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CROSS CHANNEL BACK-UP POLICY AND TOURIST FREQUENTATION EVOLUTION AT NORD-PAS-DE-CALAIS REGIONAL BORDERS

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Abstract

Since the construction of the Channel tunnel, a new way of planning on the regional territory has been initiated. The policy makers of the Nord-Pas-de-Calais region have launched a specific regional tourism policy. Firstly, the paper deals with the theoretical problem of structuring impacts of transport infrastructure and the need of back-up strategies. Secondly, it describes the cross-Channel support policy in tourism and transport fields as ingredients of regional development. Thirdly, it will give some results of the tourism economic activity development from 1988 to 1996. Finally, it presents new research examining tourist demand side for attributing impacts to this policy.

INTRODUCTION

The Nord-Pas-de-Calais region, located in the northern part of France has launched a specific regional tourism policy because of the construction of the Channel tunnel. This occasion has initiated a new way of planning for developing tourism activities on the regional territory. Policy makers have reorganized the tourism policy laying on the new "image" given by the Channel tunnel and the High-Speed Train North European network. They made a list of priorities and specific actions in the whole framework of sustainable economic development.

Firstly, the communication deals with the theoretical problem of structuring impacts of transport infrastructure. It shows the evolution of the theoretical context, which has led to conditional impacts depending on back-up strategies or support policy. Secondly, the paper describes the regional cross-Channel support policy. Tourist activity is proposed as an essential ingredient of economic development. Thirdly, it will give some results of the tourism economic activity development on a long-term period observation from 1988 to 1996. It will focus on a special zone named the "transmanche area" located on the French coast beside the English Channel. Finally, the paper presents new research as an attempt to attribute impacts to the tourist policy.

THE RELATIONSHIP BETWEEN TRANSPORT INFRASTRUCTURE INVESTMENT AND DEVELOPMENT: FROM THE "STRUCTURING EFFECTS" TO THE ELABORATION OF A "BACK-UP STRATEGY".

Within the transport economy, the "structuring effect" paradigm is the result of a need expressed to assess and identify the transport infrastructure "impacts" on regional development. This study is carried out within the context of a search for the "effects" of construction and operation of major transport infrastructure projects.

The "structuring effects" of transport infrastructures.

In different European countries, transport infrastructure investment choices were most often made on the basis of the cost-benefit analysis. This type of analysis, originating from the United States was based on profitability studies. It has always compared each project with the others, mainly from the financial point of view, including all their local developments, in order to establish a sort of "hierarchy of urgency" between the different realizations to be achieved. These calculations have contributed to fixing the amount that could be allocated to each project.

It was established, afterwards, that transport infrastructure investments could induce modifications of the behavior of economic and social agents on a given territory. Nevertheless, they have not been estimated in the cost-benefit analysis and this has led to a new and wider assessment method called "impact or effect analysis" of the large-scale transport infrastructure projects. These new appraisal theories rely on the principle of automatic links between infrastructures and regional development based on an investment spreading mechanism (of a Keynesian type) which touches all sectors of the economy. This process has led to a great number of impact assessment simulations with the help of models which involve traffic flow analysis and the spreading of the new demand for marketed goods necessary for the infrastructure building of all the economic sectors of the involved area (Biehl, 1991, Plassard, 1977, Rietveld, 1992). Other models can be used to estimate the effects of transport infrastructure expenditure on employment levels, income and other economic variables.

Analysis of the relationship between infrastructures and development leads on to the concepts of the "structural effects" of the transport infrastructures, which were widely studied in France, in the years from 1975-80 (Bonnafous, Plassard, 1974). This research argues that construction of a big transport infrastructure - especially a highway or a high-speed rail link - must "automatically" bring about a series of consequences for the economic and social development of the region that receives it.

The "conditional structuring effects" of transport infrastructures.

During the decade of the 1980s the principle concerning the automatic nature of the "structural effects" of transport infrastructures was vigorously disputed (Plassard, 1985). Thus far the demonstration of the existence of this high level of benefits has never been made with a clear explanation of what was due to this transport investment. This relationship between the construction of a transport project and its "structural effects" has even been considered as a "political myth" and a "scientific hoax" (Offner, 1992). Researchers noted that discounted effects are not systematically manifested as soon as a new transport infrastructure is constructed. Moreover, they foresaw that the effects can be more or less diffuse, and can depend on the mobilization of local players to achieve the targets defined at the outset. Thus, the definition of the consequences of the implementation of major transport infrastructures is evolving, and is giving way to a notion of "conditional structural effect".

This new approach justifies the elaboration of a "back-up strategy" to integrate the implementation of the new transport infrastructure into an overall policy which covers all the social and economic sectors of a given territory. This strategy concerns the building period but first and foremost the operating period or the time of the real influence of the transport infrastructure. The building period of the infrastructure occupies a relative place alongside the processes of the slow development of the effects linked to its opening even if this construction period it can be observed and studied. The importance of back-up policies in taking advantage of investments in the transport infrastructure and increasing the positive repercussions on the regions served is recognized. These are some of the main elements of a policy designed to derive maximum advantage from the transport infrastructure.

