a process innovation to produce a project of local area and to give birth to coherent and collective policies likely to enhance economic, cultural, human, land, patrimonial or tourist territorial resources.

The more or less formal creation of such an organization is a relational innovation leading to new rules of action, in particular in cooperation between the actors and the definition of common goals. In such a case, the private and public actors, beyond their individual interest, coordinate their actions [24] in order to promote a development of the local area which enables them to produce their own development.

We hypothesize that when the two kinds of actors (private and public) are involved in a coordinated way in these relational innovations of services, the effects on local development will be most important. Using Schumpeter

² See [34] for the Atlantic HSRS, [35] for the South-East HSRS, [36, 6] for the East-European HSR in Champagne-Ardenne.

works³, we hypothesize that the same kind of dynamics could lead to local economic development. The emergence of several relational innovations associated with products/services innovations, which one could describe as a cluster of innovations of services, determines, according to us, the possible positive “effects” of the infrastructures.

Thus, in terms of tourism development in an area, the action of the local authority is obviously insufficient. It is necessary that the actor, which supplies the HSRS, associates itself with this local authority to sell the destination. It is equally important that private actors (hotels, restaurants...) join with the local authority to promote local area, even by developing new packages. The characterization of the strategies deployed around a HSRS in the tourism field must enable us to illustrate this link between appropriation and activation of the specific resources.

The analysis of valorization of specific resources related to tourism for cities served by HSRS at the beginning of the year 1990 shows indeed the role of specific resources and collective strategies in this activation.

4.2.4 HSRS and strategies of local valorization of tourism resources: lessons of past experiments

Urban tourism and business tourism are activities that can benefit from a HSRS (4.2.4.1) if specific resources exist in the city and if these service innovations are collectively appropriated. Analysis of the cities which have been served by HSRS in the early 1990s shows the role of these specific resources and of this collective appropriation (4.2.4.2).

4.2.4.1 Urban and business tourisms can be developed by a HSRS

The tourism industry includes many kinds of tourism. They differ both in their shape, duration and aims, and in the means used by tourists. Here we focus on urban and business tourisms because these forms of tourism are likely to benefit from a HSRS in cities.

Urban tourism (visits to museums and monuments, food tasting, shopping) is one of the oldest and most practiced form of tourism. It is close to

³ The concept of innovation clusters has been initially developed by Schumpeter [37] to explain long waves dynamics associated with the emergence of new industries. After that, it has been used by many other authors, sometimes in a different way. Recently, it was the case of Porter [38, 39].

cultural tourism when it included visits to the historic heritage or the discovery of local culture.

It is usually short stay tourism (two or three days) for example during weekends. It requires a suitable HSRS: late arrival to destination by night or early in the morning, and return at home during the evening or the night the day of return. Urban tourism concerns mainly individuals or couples from diversified professions and professional categories, with for some of them, price sensitivity. These short-stay benefits from the existence of a fast rail service which serves several major population areas.

This kind of tourism is growing significantly given the fragmentation of vacation time during the year and, in France, by the reduction of working time (35h).

For this tourism, the HSRS has several advantages:

- Since it is a short-stay tourism, for example on a weekend, using rail service avoids the fatigue of driving, congestions and parking difficulties in city centers;
- Travelling alone or in couple, using HSRS has the advantage of being cheaper than the road trips. It allows saving time and even more when the station is located in the center of the city;
- It is part of the growing concern for sustainable development thanks to a better ecological assessment than other means of transportation.

Business tourism is a tourism which is practiced within the framework of professional activities. As defined by CFTAR (a French Club of business Tourism), it includes the Congress, conferences, symposia, seminars or workshops and so on. Its aim is to establish business contacts, promote products or services or make sales. It concerns also incentives such as meetings whose purpose is to motivate employees and executives of a company. Inner cities are preferred sites (78 %). Moreover, according to the same sources, geographical location, accessibility and accommodation capacities are the first three criteria for selecting a site. In France, 70% of domestic demand comes from decision centers located in Ile-de-France.

This tourism is characterized by individual and / or collective travels with a short stay during the week. The decision to attend a conference of business is made primarily by companies or governments with a strong emphasis on reducing travelling time. These trips are made by professionals with high incomes and a relatively low sensitivity to prices, but with a high sensitivity to quality and speed of service. Like other forms of tourism, this tourism is characterized by a tendency to shortening the average length of

stay. The cities served by HSR are coveted clearly by the business tourism stakeholders since the HSRS allows fast access.

Where they already exist in cities with specific resources, these tourisms are likely to be favored by a HSRS. However, analysis of past experiences shows that the HSRS and the innovations associated with it will lead to the development of tourism only if they are collectively appropriated by the actors.

4.2.4.2 Collective appropriation of innovations associated with HSRS: some lessons from past experiences

If we suppose that the actors' strategies play a role in the activation of the resources, it is thus necessary to detail the various types of possible strategies. If strategic analysis distinguishes between "wait and see" strategies and active strategies, for a local area, it is also necessary to integrate the isolated or collective character of these strategies. It is then possible to establish the positioning of served cities according to the degree of specificity of the resources and to the degree of appropriation of the innovations related to the HSRS in the strategies of activation of the resources.

