



Progress-Report 2012
Executive Board
Rail Freight Corridor 1:
Zeebrugge-Antwerp/Rotterdam-
Duisburg-Basel-
Milan-Genoa

prepared in collaboration with the Dutch Ministry of Infrastructure and the Environment , the German Ministry of Transport, Building and Urban Affairs, the Italian Ministry for Transport, the Federal Public Service Mobility and Transport of Belgium, and the Swiss Federal Office of Transport.

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1. Introduction

Corridor 1/A is the rail freight corridor from Rotterdam to Genoa along the River Rhine through the industrial heart of Europe. The corridor was extended to Antwerp and Zeebrugge in the course of 2010. The “Zeebrugge-Antwerp/Rotterdam-Duisburg-Basel-Milan-Genoa” rail freight corridor No. 1/A is continuing to develop rapidly and is one of the main rail freight axes in Europe. Its position is strategic because it connects some of Europe's biggest ports, industrial centres and major market areas. It is part of a group of European rail freight corridors, which have gradually been identified in order to develop technical and commercial interoperability.

Corridor 1 runs between the major (sea) ports of Rotterdam/Antwerp and Genoa, right through the heart of the EU along the so-called "Blue Banana". This is the most heavily industrialised North-South route in Central Europe and connects Europe's prime economic regions. The "Blue Banana" includes the economically strong urban centres such as Rotterdam, Amsterdam, Zeebrugge, Gent, Antwerp, Duisburg, Cologne, Frankfurt, Mannheim, Basel, Zurich, Milan and Genoa. All these centres are served and connected by Corridor 1/A. This outstanding position together with the resulting fact that Corridor 1/A carries by far the greatest transport volume in Europe, makes the Rotterdam-Genoa route one of the pioneers for international rail freight transport in Europe.

Since 2003, the Ministries of Transport of the Corridor 1/A have intensified the way of cooperation and have thus brought about some remarkable results.

The most important milestones of the work and progress of the freight corridor Rotterdam – Genoa are:

- I. In January 2003 the Memorandum of Understanding (MoU) was signed by the Ministers of the four corridor countries namely Italy, Germany, the Netherlands and Switzerland. With the MoU, the International Group for Improving the Quality of Rail Transport in the North-South-Corridor Rotterdam - Genoa (IQ-C) started its work dealing with the aim to further improve the quality and punctuality in international rail freight transport on the Corridor. The Ministers entrusted the working group with the task of implementing a package of specific measures that were defined following a prior analysis of the main problems relating to freight transport by rail in the North-South-Corridor. This scheme includes a range of quality improving short term measures which focus on actions not only from Infrastructure Managers but also measures that have to be implemented by the Ministries.

As output of this work:

- II. In July 2004 an agreement was reached for facilitating EU-CH transit customs procedure benefiting all railway undertakings;

- III. In 2005 the agreement between the railway safety inspectorates of the Netherlands and Germany on mutual recognition of drivers where possible was reached;
- IV. In March 2006, the Ministers signed – as a result of a mandate of the Ministers to the IQ-C Working Group – the “Letter of Intent ERTMS deployment on Rotterdam – Genoa corridor” (LoI) with the aim to complete the ERTMS/ETCS infrastructure on the corridor until 2015. As result, the organisation for the deployment of ERTMS/ETCS on the corridor was established in 2006. The Infrastructure Managers have set up the Management Committee and founded the EEIG Corridor Rotterdam-Genoa EWIV to steer the overall improvement programme integrating all ERTMS and other improvement activities of IQ-C, whereas the Ministries have created the Executive Board supervising the ERTMS implementation on the corridor. From 2008 on, the IQ-C Working Group of the Ministries of Transport and the ERTMS Executive Board worked together in very close cooperation and coordinated their actions and time schedules. In the discussions between Executive Board and Management Committee the development of a successful implementation of ERTMS was in the focus of work. Between 2008 and 2010 all fields of activities were further developed.

The Infrastructure Managers have further developed their quality improving actions, such as the development of harmonised key performance indicators (KPI) concerning traffic volume, modal split, punctuality and commercial speed. Common deadlines for the planning and allocation process for the yearly timetabling, the development of customer relationship, the establishing of common and harmonised operations management processes as well as the further development of infrastructure and an international process of coordinated bottleneck elimination have been initiated. Great efforts have been made to improve punctuality and analysis of the causes for delays.

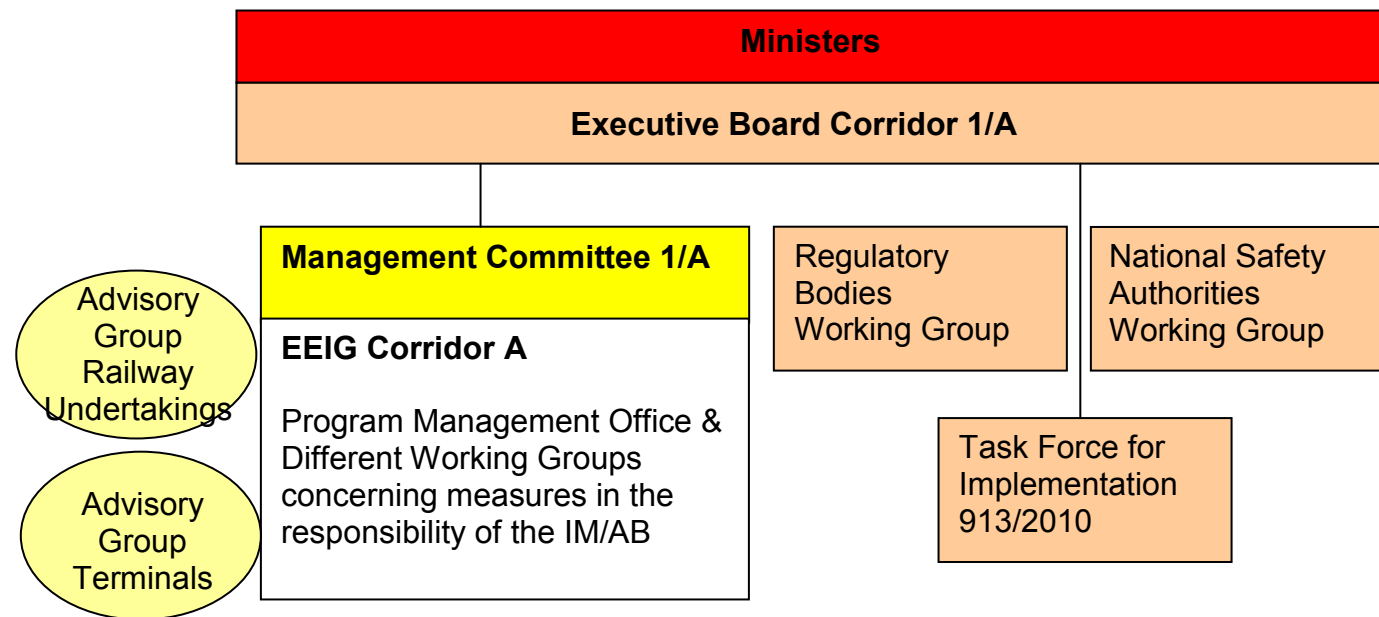
- V. In June 2007, the Ministers agreed on and signed a Memorandum of Understanding on the implementation of approval procedures for rolling stock and cross acceptance of approval procedures of the competent National Safety Authorities (NSA).
- VI. In May 2009, the Ministers signed a common declaration in Genoa on the ERTMS corridor A and re-emphasised to implement ERTMS on the corridor by 2015. The Minister's declaration also included decisions on procurement and authorisation of ERTMS equipment and on the necessary European development of ERTMS baseline 3.
- VII. In June 2010, Ministers of three ERTMS corridors signed a common declaration in Rotterdam. The Ministerial meeting showed the clear political backing of the development of rail freight corridors throughout Europe. For the first time the cooperation of several corridors and the connections between corridors was discussed, recognizing as step towards the European network approach was discussed. The Ministers asked the Infrastructure Managers of Corridor A to enable long trains on the entire corridor by providing at least 750m tracks, to continue with common procurement of ERTMS, and to

seek for a common testing and authorisation concept for Corridor A under the lead of the NSAs and in cooperation with ERA. The Ministers also invited Belgium to participate in the ERTMS Executive Board and the IQ-C Working Group as an observer, and as full member after the entry into force of the Regulation (EU) No. 913/2010 which was in discussion as a proposal at the time of the Ministerial meeting.

- VIII. On 9th November 2010, the Regulation (EU) No. 913/2010 of 22 September 2010 concerning a European rail network for competitive freight entered into force. This Regulation brought an extension of the existing IQ-C/Corridor A to the Belgium harbours of Zeebrugge and Antwerp and a renaming of the Corridor A into 'Corridor 1'. It aims mainly at strengthening the previous corridors, from either the Intergovernmental field (e.g. ERTMS), or from Infrastructure Managers, by institutionalizing their business objectives and methods in a legal community framework, to reinforce cooperation at all levels along the rail freight corridors, to provide rail freight services of good quality to become more competitive with other transport modes.
- IX. On 27th June 2011, a Mission Statement concerning the Corridor 1 was agreed in a conference in rail corridors in Antwerp. By adoption of the Mission Statement, the Executive Board of Rail Freight Corridor 1 was established. The Mission Statement gave the Corridor 1 a new governance structure as the former working group IQ-C and the Executive Board ERTMS Corridor A are fully merged now. Regarding the institutional requirements of the Regulation (EU) No. 913/2010, the new Mission Statement ensures the establishment of a corridor framework according to the new Regulation, especially the extension of the Corridor to the Belgium ports of Antwerp and Zeebrugge. The Executive Board appointed a special task force as a working group with the objectives to deliver a strategic approach for the implementation of the Regulation (EU) No. 913/2010 on corridor 1.
- X. On 20th December 2012, the Corridor Framework was signed by the Ministers as a Decision of the Executive Boards of Rail Freight Corridors No 1 and No 2 establishing the Framework for capacity allocation on the Rail Freight Corridors No 1 and No 2. The Corridor-Framework describes rules for the allocation process linked to the pre-arranged train paths and to the reserve capacity given to the Corridor One-Stop-Shop ('C-OSS') for freight trains, crossing at least one border on a corridor as foreseen by Article 14.4 of the Regulation (EU) No. 913/2010.

2. Corridor organisation

With the actual Mission Statement, the governance structure of the Corridor 1 organization can be illustrated as follows:



The tasks of the Executive Board - following the adoption of the Mission Statement - are:

- To prepare and implement the decisions from Ministers to develop the corridor. The implementation includes in particular the Lugano MoU (2003), the Bregenz Lol (2006), Genoa declaration (2009) and the Rotterdam declaration (2010).
- to ensure that the Rail Freight Corridor No. 1 will be established according to the article 3 of the Regulation, at least three years after the entry into force of the Regulation, namely no later than the 10th of November 2013, in line with the fact that the draft implementation plan needs to be submitted by the Management board for approval at latest on the 10th of May 2013;
- to define a framework for the allocation of infrastructure capacity on the rail freight corridor in accordance with article 14, paragraph 1 of the directive 2001/14/CE (Art. 14 § 1 Regulation), and this prior to the approval of the implementation plan.
- to ensure that the Management board will submit an investment plan for approval, in May 2013 at the latest (Art. 11 Regulation). The Executive board will encourage the Management committee to update the plan regularly and to take into account the corridor's needs.
- to support the need of Infrastructure Managers to have sufficient resources for the development and the deployment of the ERTMS, but also for all the other measures of the corridor's coming investment plan intended to improve the corridor's quality, by respecting the national and community budgetary procedures.

- to assess on all matters of common interest of the corridor whereas the mandate of the Executive board is without prejudice to the competence of Member States regarding planning and funding of rail infrastructure;
- to supervise the realized progress with regard to the implementation plan's measures on the basis of the reporting performed by the Management board. This monitoring will be carried out during the meeting of the Executive board.
- to ask, if applicable, the Management board on any matter relating to smooth functioning of the corridor (works and studies);
- to support the Management board's work, in particular, if the latter encounters difficulties to succeed in its actions;
- to support the establishment of the Advisory Groups of terminals owners/operators and railway undertakings in accordance with the requirements of the Regulation (Art. 8) ;
- to support the request of the Management board for European subsidies within the framework of TEN-T;
- to cooperate, in case this is required, with the European institutions and organizations
- to cooperate, in case this is required, with their national railway safety authorities;
- to cooperate, in case this is required, with the regulatory bodies.
- to transmit reports to the Ministers to keep them informed of the corridor's progress with regard to the implementation plan.
- to inform the European Commission every two years on the development of the freight corridor due to Art 22 of the Regulation.

On the side of Infrastructure Managers, the Programme Management Office is implemented and works for the Management Board, which develops, steers, monitors and reports all the corridor activities as integrated action and as one company. In 2008, the EEIG Corridor Rotterdam – Genoa EWIV was founded. The Infrastructure Managers of the corridor can act as a legal entity, financially borne by its members and associates.

3. Corridor Action plan 2006-2014

Until now, the Working Group IQ-C (in close cooperation with the Executive Board ERTMS) worked on the Action Plan since the start of the working group in 2002. The actual Action plan

was updated, concretised and prolonged until 2014 by the Ministers. It is one main guideline for the work of the Executive Board of Corridor 1/A. The focus was and is on the following actions:

1. *Digital coordination:* The aim is that Infrastructure Managers will optimize their IT support of business processes in such a way that virtual coordination of infrastructure management on the corridor is possible with one face towards the customers, especially for the RUs focused on international rail freight traffic. Therefore, corridor wide application of the Train Information System (TIS) shall be ensured, also the access to applications (e.g. TIS) for terminal operators and other involved parties (e.g., intermodal operators). The implementation of TAF TSI in the EU and among the corridor partners shall be ensured and monitored.
2. *Services:* The aim is the regular check-up of essential service quality and performance indicators on the corridor and the development of additional added value services for the clients. The focus is on measuring service quality (e.g., response time of the One Stop Shop, number and speed of train paths, punctuality of freight services, corridor coordinated customer satisfaction survey). Added value services are also investigated by Infrastructure Managers.
3. *Improving punctuality:* to improve punctuality on the corridor by setting the right commitment and incentives by Infrastructure Managers and railway undertakings. Measures are a study about the feasibility of the European Performance Regime in the corridor (as a pilot) with decision about implementation and production supervision with monitoring and improvement using EPR on Rotterdam – Genoa for important traffic flows.
4. *International capacity allocation:* with the goal of improving transparency and efficiency of the capacity allocation process for the annual timetable and the short-term requests for train paths, and introducing corridor wide catalogue paths where feasible (corridor wide catalogue with harmonised international freight train paths or development of customer oriented overviews of harmonised international freight train paths).
5. *Capacity / bottlenecks:* includes a broad package of measures to improve international traffic by analysing the existing infrastructure bottlenecks on an integrated (corridor) basis. Action points concern the infrastructure inventory (all client relevant infrastructure parameters, e.g. train length, clearance gauge), the assessment of essential developments on the basis of the results of a corridor-wide cost-benefit-analysis, the analysis of the client needs for infrastructure parameters and the definition of the future development for those values, the identification of infrastructure bottleneck by combining traffic demand forecasts with capacity (actual and planned, per five year planning steps,

e.g. 2015 and 2020), proposals to eliminate infrastructure bottlenecks, and making transparent the financing of bottleneck removal projects at national and EU level.

6. *Cross acceptance*: to make the country-specific acceptance processes for production resources (locomotives, wagons, locomotive drivers) easier, faster and less expensive than today for the applying bodies (RUs, wagon keepers and leasing companies), while maintaining the same safety level. This includes the mutual recognition of engine drivers with a corridor wide implementation in line with the new EU directive 2007/ 59 for engine drivers respectively the continuation and extension of an intermediate approach of bilateral agreements on acceptance of train drivers until the full implementation and application of the driver license directive. The mutual recognition of locomotives is also part of this action by implementing cross acceptance (international requirements list) of certification of locomotives in conformity with the EU directive 2008/57.
7. *Market regulation*: to continue the cooperation of the Regulatory Bodies for issues of common interest on the corridor. This includes the reporting on recommendations for improvements of the allocation process of capacity (assessment of allocation for international freight train paths on the corridor), the analysis and relief of congested infrastructure with focus on legal application of priority rules, the access of the clients to terminals and other service facilities in line with EU-legislation and the non-discriminatory application of priority rules by the IM's in case of disturbance of traffic.
8. *ETCS / ERTMS*: to install seamless ETCS operations on the corridor by 2015 to enable safe and interoperable international rail freight traffic to enhance modal shift from road to rail and to support the future market demands and development of the European market. The Infrastructure Managers prepare the corridor implementation plan and will propose this to the Executive Board for adoption. The realization of the corridor implementation plan includes border transition procedures and installations. An implementation plan for ETCS authorization process based on an application of IM (with annual update) has to be developed and realised by Infrastructure Managers and National Safety Authorities.
9. *Terminal facilities*: to improve the interface between terminal operators and IMs. Ministries and Infrastructure Managers update within the Corridor terminal platform (in close collaboration with terminal operators) the corridor terminal inventory (capacity, equipment, etc.), - monitor the traffic development including bottlenecks to and from terminals, ensure the coordinated national planning for long term development of terminals, develop solutions for regulatory problems of the last mile (in cooperation with the regulatory bodies) and assess the access lines regarding equipment with ETCS.

10. *Harmonisation of operational rules:* to aim for an harmonisation of essential operational rules on the corridor and presentation of an interim result to NSA and ERA, and to make an inventory as input for ERA
11. *Railway noise:* The countries on the corridor cooperate with regard to combat railway noise on the corridor caused by freight trains and aim at considerably reducing rail noise at the source by retrofitting freight wagons.
12. *Customs:* to facilitate smooth customs procedures for goods transiting by rail EU-CH.
13. *Rail freight regulation:* To facilitate the implementation of the Regulation (EU) No. 913/2010 on Corridor A, an analysis of the impacts of the regulation is necessary, concerning the development of a business plan, the implementation plan, the extension to Belgium, the involvement of Switzerland as non-EU member, and the impact on existing actions.

With the adoption of the Implementation plan of the Management Board, the corridor action plan will be part of the Implementation plan in future. Most of the actions are transferred. The Implementation plan includes a special chapter which describes measures in addition to Regulation 913/3010 which were part of the former Corridor 1 Action plan and are not related to the Regulation.

4. Implementation of Regulation (EU) No. 913/2010

The Executive Board decided to set up a task force with participants of all Ministries to support the proper implementation of the Regulation establishing the rail freight corridors. Terms of reference for the task force were set up.

Modifying the existing governance structure of the corridor to comply with the requirements of the Regulation is a pre-condition. The Mission Statement of the corridor Executive Board was adopted and sent to the European Commission on the 27th June 2011. Infrastructure Managers are on the way to modify their existing arrangements for the Management Committee and their legal entity (EEIG) to bring them in line with the Regulation and to take full account of Infrabel's participation in the corridor since 2010. Terms of reference for both the Railway Undertakings Advisory Group (RAG) and the Terminal Advisory Group (TAG) were developed and members were proposed by the Executive board to the Management Committee. Further measures may be needed to ensure a stable and effective consultation mechanisms. As result, RAG and TAG have periodically meetings and workshops with the Management Committee to reach an intensive cooperation.

The task force also signalled the need of setting up a corridor framework for capacity allocation for the Corridor one stop shop according to articles 13 and 14 of the Regulation. This has to be done to ensure that pre-arranged train paths along the corridor will be supplied by the Corridor One Stop Shop (C-OSS) starting from January. The framework was signed by the Ministers in December 2012 and published in the Official Journal of the European Union¹. Switzerland declared its agreement with the regulations of the corridor framework in form of a support letter.

The development and formal adoption of the corridor implementation plan, foreseen for December 2013, is one more important milestone for the corridor. With it, the corridor lines are defined, mainly based on the annex of the Regulation (EU) No. 913/2010 and on the European Deployment Plan (Decision 2012/88/EU). The defined lines are derived from the results of the transport market study which describes the expected traffic demand for the upcoming years. The offer of pre-arranged train paths is derived from these results. On this basis, the Corridor One-Stop-Shop starts its work.

5. Implementation of ERTMS/ETCS on Corridor A

ERTMS development on the corridor Rotterdam-Genoa was open since the decision of the German State Secretary Scheurle to opt for an alternative strategy. Germany proposed to amend European legislation in that direction. The European Commission, Germany and other countries on the corridor have discussed the matter since then intensively to come to a common approach.

The 2012/ 2013 period has led to a positive change for the implementation of ERTMS. The German ministry informed the European Commission by letter in April 2013 about its intention to install ERTMS on the corridor. The letter was in response to the notification procedure foreseen for 2012 with regard to notifying progress on ERTMS as planned in the European Deployment Plan. After this notification the European Commission is planning to decide on the request for additional implementation time of maximum 3 years (2018) in justified cases.

The intention was followed by the agreement in October 2013 from German ministry and DB Netz on the planification studies on deployment of ERTMS on the corridor and the inclusion of ERTMS in the corridor implementation plan of Rail Freight Corridor 1. The general strategy is to deploy ERTMS Level 1 Limited supervision to guarantee interoperability on the corridor while some stretches of the corridor that are being renewed / extended will be equipped with Level 2.

In the Netherlands planning progressed by finalizing the planification and financing of the 2 remaining non-ERTMS sections Kijfhoek and Zevenaar. ERTMS will be installed by end of 2014 (partly level 1, partly level 2) . The installation will be done in such a way that ERTMS equipped

¹ English version: <http://eur-lex.europa.eu/JOHtml.do?uri=OJ%3AC%3A2013%3A065%3ASOM%3AEN%3AHTML>

locomotives can run into the German network without having the need to have also the Dutch Class-B system on board. In the Netherlands the new government agreement from November 2012 showed the intention to equip the whole railway network with ERTMS and that a strategy for this will be developed in 2013/2014.

In Switzerland the ERTMS development continued as planned, completion of the corridor foreseen for 2015, ERTMS for the whole Swiss network foreseen for 2018.