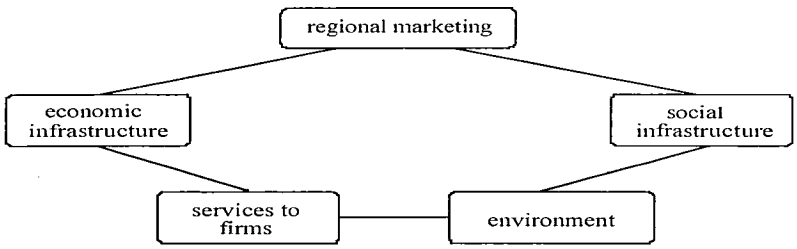


Figure 1: Axes of a regional enhancement policy

The most important variable in back-up policies is the policy regarding *economic promotion* and *regional marketing* (See figure 1). It is probable that the new transport infrastructure will have a positive influence on employment and that growth will be significantly greater if the region adopts an active policy of economic promotion and of seeking to attract companies (exogenous development).

Figure 2: Conditions of economic growth

There is an increasing decentralization of regional policy, which is taking the form of competition between regions to attract economic activities and employment to their territory. "Conditional effects" are taken as an answer to the non-automatic effects of transport infrastructures on development. They argue interactive links exist between the transport system and the economic system in which it takes place. Conditions of economic growth are described in figure 2. This new approach justifies the elaboration of a "back-up strategy", especially in the case of the cross-Channel fixed link.

THE CROSS-CHANNEL SUPPORT STRATEGY IN THE NORD-PAS-DE-CALAIS REGION

In this part are described the implementation and the substance of the cross-Channel support strategy in the Nord-Pas-de-Calais region and how it has been included into the State and the Region contract documents. A special attention is given to the chapters concerned by Tourism and Transports linked with the Channel tunnel realization.

Implementation and substance of the cross-Channel support strategy

The decision to build the Channel tunnel at the beginning of the seventies contributed to ideas for the enhancement of such a transport infrastructure in the region. These ideas of regional development associated with the tunnel and the building of a high-speed railway line, named "Europolitain", appeared in the urban development plan approved in 1971. Therefore, they formed a portfolio of projects which remained in abeyance after the abandonment of the tunnel project in 1975, however and above all, they will have enabled the "reservation" of land for expropriation in the eventuality of a follow-on attempt to build the tunnel. Finally, they served as the foundation stone for the majority of support initiatives recommended later on.

The regional mobilization effectively started again in 1981, when the two leaders of Great Britain and France took the decision to undertake a joint study on the possibilities for a cross-Channel fixed link. This event started the process of dialogue between the French government and regional and local leaders regarding this new transport infrastructure. This process continued with the implementation on the French side of the Channel of a regional think-tank and study structure for working out the necessary measures for maximizing the regional effects of such a project. This working group illustrated in its report the framework for what was subsequently to become the regional support strategy in all fields likely to be affected by this project (See figure 3).

The mobilization of the various actors concerned by the revival of the fixed link project benefited from a political, economic and social climate that was more favorable in the Nord-Pas-de-Calais region because this project closely associated regional and local representatives who were placed in the new context of decentralized planning and negotiation with the State for developing contract-based procedures. This mobilization re-crystallized at the end of 1984. In fact, a specific group of elected representatives of the Regional Council and members of the Regional Economic and Social Committee was formed with the name "Comité Mixte Transmanche" mainly in preparation for the invitation to Tender by the French and British governments for building the fixed link across the Straits of Dover on 2 April 1985, but also because the choice of project plans to be submitted by the different promoters were not the subject of an official consultation at regional level.

The Nord-Pas-de-Calais Regional Council contacted the American consultants, Bechtel, in order to study the different proposals to be filed. Bechtel illustrated, firstly, the different variants of existing project plans and their consequences for the population, the economy and the region. Furthermore, it took stock of the initiatives to be undertaken for enhancing the expected benefits of such a fixed link,

irrespective of the project plan accepted by the governments, but also for minimizing or compensating the negative effects which it might cause in particular to the coastal area and the organization of sea port activities. Therefore, the report presented the foundations of a support strategy associated with the building of the cross-Channel fixed link.