In Tours (France), when the HSRS arrived, the involved actors did not specifically seek to use it as a tool for the development of tourism. The strategies remained sporadic, insulated and carried out by few actors. The opposite political tendencies of the cities of Tours and Saint-Pierre-des-Corps (in the vicinity of Tours where the new rail station is located) did not help in the search for collective strategies making it possible to use the HSRS as a tool for activation. Today, Tours is a touristic destination with an important potential in terms of specific resources, but which remains traditional in terms of image. In this type of positioning, if specific resources exist, the strategies of valorization remain individual and uncoordinated. The valorization of the resources is thus partial as well as their appropriation.

In the case of Le Mans (France), if few specific resources existed when the HSRS arrived, apart from the traditional Le Mans Racing Track, efforts were carried out in the field of tourism to supply additional services innovations (Dreams Night, etc.). Ten years later, it is always the Race Track, which attracts the greatest number of visitors, and the complementary innovations of services remain primarily generic. Le Mans corresponds to the situation of cities in which few specific resources exist, but the actors, in various circumstances, seized the opportunity of the arrival of the HSR to define a collective strategy aiming at activating the generic resources they

had. Thus there exist a collective appropriation and a possible production of assets, but which remain generic and subjected to the competition of other areas.

Lille, a bigger city, has an important potential of specific resources which were developed at the arrival of the HSRS thanks to the joined efforts of local authorities to have the HSRS station built in the city center. This city symbolizes a situation in which there are specific resources associated with the emergence of relational innovations making it possible to define a collective and coordinated valorization strategy. This strategy is based on a consensus between different actors on the type of valorization, and on the desire to share the effects generated by the dynamics between the various actors of the local area (in terms of image for example). This case constitutes the optimal situation allowing the emergence of specific assets contributing to repositioning a local area and giving it a durable differentiation advantage.

Thus, the arrival of the HSRS alone would not make it possible to directly develop the various types of tourism. But it allows actors to be aware of the necessity to produce new policies of resources activation, and to set up relational innovations to use the HSRS to trigger new dynamics. This dynamics is expressed via a communication strategy towards the targeted customers, a rationalization of the supply and the search for composite goods additional to this supply. These different elements allow a coordinated effort of differentiation from the other areas by the actors of the local place.

4.3 APPROPRIATION OF THE HSRS AND COLLECTIVE STRATEGIES AIMING TO VALORIZE SPECIFIC RESOURCES IN THE FIELD OF TOURISM: THE CASE OF RHEIMS

In Rheims, specific resources exist in terms of urban and business tourisms (4.3.1). The innovations which HSRS constitutes for an area seem to us to make it possible to develop these resources (4.3.2). But we argue that positive effects depend on collective appropriation. In this view, actors must set up relational innovations allowing them to go from isolated strategies to a collective and coordinated one aiming to valorizing these specific resources (4.3.3).

4.3.1 Resources related to tourism in Rheims

In the field of urban tourism, Rheims has important patrimonial attractions thanks to its historical richness and its reputation related to Champagne (Figure 4.1).

Several sites are thus listed in the World Heritage List of UNESCO for example Notre-Dame Cathedral with its 2.300 sculptures and its stained glass windows. With approximately 1.500.000 visitors a year, it is the second most visited place in Champagne-Ardenne.

It is also the case for the Ancient Abbey of Saint-Remi and Palace of Tau which shelters one of the principal Museums of the city and, which since recently, has been supplying rooms for receptions.

The area of Rheims is also characterized by a specific product, Champagne⁴ and its Champagne Houses: thirteen Champagne Houses have cellars and Gallo-Roman chalk pits covering 120 km of basements in the city. Some of these houses organize visits and supply tastings⁵.

Moreover the Champagne landscapes are the subject of a request at UNESCO for inscription on the World Heritage List. In addition, there exists a willingness to promote tourism in the city with in particular the recent illumination of the cathedral and the creation of walking tourist tours with topics of interest intended to explain the historical and cultural heritage of Rheims⁶.

The figure 4.1 shows the location of the principal specific resources in Rheims.

⁴ These resources are however also available in Epernay.

⁵ Seven of these champagne companies received approximately 200.000 visitors in 2002 even if 80% of the visits involve three large Champagne houses only.

⁶ The first one bearing on the history of Rheims was inaugurated in January 2006, the 2nd one relating to "Art déco" was inaugurated in November 2006 and the third on Saint-Remi was inaugurated at the end of 2007.

