



INTERREG IVB NWE Project

CODE24

Corridor 24 Development Rotterdam – Genoa

KEY RESULTS

November 2014



Introduction

CODE24 is a bottom-up strategic initiative in the framework of the INTERREG IVB NWE program of the EU. The interconnection of economic development, spatial, transport and ecological planning along the TEN-T core network corridor Rhine-Alpine contributes to address urgent conflicts of capacity and quality of life along the corridor. After 5 years of intensive work, the CODE24 project partners present a common strategy for the development of the Rhine-Alpine Corridor.

To tackle this task, an integrated planning of landscape, settlement and transport development is necessary for this densely populated and heavily used area. The acceptance of infrastructure development in all regions is only possible when the development for goods transport doesn't create any disadvantages for regional passenger transport. As passenger transport in itself forms the foundation for spatial development strategies in all regions, the security and stimulation of this kind of transport needs to have priority.

Work Package 1: Spatial and Infrastructural Development

- Corridor Info System
- R&SET Tool
- Collaborative Assessment
- Test Planning Wesel
- Inland Ports Development
- Increasing Network Accessibility by Including High Speed Rail (HSR)

Work Package 3: Increasing Regional Economic Benefits

- Creation, Development and Evaluation of Impacts of Logistics Clusters
- Linking the Terminal ports (Genoa and Rotterdam) to the Hinterland
- Assessing Costs and Other Effects of Bottlenecks for the Regions
- Multimodal Network Node Lahr

Planning has to be carried out collaboratively by all stakeholders involved: responsible authorities (national/regional/local), transport sector and the users. For the international processing of activities in these spaces, as well as the implementation of the corresponding tasks, the relevant platforms for cooperation need to be created.

The CODE24 project was divided in four thematic work packages, each in turn consisting of several actions. Respective experts from the partnership worked together in these actions. In the present brochure, key results of the work in these actions are described. The overall output of the CODE24 project – the common strategy for the development of the corridor – is compiled in a separate leaflet and is also available for download at www.code-24.eu.

Work Package 2: Environmental Aspects and Noise Reduction

- Management of Ecological Compensation Measures
- Planners Toolbox for Innovative Noise Protection
- Electric Fleet

Work Package 4: Communication, Acceptance and Enduring Interregional Cooperation

- Communication
- Mobile Exhibition
- Towards an EGTC - European Grouping of Territorial Cooperation

Corridor Info System CIS

The central purpose of the CIS tool is to give the partners of Interreg project CODE24 strategic information about the Corridor's development. CIS was constructed as an interactive Web GIS-based instrument for information exchange. The information about the Corridor is, as in most complex planning processes, affected by incompleteness and uncertainty. The many endogenous and exogenous variables and dynamics that influence the planning and the results processed by the CODE24 partnership can be easily prepared and presented by CIS. Overviews of many planning-relevant themes are easily and quickly available for the interested parties. Information can be entered into the system, improved and corrected by the participants.

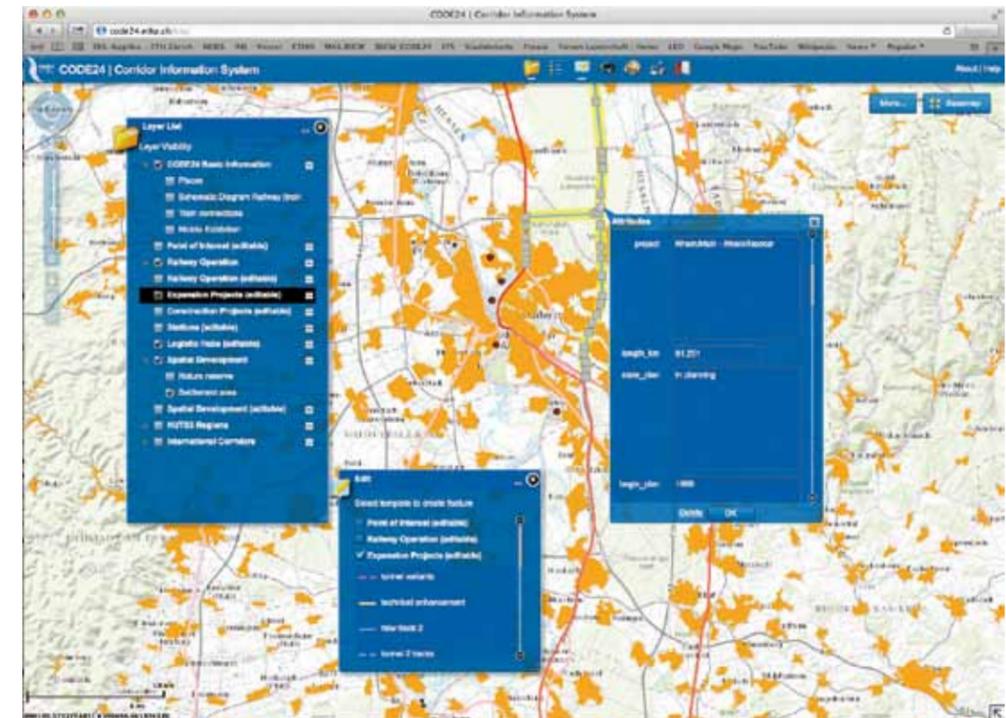


Figure 1: Corridor-Info-System code24.ethz.ch (ETH Zürich, IRL)

The underlying information was compiled in workshops, focus group interviews and discussions among project partners. In ten regional workshops with over 300 participants, the essential questions of the Corridor's development were discussed, the most important information exchanged and regional developments assessed and organised. This procedure not only guaranteed up to date and firsthand knowledge about the corridor, but also a common understanding of the main problems, the corridor faces. So the corridor Info System is an essential base of transnational cooperation in the further actions.