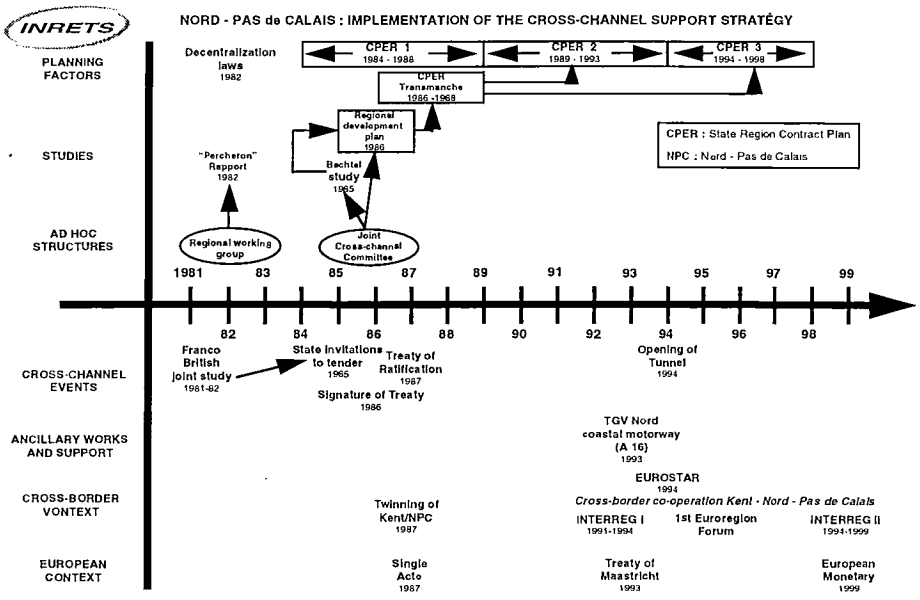


Figure 3: Implementation of the cross Channel support strategy

This back-up strategy is then illustrated and developed in a document named "Fundamentals for a Regional development plan", which describes the tools and means to be implemented for supporting the construction of such a fixed link. It is important to note that the real challenge of building the fixed link comes after its actual construction. In fact, construction site support measures were intended to "benefit the integration of the site in long-term development", and were in evidence, as we shall see later, before the introduction of tools and means to be created or mobilized, as described in this regional strategy. In fact, the strategy entailed the joint development by all the regional, economic and social actors of a Plan embracing the social and economic development measures, as well as the necessary infrastructures for regional development and development of its coastal area

This support strategy is concerned with the repercussions of the tunnel both in the short and long term, and gives all the conditions for maximizing the effects of its construction and operation. It must enable "the region's new development to be stimulated and structured. For this reason, the planned initiatives do not concern solely the coastal area, but include projects relating to the entire region both now and in future years". The major concern for regional leaders is, therefore, to link together regional development and economic and social ones with the aim of redeploying and renewing regional impetus factors, the accomplishment of which should cover several regional plans. This plan's originality rests securely in the fact that the building of a transport project serves as a starting-off point and aid to operations covering, firstly, the social and economic domains, until the control of the "living environment" before even planning the building of other transport infrastructures, which go to strengthen the previous policies, out of a concern for complementarity of types of transports.

The means to be developed are detailed under two main headings. The first represents the social and economic development, the second concerns the re-organization of transport infrastructures placed in last position in the regional plan. These initiatives are planned in the long term covering at least a

ten-year period. The control of the living environment takes third place as a means of regional development, and the Region requires a particular effort by the State relating to the improvement and protection of sensitive sites. The attractiveness of port towns must be strengthened. Illustrated finally, and in last place, are the ways of re-organization of all the region's means of communication in order to favor traffic distribution and the fixed link's effects on the Nord-Pas-de-Calais region. This re-organization relates to transport infrastructures having a concern for complementarity of transport modes, but also having a policy of compensation in terms of infrastructure equipment, in particular, with the creation of goods handling centers on the coast and in the hinterland, but also the modernization of maritime cross-channel activities (See table 1).

Table 1: measures of the regional development plan to accompany the fixed channel link

REQUISITES	II MEANS	
- Setting up a Mission conducted by the Regional Council to assume reflection, concertation and organization. - Elaboration of a sea highlighting scheme on the Nord-Pas-de-Calais coastal area to link together economic development, planning and environment. - Application of the "Big building site procedure" to the project. - Regional firm mobilization at a regional level. - Setting up an instrument panel for the environmental follow-up. **I TOOLS** - Creation of a coastal Development Fund (C.D.F.). - Elaboration and follow-up of a Social Plan. - Creation of a specific operator conducted by the Region.	I **Economic and social development means.** **A Training** (1st C. D. F. objective) - Reorganization and upgrading of the training level for skilled jobs. - Adaptation of the on-going training to the building needs, professional moves over. **B Economic organization** (2nd C. D. F. objective) - Development of regular transoceanic lines. - Implementation of "special fiscal rule areas". - Creation of a coastal Scientific and Technical Industrial Research Zone. - Classification of the Calais and Boulogne areas into Planning Subsidy up to 50 000 FF. - Financing and improvement of regional research and reinforcement of the regional coastal university machinery.	- Development of tourism **C Environmental control.** - Reinforcement of the Boulogne, Calais and Dunkerque city attractiveness. - Protection of the environment and fragile sites. - Adaptation of the housing for the new populations. **II transport infrastructure reorganization.** - Harbor infrastructure modernization. - Road infrastructure building on the regional coastal and hinterland areas. - Creation of northern-T.G.V. lines. Electrification of regional railways and Regional Public Transport restructuring. - Reflection on the goods Centers and the role of telecommunications in future locations.

Source: Regional Council Cross-Channel development Plan

Most of these measures will take the form of contract-based solutions initiated by the decentralized planing started in 1982 in order to be registered in the new State and Regional budgetary forecasts. But, over the written texts, it appears that a regional development project, as described in the regional Plan where the new infrastructure represents a regional socio-economic re-organization opportunity, becomes a project mainly concentrated on the building of infrastructures as reflected in the cross-channel State-Region Contract Plan.

The disappearance of the economic motivation heading and, therefore, the fiscal and financial economic devices, which formed the framework, is significant. Furthermore, the enhancement of research and the development of tourist activity are no longer considered as an integral part of economic motivation. It is important to stress that the re-organization of transport infrastructures, which represents the last heading of means to be created for aiming at regional redeployment in the regional development plan, becomes the priority stake in the State-Region contract plan reflecting the greater ease of constructing transport infrastructures compared with the implementation of new economic development and social re-organization tools (See table 2).

