1 Settlement and infrastructure: challenges of integrated planning along the corridor 24

The opening of the base tunnel in Switzerland –Lötschberg in 2007 and Gotthard in 2017 – marks a milestone in the development of the rail network in Europe. These works offer the possibility to activate a high capacity North-South link on rail. This axis, also known as TEN corridor 24 in European infrastructure planning, brings together some of the economically most important regions and affects the most densely inhabited area of the continent with nearly 70 million people living within direct access to the rail corridor.

Despite the strategic importance of the link, both for freight and passengers traffic, many problems remain unanswered in terms of infrastructure development, management of coexistence of various transport modes (freight, long-distance, regional traffic). Particularly critical nodes occur: in the northern regions (Emmerich-Oberhausen), in the central area (Frankfurt-Mannheim, Karlsruhe-Basel, Juradurchbruch) and in the southern regions (by-pass of Bellinzona, Lugano and the link between the metropolitan area of Milan, the Milan knot and the third passage through the Apennine to Genova). These critical issues limit the efficiency of the corridor, impact on economic development and threaten territorial development strategies of the regions along the corridor. In view of the long term perspective of implementation of required interventions, some fundamental questions about the future economic, spatial/territorial and railway development arise along the axis. The Interreg project Code24 actively deals with these issues through the direct involvement of local and regional actors.

At the heart of the initiative is the belief in the need to address problems and opportunities related to infrastructure programming in an integrated manner since their first conception. This logic is one of the cornerstones of our planning school. The special attention regarding the railway, at all scales and the interest to transform highly accessible places into development poles and new centralities in order to reorganize the urban sprawl, concentrating and densifying settlement areas in large agglomerations where there is high quality public transport service is a now widely accepted and implemented strategy in European countries. And I would say more a central strategy to support European competitiveness globally. This strategy, confirmed by the recent Territorial Switzerland Concept (Are, 2011), needs extraordinary accompanying measures where it meets the Swiss modal shift policy to move freight from road to rail adopted recently also by the European Union in the white paper ’ roadmap towards a single European transport area (EU, 2011).

How to entice people to live in close contact with the volumes of current and projected traffic along the rail network, and then with the noise, dangerous goods, etc? These questions are now not only involving directly the development strategies of the Swiss territory but will concern also wide areas along the corridor 24. On the other hand, on macro scale, where the corridor is considered in its entirety, difficulties are added those resulting from the nature of large scale infrastructures: where policies show clear advantages on the large scale, it is often far more complex to find and demonstrate benefits to the local or regional level.
The ambition of the project is therefore to discuss these issues with actors in different local contexts and to identify critical issues and opportunities. These are then defined in a possible shared development strategy that incorporates all factors, concentrating on the affected territories and choices in short and long term.

The real driver of the CODE24 initiative are territorial associations on regional and macro-regional scale. The role of these intermediate entities is characterized by their specialties to be often hybrids from the perspective of political-administrative and be among the few that actually, in the most virtuous cases, transcend traditional administrative boundaries to better adapt to the functional areas and complex settlement systems. For this reason they represent in this case the middle level that can communicate with both the local contexts and with the national and European authorities. In order to overcome these problems the project focuses on a strategic perspective, primarily operating-on three axes of work: (1) The regional level, (2) the need to produce shared information assets, (3) inclusive of construction mode of a common strategy.

2 Interreg Project Code 24, a European project from the regional level

Important in the approach of our research is the orientation to goals and problems. We rely on a research method of the forties that relates well with the way we see research in the context of territorial planning and that best meets the challenges of spatial development.

This method corrects the defects of positivist research, is oriented to the future, takes form directly from the cooperation. By developing networks of actors, it builds a theory based on practice and experience and it therefore tied to the real spatial problems. In our planning laboratories, the real world spatial problems, this means the involvement of actors and stakeholders. Bargaining objectives and outcomes of planning that go hand in hand are at the same time their assessment criteria. The research is not evaluated at the end of the work according to the results that may be shared and followed, but through this negotiation and discussion loop of the results during the process.