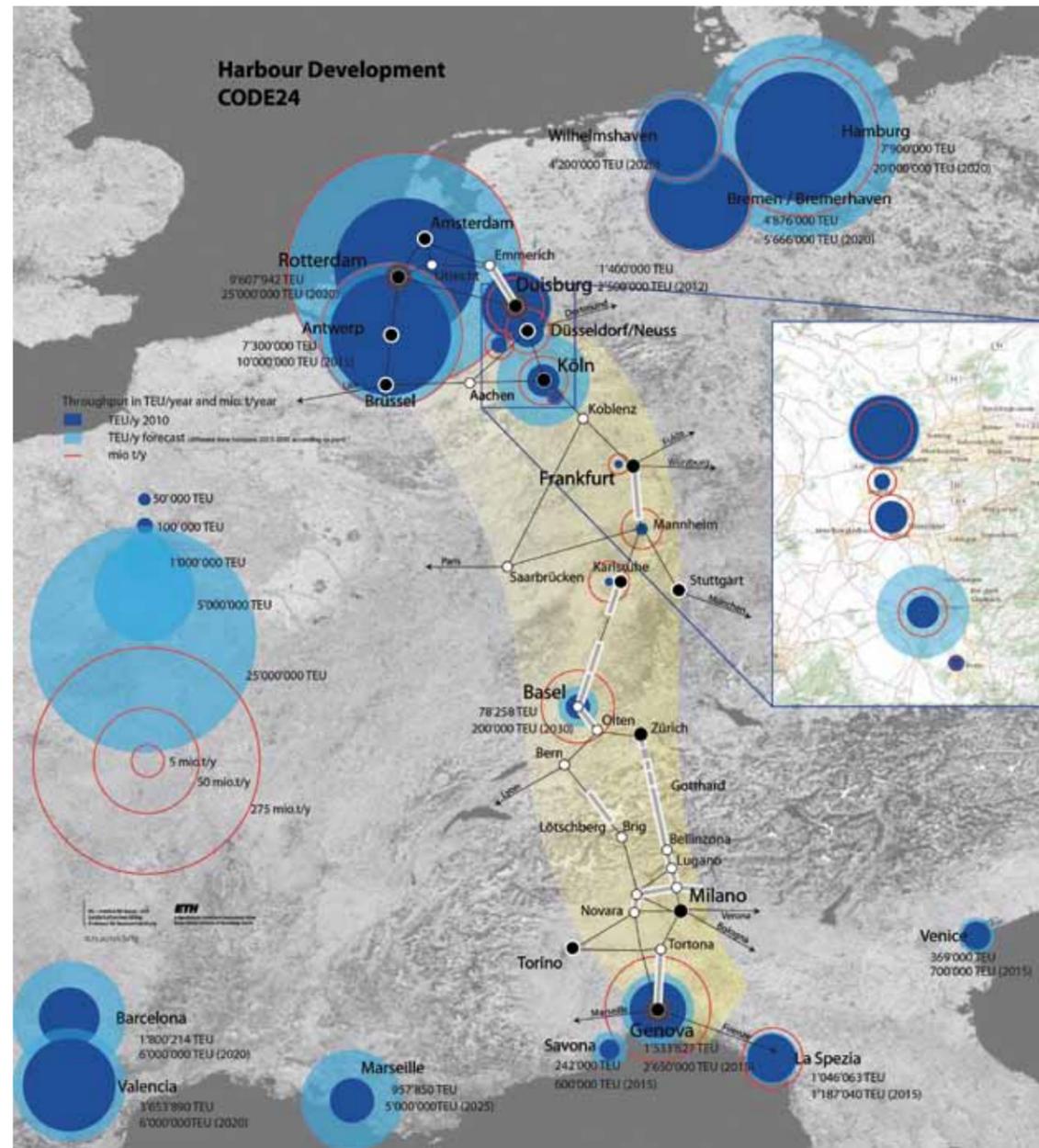


Figure 2: Goods turnover and prognosis for the ports in the Code 24 area (ETH Zurich, IRL)

Involving the participants is a way to improve and develop the CIS. It makes it possible to prepare and refine the information as well as anticipate the necessary agreement needed for the definition of the assignment, which is a prerequisite for establishing a collaborative development strategy for the Rhine-Alpine Corridor. Even with the web publication of these topics, the work of the CIS is not yet done. The list of topics can be expanded with the results of the CODE24 partnership and will be passed over to the follow up organisation.

Further information:CIS: code24.ethz.ch**Contact**Felix Günther, fguenther@ethz.ch

R&SET Tool (Railway and SET-lement Development Dynamic Visualisation Tool)



Figure 3: Application of the visualisation tool INVITO

A model of the Rhine-Alpine Corridor with the elaboration of crucial spots has been developed. The main output of this action concerned: i) the simulation of emblematic strategies showing the expected outcomes of important planning decisions on operational concepts, logistics and spatial development (developed by SiTI with ETH with the aim of being both revealing and provocative); ii) development of a methodology for supporting decisions that combines Analytic Network Process (ANP) and INVITO visualization tool in order to compare and rank the alternative strategies identified; iii) development of an assessment procedure in order to structure the decision process which has been organized in two phases: workshops structured by the ANP/INVITO methodology and Collaborative Assessments, coordinated by the researchers of SiTI and ETH.

The assessment procedure has been applied to analyse and rank alternative strategies in the following case studies: an internal workshop on the Wesel area, a pilot workshop on the Bellinzona area, a pilot test workshop for the area of Frankfurt-Mannheim, an operative workshop with experts of the Frankfurt-Mannheim area, two workshops concerning the evaluation of the Rhine-Alpine Corridor strategies.

The transnational cooperation was essential both from a theoretical and a practical point of view. Firstly, the relationship established between SiTI and ETH was pivotal in order to develop an innovative assessment framework involving ANP, INVITO and the Collaborative Assessment. Secondly, the specific competencies of the partners of

the CODE24 project allowed structuring the alternative strategies explored considering the multiplicity of aspects of the problems in exam (i.e. transport, environmental, urban, economic, social aspects). Finally, the experts coming from different countries and with different backgrounds that participated to the organized workshops, allowed taking into account the specific features and problems of each area analysed. Moreover, the challenging discussions between engaged scientists, local representatives, and experts from five countries in Europe.

Starting from the workshops related to the Frankfurt – Mannheim area, a series of further and independent activities has been organized apart from the CODE24 project. Connected to the conducted activities under Action 2, an international workshop with the University of Loughborough (UK) has been organized on 13-14 May 2014: “Visual decision practices”. Thanks to this last cooperation, a new line of research has been opened and further activities have been planned, as the participation to European Projects call.

Moreover, a book edited by Springer and numerous scientific papers have been published in order to disseminate the obtained results.



Figure 4: Collaborative Assessment Workshop Zurich, 2011

Further information:

I. Lami (Ed.): Analytical Decision-Making Methods for Evaluating Sustainable Transport in European Corridors. Series: SxI - Springer for Innovation, Vol. 11

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Collaborative Assessment

An innovative method of cooperation was developed to work out a common development strategy by the CODE24 partnership for the Rhine-Alpine Corridor. In this, a mutual position of the project partnership attends to the relevant problems of future Corridor development. The purpose of this action is to involve the participants in a collaborative assessment of the present situation and to extract the major factors of influence on their regions.

A strategy group with representatives from all regions and their relevant disciplines prepared the formulation of discussion topics for the entire partnership. In this procedure, possible alternative development strategies for the entire Corridor were worked out. The activity was conducted as a peerlearning process where the participants are asked to actively gather, share and consolidate knowledge. The various development perspectives of the participating regions were shared, the underlying conflicts exposed and, based on a comparison without prejudice, possible development strategies were discussed.

The formulation of a collaborative strategy was turned into an interactive process that could profit from the results of all Work Packages. It stimulated an open, intensive discussion about spatial and infrastructure development between the project partners and other important interest groups along the whole corridor. The discourse took place in the various regions as well as on the continental level. This step-by-step process made it possible for the participants to consolidate the common position of the project partnership on specific and general issues together and in doing so allows for the definition of a collaboratively supported strategy.