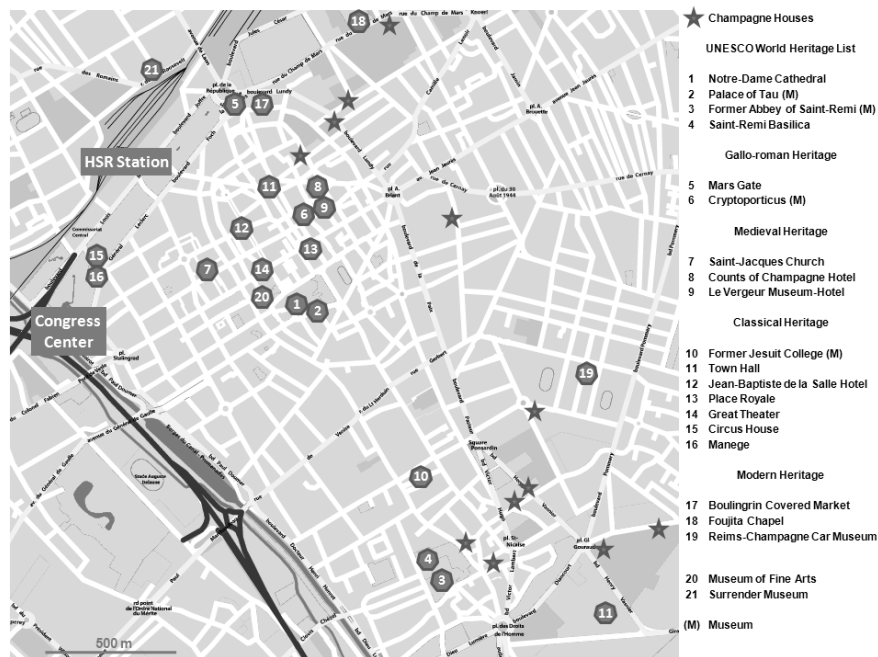


Figure 4.1: The localization of specific resources in Rheims.

Source: Adapted from Rheims District.

As regards business tourism, Rheims has already an important activity (with in particular the Congress Center⁷) which is developing further. With a sales turnover of 2.75 million euro in 2005 compared with 2.2 million in 2003, an increase of 27 % in two years, the Congress Center received 171 events gathering more than 51,300 participants and representing 71,660 days participants. The activity of the Congress Center would have generated direct and indirect economic benefits (nights included) for the city estimated to 21 million euro in 2005. Rheims is thus already present in the world of business tourism. A study of the International Association of the French-speaking Cities of Congress (AIVFC) in 2005 placed it in 9th position in the possible business destinations.

The destination of Rheims suffers however some weaknesses. It is the case of the many insufficiently developed existing tourist sites which are sometimes little known, and which cover periods from Gallo-Roman times to the beginning of the century. It is also the case of route signs which must be

⁷ The Exhibition site on the other hand would be concerned by the arrival of the TGV, because of the "out of town" character of the site and its nature which is different from its activities more often related to local customers.

developed for both pedestrians and for motor transport. If efforts were recently made in front of the HSR station, it still remains to indicate the Champagne cellars whose localization is sometimes not easily identifiable especially for foreign tourists.

There is also a lack of hotel capacities especially in 4 stars and luxury hotels categories which must be developed because business tourism requires this type of hotels⁸. If the shortage of hotel capacities is one of the main sources of difficulty to welcome events, it is however not specific to Rheims. The majority of French congress towns are confronted at the same time to an weak number of hotel rooms (all categories) compared to the capacity of their Congress Centers, and to a lack of large capacity places of (more than 150 rooms) in the top-of-the-range categories.

Finally, services like restaurants have to be improved particularly at the weekends: the closing of a lot of restaurants is a problem for tourism.

Before the arrival of the HSR, Rheims was rather comparable to Tours, with a potential of specific and relatively dense resources, but remaining still insufficiently developed. The individual valorization strategies of the actors around the specific resources, between close cities (no coordination between Rheims and Epernay for example) or between tourism actors within the city, truly did not allow the emergence of collective strategies. However, new policies have since been initiated. The desires of the tourism actors to build such a collective strategy to valorize the resources could make Rheims equal the configuration of Lille, even if the different sizes of these cities does not give them the same potential attractiveness.

The HSRS could be the activator of the specific resources in terms of urban and business tourism.

4.3.2 The HSRS, a set of innovations which could allow the valorization of related tourism resources in Rheims?

Rheims is equipped with two railway stations distant of a few kilometers. The Champagne-Ardenne Station located in Bezannes, a small village currently separated from Rheims by 500 meters of arable lands, primarily serves domestic destination including three round trips (RT) towards the Paris-Est station and international high-speed train traffic, usually requiring connections (Figure 4.2). The Rheims station in the town

⁸ Thus, in March 2004, the Congress Center refused 1200 nights because of lack of rooms.

centre serves the railway traffic of the Paris-Est station. The figure 4.2 represents the High-Speed Rail Service in France.

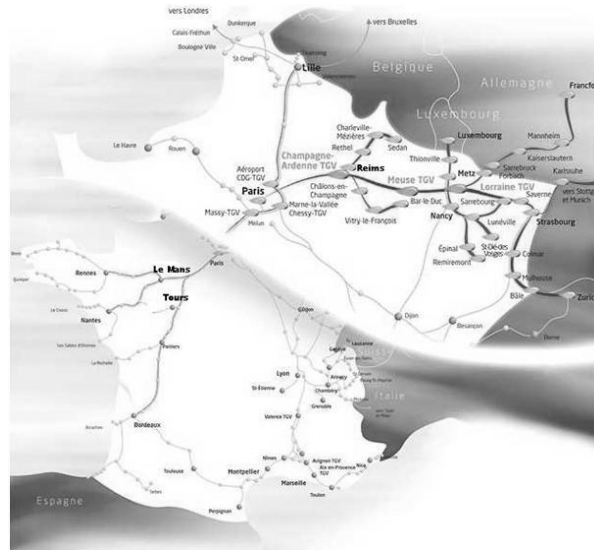


Figure 4.2: The High-Speed Rail Service in France.