In Italy planning of ERTMS continued but was not finalised . Different technological solutions were being analysed (level 1, level 2).

The Belgian part of the corridor is not part of the European deployment plan ERTMS. The Belgian implementation strategy is part of a network wide implementation strategy in Belgium foreseen in 2022. The Belgian part of the Corridor will be equipped by 2020.

The corridor study CIACA (cross impact analysis for Corridor A) carried out by the Infrastructure Managers analysed common risks for the implementation of ERTMS. One of the follow-up actions is the focus to complete border sections of the corridor with ERTMS as a priority; it reduces risks and lowers operational costs for the railway undertakings by reducing the required number of Class-B systems. The concept is to complete border sections by end of 2015 for the Dutch and Swiss borders in such a way that no longer the Dutch en Swiss class B systems are necessary. The prioritisation of border sections is also important for the authorization of ERTMS infrastructure. National Safety Authorities need to work together and the legal framework for assigning responsibilities for authorization is partly based on border crossing conventions. For corridor authorization of rolling stock National Safety Authorities are developing a guideline. This guideline will be the procedure to be used by the corridor NSA's when authorizing ERTMS onboard and should reduce authorization cost and speed up the process.

During 2012 at European level baseline 3 was delivered and voted in the Railway Infrastructure and Safety Committee (based on 2008/57/EC). This important milestone facilitates equipment of infrastructure and rolling stock on the corridor. Presently the first maintenance release is being delivered by the European Railway Agency and is planned to be adopted by mid of 2014.

At European level the proposed Regulation on TEN-T guidelines and Connecting Europe Facility (CEF) were being negotiated between EC, Council and European Parliament. The guidelines do include objectives to install ERTMS on the core network corridors by 2030 and the comprehensive network by 2050. The CEF gives a framework for partly European financing for ERTMS deployment.

6. Status of implementation of measures in the responsibility of the Infrastructure Managers

Regarding the corridor programme, the measures related to the implementation of Regulation (EU) No 913/2010 had priority in the corridor's work of the Infrastructure Managers and Allocation Bodies. The Corridor conducted a transport market study (TMS), which will be used as basis for the mid and long term development. The corridor organisation and working groups focused on the definition of the corridor layout and development of fundamental issues for e.g. performance management, coordination of works, pre-arranged paths for rail transport, establishment of the Corridor One-Stop-Shop (C-OSS) and publication and management of corridor information for the customers. By this, the "conception phase" for these measures could be completed. Based on this, the processes will now be developed, described and implemented in 2013.

In the RU Advisory Group the requirements published by four RUs in a position paper in December 2011, were further discussed and prioritised. RUs have major interest in operating longer trains. Subsequently, the Corridor has set up a working group for assessing the benefits as well as the efforts for upgrading the infrastructure and time table construction in order to facilitate 740m long trains in future. The study is planned to be completed by the end of 2013.

In the Terminal Advisory Group two workshops have been conducted for assessing their involvement in the capacity management of the IMs. Due to different business models, a direct involvement showed to be impossible. Nevertheless, it was agreed to improve the conditions for scheduling of train handling in the terminals and the publication of terminal information in a unified layout at the corridor internet presence.

In all the topics and measures worked on, Corridor A/1 liaised closely with RNE and the management of Corridor C/2 in order to establish coherent and compatible concepts and implementations.

High interest in our Corridor Rotterdam-Genoa was noted on all levels. The experts of the Infrastructure Managers participated and contributed in many working group meetings from RNE, ERTMS Users Group, ERA, NSAs, ERTMS Corridor Group, Railway Undertakings and Terminal Advisory Groups, Noise and Terminal Platform, as well as in other freight corridors. Furthermore, the Corridor was represented by the Managing Director at high level summits like Corridor Conference in Cologne, Corridor Steering Group and DERC meetings of the EC,

CODE 24 Political Advisory Board, RNE Business Conference, etc. This led to fruitful and constructive dialogues with all stakeholders relevant to the Corridor.

The annual meeting of the corridor CEOs took place in Paris at the occasion of the CER/EIM High Level Infrastructure Meeting at the end of May 2012.

In order to ensure the financial means for continuing the successful activities of the Corridor EEIG and IM organisations, the EEIG participated in the TEN-T call 2013-2015.

7. Status of implementation of measures in the responsibility of the National Safety Authorities (NSA)

As stated in the Letter of Intent signed 3 March 2006, the NSA shall present to the Ministries and to the European Coordinator a cooperation agreement with practical measures to streamline the processes for authorising the placing into service of ERTMS equipment on the corridor infrastructure and vehicles.

The aim has been clarified further in the Common Declaration of the Ministers of Transport on 26 May 2009. The National Safety Authorities were asked to develop by 2010 a common process for authorising the placing into service of ERTMS equipment on the corridor infrastructure and vehicles. All relevant partners (EC/ERA, notified bodies, IMs and industry) were to be involved.

In order to achieve the target, a common and sound understanding about the technical, operational and safety related aspects of ERTMS has to be gained. Further, as a precondition, the different national requirements for authorising the placing into service have to be understood before a common approach could be agreed upon to achieve transparency and to streamline the authorisation process in order to gain the much desired synergetic effects.

The experiences made with ERTMS pilot projects underline the above mentioned prerequisites. Therefore, the group has decided to take a multitude of measures to cover the identified two major work fields including the existing interfaces to other groups and to the European Railway Agency.

In 2012, the working groups of the National Safety Authorities were mainly engaged in the following topics:

- I. the task to develop a common understanding of the ERTMS technical issues (errors, interpretations, open points) in order to achieve one common ERTMS standard on corridor
 1. As the focus of the ministries is set on the development of a harmonised authorisation

process for placing into service as stated in the Common Declaration of 26 May 2009, it was decided to give special attention to the process-related tasks. In order to facilitate the discussion of technical issues immediately, it was agreed in 2012 to open the German Reflection Group on ERTMS for these discussions arising on the Corridor. As this group meets on monthly or bimonthly basis, the regular exchange is given. The approach is being tested in 2013.

- II. The authorisation process: The Infrastructure Managers of the Corridor have stated in 2010 that they are not able to deliver a harmonised customer requirement specification for the ETCS infrastructure on RFC 1. The track-side ERTMS deployment will be specified by each Infrastructure Manager separately. Therefore the benefit of one harmonised process for the placing into service of the infrastructure on RFC 1 is not given any more. This fact leads to the change of the focus of the working group towards a harmonised process for the authorisation of placing into service vehicles (ERTMS onboard).

In 2012 the focus of the work has been on the drafting and development of the guideline for CCS Authorisation on Corridor A and of an APS template called "The on-board CCS subsystem related part of the Authorisation for placing into service of vehicles".

During 2012, the comments of the stakeholders on the draft guideline have been collected and discussed. Several meetings were used discussing important related issues such as national requirements for ERTMS, DV29 follow up and testing.

- III. Task Force Interoperability (TFI): as a working group aiming at facilitating the authorisation for putting into service vehicles on the networks of Austria, Germany, the Netherlands, Switzerland and Italy. The NSA and Infrastructure Managers of these countries are permanent members of the group. TFI was established in 2001. In 2007, TFI was incorporated into the IQ-C Group/Executive Board of corridor A. In order to facilitate cross acceptance of vehicle authorisations, TFI have set up a database (IRL) containing all national technical requirements for locomotives, train-sets and coaches. The technical requirements are discussed project based in order to maximise the benefit. As national authorisation processes for vehicles applied by TFI states differ from each other common solutions for cross acceptance were defined.

Further discussions have taken place regarding the existing IRL database and the evolving reference document database of ERA (RDD). The 1st of April 2012, RDD was published. However, as RDD has not yet been published on a standard which is compatible and consistent to IRL and as the data registered in RDD have not yet been confirmed, TFI decided to upgrade the IRL and to keep it in use until summer 2014 latest. The IRL is now available in a structure similar to the requirements of the ERA Annex VII.

IV. Driver Licenses: The Directive 2007/59/EC on the certification of train drivers has been implemented nationally through the Train Drivers Licence Regulation in April 2011. The mutual agreements of recognition of drivers between Germany and Austria, Denmark and the Netherlands are valid only during the transition periods according to Art. 37 of Directive (EC) No. 2007/59. The mutual agreement of recognition of drivers between Germany and Switzerland is in course of being adapted to the German Train Drivers Licence Regulation. EBA and BAV have agreed 21th of March 2012 to elaborate an agreement to handle the transition period until the EU-Regulations are fully implemented. This work is still ongoing. Since 2010, the dialogue between Switzerland and Italy has continued. For the time being, the qualifications for driving trains in Italy have been issued to about 60 Swiss drivers. BAV and ANSF are preparing a bilateral agreement to allow the access on the cross border network. It is foreseen to sign this agreement by ANSF and BAV in 2013.

In addition, further work done by the NSA group was:

- Support of NSAs in cross border infrastructure projects (e.g., Project Zevenaar-Oost (NL) – Emmerich (DE), Nodal point Basel (CH – DE), Iselle – Domodossola (CH - IT))
- Contributions to ERA Control Group
- Work on the national requirements for ERTMS

8. Enhanced cooperation of the Regulatory Bodies: Monitoring of market regulations

The main focus of the Working group of the Regulatory Bodies is on distinctive problems that can only be dealt with on corridor level. Since 2003 Regulatory Bodies of Germany, Italy, the Netherlands and Switzerland cooperate within the former framework of IQ-C to improve the quality at the North-South railway corridor, reporting relevant administrative and judicial decisions and exchanging experiences on problems related to the corridor. Following the new regime of Regulation (EU) No. 913/2010, it was agreed among regulatory bodies that corridor related meetings of regulatory bodies should be established also for the other corridors. Following this idea, the IQ-C Regulatory Bodies group finally was replaced by the working groups of regulatory bodies of Corridors 1 and 2.

The members of the rail freight corridor 1 and 2 working group of regulatory bodies first met on September 26th 2012 in Zurich. In 2012 the regulatory bodies of the Netherlands (Authority for Consumer and Markets), Belgium (Regulatory Body for Railway Transport and Brussels Airport Operation), Switzerland (Schiedskommission im Eisenbahnverkehr) Germany (Bundesnetzagentur) and Italy (Ufficio per la Regolazione dei Servizi Ferroviari) participated. The group of

regulators meets regularly to discuss actual developments on the corridor and predominantly focused on the implementation of freight corridors.

Regulation (EU) No. 913/2010 stipulates that EU regulatory bodies are responsible for monitoring competition on the corridors and ensure a non-discriminatory access, but falls short of precise procedural and jurisdictional guidance. Therefore one focus of the regulatory bodies was on a common agreement on major aspects of the regulation, especially on cooperation among them on the corridor. Accordingly, the group drafted harmonised and transparent processes for complaints and ex-officio investigations processing in cross-border freight transport especially when it comes to complaints against the C-OSS. Another major topic was the discussion, which regulatory body would be responsible in case of a complaint of a railway undertaking against a decision of the C-OSS. It was agreed that the responsible regulatory body is determined within the group for a predefined period and that this determination will be communicated timely to the market.

The group also commented on the implementation plan concerning the corridor 1. There was a close cooperation with the Executive Board on the development of the framework agreement for capacity allocation on the Rail Freight Corridors N°1 and N°2 according to Art. 14 para. 1 of the Regulation, in which the regulatory bodies actively took part and supported the agreement. The group of regulatory bodies is also represented in the meetings of the Executive Board on a permanent basis.

Furthermore, the group exchanges views with stakeholders of the railway market, for example with Rail Net Europe (RNE). In 2012 the working group discussed mainly RNE's suggestions on applications of train paths which are provided on rail freight corridors. The working group members also participated at a presentation and training in the RNE's IT-tool Path Coordination System (PCS) to be able to evaluate it. A contact network will be started with the advisory group of railway undertakings and the Terminal Advisory Group.

9. Status of implementation of measures in the responsibility of the Ministries

Customs transit procedure

In February 2004, a simplified procedure for customs transit was laid down between the customs authorities of the participating countries on the basis of a Memorandum of Understanding („Swiss Corridor T 2“). This procedure grants considerable facilitations especially to railway undertakings which carry out transit operations not on the basis of the traditional cooperation procedure (“CIM consignment note”), but – as provided for as the regular case in EU Law – on their own behalf. As a matter of fact these transit transport operations already

make up about 9 % of the rail transit transport through Switzerland, according to statements of the Swiss customs authorities.

The EU is currently working on a recast of the Modernised Customs Code as Union Customs Code. Is it foreseen that the current simplified procedure will be abolished and replaced in order to harmonise transit procedures in rail and road transport. In connection with the modernisation of the EU customs code, it is planned to abolish the Swiss Corridor-procedure (1 May 2016). The Ministries of Transport of Corridor 1/A work in close cooperation with customs authorities on solutions for customs procedure for EU goods on Corridor 1/A which consider both the special characteristics of rail freight transport and the need for an efficient and secure transport of EU goods on the Corridor 1/A crossing Switzerland.

The Memorandum of Understanding „Swiss Corridor T 2“ was prolonged until beginning of 2016 by the customs authorities of the Corridor.

Noise

In 2012 Noise remained an important item on the corridor and countries continued to work on measures to reduce rail noise at the source. Noise continued to be the most important item for sustainable transport and the acceptance of the population of the growth of rail freight. The following developments were the most important:

- Introduction of a Noise Differentiated Track Access Charges throughout the German railway network by December 2013 / June 2014. The measure supports retrofitting of existing rolling stock and in addition support the use of completely silent trains;
- Modification of the bonus scheme in Switzerland in such a way that the bonuses to retrofit existing rolling stock were increased to make it more attractive to retrofit;
- In Switzerland the national parliament adopted a law in November 2012 banning noisy freight wagons from the entire network from 2020 onwards;
- In the Netherlands a pilot incentive scheme was launched in 2012 to support the use of fully silent trans on the Dutch network in addition to the already existing bonus scheme for retrofitting;
- In Belgium a study was carried out on railway noise reduction at the source;
- The corridor Infrastructure Managers started to work together on common promotion approach for the existing noise schemes.

- The LL – blocks were authorised by UIC and ERA for the European network in June 2013, which means a considerable improvement of the business case to retrofit;
- At European level the Directive (EU) No. 2012/34 was published (recast first package, “Single European Railway Area”), which gives an optional framework for EU Member States to introduce Noise Differentiated Track Access Charges;
- In the framework of the proposed Regulations TEN-T / CEF the proposal from EC was accepted to finance at European level maximum 20% of retrofitting cost with a maximum to 1% of the CEF budget for transport (€130mln app.) for the 2014-2020 period;

10. General Development of the rail freight transport on Corridor 1/A, impact of implementation actions on Corridor 1/A

Infrastructure improvements, two new line sections of paramount importance had been taken into service, the Loetschberg base tunnel in Switzerland and the Betuwe line in the Netherlands. With a volume of about 9 bn € of investments, both projects implied a tremendous political and financial effort, and the very high technical standards a real challenge for the project teams in charge, which have timely completed the projects. Both openings had been celebrated in outstanding inauguration ceremonies and represented real highlights. The 140 km of new corridor lines sum up to additional capacities of about 100 train paths between Rotterdam and Zevenaar, as well as from Frutigen to Raron. Further projects on the corridor advanced, respectively started or even completed initial plan studies, approvals of building licenses etc.

The following table gives an updated overview from the Infrastructure Managers point of view of the planned infrastructure investments on corridor 1/A, with the aim to make the corridor more competitive:

Investment Plan - Corridor A/1						State: 30.06.2013
Project list with funding status, elaborated by PMO						checked by: ProRail, Infrabel, DB Netz, SBB, BLS, RFI
Period	Year of implementation	Country	Line section (from North to South)	Project	Cost estimation [Mio. €]	Funding Status
2007-14	2007	NL	Kijfhoek - Zevenaar	Betuwe Line	4.580	Used
	2007	CH	Frutigen - Brig	Base Tunnel	2.800	Used
	2008	IT	Bergamo - Treviglio	2nd track	86	Used
	2010	CH	Castione	upgrade	18	Used
	2010	IT	Luino - Laveno	upgrading for 600m	21	Used
	2011	CH	Bern	3rd track Rütli-Zollikofen	61	Used
	2011	IT	Domodossola - Novara	Gozzano bypass	31	Used
	2011	IT	Novara-Alessandria	upgrade line	13	Used
	2012	NL	Maasvlakte II - Maasvlakte I	New line + Marshalling Yard	30	Used
	2012	BE	Zeebrugge - Brugge	Bocht ter Doest	9,5	Used
	2013	IT	Borgo Ticino	Upgrade for 600 m	4	Approved
	2014	CH	Bern - Thun	Headway 2'	18	Approved
	2014	NL	Zevenaar - Border	Zevenaar1: ERTMS level 2 2.3.0d from Zevenaar to border	113	Approved
	2014	BE	Kallo - Antw Noord	Liefenshoek Rail Link	765	planned & not approved (approved only for 2013)
2015-19	2015	CH	Corridor A/1 lines	ERTMS equipment	115	Approved
	2015	IT	Corridor A/1 lines (fase prioritaria Chiasso-Milano-Genova e Domodossola-Novara)	ERTMS equipment	66	Approved
	2015	CH	Basel Bad - Basel SBB	upgrade to 4 tracks	40	Approved
	2016	NL	Zevenaar - Border	Zevenaar2: change power supply 1500V into 25kV (and 15kV border - Emmerich)	*incl. in project Zevenaar 1	Approved
	2016	CH	Erstfeld - Biasca	Gothard base tunnel	8.235	Approved
	2016	CH	Bellinzona-Luino	line upgrade, incl. 700m Bellinzona - border, automatisaton	60	Approved
	2016	IT	Domodossola - Novara via Borgomanero	upgrade 4 stations for 650m	25	Planned
	2016	IT	Vignale - Oleggio	new crossing station (750)	4	Planned
	2016	IT	Domodossola - Novara via Arona	Upgrade for 750m (Premosello)	2	Planned
	2016	IT	Chiasso - Milano Smistamento	Upgrade for 750m	5	Planned
	2016	IT	Chiasso - Monza	Headway 3'	48	Approved
	2016	IT	Genova Campasso	Potenziamento della stazione di Campasso	12	Planned
	2016	IT	Monza - Milano Smistamento	Headway 3'	6	Planned
	2017	IT	Milano - Pavia	Headway 3'	22	Planned
	2017	IT	Gallarate - Parabiago	Headway 3'	24	Planned
	2017	IT	Novara	Node upgrade (access)	80	Planned
	2017	IT	Potenziamento infrastrutturale Voltri-Brignole	Potenziamento infrastrutturale Voltri-Brignole	642	Approved
	2018	NL	Zevenaar - Border	Zevenaar3; 3rd track Zevenaar-Emmerich + power supply	*incl. in project Zevenaar 1	Approved
	2018	DE	Border - Oberhausen	ERTMS equipment existing line	*part of project Emm. - Oberh.	Planned
	2018	DE	Knoten Basel Bad Bf	ERTMS equipment existing line	tbd	Open
	2018	IT	Telecomando Gallarate - Domodossola	ACC-M	90	Planned
	2018	IT	Rho - Parabiago	upgrade 4 tracks and link "Y" with FN	402	Approved
	2018	IT	Scavalco di Rho	Upgrade station	30	Planned
	>2018	DE	Border - Emmerich - Oberhausen	3rd track	1.700	Planned
	2019	CH	Basel - Bellinzona - Chiasso	Block headway 3', node Bellinzona, incl. 750m Bellinzona+Chiasso	230	Approved
	2019	CH	Bellinzona - Lugano	Ceneri Basetunnel	2.048	Approved
2020-24	2020	BE	Belgian part Coridor A	ETCS	153	planned & not approved (approved only for 2013)
	2020	CH	Basel - Bellinzona - Chiasso / Luino	Profile upgrade to 4 m	700	Planned
	2020	IT	Monza	Station upgrade	1	Planned
	2020	IT	Nodo di Genova: bretella Borzoli-succursale	Additional link	1	Planned
	2020	IT	Adeguamento sagoma (linea dei Giovi)	PC 45 on the line succursale between Alessandria and Bivio Bretella	15	Planned
	2020	IT	Tortona - Voghera	Upgrade to 4 tracks (realizzazione per fasi funzionali)	600	Planned
	2020	IT	Arquata - Genova	Terzo valico (Giovi pass), 5th+6th track	6.200	Planned / Approved
	2020	IT	Corridor A/1 lines (completamento corridoio)	ERTMS equipment	tbd	Planned
	2020	IT	Domodossola - Gallarate	Upgrade for 750m (Arona)	27	Planned
	2020	IT	Gallarate - Milano	Upgrade for 750m	5	Planned
	2020	IT	Luino - Laveno - Sesto Calende	Upgrade 3 crossing stations for 700m	31	Planned
	2020	IT	Luino - Laveno	Nuovo punto di incrocio Luino-Laveno	15	Planned
	2020	IT	Chiasso - Milano Smistamento	Upgrade power supply	21	Planned
	2020	IT	Chiasso - Milano Smistamento	Profile upgrade to 4 m	40	Planned
	>2020	NL	Maasvlakte I - Kijfhoek	upgrade	tbd	Open
	>2020	NL	Breda - Bortel	upgrade	tbd	Open