The common development strategy gives on the one hand proof, that a transnational partnership can find a common understanding on where to invest restricted financial resources and formulate development priorities on such conflicting topics as infrastructure investments and corridor definitions.

This development strategy on the other hand can now form a common starting point for the activities of the newly established CODE24 European Grouping for territorial cooperation (EGTC).

Further information:

CODE24 Common Strategy: www.code-24.eu

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Pilot Action Wesel

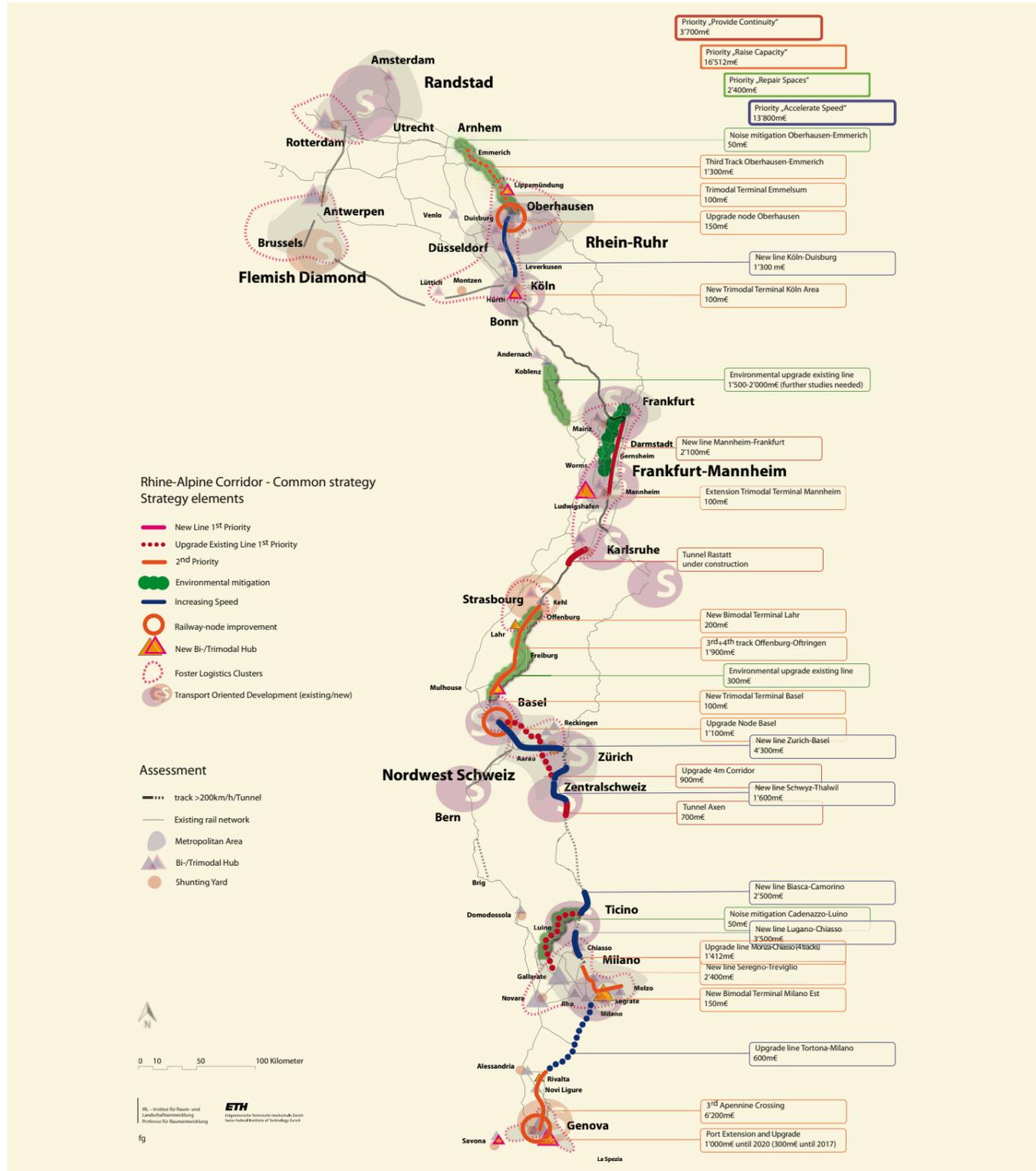


Figure 5: CODE24 Common Strategy



Figure 6: Regional development concept (PhD-team CODE24)

The railway line Oberhausen-Wesel-Emmerich will be upgraded, to offer the required capacity as a continuation of the Betuwe line of the Netherlands, with a third track, improved signaling, and measures to increase the maximum speed. The plans developed by German Railways for the expansion were rejected by the population along the line Oberhausen-Wesel-Emmerich, already affected by noise and vibration, emanating from the operating freight trains. Extensive active and passive noise protection will be an important part of the expansion. In order to ensure an intensive information exchange between the participants, the Regional Association Ruhr, in collaboration with the Wesel area, held Idea Workshops in the context of the Interreg Project CODE24 between November 2010 and April 2011. Three teams of experts (including a CODE24 doctoral students team from universities along the corridor) developed various solutions during this timeframe. Part of the workshop was an intensive discussion and participation process.

In several regional workshops, experts from the areas of transport economy, logistics, science, chambers of commerce, cities and regions, as well as the rail service providers discussed the regional issues and ensured accordingly the transnational issues with local requirements. The suggested concepts show that it is worth developing individually adjusted measures for each area. These would bring realistic alternatives and, at the same time, make it clear that locally oriented solutions make sense in the long run and are sustainable. In addition, they found that the embedding of the line in a regional spatial development concept, including the Lippe estuary area, is important, and that urban planning and noise protection planning should be integrated. The outcome of the pilot action was emblematic for many similar situations along the corridor and found great interest among the partnership.

The participants of the Idea Workshops agree in their conclusion that the innovative solutions that resulted from the action need to be followed up. The formal planning procedure under way, gives the opportunity to transfer the results of the informal planning procedure to formal projects.

Further information:
 Report Idea Workshop Wesel: www.code-24.eu/activities/test-planning-wesel/

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Inland Ports Development

Inland ports are facing several challenges. However, space problems or restrictions regarding time, noise or dust are the biggest problems today. Even after the economic crisis it is expected that especially container traffic along the Rhine corridor will increase significantly in the next decade. To handle the expected volumes in the ports, sufficient handling and logistic space in the ports is needed.

On the other hand, cities more and more intend to restructure port areas to high quality waterside office or even apartment districts. Subsequently it is not only too little development space, but also a reduction of existing port handling space that limits the development of the port.