Table 2: The State - Nord-Pas-de-Calais Region cross-Channel contract plan

- Application of the "Big building site procedure" to the project.
- Creation of a coastal Development Fund.

I Transport infrastructures

Road infrastructures

- Realization of a coastal highway from the Belgian border to Le Havre.
- Road and Motorway network and linkage to the hinterland network

Railway infrastructures and public transports

- The Northern TGV Project.
- Electrification of the Calais-Hazebrouck section.
- Adaptation and promotion of the regional public transport.

Harbor development

- Development and modernization of Dunkirk harbor installations.
- Eastern extension of Calais harbor.
- Modernization of the Boulogne industrial fishing fleet.

Goods transport

- Development of the goods transports function.

II Training and research

Initial training

- Upgrading of initial training facilities.
- Creation of professional graduate and post-graduate training.

On-going professional training

- Reinforcement of the on going training machinery.
- Creation of a permanent on-going training center.

Research and technology

- Reinforcement of Research-Development action programs.

III Tourism

- Promotion of tourism.
- Financing of contracts for coastal area actions.
- Specific training for the tourist industry.

IV Environment

Housing

- Setting up of housing restoration funds.
- Elaboration of programs for the new population welcoming sites.

Urban conversion and derelict industrial areas

- Setting up of urban rehabilitation and derelict industrial area treatment programs.

Environment

- Acquisition by the Coastal Conservatory of sites affected by the Channel tunnel terminal.
- Realization of welcoming structures by the Natural Regional Park.
- Protection of fragile sites (sand dunes, marshes, and watergangs).
- Laying-out and improvement of natural sites.
- Setting up of an instrument panel for the environmental following.

Source: Contract Plan between the State and the Region signed on 14th March 1986.

Other measures will be classified under "regional initiatives" involving regional financing or requiring financing either from Europe or other local communities. This gives rise to a political "voluntarism" and a commitment by the local and regional decision-makers, which is in line with questioning the automatic positive repercussions from major transport infrastructure projects, and their structuring effects on the region under consideration. (Heddebaut, 1997).

The support strategy in the tourism field

The support strategy in the tourism field: What was proposed.

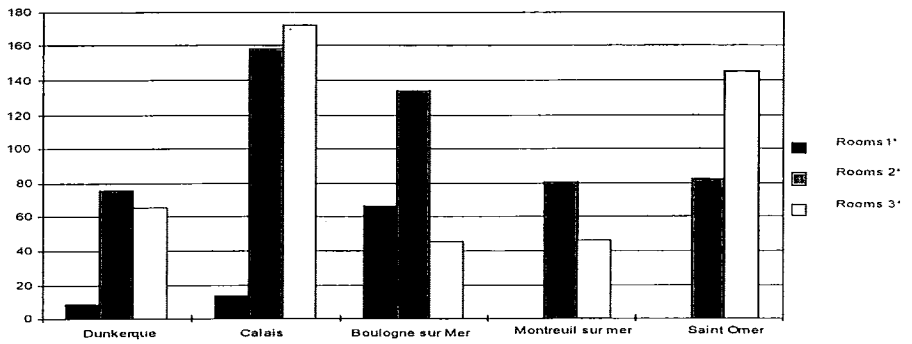
In the regional plan, the development of tourist activity is presented as an essential ingredient of economic development. This tourism development is recommended firstly by actions that are a continuation of the State - Region Contract Plan for the 1984-1988 period, but they are reinforced because of the new Channel tunnel context. For example, "holiday resort contracts" are implemented for the modernization of regional coastal resorts for an amount of 12 million Francs contracted and shared between the State and the Region. Secondly, specific actions linked with the project construction are proposed like the construction of "the Continental Gate" on the terminal site, and the creation of a "Channel crossing" museum. An increase in international conference centers capacity on the "Opal Coast" is required. Thirdly, and for the first time, the promotion and the development of tourist accommodation are planned for 9 million Francs and contracted between the State and the Region (Heddebaut, 1995).

The major change introduced in this plan is that regional authorities responsible for applying this new policy are allowed to finance restoration and creation of tourist accommodation on the coastal area and particularly for one star to four star hotels. Furthermore, the new image given by the Channel tunnel seen as the "Civil Engineering project of the century", justifies tourist prospecting

towards neighboring foreign communities, especially the British, the Belgian and the German. A special attention is given to protecting the environment and fragile sites for a greater number of visits are forecasted. The tourism development is tightly linked with environmental heritage preservation by requiring more financial means for the "Coastal Conservatory". The support strategy in the tourism field represents a planned financing of 25 million Francs in 1986.

The support strategy in the tourism field: What was realized.

The objectives of the support strategy were firstly to increase the number of tourists in the Nord-Pas-de-Calais region and on the coastal area, secondly to offer enhanced quality for a greater amount of tourist accommodation and thirdly, to attract more foreigners. It was applied in the coastal districts that are to say Calais, Dunkerque, Boulogne, Montreuil and Saint Omer. It is tightly combined with other measures that were under achievement in the 1984-1988 contracted plan. A first ex post assessment identifies the degree of realization of this specific cross-Channel tourism policy (Béhague, 1992). The objective of creation or restoration of 300 new forms of accommodation has rapidly been reached. The financial help of 10.6 million Francs for tourist rooms was essentially given to 34 establishments on the coastal area corresponding to 1 090 rooms. There were few demands for other kind of accommodation like flats, furnished rooms (96) or Bed and Breakfast (20).