Figure 1: The cyclical process of Action Research
2.1 **Partnership**

A Characteristic feature of the Code 24 project also resides in the variety and diversity of the involved partners. Adherents refer to 5 Countries (Netherlands, Germany, France, Switzerland and Italy). There are regional and provincial authorities, port authorities, municipalities and city governments, representatives of chambers of commerce, research institutes and universities, private companies, local associations. The project also gives room for the presence of observers, including for example the port of Antwerp, the managing authority of the Corridor A, representatives of the railways and logistics operators. Finally the partners have a board of a political nature, which meets annually and represents the desire to maintain an active involvement and contact with policy makers along the corridor. The project follows a bottom up approach to prepare in various regions the conditions for transforming the corridor into a recognizable identity of territorial and economic development of the concerned regions. The participation of the regions to build a shared development strategy is the central element of the project, Many of the actions and resources of the project are directed at finding a common strategy and therein major results in terms of participation and building project proposals are expected. The liaison and involvement with institutional and political authorities at the central level is not overlooked in order to ensure the feasibility of policy actions and remark the European significance of the project.

2.2 **Objectives and structure**

The initiative was approved and financed for about 7 Ml euros in March 2010 and brings together approximately 20 partner from regional authorities, the main sea- and inland ports along the axis, representatives of the railways and road haulers, operators, chambers of commerce, universities, research institutes and individual municipalities.

The project is organized into 4 work packages:

- WP1 development of railway network and settlements: identification of strategic areas in which the development of settlement could be supported or limited access to the infrastructure; elaboration of possible scenarios of development of the corridor; promotion of some pilot actions;
- WP2 environmental issues: interventions for the reduction of negative impacts of rail transport; building a tool box with workable solutions;
- WP3 regional economy and logistics: development of a common strategy to promote the most important logistic hubs and investments in missing links and corridor management facilities;
- WP4 communication: development of accompanying tools of participation and consensus-building.

2.3 **Connect with other actors on corridor**

CODE24 moves in a context characterized by the presence of several actors from European level to locally active groups, arousing a multiplicity of interests. Aware of the difficulty and delicacy of this objective the project was given the task to perform, among other things, the role of contact point between these different realities. In particular choosing as a privileged point of view, the regional and macro-regional, in the belief that
this was the least active and also represented level. Compared to the importance the development of this type of infrastructure plays in terms of its ability to create territorial cohesion and strategies for sustainable spatial development. CODE24 has set a goal of complementarity in a logic of cooperation and support with respect to the interest groups already in action.

Figure 2: The corridor 24

Source: ETH Zürich 2010

3 Sharing information as needed basis for a common strategy

Access to information as a strategic component of the project represents one of the pillars of the initiative. On the corridor several databases, printings and publications already exist, however, an overview of the current stage of proceedings and the major projects and scenarios concerning the corridor are not currently available. A lot of information, such as data on traffic flows and goods are considered strategic, from the logistics operators point of view. Information on noise emission data are considered politically sensitive and difficult to find. The project has undertaken to build a dynamic
Atlas that collects all this information, connecting them and relating them to spatial dimension. At the base there is a job of searching (at times comparable to secret service activities) and data processing, with the desire to provide the greatest possible geographical representation and localization. This information is then made available to all partners of the project (and experts concerned who request) and become shared heritage of knowledge and a basis for discussion on future actions and interventions. (this subject will be examined later in the paragraph concerning the Corridor Info System)

3.1 Corridor Info System

One of the core aims of the project is to provide the CODE24 partners with a set of strategic information about the corridor development. This activity is focused on boosting the discussion among the involved partners and the regional and national stakeholders. The exchange will be fostered through allocating the missing overviews about the relevant spatial and infrastructural issues affecting the decision-making in the involved regions to the involved partners.

One of the main objectives of the project is to provide strategic information of the CODE24 development corridor. This activity is aimed at consolidating the discussion between the involved partners and regional and national actors. Access to information is facilitated by processing schemas and map overviews of all relevant topics or spatial and infrastructure development that affects the decision-making process in the regions touched by the project.

At the heart of this process is the Corridor Info System (CIS), a web-based tool to supporting the sharing of strategic information. As it is common in the case of complex processes of planning, the basis of information relating to the corridor is in many respects incomplete and not always reliable. The purpose of CIS is to provide a tool to support complex planning activities through a platform that is able to involve local and regional stakeholders in planning and different groups of individuals and organizations from various disciplines who participate in collaborative planning processes. The variety of endogenous and exogenous dynamics and interconnections that could affect the results of the discussed actions can be easily provided by the CIS. The system provides an overview of ongoing development processes and highlights problems, which are immediately viewable by the interested parties through the use of Web-GIS tools.