Within the Mannheim 2035+ case study, a solution between rivaling port and city development is envisaged. In a first step a methodology for an assessment of the adequacy of space for port handling and logistics activities has been developed. On this basis an inventory of used space in the port and an evaluation of potential development space has been carried out. The design of alternative scenarios, which illustrate an anticipated use of port sites, facilitates the decision for a preferred setting of land use in the port area. The alternative scenarios stresses port and urban development measures and show different aims. The evaluation of alternative scenarios will lead to a preferred land use structure in the port area. Evaluation criteria consider interests of port and urban development. The involvement of stakeholders

from port and city further strengthens the commitment to the selected scenario. This scenario will be the core of the detailed Master Plan elaboration.

In addition a workshop was organised involving representatives from five cities and ports in Germany, France and Switzerland to discuss and to exchange experiences regarding existing conflicts, possible solutions and their implementation as well as possible difficulties because of different development interests of port and city.

The transnational perspective enabled to learn how different and common solutions can be transferred into the local case study of Mannheim. Additionally the broader view to the theme allowed the involved stakeholders to see the sensitivity of overcoming infrastructure problems not only on a local but also on a European viewpoint and vice versa.

The scenarios will be evaluated based on criteria reflecting port and urban interest. The objective is to identify a preferred structure of land use in the port area. This scenario will be the focus of the Master Plan Port.City. Mannheim 2035+ elaboration. The criteria include:

- Compliance with port objectives
- Compliance with city objectives
- Traffic
- Restrictions for implementation
- Flexibility of planning
- Conflicting land interests / Risk of realisation
- Financial Investment

The selection of the preferred scenario will be based on a qualitative evaluation of the criteria. An assessment of the feasibility of the preferred scenario considering regional economic impacts and investment in financial terms is scheduled for the Master Plan preparation.

Further information:

www.code-24.eu/activities/

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Figure 7: Container Terminal Ludwigshafen

HSR-Integration Through Multi-Scale-Accessibility

Demand levels along corridor 24 are lower across the border than within several domestic relations. However, there is sufficient potential for crossborder connections which feeds domestic services accordingly. Furthermore, (potential) demand is generated by several stations and their hinterland along the corridor and not predominantly by few metropolises. The national networks mostly offer hourly long-distance services partially by HST, partially by long-distance trains. This ensures a very good cross-border service level on the Swiss-German frontier but lacks frequency along the other borders. Though there are no through-trains, service continuity is guaranteed by train-to-train transfer at relevant transfer nodes which thus ensure accessibility of the respective hinterland.

There is no through HSR-service since infrastructures are mostly laid out for speeds typically under the HSR-threshold which is 250 kilometers per hour as a maximum. However, average travel time appears to be a better indicator which can be achieved by partial upgrades, service integration and better transfer times which differ considerably across the corridor.

Travel time saving long-distance services along the corridor are the backbone for the axis Rotterdam-Genoa. This multi-scale accessibility takes into consideration the numerous nodes along the corridor. This multi-scale accessibility bears hence a second advantage: Integration of regional feeder services in relevant regional and national transfer nodes ensures better accessibility than a focus too much on high-speed solutions with fewer stops and the risk to lose customers along the lines, notably when creating parallel lines making network accessibility of further not served stations more difficult. Moreover, air demand may be shifted towards rail but to a lesser extent than from the car. This is justified amongst other by the density of the corridor, the polycentric character of the regions and the interregional relations along the corridor again justifying the multi-scale strategy.

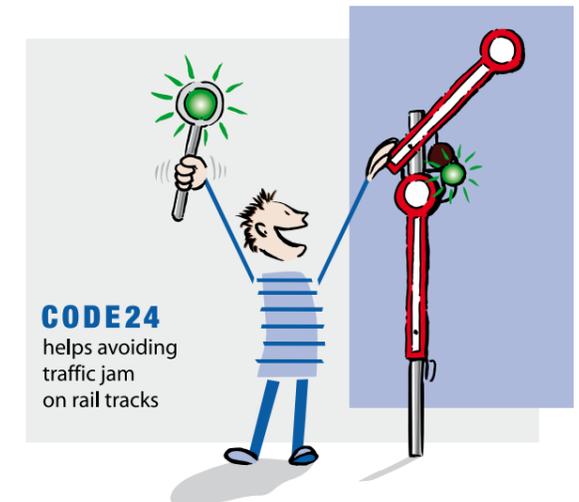


Figure 8: CODE24 mascot "Cody" regulates rail traffic

We suggest a minimum two hour service level along the corridor with standardised transfer times of most appropriately 15 minutes which thus ensures a seamless travel chain without too unattractive waiting times. Harmonisation still requires tariff integration between competing long-distance rail operators as well as between long-distance and regional train operators respectively fare determining bodies and better transfertimes.

New services related to events such as foreseen by SBB and Trenitalia for EX-PO2015 in Milan may serve as a catalyst for future increase of train frequency. Additional speeded up services calling at fewer stations may be an on-top option to cope with considerable air demand levels as can be found between Frankfurt and Zurich or Amsterdam, Zurich and Milan or Cologne and Zurich. To be competitive with air, the train needs a travel time of less than four hours.

Further information:

www.code-24.eu/activities/

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Management of Ecological Compensation Measures

CODE24 investigates intelligent spatial management solutions in the sense of ecological compensation management to secure a sustainable development, making planning conditions more effective and implementation focused. Special attention is given to protect and to develop natural resources considering European policies and regulations like Natura 2000, Strategic Environment Assessment, European Landscape Convention, or the European Water Framework Directive. Main objective remains to encounter the problem of finding suitable sites for compensation measures. So the central task of Action 5 was the identification of factors contributing to a successful and efficient planning and management of ecological compensation measures. Large scale impacts like railway infrastructure projects require large scale compensation. Broad concepts with coherent compensation sites (e.g. compensation pools related to green conversion sites) as they are created and offered by professional service providers (compensation agencies) usually meet the tasks. Compensation planning should be understood as a management task. Public relations and image building for a successful external presentation are necessary because measures need to be visible and tangible to secure better public acceptance.



Figure 9: Cody for sustainable regional development

Within the Code 24 corridor it was necessary to gather appropriate methods and instruments to counter-balance the environmental impact of larger linear infrastructure projects in densely populated and used regions. Due to the European context the project shows how Dutch, German, Swiss and Italian stakeholders solve the problem of insufficient available space for environmental impact compensation. Gathering experiences, best-practice-examples and case studies, discussing common problems that occur during environmental impact compensation and selecting as well as describing several effective instruments of the involved countries will enable a transnational exchange and thus a benefit for all participating partners. This action shows a variety of legal regulations and guidelines, representing the framework during every environmental impact compensation process. Throughout a questionnaire and expert interviews important institutions, organizations, and other bodies that are involved in compensation management were listed. Also the international workshop held in Mannheim helped to give a broad overview on this common topic. It was noticeable that, apart from diversity of existing legis-

lations, similar problems occur during environmental impact compensation: all involved countries are currently discussing about creating a joint methodology for the evaluation of compensatory needs. Increasing problems of public acceptance, concerning the impact itself but also concerning compensatory obligations require common rules on federal level.