Source: Nord-Pas-de-Calais Regional Council

Figure 4: number of subsidized accommodation by star classification

The Calais region that hosts the Channel tunnel terminal site has received the biggest part (31%) of this tourism support strategy. In order to upgrade the quality of tourist accommodation in hotels, these funds were given to two stars hotels (529 rooms) or three star hotels (473 rooms) (See figure 4). Action contracts were planned to organize and to sell more tourist activity. 14 million Francs were invested to develop tourist services. They had to contribute to improving the quality of life, sport leisure like sand yachting, "sea kayak" and horse riding.

If we go over this physical and financial assessment of the tourism policy implemented because of the Channel tunnel project, we must consider other actions set up in the same field but in an other context. Since 1987, the Regional Tourism Committee (CRT) has elaborated a "regional scheme for tourism development" for the 1989-1993 planning period. It focuses on three-priority axis within the general framework of the Channel tunnel opening. The first one is to develop a few poles like the coastal area. The second one is to group financial efforts on a few activities like the discovery of the nature, open air activities, health and fitness tourism, cultural tourism, modernizing and organizing tourism supply by prospecting new customers and opening up to international frequentation.

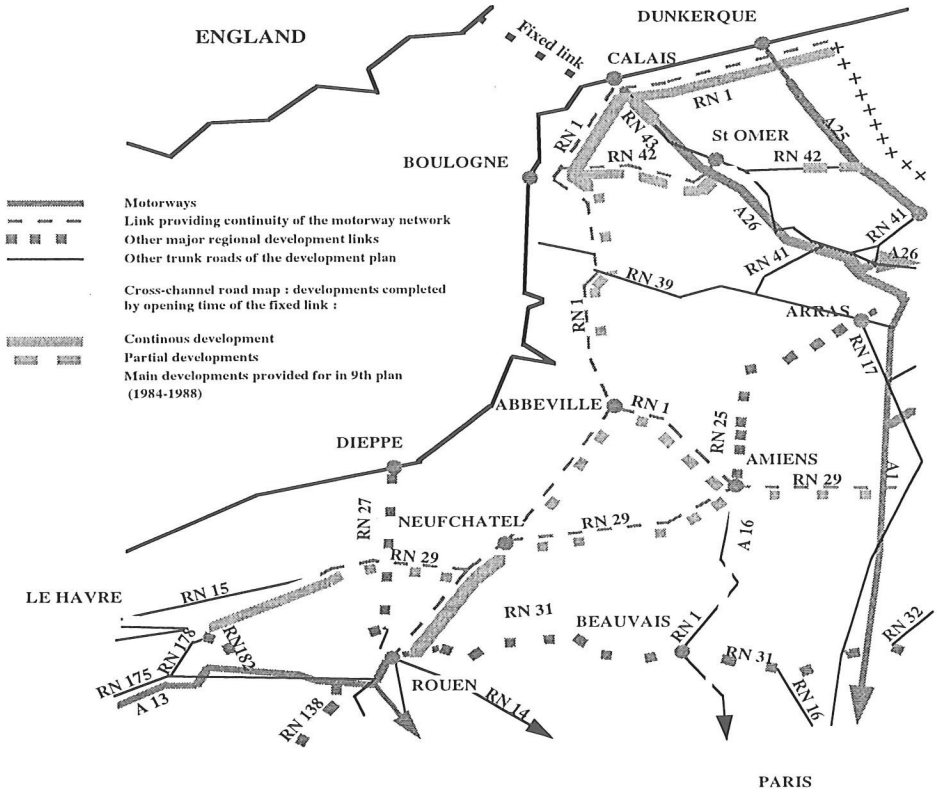
On the international side, rapid improvements are made in the field of tourism. The construction of the Channel tunnel gives institutions in charge of land and town planning, transport and tourism

planning opportunities to meet each other on both sides of the Channel. This has led to the twinning of the two regions where the Channel tunnel terminals were constructed. A Charter of cooperation for the development of tourism between the Nord - Pas-de-Calais Region, in France, and the County of Kent in Great Britain, was signed in February 1987. It encourages joint promotion and marketing actions in the two regions and on coastal areas (Heddebaut, 1998). Finally, the European Union attributed special funding because of the new context introduced by the Channel tunnel in this region with ERDF (objective 2) 18.6 million Francs, RESIDER 5 million Francs and RENAVAL 8 million Francs. These European subsidies are planned to create or enhance tourist accommodation, to favor international opening out of the region and to allow the setting up of major installations for tourists.

The support strategy in the transport field

The support strategy in the transport field: What was proposed.

The cross Channel support strategy was planned in 1986 within a wider period of planning and contracted between the State and the Region, which began in 1984 as we can see in, figure 3. The specific cross-Channel transport infrastructure plan is therefore a package of previous projects, which existed in the region and in the coastal area for a long time. In table 2 we have shown that the contracted cross-Channel plan was essentially turned towards the realization of transport infrastructures. For example, relating to the building of road transport infrastructures, we can observe that they represent a priority action heading for the State. Between 1986-1987, the State developed the "cross-channel road transport plan", a vast set of road and motorway programs.