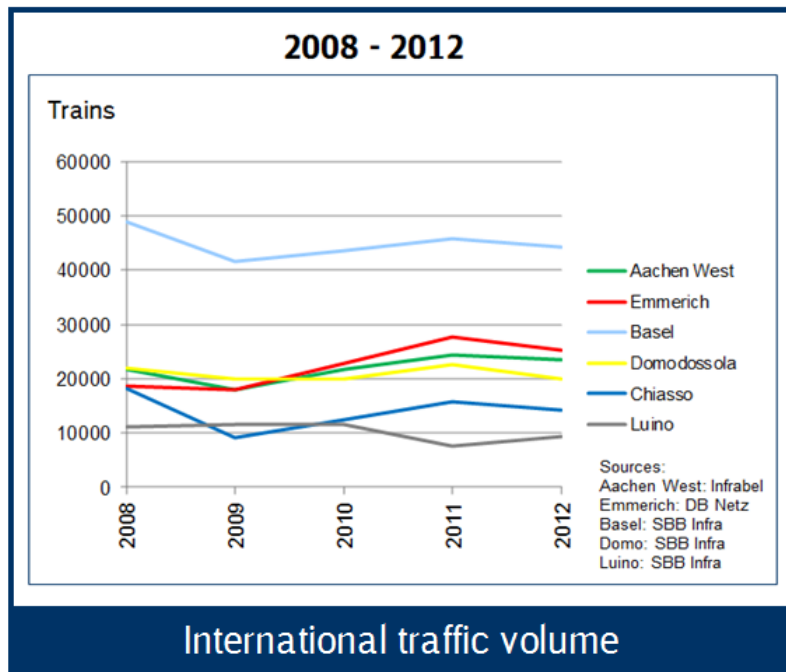
Investment Plan - Corridor A/1						State: 30.06.2013
Project list with funding status, elaborated by PMO						checked by: ProRail, Infrabel, DB Netz, SBB, BLS, RFI
Period	Year of implementation	Country	Line section (from North to South)	Project	Cost estimation [Mio. €]	Funding Status
2020-24	>2020	NL	Kijfhoek - Zevenaar	additional links Betuwe	tbd	Open
	2021	BE	Gent-Sint-Pieters - Schellebelle	Y-bifurcation Ledeberg & Schellebelle + Merelbeke (partial project)	21	planned & not approved
	2022	BE	Zeebrugge - Brugge	New hub Zweekendamme 24 tracks	105	planned & not approved (approved only for 2013)
	2023	IT	Novara - Oleggio	2nd track Vignale - Oleggio	371	Planned
	2024	BE	Zeebrugge - Brugge	3rd track Brugge - Dudzele	79	planned & not approved (approved only for 2013)
2025 + later	2025	BE	Brugge - Gent-Sint-Pieters	3rd and 4th track Gent-Brugge	258	planned & not approved (approved only for 2013)
	2025	BE	Ekeren	Construction Y-bifurcation Oude Landen (L27A)	76	Approved
	2025	BE	Mortsel	Modernisation Y-bifurcation Krijgsbaan (L27A)	79	Planned
	2025	CH	Basel - Bellinzona - Chiasso / Luino	Upgrade for 750m (Luino 640m)	tbd	Planned
	2025	CH	Liestal	fly-over	290	Approved
	2025	IT	Adeguamento P/C 60 Luino-Gallarate	--> PC60 in corso di valutazione	1	Planned
	2025	IT	Oleggio - Arona	2nd track and 4meter gauge	164	Planned
	2025	IT	Milano Rogoredo- Pieve Emanuele	Upgrade to 4 tracks	250	Planned
	2025	IT	Brig - Domodossola	capacity improvement for 4m-trains	tbd	Open
	>2025	BE	Belgian part Corridor A	Level crossing removal	88	planned & not approved
	>2025	CH	Frutigen - Brig	Base tunnel, 2 track, part 2	640	Open
	2030	IT	Chiasso - Seregno - Monza	4 tracks	1.412	Planned
	2030	IT	Seregno - Bergamo (-Treviglio)	Grona est	1.000	Planned
	2030	IT	Parabiago-Gallarate	upgrade 3 tracks	326	Planned
	>2030	IT	Laveno - Luino - Cadenazzo	Grona ovest	1.270	Planned
	>2030	IT	Novara	Node upgrade (passante)	503	Planned
	>2030	IT	Voghera-Treviglio via Piacenza-Cremona	2 nd track on critical section and upgrade lines Voghera-Piacenza, Piacenza-Cremona, Cremona-Treviglio	1.200	Planned
	open	BE	Antw.-Noord-Antw.-Berchem	Port of Antwerp: 2nd rail acces to the port	tbd	Open
	open	BE	Hasselt	Hasselt tracks reorganisation	tbd	Open
	open	DE	Karlsruhe - Offenburg	3rd + 4th track	2.100	Used / Approved
	open	DE	Offenburg - Basel	3rd + 4th track	4.100	planned/approved/used
	open	DE	Oberhausen - Basel	ERTMS equipment existing line	tbd	Open
	open	DE	Mainz/Wiesb. - Mannheim	HS Line	2.200	Planned
Total Investments (M€)					46.777	
Explanation Funding status			Used = Funds spent			
			Planned = not yet financed or approved projects			
			Approved = Funds released			
			Open = Funding which is not yet part of any formal funding plan			

International transport volume

The new multi-annual chart below shows the development of the last years. In the given economic situation in 2012 has been a difficult year for rail freight in Europe and so also on the Corridor. The following additional events had a negative impact on rail traffic in 2012:

- Closure of Simplon tunnel in August 2012 for maintenance works (no alternative line for P/C 80 traffic available);
- Closure of Gotthard line after a rock slide in June 2012 (4 weeks rerouting via Lötschberg line).

On closer examination, only Luino showed an increase of traffic but this was caused by re-routing of trains from Chiasso to Luino after completion of works in 2011. In all, and counted in number of trains, rail freight traffic via the corridor border points dropped by 6%.



Definition: number of international freight trains per year crossing one (or more) of the border stations of Corridor A/1 in both directions, regardless of origin or destination. Border stations are:
NL-DE: Zevenaar - Emmerich
DE-BE: Aachen West - Montzen
DE-CH: Basel
CH-IT: Domodossola, Chiasso and Luino

The following figure displays the data used in the graph of the figure above:

2008	Aachen West	Emmerich	Basel	Domodossola	Chiasso	Luino
Trains (year)	21.825	18.592	48.947	21.908	18.196	11.073
2009	Aachen West	Emmerich	Basel	Domodossola	Chiasso	Luino
Trains (year)	18.005	17.892	41.669	19.979	9.042	11.568
Delta to 2008	- 3.820	- 700	- 7.278	- 1.929	- 9.154	495
Delta in %	- 17,50	- 3,77	- 14,87	- 8,81	- 50,31	4,47
2010	Aachen West	Emmerich	Basel	Domodossola	Chiasso	Luino
Trains (year)	21.698	22.871	43.552	20.023	12.477	11.463
Delta to 2009	3.693	4.979	1.883	44	3.435	- 105
Delta in %	17,02	21,77	4,32	0,22	27,53	- 0,92
2011	Aachen West	Emmerich	Basel	Domodossola	Chiasso	Luino
Trains (year)	24.471	27.674	45.899	22.625	15.671	7.589
Delta to 2010	2.773	4.803	2.347	2.602	3.194	- 3.874
Delta in %	11,33	17,36	5,11	11,50	20,38	- 51,05
2012	Aachen West	Emmerich	Basel	Domodossola	Chiasso	Luino
Trains (year)	23.380	25.200	44.295	19.868	14.233	9.262
Delta to 2011	- 1.091	- 2.474	- 1.604	- 2.757	- 1.438	1.673
Delta in %	- 4,67	- 9,82	- 3,62	- 13,88	- 10,10	18,06

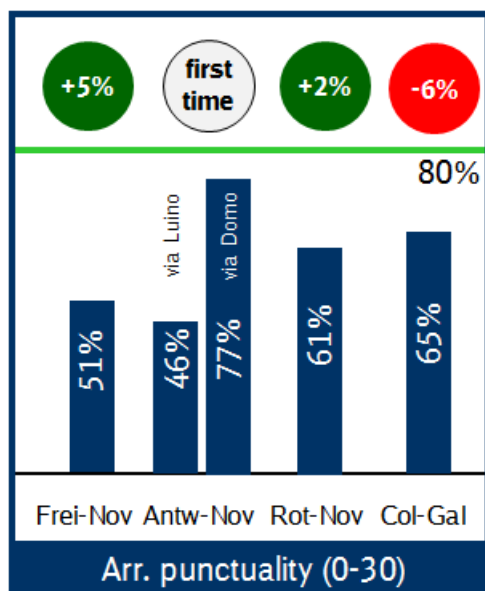
Intramodal competition

Intramodal competition is well established on the whole corridor Rotterdam – Genoa. The activities of a rising number of railway undertakings and intermodal operators in the rail freight market are a good sign for an open market access and functioning competition between railway

services. The existing intramodal competition enhances the productivity of the freight rail market and stimulates new market activities.

Arrival punctuality

The punctuality figures 2012 are shown in figure below. The figures relate to the overall quality of all involved stakeholders. The KPI from Antwerp to Novara is available for the first time though the data base does not cover the whole year. Trains between Antwerp and Novara are directed via Luino and Domodossola which allows a comparison of punctuality. In this first analysis a remarkable higher punctuality on the double track line via Domo can be noticed compared to the single track line via Luino. The overall development of punctuality did not benefit from the decrease in rail freight volumes because passenger traffic remained stable and freight trains have been affected by works and other events.



Definition:

average punctuality level (arrival at destination within a 30 minutes time span) for selected relations of: Freiburg–Novara; Rotterdam–Melzo (new) and Cologne–Gallarate (all start/ end points of these transport relations are directly located on Corridor A/1). A level of 80% is targeted.

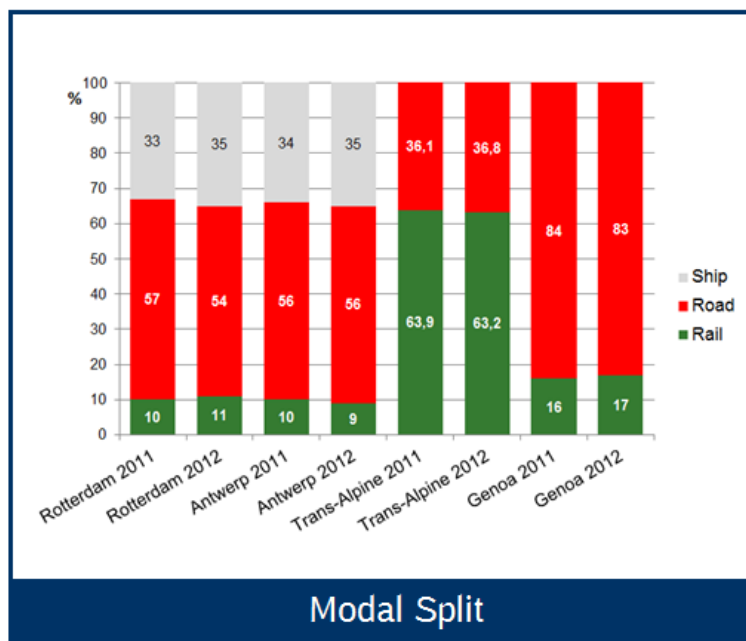
Major events that affected punctuality in 2012: Unusual long and cold winter season in Central Europe which needed special efforts to keep tracks and switches ice free. Mud slides and rock slides on the Gotthard axis brought traffic to a standstill three times during the period under report. In particular a big rock slide in June 2012 caused a week-long rerouting via the Lötschberg line, installation of noise barriers south of Cologne with re-rerouting of freight trains (2 months). The targeted value of 80% punctuality could not be reached though trains from Antwerp to Novara via Domo are pretty close.

Modal split

The modal split for Corridor 1/A is illustrated in the figure below. In 2012 the share of Trans-Alpine rail traffic slightly decreased from the 2011 all-year's high of 63.9% to 63.2% mainly due to the operational disruptions on the Gotthard line. Regarding the sea port of Rotterdam in 2012 market share of road transport dropped by remarkable 3%. The transport shift has favoured

barge, but rail also improved by 1%. It is expected that this development will continue in the coming years. In Antwerp, the market share of rail in contrast has declined by 1% which is against the intended strategy. But conditions for rail transport are more difficult in Antwerp as barge is seen the primary transport mode to solve congestion in the harbour and by short and middle distance services to inland terminals in the Hinterland where most destinations (about 85%) are within a radius less than 300 km which also favours truck. Rail traffic may benefit from putting the Liefkenshoek Rail Link into operation in 2014, which will connect the rail network on the left and the right bank of the river Scheldt in the port.

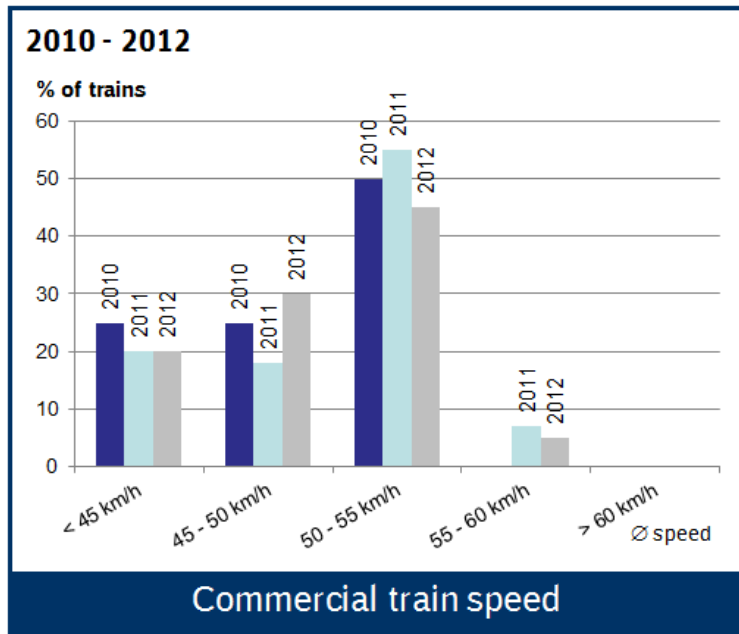
Regarding the Port of Genoa in 2012 the data source has been changed, information is gathered directly from the port authority. Following an agreement signed in 2011 between the Port authority and RFI the rail infrastructure serving the port shall be modernized in the upcoming years; modal share of rail transport is targeted at 40% in the future. Currently rail traffic to hinterland destinations is limited to selected places in Northern Italy (e. g. container rail shuttle Voltri Mare <—> Rivalta Scrivia).



Definition: modal split [%] of freight traffic at sea port of Rotterdam, sea port of Genoa and trans-alpine. For Rotterdam and Genoa the modal split is calculated based on TEUs (containers) for the Hinterland traffic. For the trans-alpine freight traffic the basis is net tons. It is separated by rail, road and inland waterways (if applicable). Measured on an annual basis.

Commercial train speed

The figure below shows the distribution of commercial train speed for four selected traffic relations on Corridor A/1. 35 pairs of trains were analysed. The result of the analysis shows a slight decrease of the average train speed offered to the customers. The minimum speed in 2012 has been 33.6 km/h whereas the fastest connection offers 58.3 km/h according to the timetable. In 2012 the average speed of all measured trains is 49 km/h. Taking the different destinations into account the range of the average speed offered is within 8 km/h.



Definition: average speed [km/ h] of trains according to valid time table for selected relations: Freiburg–Novara; Antwerp – Gallarate, Rotterdam–Novara and Cologne –Gallarate (all start / end points of these transport relations are directly located on Corridor A/1) in both directions. Measured based on annual timetable and classified in five different categories. Basis: 35 freight train services on 4 different relations.

11. Conclusions and recommendations

Regarding the development of Corridor 1/A in 2012, following the decisions and discussions inside the Executive Board and between Executive Board and Infrastructure Managers, the Executive Board gives the following recommendations:

Recommendation 1

In 2012/2013 major steps forward regarding ERTMS deployment of the corridor have been taken. It has been agreed on a strategy for implementing by 2015 (border) and 2018 (full corridor). From 2014 onwards it is very important and critical at the same time to make the planning operational is (tendering procedures, cross border cooperation, cooperation with ERA and NSA's)

Recommendation 2

The context for noise retrofitting improved considerably in 2012 / 2013 with the authorization of LL blocks, the introduction of incentive regimes in place in Netherlands, Germany and Switzerland and the adoption of the Swiss ban on noisy wagons per 2020.

From 2014 ministries and Infrastructure Managers have to step up their cooperation to make these frameworks work and improve where needed to mutual coordination.

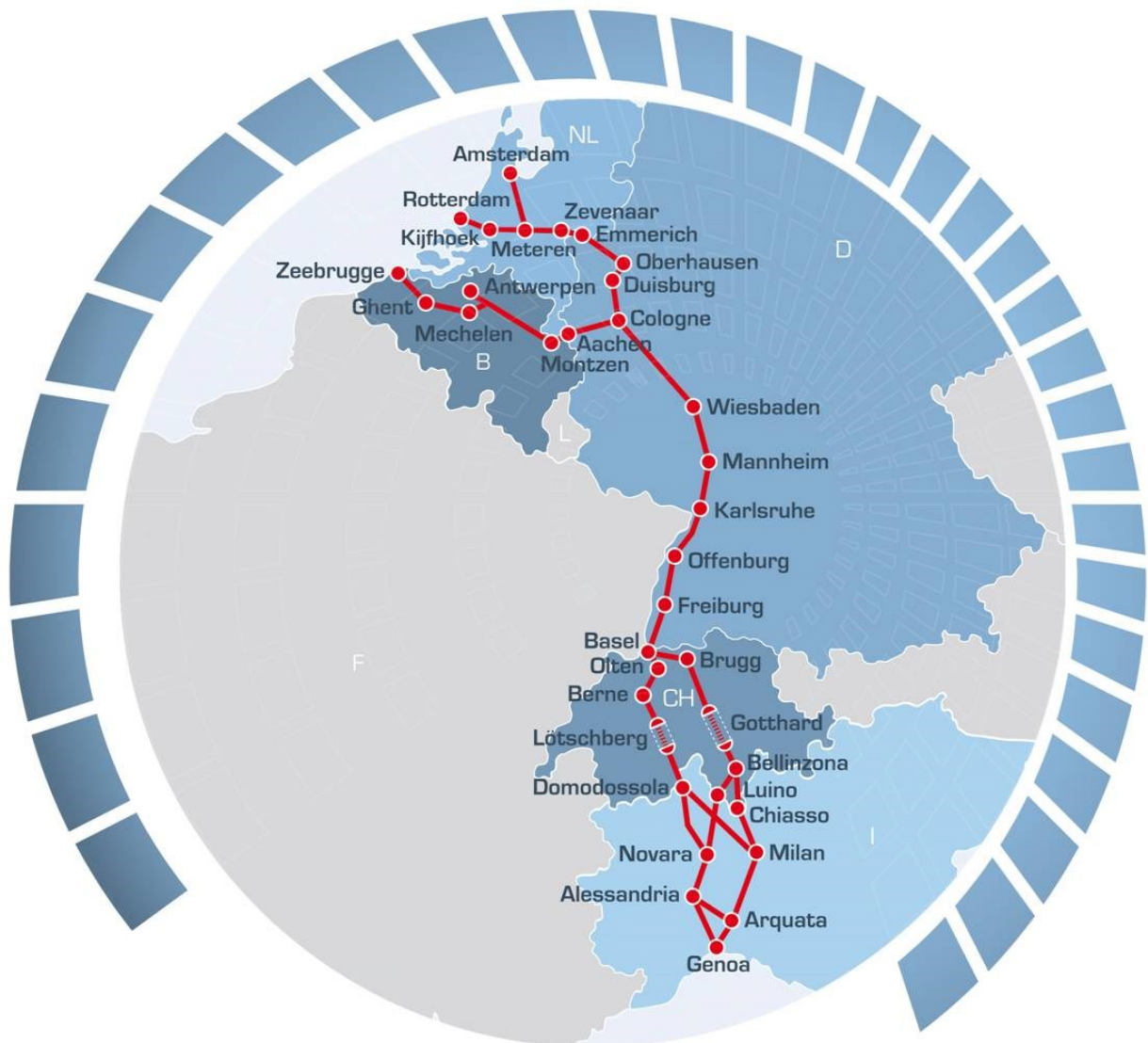
Recommendation 3

To monitor closely and to promote the setting up of the Corridor–One Stop Shop to reach a common success.

Recommendation 4

Therefore, the Ministries ask the Ministers of Transport in the Corridor 1/A for their approval of the Progress Report 2012 of the Executive Board Corridor 1 and its recommendations.

CORRIDOR A/1 ROTTERDAM-GENOA



Annual Progress Report
2012
(Final version 2012_1.0)

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0 Executive Summary

In 2012, the traffic development on the Corridor Rotterdam-Genoa has slightly declined due to the slower growth of the European economy, but also due to disturbances in the infrastructure. Details are as follows:

- a) The overall reduction of traffic volume between 2011 and 2012 on the Corridor was noted at about 6 % on average.
- b) Rail transport was heavily disturbed due to the
 - Closure of the Simplon tunnel in August 2012 for maintenance works (no alternative line for high cube RoLa traffic is available)
 - Closure of the Gotthard line after a rock slide in June 2012 (4 weeks rerouting via Lötschberg line).
- c) Luino border traffic increased by 18% due to re-routing of trains from Chiasso to Luino after completion of works (temporary closure of the single track line via Luino due to construction of noise walls and other maintenance works in 2011).
- d) The modal split of rail increased by about 1% in Rotterdam and Genoa. Considering the slowdown of the total market and the transport volume, this is a positive development.
- e) Investments of about 1.5 bn Euro had been made in 2012. The budget until 2015 is reduced from about 27 bn to 24 bn Euro, which indicates that planned objectives in 2015 might need to be postponed. From 2016 onwards, a budget of about 11 bn Euro changed status from planned to open thus postponing investments to the future.

In general, the European market seems to stabilise and the perspective for growth of rail freight should improve again. However, the still continuing reduction and postponement of budgets regarding necessary investments on the Corridor needs urgently to be stabilised in order to be able to fulfil the expectations of the market.

The situation on ERTMS implementation has considerably improved due to the decision of the German Ministry of Transport to definitely install ETCS on its corridor section as fast as possible. Furthermore, the equipment of ETCS progressed according to plan in The Netherlands and in Switzerland, even with Level 1 Limited Supervision (LS).

The IMs have to revise the ETCS implementation plan and provide a stable technical and operational perspective for the RUs to schedule their process for equipping the locomotives on time.

Regarding the corridor programme, the measures related to the implementation of Regulation (EU) No 913/2010 had priority in the corridor's work. The Corridor conducted a transport market study (TMS), which will be used as basis for the mid and long term development. The corridor organisation and working groups focused on the definition of the corridor layout and development of fundamental issues for e.g. performance management, coordination of works, pre-arranged paths, establishment of the Corridor One-Stop-Shop (C-OSS) and publication and management of corridor information for our customers. Herewith, the "concept phase" for these measures could be completed. Based on this, the processes will now be developed, described and implemented in 2013.