Prerequisite of CIS is that the collection and systematization of data concerning the corridor, in its different aspects, cannot be delegated to a single actor. The area in question is too big and no single project or group is able to find and select the relevant information on such a large scale and variety of topics.

With the CIS system, interested stakeholders can have an in-depth knowledge base about their regions, infrastructures, projects and actions on the corridor. A specialty of the system is also, that in the case of inaccurate or incomplete information the actors may update and correct the information themselves in real time. In this way, the information provided by CIS evolves, deepens and enriches through the direct involvement of the actors.

The interactive process generated by the involvement of the actors is of great importance. This allows to refine not only information but helps also to find a necessary
agreement on the definition of the common problem, which is a pre-condition for the
development of a shared strategy with an economic, social and political feasibility
directed to improve the functionality and prepared to play the role of engine of regional
development throughout the corridor 24.

The primary information has been collected through a mix of methods: data available
from public sources, workshops, focus group interviews, the description by the project
partners of the different local situations, for example, related to railway infrastructure, the
different operation concepts, rolling stock, logistic hubs and major projects of spatial
development linked to the development of transport infrastructure.

With publishing the Info System on the Internet, work however is not finished. The above
list is constantly updated by the partners according to their needs and questions that
arise during the project. The system is a first step towards a common strategy on the
Corridor 24; it provides an overview of the activities taking place, a platform for
communication and information sharing.

The Corridor Info System can be consulted at: http://code24.ethz.ch

Figure 4: The corridor Info System

Source: Screenshot www.code24.ethz.ch 2011

3.2 Focus Group Interviews

In previous projects we often collected data and information through interviews with
actors. This procedure comes however, in projects of large scale such as the current
one, to its limits. Logistical problems caused by large distances and usage of exorbitant
resources limit its effectiveness. We therefore had to adopt other methods. One of these
is the focus group interview, developed by Merton and Kendall (1946) that focuses on
four objectives that coincide with our objectives: (1) the focus group interview holds
premise for explaining the relationship between a stimulus and an effect. (2) the focus group interview can provide information to assist an interpreting unexpected effects or answers, (3) focus groups can provide verification in interpreting data that might otherwise only be conjecture and (4) the focus group interviews can provide alternative interpretations of findings that may not be obtainable with traditional quantitative methods. (Vaughn et al. 1996). To achieve a survey of the state of the art in a large-scale project with many actors this procedure helps to make the first step: create a basis for discussion for the following activities. Interviewing all the different actors and enter the information into the provided information system is a logistic challenge that exceeds the organizational ability of an individual subject, while the focus group interview, used also in larger groups with up to 25 persons is efficient for a first assessment of common problems.

3.3 Workshops

The initiative CODE24 aims to be open and inclusive to all the institutions and citizens interested in the Corridor. Therefore the communication and stakeholder involvement are key components of the project management strategy.

As already mentioned, CODE24 wants to provide project partners and stakeholders of different regions, with a series of fundamental information on the development of the corridor. On the other hand the initiative in order to be effective requires knowledge and the active participation of local actors. For this purpose the initiators of the project have decided to activate from the beginning a strategic network of decision-makers and stakeholders and launch a series of events focused on the presentation of the project objectives and activities and at the same time meeting the expectations and interests of participants.

Between July and December 2010, 9 regional workshops have been promoted along the corridor, focused on creating widespread awareness of the problems affecting the various spatial entities and on strengthening the discussion on the strategic choices needed to support the development of integrated development at both local and European level.

The workshops were held in 9 cities: Rotterdam (NL), Antwerp (BE), Essen (DE), Frankfurt (DE), Mannheim (DE), Karlsruhe (DE), Zurich (CH), Milano (IT) and Genoa (IT). All in all about 300 people from regional planning authorities, public transport operators, entrepreneurs of logistics and transport, research institutes and experts, local and multinational companies, associations of citizens, port authorities and policy makers have actively participated in the workshops. Through these meetings it was possible, on the one hand, to produce together a framework of the state of the art and to detect the expectations and opportunities for further action and initiatives.