Source: MULT 1986 Transport Ministry

Figure 5: Cross Channel Road Map

They are aimed at enhancing the maritime front and creating alternative routes for new tunnel traffic flow towards the West, Southwest and the Iberian peninsular in anticipation of the effects of its entry into the core of the European Economic Community in 1986. This cross-Channel road plan represents the possibility of speeding up road infrastructure building planned in the different national road and highway network development plans (See figure 5). These roads are programmed to be achieved at the same time as the Channel tunnel in order to "open the coastal area and the mining basin to the outside world" by means of the completion of the A26 Calais-Dijon highway and the East Calais by-pass for deserving ferries. The construction of the coastal A16 Highway linking Dunkerque, Calais and Boulogne (which will be the highway connecting Paris to the Belgian border) represents, in 1986, an estimated financing of 2.9 billion Francs (Heddebaut, Laudren, 1999).

Transport infrastructures were also planned to compensate negative effects of the Channel tunnel. For this reason, investments in port infrastructures are planned in compensation for harbor losses when faced to the Channel tunnel competition particularly the ferry activities. The railway infrastructures must enable privileged access to the North with the building of the North European High Speed Train (T.G.V.) network, the completion of which is required simultaneously with that of the Channel tunnel, with the electrification of intermediate sections to assist access to regional towns with Regional Collective Transport and also in relation to the national and international T.G.V. network. The regional decision-makers want to put the regional metropolis of Lille on an important node on the future T.G.V. network. The stake of the Northern T.G.V. project and of the Lille international station is to open the Nord-Pas-de-Calais region towards European capitals. The estimated financing for these accompanying railway measures without taking into account the new High Speed line infrastructure is more than 1.3 billion Francs. In fact, the announcement of the Channel tunnel project has given the opportunity to realize an important program of transport infrastructures that represents a foreseen unprecedented financing of more than 5.2 billion Francs. They are proposed in logic of complementarily servicing of a new cross-Channel system, which combines road and rail modes.

The support strategy in the transport field: What was realized.

We have tried to retrace expenses actually spent because of the Cross Channel support strategy.

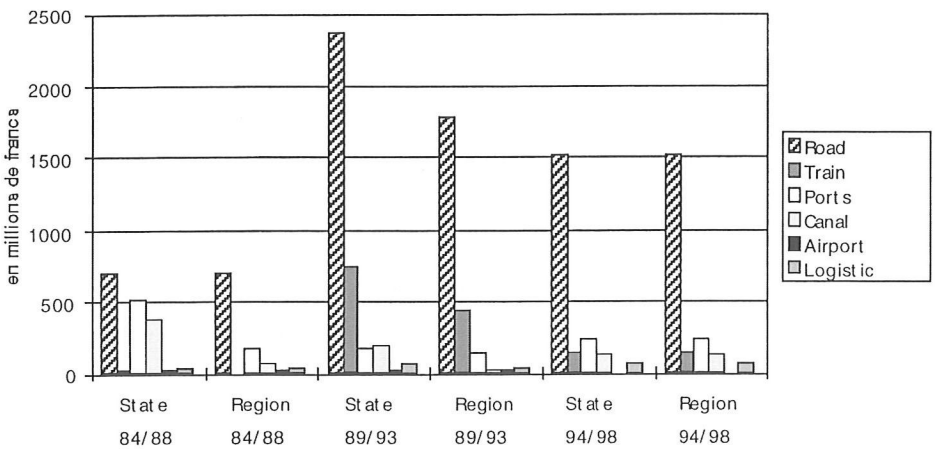


Figure 6: Financing between the State and the Region by transport modes from 1984 to 1998

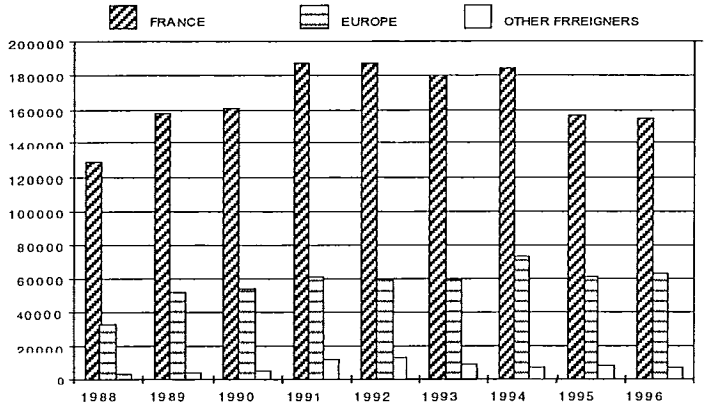
We have consulted different decision and policy who belong to the State, the Region, the Department, harbor of Dunkirk, Industrial and economic Chambers of Calais and Boulogne and Montreuil, the SANEF exploiting highways, and the SNCF operating the railway system and who could have financed part of the support strategy as described in the previous paragraph.

The cross-Channel support strategy represents an exceptional effort in terms of road and rail investments for the State and the Nord-Pas-de-Calais Region. It can be shown on figure 6 presenting the different financing between these two partners during three contract periods. These choices translate a strong willingness of regional and local authorities to give a fair chance to the coastal area of succeeding with setting up a specific "identity". Financing the coastal highway is 30% of all the cross-Channel transport infrastructure support strategy. More than 10 billion Francs were invested and one result is a new territorial cohesion at a local level.