In the RU Advisory Group (RAG) the requirements published by four RUs in a position paper in December 2011, were further discussed and prioritised. RUs have major interest in operating longer trains. Subsequently, the Corridor has set up a working group for assessing the benefits as well as the efforts for upgrading the infrastructure and timetable construction

in order to facilitate 740m long trains in future. The study is planned to be completed by the end of 2013.

In the new Terminal Advisory Group (TAG) two workshops had been conducted for assessing their involvement in the capacity management of the IMs. Due to different business models, a direct involvement turned out to be difficult. Nevertheless, it was agreed to improve the conditions for scheduling of train handling in the terminals and the publication of terminal information in a unified layout on the corridor website.

In all the topics and measures worked on, Corridor A/1 liaised closely with RNE and the management of Corridor C/2 in order to establish coherent and compatible concepts and implementations.

High interest in our Corridor Rotterdam-Genoa was noted on all levels. Our experts participated and contributed in many working group meetings from RNE, ERTMS Users Group, ERA, NSAs, ERTMS Corridor Group, RU and Terminal Advisory Groups, Noise and Terminal Platform, as well as in other freight corridors. Furthermore, the Corridor was represented by the Managing Director at high level summits such as the Corridor Conference in Cologne, the Corridor Steering Group and DERC meetings of the EC, CODE 24 Political Advisory Board, RNE Business Conference, etc. This led to fruitful and constructive dialogues with all stakeholders relevant to the Corridor.

The annual meeting of the corridor CEOs took place in Paris at the occasion of the CER/EIM High Level Infrastructure Meeting at the end of May.

In order to ensure the financial means for continuing the successful activities of the Corridor EEIG and IM organisations, the EEIG applied for co-financing in the annual TEN-T call 2013-2015.

0.1 Management Dashboard

Figure 1 displays the progress of the implementation of the corridor programme (input KPIs) for 2012.²

The total work progress of the WGs is 33.5%; due to the setup of a new organisational structure and a new baseline in 2012 the development cannot be compared with the previous year. The changed programme of the WG, which focuses more on measures which are also part of the Regulation (EU) N° 913/2010, now includes work from temporary expert subgroups that should finish by the end of 2013. Full working capacity was only reached in fall 2012, which caused a backlog compared to the planned progress of 46.3%.

After the full integration of Infrabel, a new baseline has also been set up for the IM projects. Hereby the new overall target line has been reduced, because most of the projects at Infrabel are planned after 2015. The actual progress of the projects of the IMs sums up to 46.9% vs. 52.3% planned. The progress in 2012 was mainly driven by projects in Switzerland and The Netherlands. Some of the planned works in Germany and in Italy could not be started due to delays in the planning procedures or lack of funding.

In 2012 installation of ETCS balises has started in Switzerland. In respect of ERTMS deployment, the revision of the national plan in Germany could not be finished. It appears unlikely that the target date of 2015 can still be achieved in Germany and Italy for all the lines originally in the scope of the plan. In Belgium plan studies have started in the frame of the national master plan, which foresees ETCS deployment on the corridor lines by 2020.

In 2012 the sum of used funds has increased by 8% to 19.9bn €. Nevertheless the original target of implementing ERTMS on the Corridor until 2015 is out of reach because planned budgets have been shifted to the period after 2015. In view of the financial crisis, even after 2015 the status of significant investments has been downgraded from planned to open.

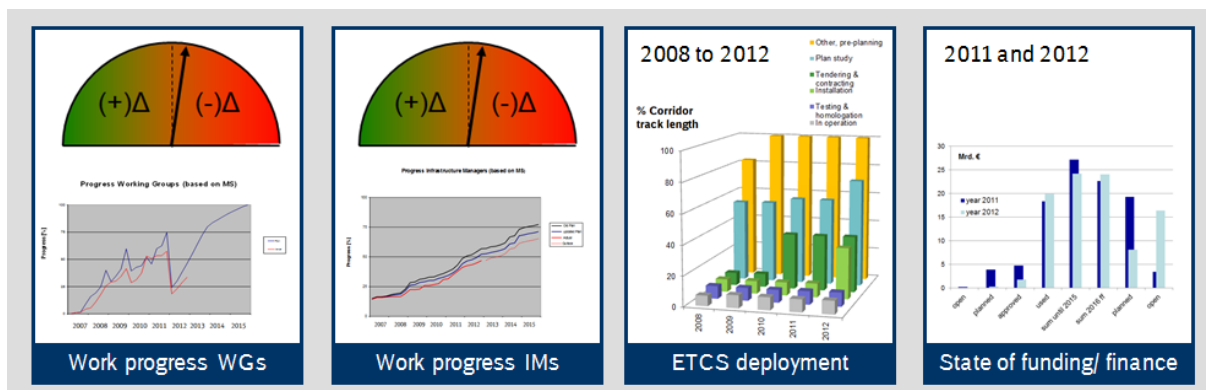


Figure 1: Management Dashboard 2012 (part 1)

The progress of the corridor performance can be seen in figure 2. In 2012 the persistently difficult financial situation of many state budgets has impacted on the economic activity again. So rail traffic demand on the Corridor decreased by 6%. Apart from Luino all border points showed lower figures (ranging from -3.6% to -14%). Luino saw an increase because of rerouting of trains from Chiasso after works have been finished.

² For more detailed information regarding KPIs and dashboard, definitions and legend please see chapter 0.3.

The part of rail transport in the modal share has remained about the same although the development has been different in each section. Rail transport in Rotterdam can benefit from a national transport strategy, infrastructure development and the structure of hinterland destinations. In comparison distances to the main destinations are quite short in Antwerp and a network of hinterland hubs is well connected by barge. Trans-Alpine rail traffic suffered from works and force majeure while the Port of Genoa benefits from a new strategy agreed with RFI.

The reduced number of freight trains had little impact on punctuality. The good result on Cologne – Gallarate from 2011 was affected by works in 2012, but an arrival punctuality of 65% is still a reasonable result.

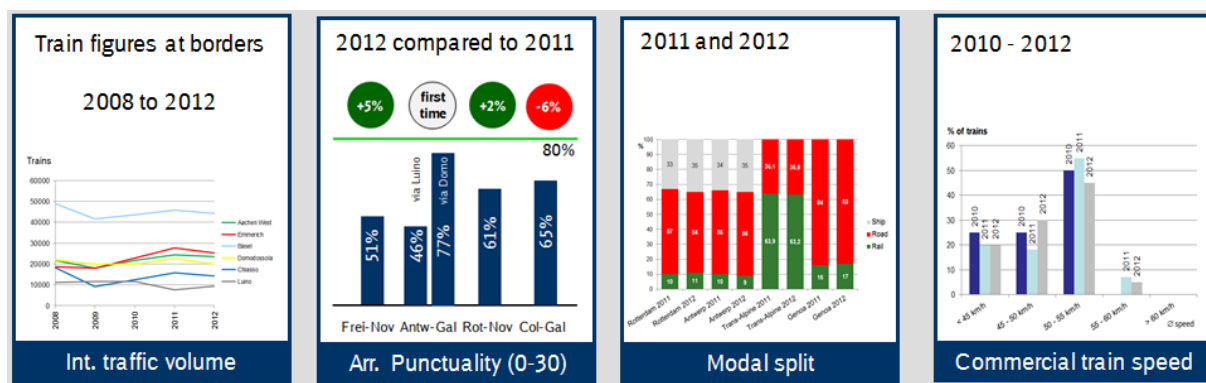


Figure 2: Management Dashboard 2012 (part 2)

0.2 Management Summary

In 2012, the corridor programme progressed mainly in those measures, which need to be completed by November 2013, as defined in Regulation (EU) No 913/2010, which came into force in November 2010. In this respect, in 2012 big efforts have been undertaken by temporary expert working groups for the definition of concepts and descriptions for the new C-OSS, pre-arranged path, coordination of works, corridor performance management and corridor information management. The Corridor was also well represented and contributing in the RNE working groups for setting the standards and the preparation of common RNE guidelines in above mentioned topics.

The assessment of the market and traffic development on the Corridor was supported by a TMS, which the IMs carried out together with an external consultant. The TMS included a short term view looking at 1-5 years, and a long term view looking at a 5-15 years horizon. The study was completed in December and provides important input for the definition of the further corridor layout and the preparation of dedicated rail freight capacity in the form of Pre-arranged Paths (PaP).

Nearly every measure of the corridor programme is depending on the clear definition of the corridor layout and railway lines. Subsequently, the IMs have been very busy in defining the corridor lines including lines in hubs and connections to the terminals. This task turned out to be very difficult because in the hubs the lines used by freight trains have first to be assessed also from operational point of view. In addition, terminals had to be selected, which have major business from rail transport coming from the Corridor, and which have to be considered in and contribute to the further development of the Corridor. Furthermore, the lines had to be classified in principal lines, diversionary lines and connecting lines, which depend also on the operational requirements as well as on political aspects defined in the TEN-T policy of the European Union. Many discussions have been held between IMs and also the ministries of transport, who are basically the owner of the infrastructure and therefore have to take the final decision.

The new Terminal Advisory Group (TAG) came together and prepared common templates for information on their facilities and services, which shall be published in future in order to inform the clients in a user friendly way and at one place on the corridor website. In two workshops of the TAG, it was found out that due to very different business and planning processes a direct involvement of the terminals into the capacity allocation process is very unlikely and would not deliver benefits based on the current processes. However, it was found out, that in order to schedule the terminals in a much more efficient way, the provision of reliable arrival information could considerably improve the situation in occupation of parking lanes and delayed handling of trains. Subsequently, the provision of train information to the terminal operators from the RNE Train Information System (TIS) was further discussed and the development of this functionality in the system pursued with the suppliers.

In the Railway undertaking Advisory Group (RAG), the participants from the RUs decided to nominate a spokesman among them in order to organise the preparations and contributions for the RAG meetings more efficiently. Furthermore, the chair of the RAG meetings was given to the RUs, and their interest and contributions in the meetings could considerably be improved.

The main topic of interest was to analyse the possibilities for running 740m long trains, which the RUs consider as a vital factor for improving their productivity and business cases. In this respect, the Corridor IMs have launched the preparation of a study for analysing the extension of the systematic and maximum train length up to 740m along the entire corridor.

In autumn 2012, the German Ministry of Transport finally decided to change its ERTMS deployment strategy again and finance the trackside installation of the Corridor instead of STMs for locomotives. DB Netz was asked to propose a deployment concept by taking into account the operational mode Level 1 LS in addition to Level 2, as well as completion of the German section until end of 2018.

In The Netherlands, it was finally decided to equip the border section Zevenaar – Emmerich in ERTMS level 2 until 2014. In Belgium, Infrabel prepared an ERTMS deployment concept covering the entire network by 2022. In Switzerland the roll-out of the remaining network with ERTMS Level 1 LS was successfully started. In Italy, RFI is preparing a tender for a pilot installation in Level 2. The results of this installation will support the decision regarding a final deployment concept with a mix of Level 1 and 2.

The corridor ERTMS working group started with the revision of the ERTMS corridor implementation plan by considering the changed situation in every country.

All involved ministries of transport had to submit a notification to the European Commission reporting on the current state of play of ERTMS implementation in their country by the end of 2012. The ministries of The Netherlands, Belgium, Italy and Switzerland delivered the report. The German ministry excused their delay because the change of strategy was still under elaboration.

The corridor working group of the NSAs completed the draft corridor guideline for testing and authorisation, which was sent to IMs, ERA and the ERTMS Users group for consultation. This document will be a major step forward regarding projectable and successful authorisation.

The bilateral working groups of the IMs for the border sections Zevenaar - Emmerich and Basel node progressed well in preparing the basic concept for the border crossing engineering of ETCS on either side of the border, as well as the connection of third track and the traction power transition at Zevenaar / Emmerich. Furthermore, bilateral working groups for the three border transitions between Switzerland and Italy started and had first meetings.

Regarding the financing of the corridor activities, the EEIG Corridor Rotterdam-Genoa started preparations to apply for co-financing in the frame of the annual TEN-T call 2013-2015 published in November 2012 for the proof of concept of an economical corridor information platform, a study for a new performance management concept as well as for the corridor coordination and management of the corridor programme.

0.3 Work Results in 2012

Work Progress of WG Activities

Figure 3 indicates the work progress of the corridor WGs which sums up to 33.5 % compared to 46.3 % planned. The backlog is mainly caused due to delays during the setup of a new working group structure. In 2012, the corridor programme and its baseline have been re-prioritised mainly regarding those tasks, which are related to the fulfilment of Regulation (EU) No 913/2010. For this purpose a workshop has been conducted in spring 2012 which was attended by all WG leaders and PMO members.



Definition: percentage [%] of the total work amount completed, based on completed activities (WGs) of the baseline (earned value). The blue line displays the planned work progress whereas the red line shows the actual work progress. The speedometer indicates the trend of the delta between plan and actual.

Figure 3: KPI Work progress WGs

Results of the workshop have been:

1. Installation of temporary expert subgroups under the direction of the PMO related to certain specific topics such as “Corridor One-Stop-Shop”, “Pre-arranged paths ” (PaP), “integrated data management environment” (CIME) for publication of the “Corridor Information Document” (CID) and “Legal matters” (LM).
2. Integration of the former WG Operations in the new WG Traffic and Performance Management (WG T&P) and focusing on cross border issues (as a temporary subgroup). To the WG T&P further expert subgroups for “Coordination of works” and “Performance Management” has been added.
3. Integration of the WGs Terminal studies and Capacity in the new WG Infrastructure and Terminals (WG I&T). The execution of the TMS has been addressed by a temporary subgroup of the WG I&T. For the execution of a study about the feasibility of longer trains (740m) on the Corridor another temporary subgroup has been created in 2012 under the guidance of the WG I&T.

The work programme and the baseline have been updated (starting in 2012) but completion of staffing and coordination of work programmes needed longer than expected.

Main Results of the Working Groups

PMO Subgroups

C-OSS: Development of a concept and draft process descriptions for sales

PaP: Analysis of TMS and first definition of PaP offer

CID: Analysis of requirements from the Regulation and addressing of tasks, progress monitoring, Preparation of terms of reference and tendering of new information platform (CIME)

LM: Update of EEIG statutes and frame contract

WG Infrastructure & Terminals

The subgroup TMS – which already started in 2011 – accomplished the tendering of the TMS in February 2012 and delivered their contribution to the long term part until fall. The TMS has been finalised until December and the draft report was presented by the consultant.

The subgroup “Longer trains 740m Study” finalised terms of reference and started analysis. Though work is been done by the infrastructure managers, an external consultant has been hired to steer the work programme and to do the reporting.

WG Traffic and Performance Management

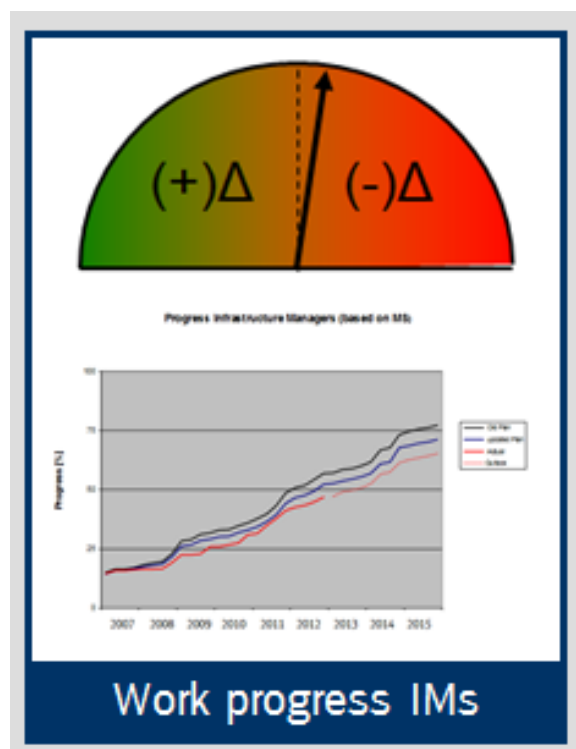
In 2012 regular monitoring of trains on four routes (Antwerp – Novara newly added).

WG ERTMS

The WG ERTMS has also setup a new work programme and baseline reflecting the recent developments and the results of a Cross Impact Analyses (CIACA) delivered by the EEIG ERTMS Users Group in fall 2011.

Work Progress of IMs Project Implementation

As a consequence of the integration of projects of Infrabel into the work programme an adjustment of the baseline has become necessary. The fact that the completion of most projects of Infrabel are scheduled beyond 2015 leads to a decrease of the general target line until 2015 compared to the plan without projects of Infrabel. The actual progress of the projects of the IMs sums up to 46.9% vs. 52.3% planned work progress (new target line) respectively 56,.9% (old target line), see figure 4. In figures, compared to the year before, the backlog increased from 3.6% to 5.5% on the basis of the new target line respectively 10% on the basis of the old target line without Infrabel.



Definition: percentage [%] of the total work amount completed, based on completed project phases (IMs) of the baseline (earned value). The blue line displays the planned work progress after integration of Infrabel projects whereas the black line shows planned work progress before integration of Infrabel projects. The red line shows the actual work progress, the red dotted line provides a preview. The speedometer indicates the trend of the delta between plan and actual.

Figure 4: KPI Work progress IMs

With the opening of the Katzenbergtunnel an important infrastructure project has been taken into operation in Germany. On the other hand further delays were registered in major infrastructure projects such as the 3rd track Emmerich – Oberhausen or Karlsruhe -Basel,

upgrading of interlocking projects etc. This led to the need for postponing the completion beyond 2015. Details about the ERTMS deployment could not be decided. Most of the infrastructure projects in Switzerland are progressing well and are slightly ahead of schedule.

As a result of the financial situation, the funding of projects in Germany and Italy is still uncertain.

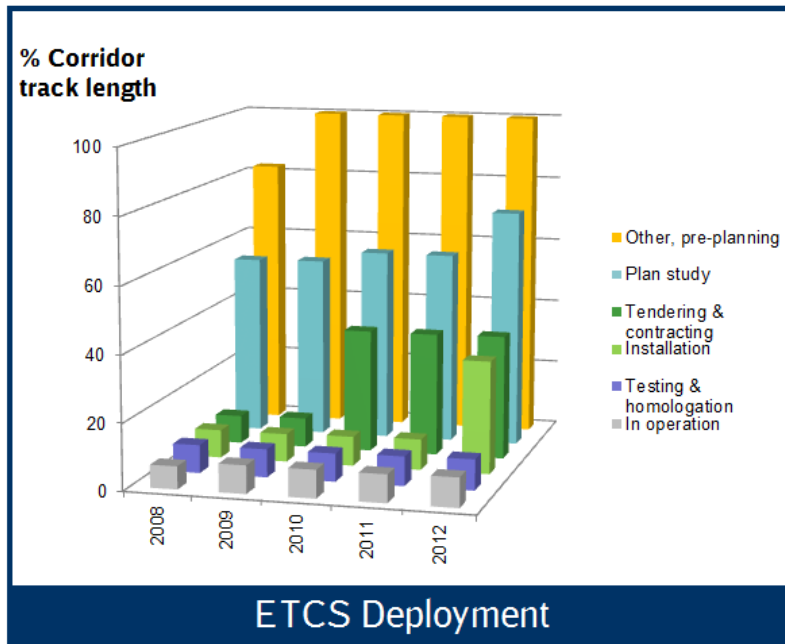
ETCS Deployment

In the context of the Level 2 decision in the NL the installation of ERTMS and 25 kV have been split into separate projects. ERTMS L2 is now scheduled for the end of 2014 and implementation of 25 KV between Emmerich and Zevenaar is scheduled for the end of 2016. In Belgium Plan studies have been started.

The German MoT confirmed the EC its intention to equip ETCS as soon as possible with a mix of Level 2 and Level 1 LS. At DB Netz ETCS deployment is open at the end of 2012 due to the pending agreement on an updated deployment concept and budgets with the German Ministry; which means that the target date of 2015 is no longer feasible.

As a result of a revision of its ERTMS strategy, Italy presented a new proposal to the EU in which ERTMS deployment on central sections of the corridor network in Northern Italy will be shifted to 2020 still granting the connection with the Northern part of the Corridor and the Port of Genoa.

In 2012, SBB contracted installation and started implementation of balises for ETCS Level 1 LS on the lines of Corridor A/1 in Switzerland. Subsequently, 1.423 track km are now in the contracting & installation phase (figure 5). Switzerland is right on track to complete ETCS installation on the corridor lines until the end of 2015.



Definition: Yearly progress in [%] of ETCS corridor track length [Basis 5071 km] which passed through the phases of pre-planning / plan study / tendering & contracting / installation / testing & homologation or in operation.

Figure 5: KPI ETCS deployment

State of Funding/ Finance

The state of funding as shown in figure 6 displays the situation of the overall corridor programme (all IMs, all project types) as per end of 2012 in comparison to 2011.

In 2012 investments of circa 1.5 bn. Euro have been accomplished. By this the total sum of used budgets increased by 8% to 19.9 bn. Nevertheless it will not be possible to achieve the

objectives by 2015 because in 2012 again funds have been shifted to the period after 2015. Regarding the period after 2015 it should be noted that the status of funding in excess of 11 billion has been set down from planned to open. Nevertheless the overall budget increased by 4% to 52 bn. Euro.