The positive feedback and information collections have allowed the Code24 team to assemble a dynamic overview of the ongoing and future development and transformation processes along the Corridor.

This knowledge is essential to support and guide future Code24 activities. In particular, a strong need for interregional coordination and planning has emerged from the discussions, along with the need for more effective management methods of decision-making with regard to the actual function of the corridor and its sub-lines. The information collected in the corridor were integrated into the Info System. These issues will be the starting points for a second round of meetings scheduled between the end of
2011 and 2012 with the objective of exploring some specific cases and prepare the ground for the elaboration of the content of the common strategy.

Figure 3: Sample Code 24, Workshop

Quelle: ETH Zürich 2010 Mannheim

4 The construction of an comprehensive development strategy

Among the many possible, three problematic aspects are taken into account with particular care by Code24 project: given the territorial scale of work on the one hand, to find the tools to manage information you need in response to the particular need to always operate at different scales at the same time. On the other hand, the need to integrate quantitative information with qualitative aspects brought up by the actors and stakeholders, whose knowledge is essential for the project and whose involvement as stakeholders and experts is a guarantee for the success of the process in the long run. Finally, the need to arrive at a strategy, shared (as much as possible) with respect to dynamics of current and future problems to be solved and the effective need for action.

These three points reflect the work plan of our work package 1 (WP1), which has a more integrated vocation and avails itself of the collaboration of the other working groups from which it receives and integrates more specialized information and with whom we discuss the strategic objectives. Here, we chose to focus primarily on the topics that are finding implementation in the actions illustrated below.

4.1 The path of devising a common strategy

As mentioned the Code24 project aims to build up a strong partnership configured as a group of interest, regularly and transversely (in an integrated and intersectoral way) active on issues concerning the corridor. For this reason one of the expected products should be a programmatic document containing guidelines and assumptions of responsibility by the working group with respect to the implementation of the measures discussed during the three years of the project. Of great importance is the method preferred for achieving this result. Always starting from a "bottom up" approach, the project has aimed within the framework of the different actions at involving as many stakeholders as possible through the organization of seminars, conferences, focus groups and workshops, with the intent to engage in the discussion a significant group of
actors. In this first phase through the survey of expectations and the diverse territorial situations (which occupied mainly the first year of work) has emerged the need to further discuss the cross-border dimension of many topics. The project aims to deepen these issues and, through a process of accompaniment and facilitation of the discussion, identify priorities specific to each local scope. From these a "package" of priority initiatives is build and submitted to the attention of decision makers at national and European level.

4.2 Towards concrete actions: Collaborative Assessment and Pilot Actions

The decision to take a shared position by the partnership project with regard to the most relevant issues concerning the future development of the corridor about issues both on local and regional-scale, places the team face to a great challenge both in terms of content, and of working methods.

This phase of the so-called Collaborative assessment is currently under development and will be based on the application of a set of tools and on the outcomes of various actions already implemented:

- The Corridor Info System (WP1);
- Qualitative information (point of view of the actors), collected through regional workshops (WP1);
- The Toolbox recommended planning tools (WP2);
- The results of the assessment of regional economic areas and the potential impacts (WP3).

A tool for viewing scenarios will provide optimum support for the discussion, making the various overlapping issues visible and showing the perimeters of the necessary decision-making processes.

Alternative scenarios on infrastructures and the development of the territory will be presented and discussed. An evaluation of the different options will be attempted, according to the different set of priorities and criteria discussed and selected by the stakeholders (WP1 regional Workshops).

Aim of the activity is to define the key elements of a possible common strategy based on a thorough discussion of the opportunities, risks and the feasibility of the measures. To achieve a widely accepted and consolidated result, the process will consist of several stages and will be based on applying different tools:

- A strategic assessment of the situation: comparison between potential to improve the supply of transport solutions and spatial development,
- Using simulations designed to: locate where infrastructure development could create opportunities or problems to regional development;
- Assess how and where changes in concepts of operating rail could affect regional development;
- Assessing the areas in which territorial changes may cause variations in the demand for transport;

These simulations will be combined with a series of selected tools (morphological methods, logic models, swot analysis, ...) to consolidate the selection criteria and to prepare intermediate results to be discussed in 3 stages.
A method of evaluating strategic qualitative and Analytic Network Process (ANP), will be used in parallel in order to verify from different points of view preferences towards different scenarios.