Source: Adapted from RFF modified.

Table 4.1 indicates the former week and weekend schedules to and from Rheims, and the new ones, as well as the changes in journey times and fares.

The Rheims station is thus connected to Paris by eight 45 minute-long round trips and Bezannes by four 40 minute-long round trips during the week.

Table 4.1: Modification of the durations from Rheims to major cities in France since HSRS.

	Before June 10th, 2007	After HSRS in 2009	Time-saving
Paris Est	1h35	45 min	50 min
Gare Meuse	Not served	30 min	New service
Gare Lorraine	Not served	40 min	New service
Metz	3h10 (directly)	47 min	2h23
Luxembourg	Not directly served	1h31	New service
Strasbourg	30 min + with a correspondence in Epernay (15 min) + 2H30 = 3h15	1h55	1h20

Marne-La-Vallée	Not served	30 min	New service
Roissy-Charles-de-Gaulle	Not served	30 min	New service
Lille	1h35 + changing rail stations in Paris (45 min) + 1h05 = 3h25	1h25	2h
Nantes	1h35 + changing rail stations in Paris (45 min) + 2h15 = 4h35	3h15	1h20
Rennes	1h35 + changing rail stations in Paris (45 min) + 2h05 = 4h25	3h15	1h10
Bordeaux	1h35 + changing rail stations in Paris (45 min) + 3h15 = 5h30	4h25	1h10
Le-Havre	1h35 changing rail stations in Paris (45 min) + 2h30 = 4h50	4h	50 min

Source: Adapted from SNCF data.

The number of round trips is maintained. But as we underlined previously, the HSRS is an innovation of improvement of the features and characteristics of railway service. Eastern-European HSR can be considered as the prolongation of this innovation insofar as certain features were modified (motor power, stability of trains, etc.).

By doing this, speed in commercial phase was improved. Indeed, the Eastern-European High-speed line is the first line on which the HSR reaches a speed of 320km/hour. Thus this new rail service is also an innovation of improvement concerning a characteristic of services. It indeed firstly makes it possible to go more quickly to Paris: from Rheims, the journey time has decreased by 53%.

This increased speed henceforth makes it possible to make the round trip in the half-day. Nevertheless, the prices have increased. Indeed they rose from 22.10 € for a single ticket to 29.3 € for a standard rate and € 37.7 for the peak rate.

Champagne-Ardenne Station in Bezannes ensures a service road of the Province towards Eastern, Western and Northern France, with 9 then 10 round trips:

- 3 then 4 towards Roissy, then 3 towards Lille with a correspondence towards London and Brussels,

- 7 towards Marne-la-Vallée and Massy including 1 direct train towards Rennes, 2 direct trains towards Nantes, 3 direct trains towards Bordeaux and one towards Le Havre,
- 10 towards the Lorraine station and Strasbourg, and 1 towards Metz, Thionville and Luxembourg.

As regards journey time, Bezannes is 0:30 away from Marne-la-Vallée, Roissy-Charles de Gaulle, and 1h away from Massy, 1:25 from Lille, 2:10 from Brussels, 3:15 from Nantes and Rennes, 4:25 from Bordeaux, 1:55 from Strasbourg and 0:40 from Lorraine station, or from International places with the rail service in 30 minutes from Roissy airport. With this interconnection station, Rheims station is at the same journey time from Roissy airport than from Châtelet-les-halles Paris Metro Station.

It thus constitutes an ameliorative innovation of the characteristics of service since it gives, on the one hand, access by train to destinations which were only accessible by changing trains (Strasbourg), or by changing rail stations in Paris (Nantes, Bordeaux, Rennes, Lille...). On the other hand, it makes it possible to serve places which were not served by rail service. It is the case of the Meuse station, Lorraine station, Marne-la-Vallée, Roissy airport, and Massy stations.

However, there is no direct train towards South-east cities, but connections to Lyons and Marseilles in Marne-la-Vallée station. From Rheims, train stops at Lorraine station and users must take a coach to their final destination, Nancy and Metz⁹. However, a round trip towards Metz has been effective since December 2008. For international destinations, there was no direct access at the departure of or bound to Rheims stations, but a round trip towards Luxemburg was inaugurated on December 14, 2008.

This railway service which could still be improved in the future is thus favorable even if the lack of direct connections with Germany or Great Britain partly limits the potential effects on urban and business tourism.