It has been confirmed by the creation in April 1996 of the new planning institution the "Syndicat Mixte de la Côte d'Opale" (SMCO) which gathers all the regional actors from the Belgian border to the Picardie region and the Saint Omer area. Concerning transport and tourism fields, tourist and trip schemes are made by the SMCO for the coastal area, and the State and local and regional authorities have always been associated to the procedures. It would provide a best understanding of planning problems in this space.

WHAT KIND OF RELATIONSHIP BETWEEN TRANSPORTS, TOURISM AND DEVELOPMENT?

We demonstrated that the construction of a large-scale infrastructure like the Channel tunnel provided a great amount of complementary or compensatory infrastructures in the Nord-Pas-de-Calais region. Specific actions were programmed at the same time in the tourism field to increase economic activity and then to favor regional development. Are we able to measure some "effects" of this cross Channel support strategy ? We sorted out indicators, which could translate these impacts since the beginning of this strategy implementation in 1988.



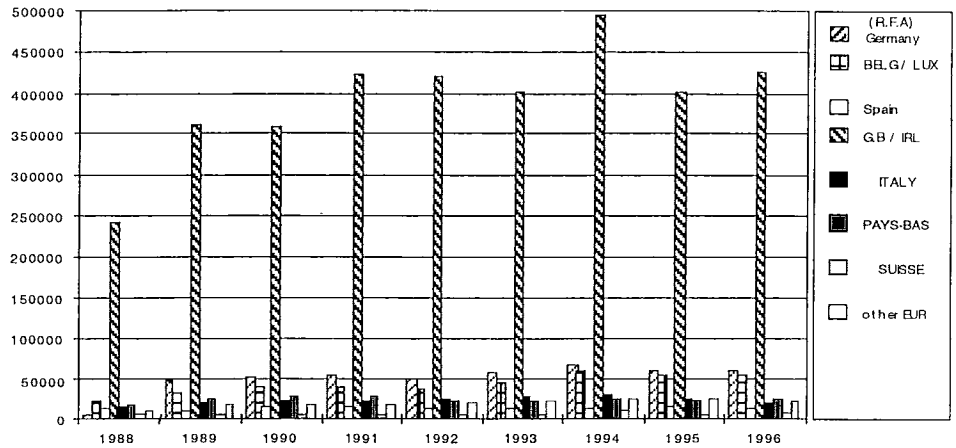
Source: Hotel Enquiry INSEE - Nord Pas-de-Calais Regional Committee of Tourism

Figure 7: tourism arrivals in Nord-Pas-de-Calais hotels from 1988 to 1996

The Channel tunnel, the T.G.V. and the coastal highway opened in 1993. As a first step we studied the hotel data, as they were the main targets of the cross-Channel tourism support strategy. A second target was an increase of foreigners, so we have observed tourism arrivals in the Nord-Pas-de-Calais

region since 1988. The general decrease shown in 1995 is due to a new methodology in hotel survey that only considers star class hotels by this date. We observe a progressive and global growth of regional hotel arrivals. We also notice an increasing share of European arrivals (See figure 7).

The cross-Channel support strategy was aimed at neighboring foreign communities. We have divided up tourist foreign arrivals into different European nationalities. We have harmonized arrival data because of changing categories depending on European widening throughout the considered period (see figure 8). We observed that within European arrivals the British are the most numerous with up to 500 000 arrivals in 1994. There were almost no German arrivals in 1988 and they increased up to 50 000 arrivals in 1994. The Belgians came increasingly in the region and they registered more than 50 000 arrivals in 1994. It seems to follow the same progression for 1995 and 1996.



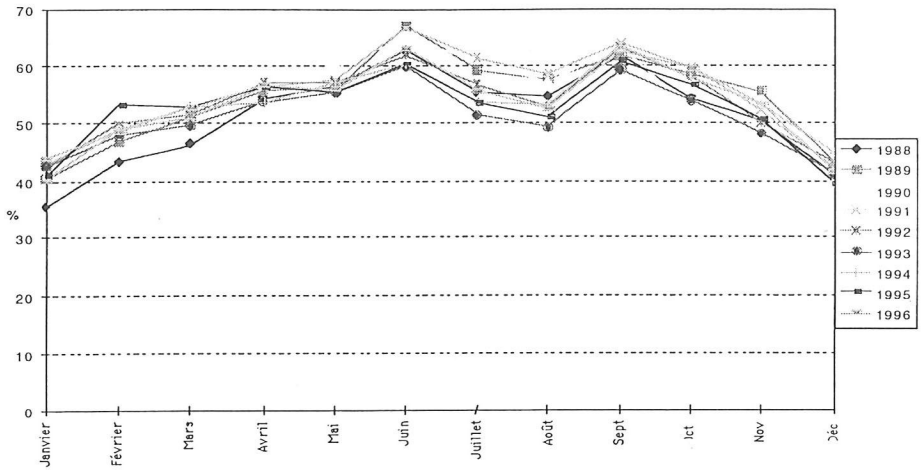
Source: Hotel Enquiry INSEE - Nord Pas-de-Calais Regional Committee of Tourism

Figure 8: Number of European arrivals in regional hotels from 1988 to 1996

Then we compared monthly occupation rates in regional hotels to see if we could register changes during off-peak periods. The attempt to increase this occupation rate during autumn or winter periods was one objective of "holiday resort contracts" in the tourism support strategy. For that purpose we superposed annual curves from 1988 to 1996. Overall the structure of the monthly occupation rate curves in hotels seems to follow the same shape with same peaks and through. It is possible to compare these curves as we consider percentage occupation rates.