4.3 The first results and next steps

The discussion in workshops and focus groups, in short, in discussion with the actors along the line led to the formulation of a first hypothesis evaluation. This was presented to the partners who have taken consciousness. This assessment is now the basis of further discussion with partners. The assessment identifies four basic conflicts occurring in different areas of the corridor. These conflicts are: (1) the conflict between the development of development focused on suburban and regional railway or the focus of the goods trains on the line. (2) the conflict between long-distance trains that you would like to intensify and accelerate goods trains and who are unable, however, exceed a certain speed. (3) the conflict between North and South, between two visions of logistics organizational capacity and investments in infrastructure and finally (4) the conflict between the investment needed in terms of economic and regional but also the ability or willingness to invest properly carried out.

These conflicts are accentuated in some areas where they occur singly or in combination. These hypotheses then were identified areas where more virulent conflicts appear.

The results of both activities will then be reworked and presented to partners. A final discussion will be conducted through focus group to be carried out in 4 regions selected on the basis of the results of the first phase of confrontation with the actors:

- The region between Oberhausen (D) and Arnhem (NL)
- The region between the cities of Frankfurt and Mannheim (D)
- The knot of Basel (F, D, CH)
- The macro-region of Ticino (CH) and Lombardy (I)

The workshop will be accompanied by process facilitators and real-time visualizations. This activity should therefore get to suggest in the next plenary debate which development scenario(s) is/are the most desirable and feasible for the project partners.

Through the discussion will also be promoted the identification of strategic areas in which action must be concentrated to resolve bottlenecks with the largest impact related to actual economical and spatial development potential for the whole corridor. Proposals in these areas will be custom-made pilot actions, which will be selected based on the potential impact on transnational resources and stakeholder interest.

5 Interreg as a tool to support governance

The way to develop and build up of the Code24 Working Group requested almost ten years of preparation. When compared with that of other "corridors", interest in the Rotterdam-Genoa has always been less apparent. In fact, even in relation to recent economic news, along this axis North-South we find some of the most innovative regions in Europe (from the Dutch Randstad, rather than the Frankfurt-Mannheim region, to Switzerland and its financial markets or the Lombardy). Therefore a strategic axis for the development of Europe is appearing, where some of the major European metropolitan regions with strong growth alternate with regions in net decline. For historical, linguistic,
religious and economic reasons contiguous regions maintain collaborations (often accompanied by a colourful parochialism), but focused on short-term goals.

From the perspective of macro-scale or international collaboration the collected signals are telling us that far from the proclamations of circumstance, a stable and concrete collaboration would be desirable but is in fact episodic and inefficient.

The financing instrument Interreg IVB proved to be especially attractive for partnership involvement and fomenting the subsequent interest of other regions and stakeholders. So new demands for participation of other spatial entities arrived, which were not interested at the beginning of the initiative. For example, the regions of Lombardy, Liguria, but also the Conference of the High Rhine, or the Rheinland-Pfalz and Antwerp were added to the work, assuming the role of observers.

The procedure chosen in this project of a series of Focus Group interviews and Workshops can receive and process comparable information and compare it with the questions of current spatial development of an extensive region. The choice to sketch a draft vision together with relevant actors and stakeholders involved in the workshops has proved productive. Aim of the workshops was to verify the hypothesis of a territorial framework built based on focus group interviews. The design element proposed as part of the workshop as base of the strategic debate, allowed to carry the discussion from the theoretical to the practical level. In the workshops it was possible to receive information and data (1), exchanging and verifying information already obtained, (2) receive unsolicited information, but useful to overview and (3) discuss the relevance of the data obtained, both for the involved region and the territorial development of the corridor as a whole.

Create meeting occasions created the required informal atmosphere that has allowed us to have access to difficult to find information or otherwise not available rumors. The procedure proved interesting and also very effective. During the nine daylong workshops and the 13 preparatory focus group interviews it was possible to create a vision of a corridor of 1200 km, with its many problems to be solved and prioritized. Our more than 20 partners during a first presentation and discussion took note and approved the results. This augurs well for the path of building a broader political consensus through our next actions.
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