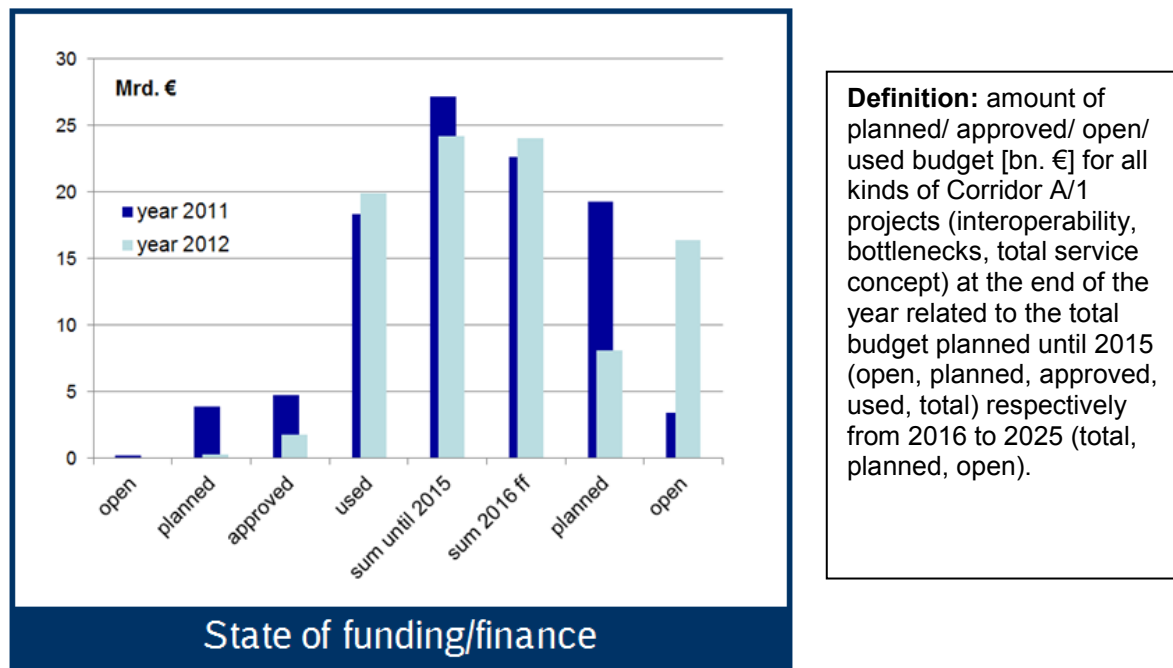


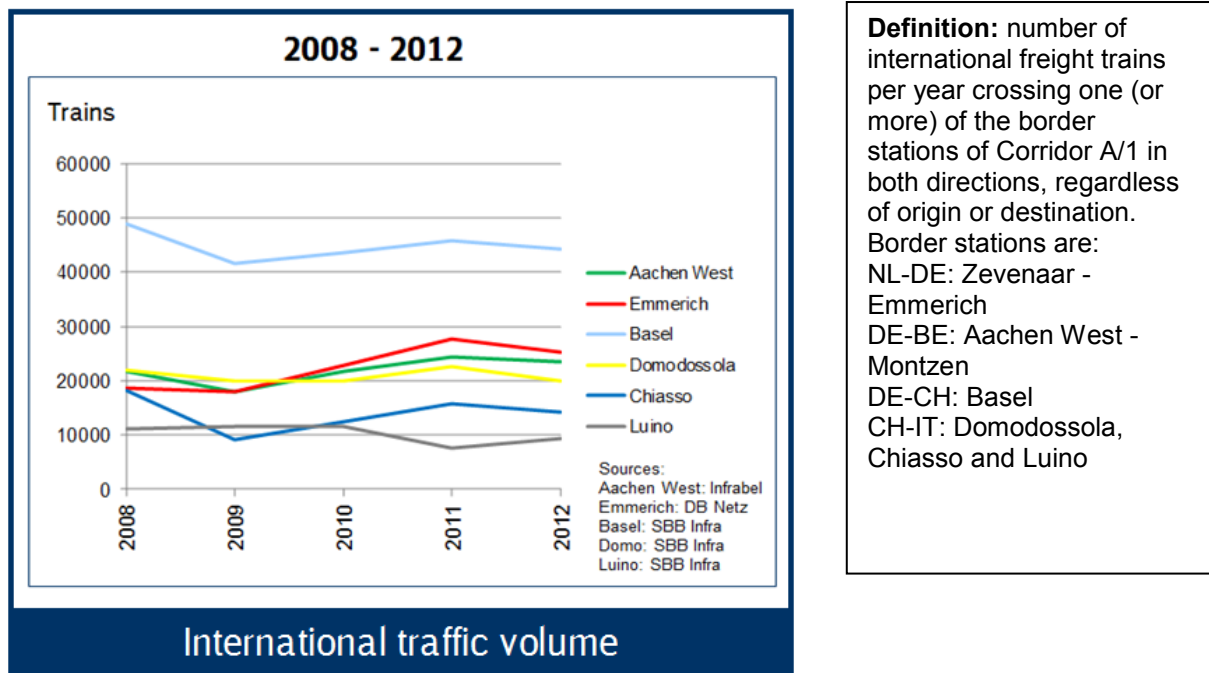
Figure 6: KPI funding

International Traffic Volume

A new multi-annual chart (figure 7) shows the development of the last years. In the given economic situation in 2012 has been a difficult year for rail freight in Europe and so also on the Corridor. The following additional events had a negative impact on rail traffic in 2012:

- Closure of Simplon tunnel in August 2012 for maintenance works (no alternative line for high cube RoLa traffic available);
- Closure of Gotthard line after a rock slide in June 2012 (4 weeks rerouting via Lötschberg line).

On closer examination only Luino showed an increase of traffic but this was caused by re-routing of trains from Chiasso to Luino after completion of works in 2011. In all, and counted in number of trains, rail freight traffic via the corridor border points dropped by 6%.



Definition: number of international freight trains per year crossing one (or more) of the border stations of Corridor A/1 in both directions, regardless of origin or destination. Border stations are:
NL-DE: Zevenaar - Emmerich
DE-BE: Aachen West - Montzen
DE-CH: Basel
CH-IT: Domodossola, Chiasso and Luino

Figure 7: KPI international traffic volume

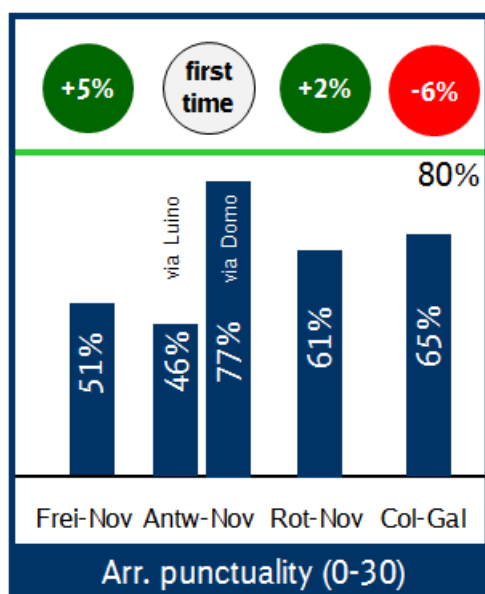
Figure 8 displays the data used in the graph of figure 7

2008	Aachen West	Emmerich	Basel	Domodossola	Chiasso	Luino
Trains (year)	21.825	18.592	48.947	21.908	18.196	11.073
Delta to 2008	- 3.820	- 700	- 7.278	- 1.929	- 9.154	495
Delta in %	- 17,50	- 3,77	- 14,87	- 8,81	- 50,31	4,47
2009	Aachen West	Emmerich	Basel	Domodossola	Chiasso	Luino
Trains (year)	18.005	17.892	41.669	19.979	9.042	11.568
Delta to 2009	3.693	4.979	1.883	44	3.435	- 105
Delta in %	17,02	21,77	4,32	0,22	27,53	- 0,92
2010	Aachen West	Emmerich	Basel	Domodossola	Chiasso	Luino
Trains (year)	21.698	22.871	43.552	20.023	12.477	11.463
Delta to 2010	2.773	4.803	2.347	2.602	3.194	- 3.874
Delta in %	11,33	17,36	5,11	11,50	20,38	- 51,05
2011	Aachen West	Emmerich	Basel	Domodossola	Chiasso	Luino
Trains (year)	24.471	27.674	45.899	22.625	15.671	7.589
Delta to 2011	1.091	2.474	1.604	2.757	1.438	1.673
Delta in %	4,67	9,82	3,62	13,88	10,10	18,06
2012	Aachen West	Emmerich	Basel	Domodossola	Chiasso	Luino
Trains (year)	23.380	25.200	44.295	19.868	14.233	9.262
Delta to 2012	-	-	-	-	-	-
Delta in %	-	-	-	-	-	-

Figure 8: KPI international traffic volume - Absolute data

Arrival Punctuality (0 – 30 min)

The punctuality figures 2012 are shown in figure 9. The figures relate to the overall quality of all involved stakeholders. The KPI from Antwerp to Novara is available for the first time though the data base does not cover the whole year. Trains between Antwerp and Novara are directed via Luino and Domodossola which allows a comparison of punctuality. In this first analysis a remarkable higher punctuality on the double track line via Domo can be noticed compared to the single track line via Luino. The overall development of punctuality did not benefit from the decrease in rail freight volumes because passenger traffic remained stable and freight trains have been affected by works and other events.



Definition: average punctuality level (arrival at destination within a 30 minutes time span) for selected relations of: Freiburg–Novara; Antwerp–Novara (new), Rotterdam–Novara and Cologne–Gallarate (all start / end points of these transport relations are directly located on Corridor A/1). A level of 80% is targeted.

Figure 9: KPI Punctuality

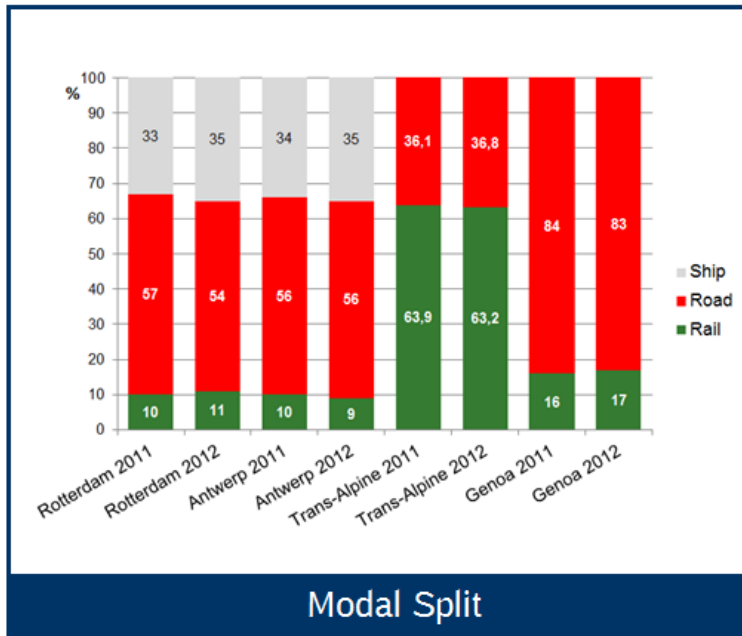
Major events that affected punctuality in 2012: Unusual long and cold winter season in Central Europe which needed special efforts to keep tracks and switches ice free. Mud slides and rock slides on the Gotthard Pass brought traffic to a standstill three times during the period under report. In particular a big rock slide in June 2012 caused a week-long rerouting via the Lötschberg line, installation of noise barriers south of Cologne with re-rerouting of freight trains (2 months). The targeted value of 80% punctuality could not be reached though trains from Antwerp to Novara via Domo are pretty close.

Modal Split

The modal split for Corridor A/1 is illustrated in figure 10. In 2012 the share of Trans-Alpine rail traffic slightly decreased from the 2011 all-year's high of 63.9% to 63.2% mainly due to the operational disruptions on the Gotthard line. Regarding the sea port of Rotterdam in 2012 market share of road transport dropped by remarkable 3%. The transport shift has favoured barge, but rail also improved by 1%. It is expected that this development will continue in the coming years. In Antwerp, the market share of rail in contrast has declined by 1% which is against the intended strategy. But conditions for rail transport are more difficult in Antwerp as barge is seen the primary transport mode to solve congestion in the harbour and by short and middle distance services to inland terminals in the Hinterland where most destinations (about 85%) are within a radius less than 300 km which also favours truck. Rail traffic may benefit from putting the Liefkenshoek Rail Link into operation in 2014, which will connect the rail network on the left and the right bank of the river Scheldt in the port.

Regarding the Port of Genoa in 2012 the data source has been changed, information is gathered directly from the port authority. Following an agreement signed in 2011 between the Port authority and RFI the rail infrastructure serving the port shall be modernized in the

upcoming years; modal share of rail transport is targeted at 40% in the future. Currently rail traffic to hinterland destinations is limited to selected places in Northern Italy (e. g. container rail shuttle Voltri Mare <-> Rivalta Scrivia)

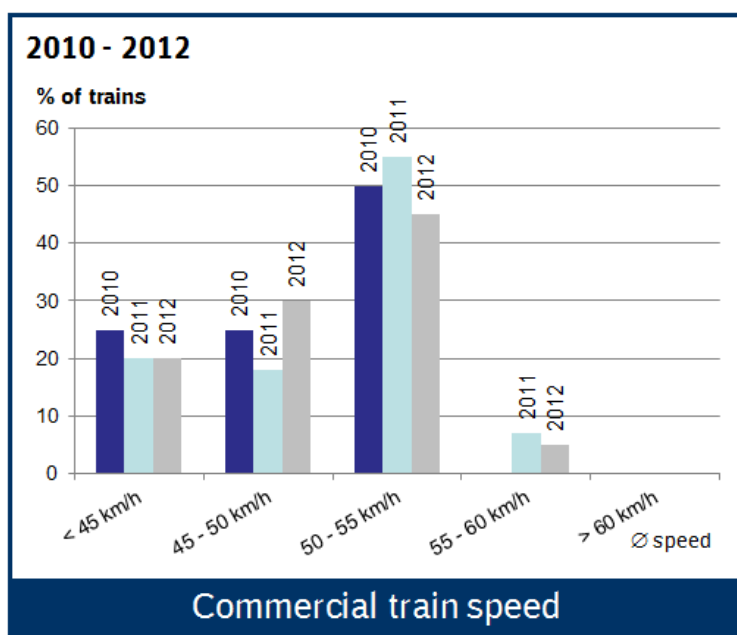


Definition: modal split [%] of freight traffic at seaport of Rotterdam, seaport of Antwerp, seaport of Genoa and Trans-Alpine. For Rotterdam and Genoa the modal split is calculated based on TEUs (containers) for the hinterland traffic. For the Trans-Alpine freight traffic the basis is net tons. It is separated by rail, road and inland waterways (if applicable). Measurements are performed on an annual basis.

Figure 10: KPI Modal split

Commercial Train Speed

Figure 11 shows the distribution of commercial train speed for four selected traffic relations on Corridor A/1. 35 pairs of trains were analysed. The result of the analysis shows a slight decrease of the average train speed offered to the customers. The minimum speed in 2012 has been 33.6 km/h whereas the fastest connection offers 58.3 km/h according to the timetable. In 2012 the average speed of all measured trains is 49 km/h. Taking the different destinations into account the range of the average speed offered is within 8 km/h.



Definition: average speed [km/h] of trains according to valid timetable for selected relations: Freiburg–Novara; Antwerp – Gallarate, Rotterdam–Novara and Cologne –Gallarate (all start / end points of these transport relations are directly located on Corridor A/1) in both directions. Measured based on annual timetable and classified in five different categories. Basis: 35 freight train services on 4 different relations.

Figure 11: KPI Commercial train speed

Summary

Figure 12 sets the 2012 values in the context of the previous year and the target 2015. In addition, it shows the delta in absolute or relative figures. The figures of the KPI “Work progress WGs” differ compared to last year’s report due to a reorganisation of the working groups and the setup of a new baseline. The same applies for the KPI “Work progress IMs” in which the projects of Infrabel have been fully integrated.

In 2012 a remarkable shift of planned and approved budgets beyond 2015 has been noticed, essentially caused by the delay of major infrastructure projects and ERTMS implementation in Germany and Italy.

KPI	2011 (Actual)	2012 (Actual)	Delta [%]	2015 (Target)
Work progress WGs [%]	57.5	33.5	New baseline	100
Work progress IMs [%]	41.3	46.9	-13.6	71
ETCS deployment [%]				
Pre-planning, other	100,0	100,0	±0	-
Plan Study	58,6	72,6	+23,9	-
Tendering and Contracting	37,4	37,7	+0,8	-
Installation	9,3	34,1	+265,3	-
Testing and homologation	8,9	9,3	+5,3	-
In operation	8,5	8,9	+4,7	100
State of funding [bn. €]				
Open	0,3	0,05	-77	-
Planned	3,8	0,3	-92	-
Approved	4,7	1,8	-63	-
Used	17,4	19,9	+8	24.1
Int. traffic volume [trains]				
Montzen / Aachen West	24.471	23.380	-5	
Emmerich / Zevenaar	27.674	25.200	-10	
Basel	45.899	44.295	-4	
Domodossola	22.625	19.868	-14	
Chiasso	15.671	14.233	-10	
Luino	7.589	9.262	+18	
Arrival punctuality [%]				
Rotterdam – Melzo	60	61	+1	80
Antwerp – Gallarate (Luino/Domo)	N/A	46 / 77	N/A	80
Freiburg – Novara	48	51	+3	80
Cologne – Gallarate	68	65	-3	80
Modal split rail [%]				
Port of Rotterdam	10	11		
Port of Antwerp	10	9		
Trans alpine	64	63		
Port of Genoa	16	17		
Commercial train speed [%] of trains above average 50 km/h	62	51	-11	

Figure 12: Development of KPIs

0.4 Summary of general activities 2012

Launch of New Website

In order to adequately account for the progress in the corridor programme, the specific situation regarding ETCS implementation trackside and on-board, as well as the need for managing and publishing the corridor information for our customers in a structured manner was the reason to revise completely the internet presence of our corridor. The layout and navigation was changed and extended to cope with additional functionalities, the information was updated and quick navigations had been included, e. g. for an ERTMS helpdesk and specific C-OSS information.

This revision serves also as preparation for the internet access of a new customer information platform, which will be set up by the end of 2013.

Terminal Advisory Group (TAG)

The Corridor started the first TAG meeting in spring 2012. Because the terminals are a vital partner in the transport chain, two workshops had been conducted to investigate the possibilities for involving the terminals into the capacity planning of the IMs, as well as to include customer related information of the terminals in the corridor customer information platform. It was concluded that the terminal operators will deliver structured information on their facilities for publication on the corridor internet presence, as well as to provide train monitoring information also to terminal operators. This information will be derived from the Train Information system (TIS) from RNE, who will upgrade the system until 2013 to provide this service.

Another meeting was organised with TAG and RU advisory group members (RAG) together, in order to investigate issues among them and to look for improvement options in their interactions and processes.

Railway Undertaking Advisory Group (RAG)

Three RAG meetings had been organised in 2012, one of them together with the TAG members. The focus was on the discussion of the "RU position paper", which was initiated by CER and published in December 2011 by four RUs. It contains about 30 topics for improvement of our corridor of high interest to the RUs. It was agreed that all RAG members join this position paper and to focus first on the analysis and development of about 6 topics, which seem to be manageable and will not require considerable additional investments.

The RAG members also nominated their own spokesman in order to contribute in a more consolidated and efficient way in the meetings. Subsequently, the RUs took over the chair in the RAG meetings and started to organise preparatory meetings among themselves.

In the RAG meetings it was noted, that separate meetings should be organised regarding the topic ERTMS, as specific experts are needed to deal with ERTMS also from the side of RAG members. Consequently, the Corridor has set up an RU ERTMS advisory platform, which met for the first time on 26th June 2012. Besides experts from the RUs, responsible persons from EC, ERA, NSAs, ERTMS Users Group and IMs attended the meeting. The objective of this first meeting was to learn about and identify vital problems of the RUs in implementing ERTMS and to enhance their involvement in the overall communication and development of the system.

Executive Board and Task Force Meetings of the Ministries of Transport

The task force of the Executive Board of Corridor A/1 together with the Corridor focused on specific issues related to the implementation of the corridor programme, which are in the responsibility of the ministries such as ERTMS deployment strategies and financing. The objective was to deliver a strategic approach to ensure the implementation of ERTMS until 2015 as well as the corridor programme with some target dates in November 2013, and to revise the mission statement for the Executive Board. In addition, a major topic was the

elaboration of a “framework for capacity allocation”, which was signed by the ministers on 20th December and shall be applied on the Corridor as of timetable 2015.

CODE 24 Project

The Political Advisory Board and regional steering group meetings of CODE24 took place on 20 September 2012 in Genoa. Corridor A/1 was represented by Stefan Wendel, who is also a member of the Political Advisory Board of CODE 24. He delivered a presentation about the current topics and progress of the implementation of the Corridor A/1 programme and participated in workshops of the conference.

On 26th November 2012, the CODE 24 conference took place in Brussels. Stefan Wendel participated on behalf of the Management Committee of Corridor A/1.

CEO Meeting Corridor A/1

The CEOs of Corridor A/1 met on 29th May 2012 in Paris. Stefan Wendel informed about the current progress of ERTMS and the corridor programme, as well as on specific requirements in the corridor programme related to Regulation (EU) No 913/2010. The CEOs appreciated the information provided and expressed their expectations about the focus for the next year. The corridor organisation was asked to concentrate its work more on essential priorities and measurable results such as ERTMS implementation and market oriented requirements. In this respect, the CEOs especially welcomed the corridor performance management as well as the launching of a study for a coherent corridor information management environment.

The attempt of the RUs to pursue topics by publishing the “RU position paper” was not favourably taken by the CEOs as they would have expected from the RUs, that they present the topics first internally prior to the publication via the media. Apart from this, the approach taken by the Corridor to start with the quick win topics was welcomed by the CEOs.

The next CEO meeting shall be organised in connection with the High Level Infrastructure Meeting of CER and EIM in June 2013.

TEN-T Call

In November 2012, the TEN-T Executive Agency of the European Commission launched the annual Call 2013–2015 for requesting European financing of studies and works for rail freight corridors. Corridor A/1 started preparations to submit a request for subsidies for the corridor coordination and management, the piloting of an economic corridor data and information management as well as a study for improvement of the corridor performance management. The final decision is expected for mid-2013.