Beyond the number of round trips and the improvement of journey times, the announced schedules also seem to allow the development of tourist activities. For urban tourism, indeed, the weekend rail service towards Paris is good (8 or 9 return journeys) at the city centre station (plus 3 or 3.5 in

⁹ Indeed this station which is located in Cheminot-Louvigny is not connected to ERT (express regional train). A new station connected to the ERT network is however planned in Vandières.

Bezannes). The last arrival in Rheims on Friday at 22:13 allows a late arrival and the last return to Paris on Sunday at 23:00 also allows a late return¹⁰.

The rail service is also adapted for business tourism since during the week schedules are evenly distributed in the course of the day. It is thus possible to make the round trip in the half-day in both directions. Moreover, the Congress Center is very near Rheims central station which is itself located in the middle of the city and its heritage trail.

In addition, the localization of the interconnection station in Bezannes is also interesting as it is close to the city, easily accessed by road but also by rail since the two stations are connected by ERT (express regional train). In the future, it will be more accessible because the planned tramway will also connect the station to the city centre. The intercity weekend rail service is relatively good coming from Lille, Rennes, Bordeaux and Nantes, with travel possibilities both ways on Friday evenings, Saturday mornings and late returns on Sundays for Nantes and Bordeaux. During the week, this rail service is about the same, making it possible in the long term to develop business tourism for provincial customers served directly by the network. In contrast, there is no direct connection with Lyons, Marseilles and the cities of the southern network, the only evolution which one can notice being the total reduction of running times of approximately 0:45 of hours towards Rheims (3:50 for Lyon, 4:35 for Marseille).

These innovations in terms of rail service thus appear to constitute a tool to allow the development of business and urban tourisms. Moreover, HSRS constitutes an incremental innovation likely to serve a renewed communication policy. However, all these innovations cannot be sufficient on their own to stir enthusiasm for the destination of Rheims but require that the actors appropriate them.

4.3.3 The need for collective appropriation of the innovations related to the HSRS to serve the development of specific resources

The development of urban tourism and business tourism requires strengthening the specific resources available in Rheims. Products and services innovation must be defined. The aim is to produce a new positioning of the city (4.3.3.1) Moreover a real collective strategy of valorization must be developed. This requires relational innovations (4.3.3.2). The HSRS seems to us to be an innovation able to generate this kind of development.

¹⁰ The tourism office of Rheims found an increase in attendance of Parisian tourists in 2007, but before the HSRS arrivals in June. This increase can be linked to the communication around the new HSRS.

4.3.3.1 A new positioning of Rheims among the competing cities

Rheims is one of the major cities with the shortest journey times to Paris. However, it competes with close to Paris same size cities like Tours or Le Mans in terms of urban tourism and business tourism supply. It is also competing with cities served by the new HSR such as Nancy and Metz.

First, to distinguish itself from its competitors, Rheims district must appropriate ameliorative and incremental innovations related to HSRS to improve its image.

Consequently actors have developed innovations in terms of communication policies. The tourist office of Rheims and the city development agency "Invest in Reims"¹¹ have conducted advertising campaigns. The objective was to renew the city's image. All campaigns were based on the heritage of the city (historical, religious, gastronomic or sporting heritage) and tried to give an image of modernity or a shifted image¹². Other economic actors also insisted on new developments taking place in Rheims in connection with the HSR. Images of building construction and street improvements were circulating. However, this is inconsistent with the advertising campaigns showing the quality of life, the quality of reception and promoting the cultural and architectural heritage of the city ("The city of a thousand smiles").

These multiple communication policies and the lack of dialogue do not give the same image of the destination. But actors avoid communicating on the same materials and at the same periods. The French National Railway Company "SNCF" has also published a touristic guide on cities served by East HSR¹³. All these advertising campaigns have led to speak about the city in many places and many Medias which was not the case before¹⁴.

Secondly, to distinguish itself from its competitors, and to become a tourist destination, Rheims has to think its products over. In fact, being an accessible tourist destination is not enough. The city is trying to attract new

¹¹ If Reims Champagne Development renamed Invest in Reims was founded in 2003, long before the arrival of the TGV, that creation reflects a wish to revitalize the city.

¹² Thus, the city of Reims has launched an advertising campaign in newspapers usually never targeted by local authorities (eg inrockup'tibles).

¹³ This guide is available in bookstores. It lists the best sites and addresses in the three French regions crossings and Switzerland, Germany and Luxembourg, excerpts from the guide "Le Routard". A synthetic version is also available at rail stations.

¹⁴ At the Tourism office of Reims, the number of requesting information by Ile-de-France inhabitants drew by 66% (Journal L'Union, 6 June 2008).

tourists through initiatives such as "passion cities"¹⁵. They are trying to fight against the reduction of the duration of stays induced by HSRS.

Thus, in the field of tourism, the taking root of the resources by producing a basket of goods helps to enhance the heritage product. "The additional value of the basket of goods is due to the fact that the consumer buys the product in his context" [15].

Moreover, the taxonomy of tourist products [25] distinguishes between the discovery stay and the escape stay. The utility of the tourism product is linked to the duration of the stay. In the case of a discovery stay, the tourist acts as a spectator and his satisfaction quickly reaches a peak. In the case of an escape stay the tourist operates as an actor and the duration of his satisfaction may be longer. The difficulty lies in the fact that escape stays are generally related to country holidays (rural lodgings, spa treatments, sporting leisure).