This action makes clear that the most worrying elements for infrastructure projects are not only related to economic affairs, especially costs, but mainly to environmental impacts. The overall aim is to bring the outputs of this action into a strategy of combining grey infrastructure (e.g. transport projects) with green infrastructure projects. Green infrastructure is a successfully tested tool for providing ecological, economic and social benefits through natural solutions. European policies like the European Biodiversity Strategy 2020 focus on management solutions for habitat protection by proper placement or replacement of biotope networks. In order to support a sustainable way of impact compensation, the measures should be integrated in local / regional conservation and land use plans. A subsequent management and monitoring which have to be included in the overall compensatory plan, should be transferred to compensation agencies or other conservation bodies. Partners within the Corridor should work together to identify landscape development projects across boundaries to a multi-functional axis which will strengthen the living and working environment in densely populated metropolitan regions and conurbations between Rotterdam and Genoa. This can avoid further "bottlenecks" in planning processes.

Further information:

Toolbox Environmental Compensation Management: www.code-24.eu/activities/ecological-compensation/

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Planners' Toolbox for Innovative Noise Protection

Measures for a capacity increase on the corridor typically are not well accepted by the public and by local as well as regional decision makers. One of the main reasons is the noise, especially noise caused by freight trains. The public perception of these projects is dominated by fears and concerns. The conventionally used instruments (traffic prognosis, noise survey, noise mitigation measures as far as legal limits are exceeded) are very limited to dispel the fears and to convert concerns in acceptance.



Figure 10: Noise situation in Upper Rhine © City of Lahr

In all countries along the corridor there are outstanding potentials to reduce the noise at the source, especially if freight trains are compared with other modes of transport. Important transit countries in the corridor currently introduce regulations and incentives to mobilize these potentials for reducing the impacts on the living conditions of the people. Hence currently there is a window of opportunity to combine a capacity increase with a reduction of the impacts at once.

In all tests the auralisation has been proved to be a very intuitive instrument to illustrate noise and the effects of noise mitigation measures. Even experts and experienced local politicians confirmed that they got a new insight into these topics. The instrument has a great potential to support and to rationalise planning and decision making processes.

The dialog with several noise experts coming from the different regions along the corridor showed, that in the field of noise protection there are many similarities concerning the status quo. Particularly with regard to the transit traffic there are cross border dependencies for noise reducing measures at the source of noise. Therewith it became apparent that an instrument like the auralisation is not limited on a part of the corridor but that its application could have a positive effect on planning and decision making processes along the whole corridor.

The auralisation could be used for the discussion of project alternatives and the design of noise protection measures in participative planning processes.



Figure 11: Cody helps avoiding noise

A monitoring of the effects of the currently introduced regulations and incentives for the retrofitting of the rolling stock should be started so that these effects are recognized in the public and can contribute to a higher level of acceptance.

Further information:

Planners' toolbox for innovative noise protection:
www.code-24.eu/activities/noise-protection/

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Electric Fleet

The partners of the project Electric Fleet made the assignment together. Allego (former Alliander Mobility Services), NXP, Natuur & Milieu and the Provincie Gelderland are content with it. The assignment was sent to the Code24-partners for feedback.

The assignment was tendered. Three parties were invited to tender. Beijer Automotiv is selected. The companies V-tron, Fleetlogic, TU/e and SIOUX will work together with Beijer Automotiv. The focus is now to develop 'in-the-cloud' software, called a VIBExnode and a demonstrator to learn how it's working. The development of (chip) technology in cars is a worldwide business. BMW, TESLA, etc. use their best technology and learn worldwide for example. That's why it's necessary to use sources, skills and knowledge to make such a new technology. Also traffic (electric cars) doesn't stop at borders of countries. People use corridors to go from A to B. The goals of renewable energy and energy saving is a European issue.

Combining these issues, a transnational approach is far more productive.

If the technology is working, an implementation strategy is needed. How do we reach the manufacturers of cars, in-car technology and drivers of electric cars? How will it work on a larger European scale? How can it work in the Rotterdam-Genua corridor? In urbanised corridors upscaling electric traffic is promising. How can it be implemented in order to collect data in the cloud by electric cars?

Further information:

www.code-24.eu/activities/

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Logistics Clusters

In a preliminary survey relevant indicators for the logistics potential of a region were identified. These indicators were used to identify relevant transport and logistical agglomeration.

In a next step relevant regions for case studies were identified. The case-study areas include Arnheim-Nijmegen (NL), Cologne (DE), Frankfurt am Main (DE), Mannheim-Ludwigshafen (DE), Karlsruhe (DE), Basel (CH), Turin (IT) and Milano (IT). Due to the analysis of relevant indicators for logistics clusters, these case study areas were analysed and compared at an international level.

The results include a generic model for logistics clusters and its respective regional application. The analysis was also focussed on the spatial view on logistics clusters and therefore provided a detailed set of indicators, a benchmarking of regional potentials and a tool box for creating and managing logistics clusters for regional stakeholders.

One of the driving force behind developments in logistics in the corridor region is the overall increase of freight traffic along the transeuropean axis no. 24. The predictions of the Port of Rotterdam for 2030 set the stage for logistics efforts along the corridor region from Rotterdam to Genoa. A transnational cooperation was important in order to analyse the topic of logistics clusters in a cross-section of all relevant locations along the corridor. Due to the lack of an international accepted empirical model for logistics clusters, this transnational view was of special importance, because each case study area is set in different economic structures. An international comparison was used to sharpen the view of a threshold level for logistics clusters and was, due to this, necessary to analyse the topic. The results benefit regional and national stakeholders in the analysis of the regional potential to form a logistics cluster. Of special importance is a recommended larger scale to assess the area of a logistics cluster, which therefore includes a cooperation of stakeholders at a transregional level.



Figure 12: Logistics cluster Mannheim

In future activities, ways to establish and cultivate a logistics cluster structure next to regional stakeholders like regional associations and chambers of commerce need to be analysed regarding their implementation process, effectiveness and acceptance.

Further information:

www.code-24.eu/activities/logistics-clusters/

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Linking the Terminal Ports (Genoa and Rotterdam) to the Hinterland

CODE24 achieved a simplified but effective reading of Genoa and Rotterdam port performances and their potential hinterland economic power, depicting port "catchment area". The analysis demonstrates how the rail and road transport mode, combined, may extend the hinterland potential and its competitiveness over the long and short haul. The strength of the hinterlands of both Genoa and Rotterdam is the extent of their intensive industrial and commercial activity and their dense infrastructural network.