Corridor Conference Copenhagen

On 16th April 2012, the Corridor A/1 was represented by Stefan Wendel in a corridor conference of Rail Freight Corridor 3 and presented best practices and experiences in corridor implementation work and management, as well as set up of advisory groups.

Corridor Conference Cologne

In view of the opening of the Gotthard base tunnel in 2016, the Swiss Federal Office of Transport and the Swiss Embassy organised the second international Corridor 1 conference on 15th November 2012 in Cologne. The idea behind the series of conferences is to inform and prepare the operators, politicians, experts, citizens and companies, in each of the countries linked to the Corridor for the smooth and successful start of flat traffic in the Gotthard axis, as well as to discuss about the future development of international freight transport on the Corridor.

ERTMS Customer Information Event

On 31st October 2012, the Swiss Federal Office of Transport together with SBB presented the Swiss ETCS migration concept to the RUs and locomotive owners interested in operating on Corridor A/1. The detailed concept of trackside implementation was presented and explained, as well as the technical requirements resulting from the trackside migration for the vehicle equipment, which will be needed on board as of 2015. Corridor A/1 was represented by Stefan Wendel.

ERA ERTMS Conference Lille

On 6th and 7th November 2012, ERA held a conference for the sector in order to inform about the current situation on ERTMS specification, TSI CCS development and ETCS implementation so far installed worldwide. Corridor A/1 was represented by Stefan Wendel.

RNE Corridor Events

Corridor A/1 participated in several workshops of RNE for the development of common corridor guidelines regarding corridor implementation measures. Experiences and best practices from Corridor A/1 could be included as common standards for all corridors in the RNE guidelines due to the fact, that this corridor is an early implementer.

General Events

In general, Corridor A/1 was represented in several events and occasions, as well as meetings on ministerial and European level by Felix Loeffel (President) and Stefan Wendel (MD and Programme Director) of the Corridor, who also contributed as active speakers and promoted the Corridor.

Representative for National Safety Authorities

In order to support the work of the NSAs with regard to enhancing the European authorization process through iterative cross acceptance in track/ train integration and other safety issues, the EEIG contracted an ERTMS expert for the assistance of the NSA working group in order to facilitate their work.

In addition, Corridor A/1 took part in the meetings of the Corridor NSA Working Group.

0.5 Outlook for 2013

Activities in 2013 will basically include:

- Revision and finalisation of the ERTMS implementation plan according to the new strategies and concepts in Germany and Italy
- Mitigation of ERTMS and corridor programme implementation risks
- Adaptation of governance structures in accordance with the Regulation (EU) No 913/2010
- Strengthening of working structures by reviewing and adapting to the changed corridor programme and scope of work
- Definition of terminal information and involvement of terminals together with the Terminal Advisory Group (TAG)
- Finalisation of the Corridor Transport Market Study
- Tendering and execution of the Corridor Information Management Environment
- Completion of the corridor description, corridor lines and corridor terminals
- Preparation of the Corridor Information Document
- Preparation of RFC 1 implementation plan
- Preparation of the PaP offer TT 2015
- Set up of the C-OSS structure and organisation

0.6 Organisation

The legal body of the Corridor Rotterdam-Genoa consists of a European Economic Interest Grouping (EEIG). This corridor company under European law with its registered address in Frankfurt/Main was founded in 2008 by the participating railway infrastructure managers (IM) from the Netherlands (ProRail B.V.), Germany (DB Netz AG) and Italy (RFI S.p.A.). The Swiss IMs, SBB Infrastruktur and BLS Netz AG, joined as associated partners since companies from non-EU member states – such as Switzerland – cannot join an EEIG as an official member. In 2011, Infrabel joined the Corridor through a cooperation agreement, giving them the same rights as the members.

Since the beginning, Claudia Cruciani of RFI has acted as Deputy Managing Director and Stefan Wendel of DB Netz as Managing Director of the EEIG. Beginning 2012, Klaus Junker (DB Netz) left the General Assembly and Felix Loeffel (BLS Netz) was elected as the new chairman. In addition, Umberto Foschi (RFI) left the General Assembly and was replaced by Stefano Castro from RFI. Guy Vernieuwe (Infrabel) was replaced by Michel Geubelle. The associated partners were represented by Nicolas Germanier (SBB Infrastruktur) and Felix Loeffel (BLS Netz). In addition, the allocation body “Trasse Schweiz” joined the associated partners and was represented by Daniel Haltner.

The overall corridor organisation including the EEIG is shown in figure 13.

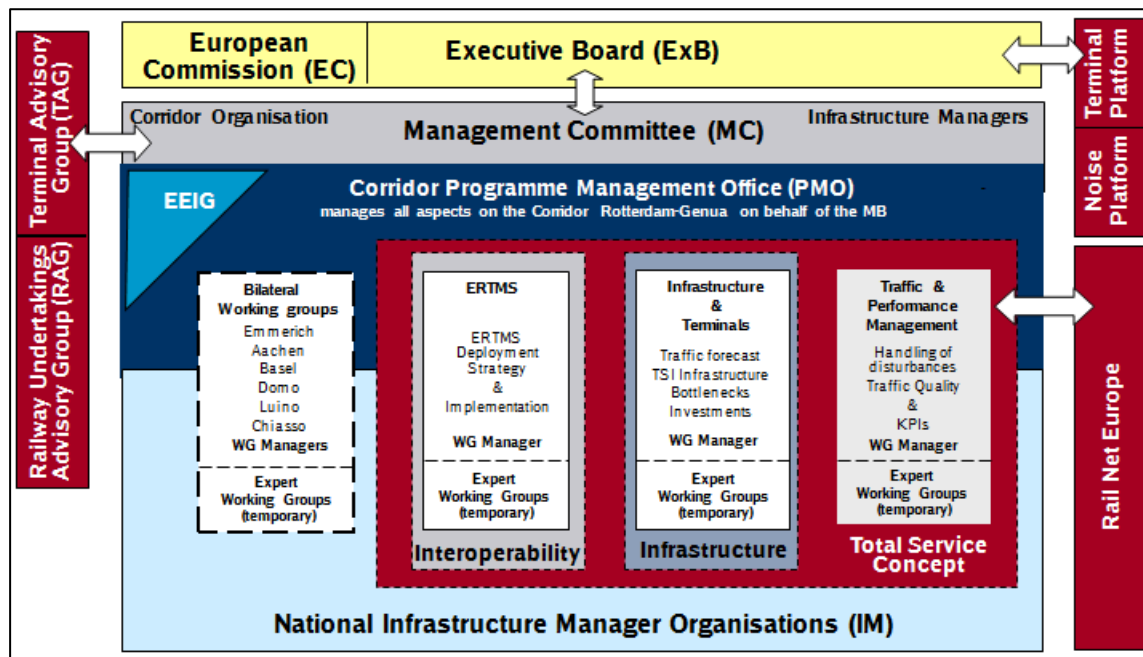


Figure 13: Corridor Organisation 2012

The organisation structure consists of an Executive Board (ExB) of the Ministries and a Management Board (MB) consisting of the IMs. The ExB represents the joint interests of the Transport Ministers in dealing with the European Commission and the European Coordinator for ERTMS, as well as giving the mandate for the work related to the corridor implementation programme to the IMs. The MC is made up of high-ranking management representatives from ProRail B.V., Infrabel S.A., DB Netz AG, SBB Infrastruktur, BLS Netz AG, Trasse Schweiz and RFI S.p.A. who are responsible for the implementation of the Corridor within their national IMs/AB.

The Management Committee set up a Programme Management Office (PMO) as permanent working organisation of the Infrastructure Managers with three main working groups in order to materialise the production and delivery of tangible corridor results in an effective and systematic way. The development of specific corridor topics are delegated to about 20 expert sub working groups, which are set up mostly temporary by the Corridor IMs and steered and monitored by the main working groups. Only the composition and integrated development of all corridor activities regarding the strategic directions of “Interoperability, infrastructure and total service concept” allows maximising the synergies and benefits in the corridor development.

The corridor organisation is also supported by two advisory groups, one consisting of representatives of RUs (RAG) and another with representatives from terminal operators and owners (TAG). The interests and concerns of both advisory groups are taken on board in the corridor programme and work in regular RAG and TAG meetings with the MC of the Corridor.

0.7 Monitoring & Reporting Methodology

The working methodology of the corridor organisation remained unchanged in 2012 except for minor adjustments based on experience gained. For interested or new readers, detailed explanations can be found in annex C.

0.8 Release Notes & Contact Details

The general content of the report was elaborated and integrated by the PMO, whereas the detailed information had been contributed respectively elaborated by the programme infrastructure managers (PIMs) of ProRail (NL), Infrabel (BE), DB Netz (DE), SBB (CH), BLS Netz (CH), Trasse Schweiz (CH) and RFI (IT), thus being under the responsibility of the related IMs and allocation body and the corridor WGs. For any questions or further details concerning the Corridor A/1 programme please contact:

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1 Activities of the Working Groups

Until stated otherwise, e.g. by references or footnotes, the content of this chapter stems from the corresponding Working Group Managers who are leading these groups. For further information, please see Annex C.

- ERTMS: Stefan Wendel
- Traffic and Performance Management: Hansruedi Kaeser
- Infrastructure & Terminals: Thomas Schneider / Jan Praagman

1.1 PMO

1.1.1 Key Performance Indicators

Due of Reporting	Date	31.12.12	WG Result [%] Plan	60	WG Result [%] Actual	31
Work Packages Total		5	Work Packages Finished	0	Work Packages Pending	5
Start	01.01.11					
End	31.12.13					

PSP	WP	Results and Milestones achieved
1.1	PMO tasks	Monitoring corridor programme and master plan for implementation Establishment of governance structure,
1.2	Pre-arranged Path (PaP)	Definition of a common corridor methodology for PaP. Preparation of PaP offer TT 2015. Definition of terms and conditions for PaP
1.3	Info Doc & CIME	Preparation and publication of the Corridor Information Document. Doing CIME data management study
1.4	Implementation C-OSS	Description of C-OSS tasks and obligations. Preparation of process description of C-OSS, C-OSS desktop (e. g. path register)
1.5	Legal Matters	Preparation of revised statutes incl. C-OSS contract

1.1.2 Work Progress

The PMO is carrying out the overall coordination and monitoring of all the measures and tasks related to the implementation of the corridor programme including the ERTMS implementation and all further work packages of the corridor programme, which now have to be established also under the legal framework of the Regulation (EU) No 913/2010.

In this respect, the PMO has its own main working groups “ERTMS”, “Infrastructure and Terminals” as well as “Traffic and Performance Management”, which are working out the results and report them to the PMO. The progress of these WGs is reported below in more detail.

In addition, the PMO is carrying out the 5 specific work packages listed above. The achieved progress regarding the overall corridor programme of 31% versus 60% plan is due to the multiple and major changes to the baseline, which had to be included in the corridor programme as well as resulting from the external risks, which did not allow a continuous implementation and created major reworks.

Apart from this the direct subgroups of the PMO called “Pre-arranged Path”, “Info Doc. & CIME”, “Implementation C-OSS” and “Legal Matters”, performed very well in 2012 and reached their progress in the plan.

The achievements of the PMO are described in detail in the following chapters of the corridor working groups.

1.1.3 PMO Tasks (PSP 1.1)

The corridor programme was steered and monitored in 12 PMO meetings, 4 Management Committee meetings, 4 Executive Board meetings, 2 RAG meetings, 2 TAG meetings and 2 workshops with terminal operators and owners. In addition, the PMO has set up the ERTMS RU advisory platform together with EC, ERA, NSAs, RUs, IMs and the Users Group in Brussels.

The progress was further discussed and reported in corridor steering group meetings of the EC and RNE.

1.1.4 Subgroup Pre-arranged Path (PSP 1.2)

Based on the requirements of the Regulation (EU) No 913/2010, each corridor will have to make available pre-arranged paths and reserve capacity for freight traffic.

RailNetEurope (RNE) has published guidelines for their members with suggestions for preparing, planning and managing pre-arranged paths and reserve capacity. However, RNE proposes that each corridor should define their own common philosophy regarding characteristics of the paths, offered quantities, processes, timelines and responsibilities. In order to comply with the RNE proposal, a temporary group with timetabling experts from the corridor members had been set up. In several meetings and workshops, this group elaborated the following outputs:

- Offered capacity:
Results and conclusion of the TMS are an important indicator, however realistic interpretation of the results will be required. Experiences (numbers of freight paths) from past years need to be taken into account for the capacity estimation.
- Characteristics of the pre-arranged paths:
Corridor 1/A will offer path sections (segments) and not just only one entire path from Rotterdam, Antwerp or Zeebrugge to Genoa in order to be compliant with applicants need for flexibility. Intermediate points (between two path sections) will be included in order to respect the amount of freight traffic entering and/or leaving the Corridor in an intermediate location. Paths Rotterdam/Antwerp/Zeebrugge – Genoa will be an assembly of several path sections.
- Parameters for the pre-arranged paths
The relevant parameters (planned train speed, train length, load/weight of the set of trains, profile/gauge, etc.) had been defined as well as the responsibility for fixing their values.

All these results will be summarized in a handbook to be used by the corridor members in the phases of preparing and planning the pre-arranged paths and reserve capacity.

In a next step, the group will analyse the conditions related to the booking and cancelling of pre-arranged paths and reserve capacity related to RUs as well as authorized applicants.

The minimum aim should be harmonised deadlines/phases and minimum of conflicting national regulations and/or rules.

1.1.5 Info Document & CIME (PSP 1.3)

The PMO has tendered and launched a contract about a study and prototype for the optimisation of the Corridor Information Management Environment (CIME). The main objective of CIME is the coordination and exchange of information regarding all internal works for Corridor A/1. Therefore various meetings with the consultants were held to discuss approach, content, layout and required input by IMs.

The basic functionalities had been specified together with the consultant, roles and parameters for the study, as well as corridor data delivered for the establishment and testing of a prototype for carrying out the proof of concept, which is foreseen in 2013.

1.1.6 Subgroup Implementation C-OSS (PSP 1.4)

To prepare the implementation of the C-OSS for November 2013 the Subgroup Implementation C-OSS was set up in July 2012 with the relevant experts from all involved infrastructure managers chaired by Steffi Klughardt (DB Netz). The expert group agreed on a work plan consisting of four work packages which aim at setting all relevant legal and organizational prerequisites for the go live of the C-OSS:

1. WP 1: Documents
This WP is supposed to deliver concrete process descriptions for the defined C-OSS tasks and activities clustered in the Pre-Sales, Sales and After Sales phase. In addition a wording proposal concerning the C-OSS mandate and tasks is to be elaborated for inclusion in the future OSS contract between Infrastructure Managers/Allocation Body (to be delivered by the legal group).
2. WP2: Path Catalogue
This WP is supposed to define a customer-friendly lay-out of the future catalogue for pre-arranged paths from a marketing perspective.
3. WP3: C-OSS Desktop
This WP is supposed to ensure the equipment of the C-OSS with all necessary tools (especially PCS) and suitable templates for the administration and documentation of the path requests.
4. WP4: Customer Info
This WP aims at providing a communication concept for promoting the future C-OSS benefits to the rail freight customers along the Corridor (e.g. C-OSS website, flyers etc.) It also includes the definition of the relevant terms and conditions for the usage of pre-arranged paths and reserve capacity.

After the kick-off meeting in July the experts of the group participated in three meetings/workshops (12/13th September, 29th October and 12/13th December) to deeply discuss the future C-OSS activities and elaborate concrete process descriptions. To some meetings RNE experts were invited to ensure close cooperation especially on the shaping of the necessary PCS requirements for the future C-OSS business. In addition the process of construction of RNE catalogue paths for timetable 2014 driven by the RNE Corridor Manager was shared to identify improvements for the future C-OSS monitoring of the PaP Pre-sales phase.

For the MC Meeting in February 2013 the deliverables of WP 1 and WP 2 are ready for adoption:

- Detailed process descriptions on PaP Pre-Sales, PaP Sales, PaP After Sales/ Monitoring, Reserve Capacity Pre-Sales and Sales
- Overview process flow / calendar slides per process description
- Wording proposal to legal group on C-OSS tasks and IM/AB obligations
- Example of catalogue of PaP.

According to the agreed work plan in 2013 the group will tackle WP 3 and 4 and finalize the implementation of the C-OSS for November 2013.

1.1.7 Subgroup Legal Matters (PSP 1.5)

The subgroup Legal Matters has the task to facilitate the transition from ERTMS Corridor A to Rail Freight Corridor 1 by providing the contractual framework. Starting in August 2012 the group adapted the existing Statutes of the EEIG and the Frame Contract with the Swiss members to consider changed requirements by inclusion of additional members (Infrabel and Trasse Schweiz AG) and of additional business objectives derived from the Regulation (EU)

No 913/2010. In the Frame Contract the group has foreseen also provisions defining the tasks and obligations of the Management Board and operating procedures e.g. decisions and voting rights. The Legal Matter-Group finally is preparing the draft of an OSS-Contract that sets up the tasks and obligations of the representative Corridor-OSS and the Corridor IM/ABs, the delegation of power, the liability etc. Specific tasks and the process descriptions however are prepared and negotiated by the OSS-Group and will be added to the OSS-Contract as annexes. The subgroup Legal Matters will presumably accomplish its tasks in the first month of the year 2013 by presenting the finalised drafts of the adapted Statutes and Contracts to the Management Committee.

1.1.8 Risk Management and Chances

No risks reported.

1.1.9 Change Request Management

No changes reported.

1.1.10 Outlook

The coordination, monitoring and reporting of the corridor programme will be continued in 2013. The study about CIME will be completed and deliver significant input for the future management of corridor information and results. The definition of the PaP will be completed as well as the first offer for TT 2015 created for starting the C-OSS. The revised statutes of the EEIG, as well as the contract with the legal framework for putting in place the Corridor One-Stop-Shop will be prepared, negotiated and signed in 2013. On the basis of these documents the Management Board and C-OSS will become operational and the registration of the EEIG will be updated with the revised Statutes.

2 ERTMS

2.1 Key Performance Indicators

Due Date of Reporting	31.12.12	WG Result [%] Plan	50	WG Result [%] Actual	44
Work Packages Total	3	Work Packages Finished	0	Work Packages Pending	3
Start	01.01.07				
End	31.12.15				

PSP	WP	Results and Milestones achieved
2.1	Common implementation strategy Corridor A	ERTMS roll out concept, joint procurement strategy, coordination with operational requirements, definition of transition processes
2.2	Specification and product	Monitoring and supporting of ETCS specification, definition of test procedures and tools, definition of data and configuration management
2.3	Common processes and responsibilities	Roll out management structure, risk management, Harmonisation of requirements for authorisation of NoBos, Harmonisation of authorisation procedures

2.2 Work Progress

2.2.1 Achievements

In 2011, the work progress of the ERTMS working group was reported as 79% of 92% planned. According to the above KPI the actual work progress dropped to 44% versus 50%

planned. This considerable change results from major changes in the baseline of this working group for the following reasons:

- In 2011, the baseline had been reduced by all the works related to track side ERTMS implementation in Germany due to the decision to finance STM train borne equipment and not equip the German section with ERTMS. This reduction included also the upgrade with electronic interlockings as this was no longer needed. With the new strategy of German MoT taken in 2012, to still implement ERTMS track side, the baseline had to be increased again to account for all the works now needed to accomplish this decision.
- The effort has considerably grown for some activities due to multiple changes in scope and some national implementation strategies, e.g. in Germany to reconsider the track side installation with ERTMS, considerable extra effort became necessary for the analysis, development and coordination of a revised corridor. This additional work was also not reflected in the original baseline of this working group.
- Due to the very tight time line and political decisions, the roll out concept of the Corridor had to be reviewed and needs modifications to comply with the corridor goal as much as possible. Subsequently, the implementation programme could no longer continue as intended.

However, although the new baseline has increased and the overall ERTMS progress is a little bit behind schedule, the working group ERTMS was very busy reviewing and adopting its work to the changing conditions.

In 2012, the working group ERTMS continued its work with the regular members Adri Verbraak (ProRail), Martin Zürcher (SBB/ BLS), Didier Léautey (DB Netz) and Stefan Wendel of the EEIG as working group manager. Also Infrabel is taking part in the working group as permanent member and represented by Jean-Luc Ghisbain, and Stefano Geraci, who is also a technical advisor in the ERTMS Users' Group in Brussels, became the new representative of RFI. Furthermore, Stefan Bode of DB Netz, who also takes part in the Corridor NSA Working Group, attended the meetings as a standing guest. This ensured the linking of all relevant parties in an effective manner. For specific topics the WG was further supported by additional experts from the Corridor IMs.

The working group meetings are scheduled on a monthly basis.

2.2.2 Common Implementation Strategy Corridor A (PSP 2.1)

As the time for completion of ETCS on the Corridor until 2015 comes closer and closer, the EC asked the German MoT to reconsider all possibilities for equipping the tracks with ETCS within the given time frame and by using e.g. the mode Level 1 LS, of which a first release was validated by ERA at the end of 2011.

Since mid 2012, experts from the German MoT including DB Netz are analysing alternative solutions, which ensure interoperability through ERTMS and the target date 2015 as far as possible. Due to the consideration of Level 1 LS, the upgrading of many interlockings with electronic equipment is no longer necessary which reduces the budget to an amount, which probably could still be raised.

Finally, by the end of 2012, the German MoT informed that it had changed its strategy and is now looking for a concept to equip the corridor lines with ERTMS. However, the completion until 2015 seems unrealistic and a prolongation until 2018 might be needed.

In view of the changed approach in Germany, the ERTMS implementation in Italy was also reconsidered and intensified as for the economic success and competitiveness of the RUs, a synchronised and coordinated completion of ERTMS along the entire corridor is very important.

The WG ERTMS was kept busy in preparing an impact analysis, discussion papers and new attempts for a common corridor implementation plan taking into account all these changing circumstances.

The WG ERTMS focused additionally on the analysis of cross border projects to reduce risks in ERTMS implementation along the Corridor regarding the ETCS products, test and authorisation procedures, as well as of interoperability and the organisation of cross border installation projects. Finally, all these aspects needed also to be taken into account by the working group in the preparation of the corridor implementation plan.