To avoid the reduction of the duration of the stays linked to the HSRS, the tourism actors must supply escape goods as part of urban tourism. This is the case in Rheims through organizing walks in urban space. The "Flâneries Musicales de Rheims", a Summer Classical Festival, held over several weeks in the summer, also corresponds to this type of stay. However, in the case of business tourism, the duration of stay is always short. Also, increasing the duration could hardly be considered.

The second difficulty lays within the product positioning. The strength of Rheims is also its weakness. The town is associated with "champagne" and "cathedral products". Champagne which can be considered as the leader of the basket of goods [26] tends to overshadow other aspects of tourism [27]. The tourists limit themselves to these two products. The champagne must draw the tourism supply and does not have to crush other products. The risk also exists for the "champagne" product to become an ordinary product. It is necessary to maintain it as a luxury product [28].

Thus, the supply of tourism products is large (patrimonial, cultural, goods of tastes), but the various products are not sufficiently known and identifiable. In addition, the creation of events to enliven the city and the staging of the city are not sufficiently developed. There are weaknesses such as lack of readability of the supply, the underdevelopment of Champagne image. The pedestrian areas are not sufficiently highlighted between the central rail station and the Congress Center on the one hand, and the Cathedral [29], on the other hand.

¹⁵ Intervention at the 5th meeting FNOTSI, Reims Congress Center (February 2007).

Thirdly, to distinguish itself from its competitors, the destination must supply services innovations. In the Rheims District, the HSR has led to the production of services in tourism such as the opening of a residential hotel next to the railway station. But strategic actors such as the SNCF or Champagne houses have not developed new products or services. Since the introduction of the HSR, SNCF has not sold the destination "Rheims" in a specific way. So despite the coordination of tourism actors around the Christmas Village¹⁶ in Rheims and the Christmas Champagne (a circuit linking cities around Rheims with Christmas Cribs), the SNCF did not make any specific supply whereas it did so for the Christmas Market in Strasbourg¹⁷.

In addition, the Champagne Houses have not developed the opportunities to visit their cellars since the inauguration of the HSRS. On the contrary, the difficulties encountered by tourists to visit the Champagne Houses have remained and prevented the valorization of this resource. The Champagne Companies evoke security reasons for not supplying visits. This situation also seems to result from the low short-term profitability of this activity. However, this activity is strategic for the development of tourism in the Rheims District.

But beyond the individual appropriation of the innovations related to HSRS, a collective appropriation of the HSRS by the local actors is necessary. A collective appropriation could generate product innovations.

4.3.3.2 A relational Innovation reflecting a collective strategy as a condition for the development of urban and business tourism.

If tourism became a strategic activity in economic development, with commercial actions gathering a public agency (the Department of Tourism, Tourist Office, or association of tourist office in several cities) and private actors (hoteliers, restaurant), however, the HSR has not been the catalyst for these actions.

In Rheims, the territorial actors have not developed real relational innovations linked with the HSRS [7, 16]. However particularly in the field of tourism, such relational innovations which are based on a coordination of

¹⁶ According to studies, this Christmas village hosts nearly 2 million people.

¹⁷ SNCF offered in November-December 2007, 27 000 additional places for 4 weekends (Friday to Sunday) or the equivalent of 77 trains. Also in November-December 2008, the SNCF offered 60 additional HSR between Paris and Strasbourg and on 4 weekends before Christmas. In 2008, SNCF tries to develop a product including a HSR ticket and a gastronomic lunch, but it failed.

actors appear essential. They allow the taking root of the infrastructure in the area. The specific resources can also be transformed into assets. On the other hand, lack of coordination of the local actors can inhibit the development of tourism in the destination¹⁸.

In Rheims District, in the field of tourism, the creation of an Office of Congress with many different tourism actors has been discussed. But, this relational innovation which could be central to the production of service innovations failed. This is the result of conflicts between different tourism actors (Congress Center, travel agencies, tourist office). Worst, a lawsuit was filed and won against the Congress Center and the tourist office by travel agencies who accused them of selling tourism services. This action demonstrates the difficulty of actors to coordinate themselves.

In the periphery of the district, the lack of coordination with the actors in these border areas has also been seen for a long time as a handicap. Little cooperation between actors working in the field of urban tourism has been implemented in the cities close to Rheims. Indeed they could supply products combining visiting Rheims and other closes cities.

However, Rheims and 9 towns close to Rheims created an association "the G10" on November 7, 2005¹⁹. They willingness to develop their coordination in tourism policies and other fields. A meeting of these 10 cities took place in March 2007 on "Tourism in question, what synergies, developments?"²⁰ and showed awareness which, for now, has not resulted in any actions.

In our opinion, the HSRS is not associated with the emergence of any relational innovations. A city like Rheims should create a space for dialogue in which actors can meet to try to overcome potential conflicts and competition. That will also allow a coordination which is necessary to a common development.