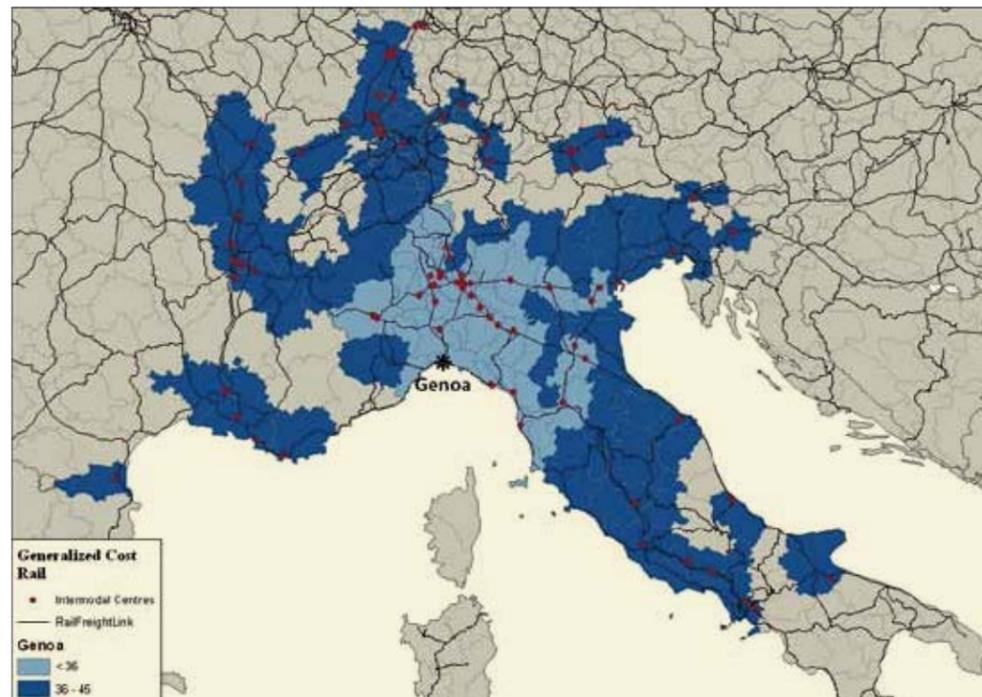


Figure 13: Genoa rail combined hinter-land (35 and 45 €/ton GC threshold)

Developing a Multi-Criteria approach, a proper methodology was designed to conclude on a Port Performance Indicator (PPI), as a synthetic tool to assess port performances at each end of "Code24" axis with reference to a panel of Mediterranean ports (La Spezia, Marseille and Barcelona) and a panel of North European ports (Antwerp, Bremen and Hamburg), where the two ports, Genoa and Rotterdam, are placed respectively. Both Genoa and Rotterdam play a leading role within their respective port ranges, thus reflecting a high capacity of innovating and dialoguing with their hinterlands. The PPI application also identified the weakest and best points of each port.

Over recent decades, the North Sea ports have emerged as the standard entry gate for containers sent from Asia to Germany and adjacent countries. The Mediterranean ports played only a minor role with regard to these import volumes despite the fact that they could offer significantly shorter transport distances for several destination regions. Today, the greater flows along the corridor are southbound, and considerable northbound capacities are available. Further analyses were then put in place to check for suitable conditions to render feasible the setting up of a shuttle linking the Ligurian ports to the European intermodal network. Due to their geographical location, transport chains via Ligurian ports can have time, flexibility and environmental advantages compared to other transport chains. Cooperation with a shipping company is recommended in order to be in a position to offer attractive prices and to attract sufficient volumes. Last, but not least, an important condition to support the development of rail hinterland connectivity is that the railway infrastructure should be upgraded for longer, heavier and higher trains.

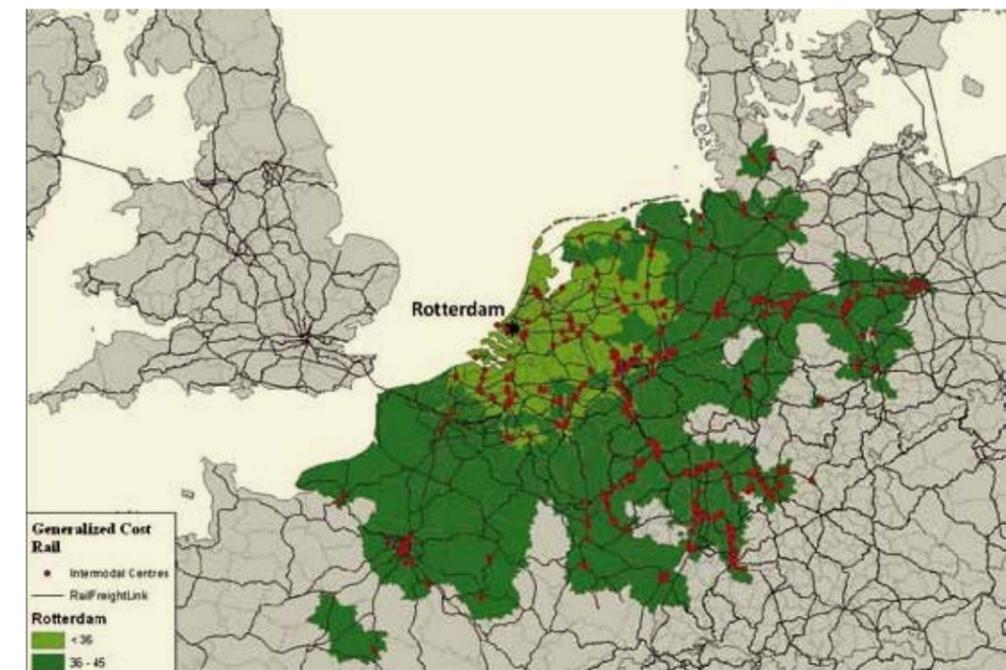


Figure 14: Rotterdam rail combined hinter-land (35 and 45 €/ton GC threshold)

Transnational cooperation was crucial in order to harmonise data collection and availability not only along the Corridor. Working transnationally was then determinant to analyse in deep railway networks and cargo flows status quo and verify room for growth for Ligurian ports hinterland comparing with other better international situations, such as North European ports.



Figure 15: Comparison of sea/rail connections between Shanghai and Basel. Straight line: Via Rotterdam; Dotted line: Alternative Mediterranean route via Genoa. Map created using QGIS/Natural Earth data

The outputs gained in this Action could be used and enriched with further methodological developments. The catchment area analysis could consider a deeper description of the economic size of this area (e.g. through the identification of biggest cities and firms, ports throughput share caught in that area, market share with reference to other European competitor ports, etc.)

Concerning the Port Performance Indicator, the tool allows carrying out a reverse analysis. As well as evaluating the “as is” condition, it could be interesting to assess the “to be” condition where effects of improvements, strategic targets and infrastructure investments may be evaluated in the light of the overall performance of a port.