2.2.3 Specification and Product (PSP 2.2)

The OBU test cases (subset 76) for SRS 2.3.0d have been finalised and published at the end of 2012. ERA started to create the OBU test cases (subset 76) for SRS 3.3.0. However, this work will probably not be finished until the planned first ERTMS maintenance release at the end of 2013.

At the end of 2012, the first ETCS Baseline 3 (with SRS 3.3.0) was released. The list of remaining unresolved CRs has been prioritised to be solved in the first ERTMS maintenance release which shall be available by the end of 2013. It is expected that the list of CRs will still grow based on the feedback from the first B3 projects. The sector insisted therefore to establish an efficient maintenance process for the ETCS specification, including a compatibility analysis. The compatibility analysis turned out to be very complex and is not yet finished. Also, not all prioritised CRs could be finalised and remain pending in the first maintenance release. Therefore, some national rules could become or remain necessary to cover unresolved issues.

ERA filled stepwise the database of national rules, enhancing transparency for cross acceptance. However, not all rules are notified yet by all Member States.

The ERTMS IT security study of the ERTMS Users' Group was finalised with a report containing 41 recommendations based on an exhaustive threat identification and risk analysis. The analysis concluded that the usage of strong cryptographic keys is essential to the security of ERTMS and without the implementation of additional measures and/or major improvements, the risk is high that the identified safety and non-safety related main threats will materialise with a high impact. The 41 recommendations on Governance, People, Process and Technology still need to be addressed at national/local/regional level and some of them on European level.

ERTMS is a system consisting of trackside and on-board equipment, which interact. As the specifications, testing procedures and authorisation work are also very relevant for RUs, an ERTMS RU Advisory Platform was created, which met for the first time in June 2012. Apart from IMs, other participants were RUs and vehicle leasing companies, representatives of the EC, NSAs as well as the ERTMS Users' Group with their experts in Brussels. This first platform meeting was very fruitful as we could learn about the problems of RUs in equipping their vehicles with ERTMS as well as operational issues and vice versa. As major problems had been identified the fact that changes in trackside implementation could cause an immense impact on the vehicles and costs for the RUs. Furthermore the RUs have difficulties in getting sufficient detailed information about the specific ETCS installations on the Corridor, which they need to specify ETCS in their contracts with the industry.

It was concluded, that the interests and concerns of the RUs should be better taken into account in the system development by improving the communication and involving them more. As a consequence, the Corridor has set up an ERTMS Helpdesk, which can be reached via the corridor website.

2.2.4 Common Processes and Responsibilities (PSP 2.3)

It is of utmost importance and our final goal to provide one seamless integrated ETCS corridor installation to our clients. So far this was very difficult to achieve due to the different implementation strategies in each country. The now decided trackside installation of ERTMS in Germany, the chance of a more integrated corridor implementation has improved. Thus the working group analysed possibilities how to support the establishment of a mature ERTMS corridor implementation by focusing on border sections and bilateral working groups at borders. By jointly solving of technical and authorisation problems at the borders first, the remaining national installations should benefit and be completed faster.

Regarding ERTMS authorisation, the working results of the Corridor NSA Working Group are seen as a major step forward in establishing a guideline for authorisation of locomotives with onboard ERTMS equipment. This guideline shall facilitate the economic authorisation of vehicles during the transition period, until sufficient mature trackside installations are available which cover the full range of the Baseline 3 functionalities. The guideline, which is based on and respects the European regulations, will provide practical recommendations for improvements. The WG ERTMS accompanied the work of the NSAs and provided necessary information such as national technical requirements, as well as assistance in the elaboration of the guideline.

2.2.5 Risk Management and Chances

Despite the revised strategy in Germany to drop the STM solution, financing and equipping the German sections with ETCS, the external A1 risk of not being able to complete a sound ETCS trackside implementation on the Corridor by 2015 has become evident reality. The German MoT has indicated that the completion of the entire Corridor until 2015 is no longer possible and has to be postponed, while the Italian MoT is still negotiating the postponing of the realisation of some Italian sections. More details will be given in the notifications to the European Commission, which had not been available until 31st. December 2012.

The risk for not having enough available experts still exists, because substantial information about the implementation and related roll-out of ETCS installations in Germany and Italy is still missing. The impact has to be investigated as soon as details are available.

Regarding the current status of Baseline 3, a B 2 risk had to be opened because until now it is not confirmed which CRs and functionalities will be included in the first B3 maintenance release to be published in 2013. Furthermore, backwards compatibility is not yet proven.

Due to the fundamental changes, the WG ERTMS could neither complete the ERTMS implementation plan nor prepare a corridor ERTMS roll out plan.

Throughout 2012, the risks were reported at each ExB meeting.

2.2.6 Change Request Management

Changes due to the revised strategy in Germany and the risk mitigation will be considered in the revision of the work plan and baseline as soon as final concepts and confirmation of implementation are available.

2.3 Outlook

By the end of 2012, the Member States had to notify the European Commission concerning the progress achieved about the ERTMS deployment on the Corridor. Until 31st December, only from the Belgium and the Dutch MoT the notifications were available. Switzerland as non EU Member State has started the roll out of ERTMS Level 1 LS on the corridor lines and its remaining national network.

According to this, in 2013 the successful continuation of ERTMS roll out in the Swiss corridor sections, as well as in the Netherlands harbour line, Maasvlakte 2, Kijfhoek and the section Zevenaar - border are expected and will be completed until 2015.

In Germany, once the notification to the EC is available, it is expected that the MoT will complete the deployment concept and financing agreement in cooperation with DB Netz for equipping the German corridor sections. It's also likely, that the German MoT has to apply for an extension of the completion date beyond 2015.

In Italy, the launching of a Level 2 pilot implementation shall provide technical know-how and economical results for the further stipulation of the ERTMS deployment concept based on SCMT for the corridor sections in Italy. However, also Italy might need to apply for an extension of the completion date, which will be known as soon as the notification from the Italian MoT has been completed after negotiating with the Commission.

The European process of testing and authorisation for putting into service and the completion of the related guideline by the NSA working group will go on. The RISC will decide upon possible delays in the corridor ETCS completion on the basis of the national notifications.

The working group will aim at finalising the corridor implementation plan and prepare the corridor roll-out concept. The final ERTMS deployment concepts from Germany and Italy will be a pre-condition for carrying out this work.

3 Infrastructure & Terminals

3.1 Key Performance Indicators

Due Date of Reporting	31.12.12	WG Result [%] Plan	40	WG Result [%] Actual	34
Work Packages Total	5	Work Packages Finished	1	Work Packages Pending	4
Start	01.07.11				
End	31.12.15				

PSP	WP	Results and Milestones achieved
3.1	Capacity analysis 2012	Definition of routing and terminals, Investment plan, Definition of methodology for forecast, calibration of terminal/infrastructure capacity, Capacity analysis 2012
3.2	Capacity analysis 2013	Definition of methodology for forecast, calibration of terminal/infrastructure capacity, Capacity analysis 2013, update of investment plan
3.2	Terminal Advisory Group	TAG meeting preparation, information gathering terminals and harbours, capacity analysis on infrastructure in front of terminals
3.3	Transport Market Study	Securing contributions of the IMs. supervision of the consultant, execution of TMS long term part, technical approval of report
3.4	Longer train study 740 m	Preparation of study, analysis of current situation and demand, infrastructure, operational and timetable measures for accommodating longer trains, presentation of report

3.2 Work Progress

In 2012 a new structure of the corridor organisation was implemented. As one of the consequences the existing working group Capacity and the working group Terminals finished their work. These groups were replaced by one combined working group Infrastructure & Terminals. This replacement actually took place not earlier than December 2012. For that reason this annual report will consist of a part filled in by the former working group Capacity and another part filled in by the former working group Terminals.

3.2.1 Achievements

The members of the WG Capacity beginning 2012 were: Roland Bärlocher (SBB), Hugo van den Berg (ProRail), Dr.-Ing. Albrecht Hinzen (DB Netz), Dr. Gabrio Caimi (BLS Netz), Patrizia Cicini (RFI) and Gersende Bidelot (Infrabel). The work of the WG in 2012 focused strongly on the topics TMS and longer trains study 740 m. For these topics we refer to the corresponding sections 3.2.4 and 3.2.5. Furthermore, the group focused in 2012 on the transition to the new structure of the corridor organization, where the WG Capacity was cancelled and its topics integrated in the new WG Infrastructure & Terminals.

Members of the new WG are:

Christian Witt (SBB), Jan Praagman, chairman and Eric Blaas (ProRail), Dr-Ing Albrecht Hinzen, Oliver Pflüger and Dirk Bartsch (DB Netz), Eveline Lehmann (BLS Netz), Giulia Costagli (RFI) and Michel Geubelle (Infrabel).

In 2012, a very important topic of the WG has been the execution of a TMS. The WG prepared the concept of the study in 2011 and decided to distinguish between a short and a long term perspective. In this way, it is possible to focus on different aspects of the short and long term view, making the work more efficient.

The short term view is more market-oriented; it will be primarily used for the creation of Pre-arranged Paths satisfying market demand. This part is outsourced to external consultants specialised in this field, and will be accompanied and supervised by the subgroup “Transport Market Study – short term”, see later section 3.2.4.

The long term view basically deals with traffic prognosis data, the detection of bottlenecks on the network and with big projects for their elimination. This part is technically and politically oriented and needs close collaboration with national studies and plans in particular.

Therefore, this part will be executed by the involved IMs themselves, organised in the subgroup “Transport Market Study – long term”, see later section 3.2.4.

Another topic for the working group was the forming of a new subgroup 740m trains. This subgroup looks at the possibilities for running 740m long trains and trying to find solutions to solve the bottlenecks.

3.2.2 Capacity Analysis 2012 (PSP 3.1)

The working group managed and updated the corridor inventory, i.e. the extensive data collection for the entire corridor established in 2009 and kept updated.

The data collection is completed by an investment plan for the Corridor as elaborated in

Investment Plan - Corridor A/1						State: 30.06.2013
Project list with funding status, elaborated by PMO						checked by: ProRail, Infrabel, DB Netz, SBB, BLS, RFI
Period	Year of implementation	Country	Line section (from North to South)	Project	Cost estimation [Mio. €]	Funding Status
2020-24	>2020	NL	Kijhoek - Zevenaar	additional links Betuwe	tdb	Open
	2021	BE	Gent-Sint-Pieters - Schellebelle	Y-bifurcation Ledeberg & Schellebelle + Merelbeke (partial project)	21	planned & not approved
	2022	BE	Zeebrugge - Brugge	New hub Zwankendamme 24 tracks	105	planned & not approved (approved only for 2013)
	2023	IT	Novara - Oleggio	2nd track Vignale - Oleggio	371	Planned
	2024	BE	Zeebrugge - Brugge	3rd track Brugge - Dudzele	79	planned & not approved (approved only for 2013)
2025 + later						planned & not approved (approved only for 2013)
	2025	BE	Brugge - Gent-Sint-Pieters	3rd and 4th track Gent-Brugge	258	planned & not approved (approved only for 2013)
	2025	BE	Ekeren	Construction Y-bifurcation Oude Landen (L27A)	76	Approved
	2025	BE	Mortsel	Modernisation Y-bifurcation Krijgsbaan (L27A)	79	Planned
	2025	CH	Basel - Bellinzona - Chiasso / Luino	Upgrade for 750m (Luino 640m)	tdb	Planned
	2025	CH	Liestal	fly-over	290	Approved
	2025	IT	Adeguamento P/C 60 Luino-Gallarate	--> PC60 in corso di valutazione	1	Planned
	2025	IT	Oleggio - Arona	2nd track and 4meter gauge	164	Planned
	2025	IT	Milano Rogoredo- Pieve Emanuele	Upgrade to 4 tracks	250	Planned
	2025	IT	Brig - Domodossola	capacity improvement for 4m-trains	tdb	Open
	>2025	BE	Belgian part Corridor A	Level crossing removal	88	planned & not approved
	>2025	CH	Frutigen - Brig	Base tunnel, 2 track, part 2	640	Open
	2030	IT	Chiasso - Seregno - Monza	4 tracks	1.412	Planned
	2030	IT	Seregno - Bergamo (-Treviglio)	Gronda est	1.000	Planned
	2030	IT	Parabiago-Gallarate	upgrade 3 tracks	326	Planned
	>2030	IT	Laveno - Luino - Cadenazzo	Gronda ovest	1.270	Planned
	>2030	IT	Novara	Node upgrade (passante)	503	Planned
	>2030	IT	Voghera-Treviglio via Piacenza-Cremona	2 nd track on critical section and upgrade lines Voghera-Piacenza, Piacenza-Cremona, Cremona-Treviglio	1.200	Planned
	open	BE	Antw.-Noord-Antw.-Berchem	Port of Antwerp: 2nd rail acces to the port	tdb	Open
	open	BE	Hasselt	Hasselt tracks reorganisation	tdb	Open
	open	DE	Karlsruhe - Offenburg	3rd + 4th track	2.100	Used / Approved
	open	DE	Offenburg - Basel	3rd + 4th track	4.100	planned/approved/used
	open	DE	Oberhausen - Basel	ERTMS equipment existing line	tdb	Open
	open	DE	Mainz/Wiesb. - Mannheim	HS Line	2.200	Planned
Total Investments (M€)					46.777	
Explanation Funding status			Used = Funds spent			
			Planned = not yet financed or approved projects			
			Approved = Funds released			
			Open = Funding which is not yet part of any formal funding plan			

Figure 14 below including the funding status of the specific project. For the annual report 2012 the investment plan has been steered by the PMO as this document is the basis for the investment plan to be elaborated for the implementation plan which has to be done for the Corridor according to the Regulation (EU) No 913/2010 and also the basis for the new baseline. Therefore, more projects are included in 2012 than under a pure capacity consideration.

Annual Progress Report 2012

Investment Plan - Corridor A/1					State: 30.06.2013	
Project list with funding status, elaborated by PMO					checked by: ProRail, Infrabel, DB Netz, SBB, BLS, RFI	
Period	Year of implementation	Country	Line section (from North to South)	Project	Cost estimation [Mio. €]	Funding Status
2007-14	2007	NL	Kijfhoek - Zevenaar	Betuwe Line	4.580	Used
	2007	CH	Frutigen - Brig	Base Tunnel	2.800	Used
	2008	IT	Bergamo - Treviglio	2nd track	86	Used
	2010	CH	Castione	upgrade	18	Used
	2010	IT	Luino - Laveno	upgrading for 600m	21	Used
	2011	CH	Bern	3rd track Rütli-Zollikofen	61	Used
	2011	IT	Domodossola - Novara	Gozzano bypass	31	Used
	2011	IT	Novara-Alessandria	upgrade line	13	Used
	2012	NL	Maasvlakte II - Maasvlakte I	New line + Marshalling Yard	30	Used
	2012	BE	Zeebrugge - Brugge	Bocht ter Doest	9,5	Used
	2013	IT	Borgo Ticino	Upgrade for 600 m	4	Approved
	2014	CH	Bern - Thun	Headway 2'	18	Approved
	2014	NL	Zevenaar - Border	Zevenaar1: ERTMS level 2 2.3.0d from Zevenaar to border	113	Approved
	2014	BE	Kallo - Antw Noord	Liefenshoek Rail Link	765	planned & not approved (approved only for 2013)
2015-19	2015	CH	Corridor A/1 lines	ERTMS equipment	115	Approved
	2015	IT	Corridor A/1 lines (fase prioritaria Chiasso-Milano-Genova e Domodossola-Novara)	ERTMS equipment	66	Approved
	2015	CH	Basel Bad - Basel SBB	upgrade to 4 tracks	40	Approved
	2016	NL	Zevenaar - Border	Zevenaar2: change power supply 1500V into 25kV (and 15kV border - Emmerich)	*incl. in project Zevenaar 1	Approved
	2016	CH	Erstfeld - Biasca	Gothard base tunnel	8.235	Approved
	2016	CH	Bellinzona-Luino	line upgrade, incl. 700m Bellinzona - border, automatisaton	60	Approved
	2016	IT	Domodossola - Novara via Borgomanero	upgrade 4 stations for 650m	25	Planned
	2016	IT	Vignale - Oleggio	new crossing station (750)	4	Planned
	2016	IT	Domodossola - Novara via Arona	Upgrade for 750m (Premosello)	2	Planned
	2016	IT	Chiasso - Milano Smistamento	Upgrade for 750m	5	Planned
	2016	IT	Chiasso - Monza	Headway 3'	48	Approved
	2016	IT	Genova Campasso	Potenziamento della stazione di Campasso	12	Planned
	2016	IT	Monza - Milano Smistamento	Headway 3'	6	Planned
	2017	IT	Milano - Pavia	Headway 3'	22	Planned
	2017	IT	Gallarate - Parabiago	Headway 3'	24	Planned
	2017	IT	Novara	Node upgrade (access)	80	Planned
	2017	IT	Potenziamento infrastrutturale Voltri-Brignole	Potenziamento infrastrutturale Voltri-Brignole	642	Approved
	2018	NL	Zevenaar - Border	Zevenaar3; 3rd track Zevenaar-Emmerich + power supply	*incl. in project Zevenaar 1	Approved
	2018	DE	Border - Oberhausen	ERTMS equipment existing line	*part of project Emm. - Oberh.	Planned
	2018	DE	Knoten Basel Bad Bf	ERTMS equipment existing line	tbd	Open
	2018	IT	Telecomando Gallarate - Domodossola	ACC-M	90	Planned
	2018	IT	Rho - Parabiago	upgrade 4 tracks and link "Y" with FN	402	Approved
	2018	IT	Scavalco di Rho	Upgrade station	30	Planned
	>2018	DE	Border - Emmerich - Oberhausen	3rd track	1.700	Planned
	2019	CH	Basel - Bellinzona - Chiasso	Block headway 3', node Bellinzona, incl. 750m Bellinzona+Chiasso	230	Approved
	2019	CH	Bellinzona - Lugano	Ceneri Basetunnel	2.048	Approved
2020-24	2020	BE	Belgian part Corridor A	ETCS	153	planned & not approved (approved only for 2013)
	2020	CH	Basel - Bellinzona - Chiasso / Luino	Profile upgrade to 4 m	700	Planned
	2020	IT	Monza	Station upgrade	1	Planned
	2020	IT	Nodo di Genova: bretella Borzoli-succursale	Additional link	1	Planned
	2020	IT	Adeguamento sagoma (linea dei Giovi)	PC 45 on the line succursale between Alessandria and Bivio Bretella	15	Planned
	2020	IT	Tortona - Voghera	Upgrade to 4 tracks (realizzazione per fasi funzionali)	600	Planned
	2020	IT	Arquata - Genova	Terzo valico (Giovi pass), 5th+6th track	6.200	Planned / Approved
	2020	IT	Corridor A/1 lines (completamento corridoio)	ERTMS equipment	tbd	Planned
	2020	IT	Domodossola - Gallarate	Upgrade for 750m (Arona)	27	Planned
	2020	IT	Gallarate - Milano	Upgrade for 750m	5	Planned
	2020	IT	Luino - Laveno - Sesto Calende	Upgrade 3 crossing stations for 700m	31	Planned
	2020	IT	Luino - Laveno	Nuovo punto di incrocio Luino-Laveno	15	Planned
	2020	IT	Chiasso - Milano Smistamento	Upgrade power supply	21	Planned
	2020	IT	Chiasso - Milano Smistamento	Profile upgrade to 4 m	40	Planned
	>2020	NL	Maasvlakte I - Kijfhoek	upgrade	tbd	Open
	>2020	NL	Breda - Bortel	upgrade	tbd	Open

Investment Plan - Corridor A/1					State: 30.06.2013	
Project list with funding status, elaborated by PMO					checked by: ProRail, Infrabel, DB Netz, SBB, BLS, RFI	
Period	Year of implementation	Country	Line section (from North to South)	Project	Cost estimation [Mio. €]	Funding Status
2020-24	>2020	NL	Kijhoek - Zevenaar	additional links Betuwe	tbd	Open
	2021	BE	Gent-Sint-Pieters - Schellebelle	Y-bifurcation Ledeberg & Schellebelle + Merelbeke (partial project)	21	planned & not approved
	2022	BE	Zeebrugge - Brugge	New hub Zwankendamme 24 tracks	105	planned & not approved (approved only for 2013)
	2023	IT	Novara - Oleggio	2nd track Vignale - Oleggio	371	Planned
	2024	BE	Zeebrugge - Brugge	3rd track Brugge - Dudzele	79	planned & not approved (approved only for 2013)
2025 + later	2025	BE	Brugge - Gent-Sint-Pieters	3rd and 4th track Gent-Brugge	258	planned & not approved (approved only for 2013)
	2025	BE	Ekeren	Construction Y-bifurcation Oude Landen (L27A)	76	Approved
	2025	BE	Mortsel	Modernisation Y-bifurcation Krijgsbaan (L27A)	79	Planned
	2025	CH	Basel - Bellinzona - Chiasso / Luino	Upgrade for 750m (Luino 640m)	tbd	Planned
	2025	CH	Liestal	fly-over	290	Approved
	2025	IT	Adeguamento P/C 60 Luino-Gallarate	--> PC60 in corso di valutazione	1	Planned
	2025	IT	Oleggio - Arona	2nd track and 4meter gauge	164	Planned
	2025	IT	Milano Rogoredo- Pieve Emanuele	Upgrade to 4 tracks	250	Planned
	2025	IT	Brig - Domodossola	capacity improvement for 4m-trains	tbd	Open
	>2025	BE	Belgian part Corridor A	Level crossing removal	88	planned & not approved
	>2025	CH	Frutigen - Brig	Base tunnel, 2 track, part 2	640	Open
	2030	IT	Chiasso - Seregno - Monza	4 tracks	1.412	Planned
	2030	IT	Seregno - Bergamo (-Treviglio)	Gronda est	1.000	Planned
	2030	IT	Parabiago-Gallarate	upgrade 3 tracks	326	Planned
	>2030	IT	Laveno - Luino - Cadenazzo	Gronda ovest	1.270	Planned
	>2030	IT	Novara	Node upgrade (passante)	503	Planned
	>2030	IT	Voghera-Treviglio via Piacenza-Cremona	2 nd track on critical section and upgrade lines Voghera-Piacenza, Piacenza-Cremona, Cremona-Treviglio	1.200	Planned
	open	BE	Antw.-Noord-Antw.-Berchem	Port of Antwerp: 2nd rail acces to the port	tbd	Open
	open	BE	Hasselt	Hasselt tracks reorganisation	tbd	Open
	open	DE	Karlsruhe - Offenburg	3rd + 4th track	2.100	Used / Approved
	open	DE	Offenburg - Basel	3rd + 4th track	4.100	planned/approved/used
	open	DE	Oberhausen - Basel	ERTMS equipment existing line	tbd	Open
	open	DE	Mainz/Wiesb. - Mannheim	HS Line	2.200	Planned
Total Investments (M€)					46.777	
Explanation Funding status			Used = Funds spent			
			Planned = not yet financed or approved projects			
			Approved = Funds released			
			Open = Funding which is not yet part of any formal funding plan			

Figure 14: Investment plan of Corridor A/1

3.2.3 Terminal Studies

Thomas Schneider (DB Netz) was leading and coordinating the activities of this working group in the first quarter of 2012.