Thus, the arrival of HSR in Champagne-Ardenne was an exogenous factor liable to support the change of strategies of actors in terms of cooperation. But it was not sufficient. The HSR can be a means of highlighting

¹⁸ This is the case in Avignon, a city in which there was no tourist information point in the station during the commissioning of the HSR and an insufficient fleet of rental vehicles. On these two points, a concerted action can result in services which are crucial in strengthening the tourism in this destination.

¹⁹ Reims, Châlons-en-Champagne, Epernay and Vitry-le-François in Marne department, Rethel, Sedan and Charleville in Ardennes department, Château Thierry, Laon and Soissons in Aisne department.

²⁰ The planning agency of Reims and the region has produced a publication on tourism Marnardaisne (synthesis of the Marne, Ardennes, and Aisne) [40].

under-exploited resources and to promote the local area attractiveness. Individual appropriation of HSRS by the actors is evident. However, the appropriation did not lead to significant relational innovations. For now, there is no collective appropriation and the infrastructure is not really rooted in the area.

4.4 CONCLUSIONS

This analysis shows that the existence of a historical, cultural or gastronomic heritage is a prerequisite for a local area to develop activities linked to urban and business tourism.

It firstly shows the need for cities to provide hotel infrastructure in sufficient quantity and quality (especially for business travelers). Secondly, the strategic role of accessibility toward final destination (City center, historical sites and restaurants) is important. Thirdly, the coordinated efforts of actors to promote the tourism development of the city, supplying a basket of goods, are decisive.

In this context, High-Speed Rail service is a great tool for valorization which amends the factors of accessibility and the city's image. But as the exogenous factor binding to a local area or chosen by this area, it can also promote awareness among local actors of the need to take this opportunity to build a strategy. It can act as a trigger for resources exploitation policies.

This indirect role of High-Speed Rail service is not of little significance and appears to have played a part in the Rheims District. Indeed, a new tourist supply exists, but, for now, there is no collective appropriation.

Nevertheless, in the case of Rheims, it is difficult to validate the analysis that we made. Indeed, the elapsed time since the arrival of the HSR in June 2007 is insufficient. In addition, the worsening economic situation since 2008 affects the tourism in general and cities connected by HSRS are no exceptions. Consequently, we need more time to evaluate the empirical results of our theoretical analysis.

REFERENCES

1. Bonnafous, A., & Plassard, F. (1974). Les méthodologies usuelles de l'étude des effets structurants de l'offre de transport. *Revue économique*, XXV(2).
2. Plassard, F. (1977). *Les autoroutes et le développement régional*. Presses Universitaires de Lyon.

3. Offner, J.-M. (1993). Les effets « structurants » du transport: mythe politique, mystification scientifique. *Espace géographique*, 3, 233-242.
4. Vickerman, R.W. (1991). *Infrastructure and regional development*. Pion Limited, London.
5. Vickerman, R.W. (1997). High-speed rail in Europe experience and issues for future development. *Annals of Regional Science*, 31, 21-38.
6. Bazin, S., Beckerich, C., & Delaplace, M. (2006). *Analyse prospective des impacts de la Ligne Grande Vitesse Est-Européenne dans l'agglomération rémoise et en région Champagne-Ardenne*. Rapport final pour le Conseil Régional Champagne-Ardenne.
7. Blanquart, C., & Delaplace, M. (2009). Innovation relationnelles nouvelles offres de service et valorisation des nouvelles infrastructures de transport ; Le cas de d'une plateforme multimodale et d'une desserte TGV. *Cahiers Scientifiques du Transport*, 56, 63-86.
8. Troin, J-F. (1997). Les gares TGV et le territoire: débats et enjeux. *Annales de Géographie*, 593-594, 34-50.
9. Amiard, D. (1997). Le tourisme d'affaires et de congrès dans l'agglomération mancelle. In J. Chevalier (Ed.), *Le Mans 6 ans après l'arrivée du TGV*. Groupe de recherche en géographie sociale, ESO – Espaces géographiques et Sociétés, Université du Maine, Le Mans.
10. Buttet, B., and alii. (2001). *Impact de l'arrivée du TGV sur la ville de Tours*. Rapports d'ateliers, Magistère 2ème année, CESA.
11. Amendola, G., & Gaffard, J.L. (1988). *La dynamique économique de l'innovation*. Economica, Paris.
12. Colletis, G., & Pecqueur, B. (1993). Intégration des espaces et quasi-intégration des firmes: vers de nouvelles rencontres productives ?. *Revue d'Economie Régionale et Urbaine*, 3, 489-508.
13. Colletis, G., & Pecqueur, B. (2005). Révélation de ressources spécifiques et coordination située. *Économie et Institutions*, 1er et 2nd semestres, 51-74.
14. Pecqueur, B., & Peyrache-Gadeau, V. (2002). *Les ressources patrimoniales: une modalité de valorisation par les milieux innovateurs de ressources spécifiques latentes ou existantes*. Colloque du GREMI 5, Neuchâtel, 26-27 avril.
15. Pecqueur, B. (2003). *Dans quelles conditions les objets patrimoniaux peuvent-ils être support d'activité ?*. Communication à la XIIIème conférence internationale RESER « Services et développement régional », Mons, 9 et 10 octobre.
16. Delaplace, M. (2009). *Histoires d'innovation dans l'espace, de l'émergence d'innovations fondées sur la science à l'appropriation d'innovations de services de transport*. Mémoire d'Habilitation à Diriger les Recherches, Université