Further information:

www.code-24.eu/activities/linking-the-terminal-ports/

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Costs and Other Effects of Bottlenecks to the Regions Along the Corridor

For analyzing costs and other effects of bottlenecks to the regions along the corridor, several different tasks have been carried out. Hindrances, bottlenecks and important location factors along the corridor Rotterdam-Genoa, which are important to logistic companies, have been identified. A transport model has been developed (CODE24 Transport Model). The model is built up within VISUM as the software environment. It allows calculating cost matrices containing standardized transport costs for all origin/destination pairs within the CODE24 transport corridor and for selected origins/destinations outside the corridor.

Furthermore a railway capacity analysis has been undertaken near the town of Lahr. It shows that a bottleneck has to be considered in this area which is contrary to statements of the network manager Deutsche Bahn. Two case studies of regional accessibility in the regions of Karlsruhe and Genoa and a correlation analysis of regional accessibility and regional sector output have been developed. All studies have been or will be published.

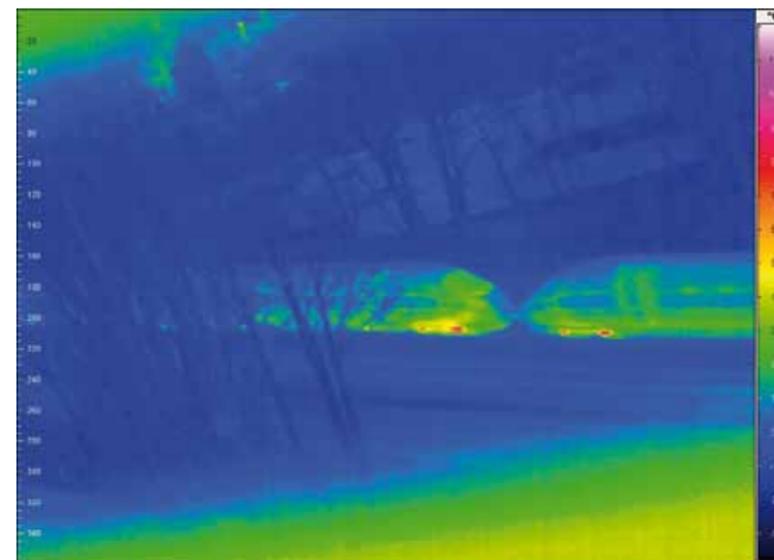


Figure 16: Infrared picture from capacity analysis near Lahr

As most of the issues of Work package 9 concern the whole corridor Rotterdam-Genoa, transnational cooperation is essential to generate valuable results. Without support of partners in the concerned regions access to regional stakeholders is much more difficult or even impossible.

Results which are not published today will be published in a final publication by Springer Edition in the end of 2014. All partners seem to be interested to support future work in the European Grouping of Territorial Cooperation.

Further information:

www.code-24.eu/activities/costs-of-bottlenecks/

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Online Rail Freight Exchange (ORFE)

An Online Rail Freight Exchange (ORFE) is a platform which allows the exchange of information about available loading and shipping capacities between rail operators, forwarders and shippers by use of the internet in a user-friendly and interactive way and is not limited to companies with direct access to rail sidings. Potential extensions include the use of an ORFE for the exchange of wagons, locomotives or staff.

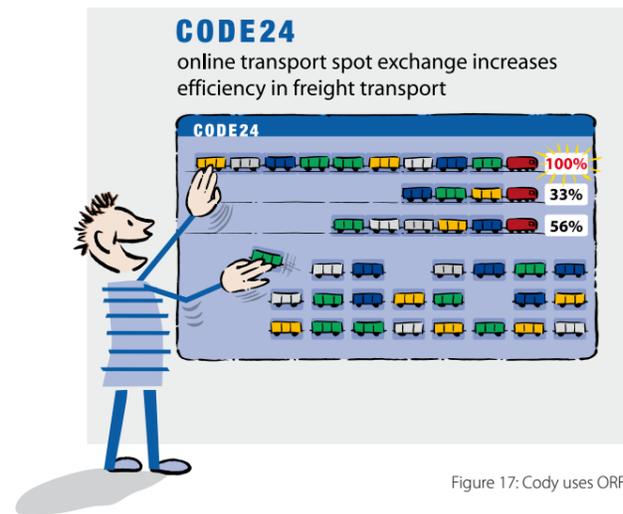


Figure 17: Cody uses ORFE

Based on a software prototype, developed by the Institute for Production and Industrial Information Management of the University of Duisburg-Essen and with insights provided by the partners Regionalverband FrankfurtRheinMain, TransCare, Transpetrol and the consultant Klaus G. Becker, two private and neutral operators agreed to run such an ORFE commercially. These are Railcargo-online (www.railcargo-online.com) operated by Axel Goetze-Rohen from bargelink and FREIT-ONE (www.freit-one.de) operated by Martin Makait from MWP. Both platforms are online since October 2013 and count around 80-100 users each.

Markets do not have barriers. (Rail) Freight haulage has a considerable crossborder proportion. International partners thus act as indispensable multipliers to get access to potential user groups.

In the next future, steady promotion of ORFE-platform and the adjacent idea is envisaged. Strengthening rail freight in order to avoid further infrastructure removal which is the backbone for any rail operation is a goal.

Further information:

www.code-24.eu/activities/rail-freight-exchange/
www.railcargo-online.com
www.freit-one.de

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Multimodal Node Lahr



Figure 18: Lahr airport

The feasibility study researching the potential of the combination of area and transport infrastructure and the establishment of a multimodal node (combined and unaccompanied combined transport) in Lahr is completed. The analysis arrived at the conclusion, that:

- 1) With regard to the regional competitive situation there is an adequate market potential for a freight terminal at the Logistics Service Center Lahr
 - 2) The Analysis of the regional economic effects from operating a freight terminal at Lahr and the resultant value creating processes predicted a total value creating effect for the region of EUR 44m per annum
 - 3) Related to possible operating concepts the study offers a number of diverse approaches that will be essential when selecting the operator model
- At least the study shows up that a multimodal node Lahr could help to ease one of the corridor's bottleneck problems under the premise to locate the 3rd and 4th rail track parallel to the motorway A5.

A multimodal node Lahr requires a very close cooperation with several European facilities and stakeholders. Therefore the transnational cooperation was essential to generate the data for the feasibility study. During the whole process of analysis in addition the transnational communication within the code 24 group generated very beneficial approaches.

In autumn 2014 the study's results will be presented to a large number of political, business representatives and to several stakeholders to forward the project on the political agenda. On this report a correspondent political decision is essential.

If there is the decision to place the freight track parallel to the motorway the feasibility study is essential for the whole project multimodal node Lahr, and it could serve as a main framework.