However it is interesting to stress that whatever the increase in tourist accommodation supply which progressed from 350 hotels for 9 500 rooms in 1985 to 435 hotels for 16 000 rooms in 1997 the curve shape is nearly unchanged. Wintertime is still at a low occupation rate especially January and December (See figure 9). The percentage of business arrivals in the hotel occupation rate is high and decreases during summer. If we compare the 1988 and 1996 curves we see that the second one has a better occupation rate, particularly from January to April and from September to November.

With those first results we are tempted to believe that the cross-Channel support strategy and the linked local and regional planned programs had impacts on tourism activity and on regional development.



Source: Hotel Enquiry INSEE - Nord Pas-de-Calais Regional Committee of Tourism

Figure 9: Evolution of occupation rate in regional hotels from 1988 to 1996

Nevertheless we still do not know how to attribute these arrival increase and occupation rate change to specific measures contained in this support policy. We are not able to establish a direct link between the Channel tunnel implementation and its associated transport infrastructures and the global growth of economic activity provided by tourism. For solving this problem we develop new research in the conclusion which could help us to qualify tourists responding to the support policy criteria.

CONCLUSION

In the first section we related how the cross-Channel support strategy was decided on within the general theoretical framework of "conditional effects" of transport infrastructures on regional development. Investment transport or tourism infrastructures do not change the theoretical reasoning. Explaining links between big equipment investment and local economic impacts is difficult. We propose to examine the demand for these infrastructures. In this way, we want to analyze how tourists are using them or not. We must identify each action contained in the cross-Channel support strategy and make assumptions and say that they will act as demand "lever", in our case transport demand and/or tourism demand. They could be described as follows:

A1: Prospecting international tourists will enhance foreign arrivals in the Nord-Pas-de-Calais region;
A2: A qualitative and quantitative improvement of tourist accommodation especially in hotels will contribute to increase short breaks. It will spread tourism activity beyond the peak period;
A3: Concentrating public funds on regional poles with clear tourist vocation will increase the number of tourists on specific marketing targets.

These assumptions being identified, the tourism demand has to be classified according to the need and the utilization of transport or tourism equipment realized because of the Channel tunnel construction. We have to identify different classes of tourists and to qualify them according to their practices and evolution. We will try to measure links between the evolution of these practices and the underlying assumptions of the cross Channel tunnel support strategy.

We have seen that the implementation of the support strategy was covering a long term period which made it necessary to consider the evolution of local, regional, national, cross-border and international contexts. We propose to take the results of the border survey made by the Tourism Ministry with a specific sample fitting the regional international borders and covering the Channel tunnel influence zone. The results of 1982 and 1989 surveys could give us an ex ante situation, before the Channel tunnel or T.G.V. construction, and indicate what were the behavior and needs of foreigners who came to the region and especially to the coastal area. The results of 1991 and 1994 and following surveys could show us how tourists are adapting their habits according to the evolution of supply in transport and tourism equipment.

REFERENCES

Béhague H., (1992), « Développement touristique, Bilan 1986-1992 », Regional Council, 16p.

Biehl D., (1991) "The role of infrastructure in regional development", in Vickerman R.W. (edit) *"Infrastructure and Regional Development."* London, **PION Ltd.**, 209 p.

Bonnafous A., Plassard F., (1974) "Les méthodologies usuelles de l'étude des effets structurants de l'offre de transport", in ***Revue Économique***, N°2.

Heddebaut O., (1995), "The reaction of the Nord-Pas-de-Calais region faced with the implementation of a fixed Channel link: The "strategic cross-Channel Plan", **The Institution of Electrical Engineers**, Digest N°: 1995/173, pp. 1-10.

Heddebaut O., (1997), "The usual methods of evaluation of major infrastructures", in COST 317 report *"The socio-economic effects of the Channel tunnel"*, pp. 33-138, **EC Luxembourg**, 217p.

Heddebaut O., (1998), "La stratégie d'accompagnement transmanche dans le Kent et le Nord-Pas-de-Calais: entre contextes institutionnels spécifiques et temporalité décalée", in Nemery J.C., Loinger G., *"Construire la dynamique des territoires"*, **L'Harmattan**, Paris, pp. 293-315.

Heddebaut O., Laudren E., (1999), "La "rocade du littoral" partie du programme d'accompagnement transmanche, participe-t-elle à une transformation du littoral du Nord-Pas-de-Calais ?", ***Cahiers Economiques de Bretagne***, janvier, pp. 17-50.

Offner J.M., (1992) "Les "effets structurants" du transport: mythe politique, mystification scientifique", **6th World Conference on Transport Research**, juin, Lyon.

Plassard F., (1977) *"Les autoroutes et le développement régional"*, Lyon, **Economica**, 341 p.

Plassard F., (1985) "Suivi des évaluations, évaluation des suivis", ***Cahiers Scientifiques du Transport***, N°11/12.

Rietveld P., (1992),"Spatial economic impacts of transport infrastructure supply", Faculty of Economics, Vrije Universiteit, Amsterdam, December, 27p.