de Reims-Champagne-Ardenne. Retrieved from <http://www.univ-reims.fr/index.php?>

17. Saviotti, P., & Metcalfe, J.S. (1984). A theoretical approach to the construction of technological output indicators. *Research Policy*, 13, 141-151.
18. Gallouj, F., & Weinstein, O. (1997). Innovation in Services. *Research Policy*, 26(4-5), 537-556.
19. Gallouj, F. (2003). Les services et l'innovation. In P. Mustar, & H. Penan (Eds.). *Encyclopédie de l'innovation*, Economica.
20. Desjeux, D. (2003). *Réflexions sur la logique des innovations dans l'espace domestique*. Les Rencontres de Cargèse. Ecole d'Été, Economie, Gestion et Sociologie de l'Innovation, 25-27 juin 2003.
21. Camillerapp, I. (1997). *Projet de TGV Bretagne/Pays de Loire: analyse du processus de territorialisation de la grande vitesse ferroviaire*. Ecole Nationale des Ponts et Chaussées, Université de Paris XII.
22. Proulx, S., Rueff, J., & Lecomte, N. (2007). *Une appropriation communautaire des technologies numériques de l'information*. UQAM.
23. Chaney, D. (2008). Pourquoi acheter un CD quand on peut le télécharger ? Une approche exploratoire par le concept d'appropriation. *Management et Avenir*, 20.
24. WTOBC (World Tourism Organization Business Council) (2000). *Public-Private Sector Cooperation, Enhancing Tourism Competitiveness*.
25. Caccomo, J.L., & Salonandrasana B. (2002). *L'innovation dans l'industrie touristique, Enjeux et stratégies*. L'Harmattan.
26. Pecqueur, B. (2001). Qualité et développement territorial: l'hypothèse du panier de biens et de services territorialisés. *Economie Rurale*, 261, 37-49.
27. Chossat, V. (2007). *L'attractivité des biens de goût*. Communication lors de la journée de recherche du laboratoire OMI, « Éclairer les enjeux du 21e siècle pour la Champagne-Ardenne, Les apports de l'analyse économique », Conseil Régional, Châlons-en-Champagne, 30 Mars 2007.
28. Barrere, C. (2007). *Le Champagne à l'heure du luxe marchand*. communication à la journée de recherche du laboratoire OMI, « Éclairer les enjeux du 21e siècle pour la Champagne-Ardenne, Les apports de l'analyse économique », Conseil Régional, Châlons-en-Champagne, 30 Mars 2007.
29. Scherr, T. (2004). *L'impact du TGV-Est sur le tourisme d'affaires: quelles stratégies pour Reims et Epernay*. Rapport de stage à la CCIRE, DESS IATEUR, Université de Reims Champagne-Ardenne.

30. Boursier-Mougenot, I., & Ollivier-Trigalo, M. (1996). *Le projet de TGV-Est : l'expérience d'un processus nouveau d'élaboration d'un grand projet d'infrastructure: entre consensus et incertitude*. Synthèse du rapport.
31. Menerault, P. (1996). *Le TGV Nord: appropriation locale d'un grand projet*. INRETS.
32. Menerault, P. (1997). *Processus de territorialisation de la grande vitesse ferroviaire: le TGV et les régions: Le cas du Nord-Pas de Calais*. INRETS.
33. Menerault, P. (2000). *Appropriation régionale de la grande vitesse ferroviaire et rôle des régions dans la dynamique des réseaux: le cas du TGV en Wallonie et en Bretagne*. GRRT.
34. Bellanger, F. (1991). *Le TGV Atlantique au Mans, à Saint-Pierre-des-Corps, à Tours et à Vendôme : opportunités, acteurs et enjeux*. Maison des Sciences de la Ville, Université de Tours.
35. Mannone, V. (1995). *L'impact régional du TGV Sud-est*. Thèse de Doctorat de Géographie, 2 tomes, Université de Provence Aix-Marseille.
36. Bazin, S., Beckerich, C., Delaplace, M., & Masson, S. (2004). *Analyse prospective des impacts de la Ligne Grande Vitesse Est-Européenne dans l'agglomération rémoise et en région Champagne-Ardenne*. Rapport intermédiaire pour le Conseil Régional Champagne-Ardenne.
37. Schumpeter, J. (1939). *Business cycles*. Mc Graw Hill, Londres.
38. Porter, M. (1998). Clusters and Competition: New Agendas for Companies, Governments, and Institutions. In M. Porter (Ed.), *On Competition*. Harvard Business School Press, Boston: Massachusetts.
39. Porter, M. (1990). *The competitive advantage of nations*. Mac Millan.
40. AUDRR (2007). *Le tourisme en Marnardaisne : la recherche de synergies*.