Further information:

www.code-24.eu/activities/

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Communication

The creation of acceptance for needs and challenges within the Rhine-Alpine Corridor constituted an essential part of the project CODE24. The action "General Project Communication" as well as the action "Events, Conferences, Workshops and Seminars" within the project CODE24 aimed at making project activities and results visible to the different target groups at regional and transnational level, to raise awareness for the development needs along the corridor and to achieve an appropriate public and political support for the measures envisaged. Right in the beginning of the project a communication strategy including two components was established: external communication, i.e. communication with media and non-media audiences; and internal communication, i.e. communication with project partners and associated institutions in order to represent the regions within the corridor before the European Commission. Policy makers at local, regional, national and European level, experts from regional planning and development organisations, local communities directly concerned by the Rhine-Alpine transport corridor were defined as main target audiences. Important objectives of the external communication were to reach the relevant target audience by selecting appropriate forums and formats to promote the project's achievements and share its results. Further, a communication group aiming at coordinating the communication activities was formed. In accordance with the communication strategy, regional round tables as well as regional and international workshops and conferences were organised. Further means of communication used in order to impart the project's messages were among others the project's website www.code-24.eu, newsletters, videos and diverse publications like this brochure.

Further information:

www.code-24.eu

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It was a challenge to focus on the different regions along the corridor and get in touch with local residents. The involvement of relevant persons and stakeholders on a European and national level was an essential feature of all events. Transnational cooperation was important in order to transfer the individual project messages from CODE24 partners to all over project messages.



Figure 19: CODE24 Conference in Brussels, 2012 ©Felix Kindermann

It is very important to focus on acceptance and communication. CODE24 is such a multilayered project that it would be difficult to disseminate facts and knowledge without a targeted communication. Since CODE24 was a strategic and very complex project, it was a challenge to explain its specific contents to the public. It has stood the test to inform at an early stage and to involve the local experts as soon as possible. It is important to raise awareness for all over the corridor. Inhabitants have great interest in infrastructure projects that immediately concern their daily life. There is an attentive local audience but a European audience is about to be established. Local communities are still predominantly focused on local environmental and economic issues. For European projects this fact is a challenge, as they deal with high level European and policy issues. We have also learned that it is very important to translate central communication products in different languages. English as only project language is not enough.

Mobile Exhibition

From September 2011 until the end of the project the CODE24 partners have presented their project results in the framework of several events and at different locations along the corridor from Rotterdam to Genoa with a Mobile Exhibition containing presentations, films and interactive working stations.

The Mobile Exhibition is available in English, German, French, Italian and Dutch. The exhibition provides e.g. noise examples, an interactive planner tool and has been a good opportunity to reach a broad audience and to get in contact with the CODE24 partners. Transnational cooperation was essential in the development of the Mobile Exhibition in order to draw and implement the different contents. Furthermore, the project partners offered translations of the contents to make it available in five languages. The cooperation included the common organisation of exhibitions in different regions and countries and thus made it possible to reach a broad audience.



Figure 21: Mobile Exhibition in Brussels



Figure 20: Launch of the Mobile Exhibition in Turin, 2011

The Mobile Exhibition was presented among others in Turin, Düsseldorf, Mannheim, Brussels, Frankfurt, Karlsruhe, Genua, Zurich and Strasbourg. The contents and materials of the Mobile Exhibition will be transferred to the EGTC after the end of the project and will continue to display the work and results of the project.

Further information:

www.code-24.eu/mobile-exhibition/

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It is evident the development of this major European axis is a permanent task which can't be performed during the lifetime of a single project. Thus the preparation of a legal form for cooperation after the end of the funding period of project CODE24 has always been one of the major objectives of this project. That is why the partners decided to apply the rather new EU-regulation concerning the "European Grouping of territorial cooperation" (EGTC). This legal form provides all the opportunities for a sustainable cooperation between European partners and has been chosen as the appropriate framework for continuous cooperation. Within this action the action leader collected all necessary information for the partners about the EGTC. The documents which are required for establishing an EGTC, i.e. the Convention and the Statutes, have been drafted, discussed and finally agreed upon by all interested future members of the EGTC. The application procedure which every interested member has to execute with the specific authorities in the respective country is at full swing. The EGTC „Interregional Alliance for the Rhine-Alpine Corridor“ will be officially announced at the Final Conference of project CODE24 (20 November 2014 in Mannheim).

EGTC „Interregional Alliance for the Rhine-Alpine Corridor“ is a perfect example for continued transnational cooperation on the basis of an INTERREG-project. Obviously an EGTC is transnational by its nature. Close cooperation was needed to agree upon the organizational form which should be chosen for future cooperation. It was also important to jointly decide upon the content of the mandatory documents (Convention and Statutes), especially the objective and tasks of the envisaged EGTC and to find a solution for other important issues such as budget, annual member fees, voting rules etc. Finally transnational cooperation was necessary to coordinate the procedures which all future members have to conduct before being able to join an EGTC.

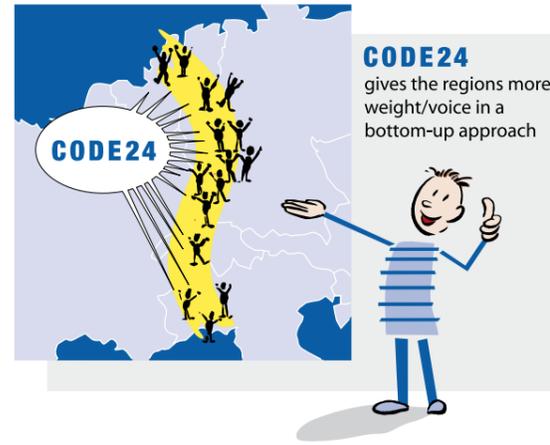


Figure 22: Regional Cooperation for the Rhine Alpine Corridor

The objective and tasks of the planned EGTC stipulate a very close cooperation concerning the joint development of the Rhine-Alpine Corridor (formerly denominated Corridor 24). The work of the EGTC will build upon results achieved within project CODE24 and continue cooperation upon this sound basis. The foreseen tasks also allot the EGTC for taking over and continuing the tangible results of CODE24, notably the Corridor Information System and the Mobile Exhibition. Furthermore, the EGTC will try to become a member of the EU-Corridor Forum for this new core network corridor, representing the local and regional stakeholders within this corridor.

The EGTC will be located at the premises of the CODE24 Lead Partner and become operational in the year 2015.

Further information:

www.code-24.eu/activities/egtc/

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Ruhr Regional Association
www.rvr-online.de

Karlsruhe TechnologyRegion
www.technologieregion-karlsruhe.de

Regional Authority FrankfurtRhineMain
www.region-frankfurt.de/

City of Mannheim
www.mannheim.de

Uniontrasporti
www.uniontrasporti.it

SiTI (Istituto Superiore sui Sistemi per l'Innovazione)
www.siti.polito.it

TransCare AG
www.transcare.de

Genoa Port Authority
www.porto.genova.it

University of applied sciences Kehl
www.hs-kehl.de

University of Utrecht
www.uu.nl

PTV AG
www.ptvgroup.com

Municipality of Lahr
www.lahr.de

Port of Strasbourg
www.strasbourg.port.fr

Province of Gelderland
www.gelderland.nl

Fact Sheet:

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