At the beginning of 2012 still Peter Andersson (ProRail), Viktor Janz, Dirk Bartsch (DB Netz), Giulia Costagli (RFI), Michel Geubelle and Deborah Cauchie from Infrabel were the representatives of the other IMs in this WG. SBB has not yet nominated a new team member. The group conducted 2 regular meetings, due to the organisational changes within the WG organisation in 2012.

Nevertheless the WG prepared the Terminal Advisory Group (TAG) meetings in 2012. The establishment of the Terminal Advisory Group was the focus in 2012. 3 meetings took place in 2012.

On the following dates the TAG meetings took place:

- 12 February 2012
- 12 June 2012 (Joint Advisory Group Meeting together with the representatives of the Railway Undertaking Advisory Group)
- 18 October 2012

The nomination of the members of the TAG took place:

The ministries have nominated the members of the Terminal Advisory Group (TAG)

Belgium



- Port of Zeebrugge
- Port of Antwerp
- Logistics in Wallonia
- Interferryboats

The Netherlands



- ECT
- RSC
- Port of Rotterdam
- Port of Amsterdam
- EMO

Germany



- Duisport
- DUSS
- KTL Ludwigshafen

Switzerland



- Swissterminal
- SBB Cargo AG
- Schweizer Rheinhäfen

Italy



- Hupac Intermodal SA
- Port Authority Genoa
- C.I.M. S.p.a.

Figure 15: Nominated TAG members

According to article 18 (b) of Regulation (EU) No 913/2010 the Management board shall draw up, regularly update and publish a document containing the list and characteristics of terminals, in particular information concerning the conditions and methods of accessing the terminals.

Characteristics terminal 18(b)

Conditions of use of the freight corridor on the example of terminals



Functionality

- System to handling containers
 - at least between to means of transport
- Container terminals play in the context of the national an international transport routes a special role
 - Nodal point of the transport
 - Envelope beetwenn sea, rail and road
 - Combining of charges, storage and distribution of containers

Types

- Bimodal terminal
 - train and truck
 - ship and truck
 - ship and train
- Trimodal terminal

Figure 16: Characteristics of terminals (a)

On the basis of this task proposals for information gathering were elaborated and discussed in different working sessions with the TAG members. The characteristics and conditions of accessing the terminals were developed for:

- Combined traffic (see figure 17)
- example dry bulk terminals
- liquid bulk terminals and
- general cargo


Characteristics terminal 18(b) - Characteristics and conditions of accessing the terminals – example CT 	
<div> General information <ul style="list-style-type: none"> ■ Owner property: Name of the Company ■ Terminal operator: XY mbH ■ Contact: xx@a-b.com ■ Adress: City </div> <div> Characteristics <ul style="list-style-type: none"> ■ Mode: (bimodal/trimodal) ■ Modes served: (Road, Rail) ■ Opening hours: <ul style="list-style-type: none"> - (Mo-Fr from 9 to 24) ■ Availability/Location: <ul style="list-style-type: none"> - (track line Basel Mannheim; Highway A 5; Road) ■ Handling of: <ul style="list-style-type: none"> - Container 20' - 45'; swap bodies, ... ■ Services/spezials: <ul style="list-style-type: none"> - (Dangerous goods) - (Reefer) ■ Customs office (Zoll) available in terminal </div>	<div> Infrastructure Parameter <ul style="list-style-type: none"> ■ Handling capacity <ul style="list-style-type: none"> - (approx. 155.000 load units p.a.) ■ Storage capacity <ul style="list-style-type: none"> - (approx. 420 TEU) ■ Leakage capacity <ul style="list-style-type: none"> - (available, 2 TEU) ■ Rails (number/ usable length) <ul style="list-style-type: none"> - (1x 240 m) ■ Portal cranes (number/ load in t) <ul style="list-style-type: none"> - (3 with 41 t load) ■ Reachstackers <ul style="list-style-type: none"> - (1x 41 t / 15 handlings per hour) ■ Other technical systems <ul style="list-style-type: none"> - (brake test systems/track scales) ■ Electrification <ul style="list-style-type: none"> - yes, one-sided (named in German „Spitzenüberspannung“, next marshalling yard „name“) - (no, only with diesel locomotions) </div> <div> Development/special features <ul style="list-style-type: none"> ■ (E.g. good position in the near of the border beetwen D/Ch F) or other interesting facts ■ Prognosis for 20xx ■ Logistical turntable for.... </div>

Figure 17: Characteristics of terminals (b)

In the second quarter of 2012 the WG Terminals and Capacity merged together (see WG Capacity). The new WG named Infrastructure & Terminals was established. The lead was in the hands of Gabrio Caimi until October when Jan Praagman took over the working group.

By the end of 2012, 34% of the work progress has been completed whereas the group planned to complete 40%. The delay of the WG was caused by several reasons:

Information collection To make a step forward concerning the usage of the infrastructure for 740 m trains a subgroup was established in the second half of 2012.

1 What is the scope of the longer trains 740m study?

a) Rotterdam Declaration

The ministers (NL, BE, DE, CH and IT) decided on 14th June 2010 in Rotterdam (among other) to plan and realise their lines on the Corridor 1/A for longer freight trains for the benefit of their customers, the RU's:

6. endeavour to enable to run long trains at the corridor by providing at least 750 meters long tracks according to the UN ECE AGC recommended standard on train length. To achieve this it will be crucial that Infrastructure Managers shall come with an implementation plan, based on a corridor cost-benefit analysis also useful to define a possible common target date;

b) Mandate by Ministries (Executive Board Corridor 1/A)

The Mandate was given by the Executive Board to the Management Board. A temporary expert group is set in the corridor organisation under the lead of the WG Infrastructure&Terminals.

c) CER activities

Within CER the has completed „Freight Corridors and RU's Requirements“ by infrastructure and signed by RU's CEO's. A Sub-Group is working on the topic „longer and heavier trains“.

Figure 18: Scope subgroup longer trains 740m study

In a first step the development of an update of all relevant data for the corridor lines was necessary. Input from the TMS will be derived.

In August 2012 the IMs were asked to give a final list of terminals as a precondition to ask the terminals to deliver their infra-information and their network statement. This process was still pending at the end of 2012 due to the fact that in each country a fundamental process was on-going together with the relevant ministries.

Active Study with Partners

The analysis of the logistics chain is still ongoing. On the basis of Article 16.2 of the Regulation terminal representatives have been asked to participate in the development of the Train Information System (TIS).

Article 16.2 of the Regulation EC 913/2010

□ Traffic Management

....

2. The infrastructure managers of the freight corridor and the advisory group referred to in Article 8(7) shall put in place procedures to ensure optimal coordination between the operation of the railway infrastructure and the terminals.

TIS (formerly EUROPTIRAILS) will provide this requirement by programming this additional function and terminals as users in the next releases.

First step: Pilot application (pilot terminals to be nominated)

Second step: Additional comfort functions to be added and extended application for all terminals interested.

Figure 19: Article 16.2 of the Regulation (EU) No 913/2010

Active Study within WG (PSP 6.3)

WP completed.

To strengthen the cooperation with the members of the Terminal Advisory Group will be necessary too.

3.2.4 Subgroup Transport Market Study (PSP 3.4)

Short term part

The aim of the subgroup “Transport Market Study - short term part” (SG TMS ST) in 2012 was to obtain a first version of the final report of the TMS short term part (ST) which had to be consolidated with the long term part (LT) into one final document by 21 December 2012. The subgroup consists of the following representatives from the IMs:

DB Netz: Dr. Daniel Thelen (chairman)
 Infrabel: Gersende Bidelot
 ProRail/Keyrail: Eric Blaas
 SBB: Nadine Wirtzner
 BLS Netz: Eveline Lehmann, Dr. Gabrio Caimi
 RFI: Patricia Cicini.

Except from the consolidation of ST and LT parts this aim has been achieved as a first version of the final report has been handed in. The final version of the consolidated TMS is expected for early March 2013.

The TMS ST has two general aims: The first is to enable the IM – represented by the Management Committee - to offer Pre-arranged Paths (PaP) in accordance with market needs. This includes providing the necessary market information to determine the routing, terminals, and number as well as characteristics of PaP. The second aim is to enable the IMs to implement measures to increase the competitiveness of rail freight.

To achieve these aims the following key objectives have been defined:

- Analysis and evaluation of the existing situation of the entire international freight transport market on the Corridor as concerns its volume, goods structure, major trade lanes and modal split. The analysis particularly highlights the volume and structure of rail freight transport on the entire corridor and sections of the Corridor as well as the terms of competition between the different types of rail freight services and other relevant modes of transport.
- Further, the TMS ST investigated the likely short-term evolution of the demand for international rail freight services on the Corridor by 2016 and elaborated a forecast on the development of the size and structure of the future rail freight volume.
- Finally, the TMS ST assessed the requirements of the market actors with regard to the planning and management of corridor-related train paths and identified the future need for international through-going catalogue paths on the Corridor.

The means to achieve this aim was contracting a consultant with the task of writing the TMS ST and consolidating it with the TMS LT into one document. The contractor is HaCon Ingenieurgesellschaft mbH with the subcontractors KombiConsult GmbH, Panteia BV (business unit: NEA), and ProgTrans AG.

The subgroup TMS ST has undertaken the following activities for handing in the TMS:

- Selecting a consultant in a public award (tendering process) in accordance with EU/German law. This activity involved a live meeting in February 2012 (presentation of the consultants with the best offers).
- Agreeing on Terms of Reference (ToR) being the guideline for the work. This includes some modifications and streamlining of the initial version during the kick-off meeting in April 2012 which guaranteed a timely finalization of the tasks despite the tight project schedule.
- Constant monitoring of the progress. This includes:
 - Constant communication between consultants and SG TMS ST;
 - A live meeting in July 2012, in which the interim results were presented and discussed. Subsequent to the live meeting, SG TMS ST created a list with further specifications necessary to obtain a final version of the TMS ST of the quality expected;
 - A live meeting in December 2012, in which the final results were presented and discussed. Subsequent to the live meeting, SG TMS ST created a list with further specifications/modifications/correction aiming at a final report of the quality expected.

Long Term Part

In the subgroup TMS LT every IM of the Corridor was represented. Members of the subgroup were: Nadine Wirnitzer and Burghard Könnemann (SBB), Eric Blaas (ProRail), Dr.-Ing Albrecht Hinzen (DB Netz), Dr Gabrio Caimi (BLS Netz), Eveline Lehmann (BLS), Patrizia Cicini (RFI) and Gersende Bidelot (Infrabel).

The long term part of the TMS focused on the period 2015-2025 and had the goal to generate, consolidate, and describe following outputs:

- Description of the national studies, which are the basis of the long term consideration. These are usually done by the ministries by considering the whole country and not only the Corridor.
- Description of how the data for the Corridor are derived, translated into number of trains per section (for checking if the available capacity is sufficient), and coordinated between the different countries on the Corridor.
- Representation of traffic prognosis data for the time horizons 2015, 2020, and 2025. The traffic demand is represented in number of trains per section of the Corridor. This data is critical and is therefore only shown graphically in ranges, with information about the growing rate compared to 5 years before;
- Detection of bottlenecks on the network and major projects for their elimination. The major projects are listed in the investments table and the most important ones are shortly described.

The long term part is technically and politically oriented and needs close collaboration with national studies and plans in particular. Therefore, this part was executed by the involved IMs themselves. This way, a consistency between the national and the corridor study could be guaranteed, which is crucial as the projects have, both from the financial and the technical point of view, a high relevance for the whole country involved as well as the whole corridor. Finally, the resulting report of the long term part was sent to the consultants for being inserted in the final report of the TMS, and being coordinated and integrated with the short term part.

3.2.5 Subgroup Longer Trains 740m Study (PSP 3.5)

The "Subgroup 740m long trains" started the study in July 2012, to be completed by the end of 2013. First tasks were the nomination of the subgroup members and setting up the work plan. In the three meetings until December the data bases were updated, the traction and

terminal data collected and “study trains” based on the TMS study defined. New and detailed data on terminals, transition points and marshalling yards needed to be consistent for the complete run of longer trains.

Central point are the national IM studies (short and long term) regarding chances for 740m trains. Complex situations have to be analysed in detail to get serious results. Main challenge on the corridor level is the combination of technical aspects / regulations / time-of-the-day. As a quick-win, the possibility of an early introduction of 690m trains will be checked.

As example the zoom on the Belgian part: (state of work January 2013)

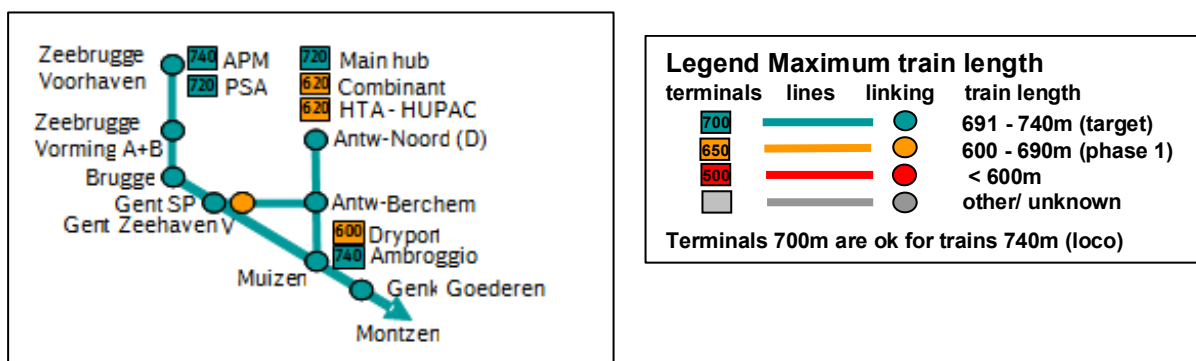


Figure 20: Display train length, example Belgium

The study reflects the main problem of the Corridor A/1: Initiated as regional lines, linked and grown up in national networks (technical and regulations) corridor lines need to be harmonized for flawless international operation. This is no easy task as national and regional interests are strong influences (e.g. financing agglomeration networks).

3.2.6 Risk Management and Chances

No risks to report.

3.2.7 Change Request Management

No changes to report.

3.2.8 Outlook

The focus in 2013 will lie on the fulfilment of obligations given by Regulation (EU) No 913/2010. This includes especially the regular update and publishing of a document containing for example the list and characteristics of terminals, as well as the capacity allocation of pre-arranged path to freight trains taking into account the access to terminals. Also the bottleneck analysis will be updated on a permanent base.

The update of the work plan will be necessary to reflect Regulation (EU) No 913/2010 and the decisions to be taken concerning the impact of the TSI CCS.

4 Traffic and Performance Management

4.1 Key Performance Indicators

Due Date of Reporting	31.12.12	WG Result [%] Plan	35	WG Result [%] Actual	25
Work Packages Total	4	Work Packages Finished	0	Work Packages Pending	4
Start	01.01.12				
End	31.12.15				

PSP	WP	Results and Milestones achieved
4.1	WG Traffic Management	Proposal for common performance schemes, Proposal for traffic management on Corridor A/1, Proposal for yearly customer satisfaction survey, Monitoring Status of TAF/TSI
4.2	SG Coordination of works	Proposal how to coordinate works Proposal how to publish capacity restrictions
4.3	SG Performance Management	Monitoring rail freight performance, Publishing results of performance monitoring
4.4	SG Cross-border issues & operations	Analysis of reasons for stops at borders, Collection of operational themes along the Corridor, Update of bilateral agreements

4.2 Work Progress

4.2.1 Achievements

Along with the reorganisation of the working groups, a new work programme has been developed and a new baseline has been set up for 2012. The WG Traffic and Performance Management consist of three subgroups which are mainly focused on fulfilment of tasks from the Regulation (EU) No 913/2010. By the end of 2012 all subgroups have been staffed and initial meetings have been organised. Nevertheless work could not be started as planned.

The WG Traffic and Performance Management works in cooperation with RNE. Hansruedi Kaeser (SBB) functions as the manager of this group as well as a link between the activities of Corridor A/1 and essential services provided by RNE.

4.2.2 Corridor Traffic Management (PSP 4.1) Traffic Management

The RNE General Assembly approved in December 2012 the Traffic Management Guidelines. These Guidelines set up an overall framework of standard procedures and tools supporting traffic management along the Rail freight corridors Rail freight corridors. These procedures represent the fulfilment of Regulation (EU) No 913/2010.

The agreed coordination procedure should be applied only if no coordination procedures are in place or if existing procedures are not working well.

Corridor A/1 has an institutional, international exchange between traffic control centres.

Monitoring TSI TAF

TSI TAF is the EC Regulation for the Railway Freight Sector on Telematic applications and TSI TAP is the corresponding Regulation for the Passenger Sector. The aim is to improve the performance of the freight and passenger traffic by an improved exchange of standardised messages between Infrastructure Managers (IMs) and Railway Undertakings (RUs). Most of the preparation work was finished by expert working groups being part of the

TAF/TAP governance structure by the end of May 2012 and resulted in the so called "Implementation Guidelines". These guidelines represented the basics for the IM and RU master plans. All the IM and RU master plan were sent in by May and the TSI TAF Deployment Team delivered a "Consolidated European master plan" in September 2012. After that many national implementation projects were started and all TSI TAF and TAP activities were joined together and the remaining work is dedicated to 4 new TAF/TAP Telematic groups. Companies were asked to deliver also the TSI TAP master plan by the end of 2012 and a consolidated "European TAP master plan" is expected in the second half of 2013. The coordination of TAF/TAP on Corridor level makes also sense, especially with regard to harmonising implementation dates, but has not yet been formally organised. The full TSI TAF implementation, originally planned for 2013, will depend on the development of Common Components, especially the Common Interface (CI). In fact, the project plan shows a full implementation not before 2020.

4.2.3 Subgroup Coordination of Works (PSP 4.2)

The task of coordination of works is getting more and more important. Major renewal works on transit lines reduce the path capacity and alternative routes should not be blocked at the same time.

Since years Infrastructure Managers are coordinating their works but mostly with a national focus. Due to the big influence on capacity the contact to neighbouring Infrastructure Managers has been made. In 2012 bilateral, trilateral and multilateral meetings between IMs have taken place in order to have a cross border coordination of works. Good examples are the renewal works of the Simplon tunnel, the helical tunnel of Varzo or the noise protection works on the Luino line.

Impacts that cannot be planned such as landslides on the Gotthard line showed the importance of international cooperation and coordination. The efforts of international coordination of works are growing and have to be improved.

Some years ago, a list of construction and renewal works with influence on the capacity has been created and published. This is the so called X-24 list which means that projects during the next two years are reported between the IMs of Belgium, the Netherlands, Germany, Switzerland and Italy.

Outlook

These coordination efforts have to be improved and managed in order to use the capacity in an efficient way and to offer the Railway Undertakings paths according to their needs.

A kick-off-meeting with the nominated specialists will be held in January 2013 in order to implement the coordination of works by November 2013 at the latest.

4.2.4 Subgroup Performance Management (PSP 4.3)

With the extension to Belgium, first steps for a new reporting have been initiated. Traffic from Antwerp to Northern Italy will be reported in order to improve punctuality. A representative of Infrabel joined the group of performance managers since 2011. Some pilot reports have been produced in 2012 and reports will be ready.

4.2.5 Subgroup Cross-border Issues & Operations (PSP 4.4)

The subgroup is a follow up activity of the working group "Operations" which has reviewed about 40 operational scenarios since its creation, trying to harmonize them for Corridor A/1. As a result at the beginning of 2012 approximately 15 scenarios have been passed to ERA asking them to include them into Annex B of the TSI Operations. It was also found out that another approximately 15 scenarios are being treated in the same way by all IMs on Corridor A/1.

10 scenarios could not be processed as different sets of rules and regulations of the affected states and their IMs did not allow an adaptation.

In the frame of the restructuring of the corridor working group activities in 2012 it was decided that a working group of operational experts is still needed to support the corridor organisation in the handling of topics from the RAG respectively the RU position paper. The focus shall be especially on the border crossings along the Corridor, themes like the implementation of TSI Operations Annex A and C, impact of different terms and conditions at the IMs (e. g. rules regarding the composition of trains, train control systems or the reducing of stops at border stations) and updating of the local operational agreements have been identified.

It is also intended to initiate further operational issues, such as the harmonization of the different train identification systems or common process for maintenance of GSM-R.

4.2.6 Risk Management and Chances

No risks to report.

4.2.7 Change Request Management

No changes to report.

4.2.8 Outlook

In 2012 regular Performance Management meeting have taken place. These meetings have been opened to all RUs on the Corridor and will be held at least four times in 2013. The production of a Performance Management handbook has started and will be finished during 2013. Elements of EPR will be taken over into the performance management.

5 Implementation of Corridor Measures by Infrastructure Managers

The following chapters refer to infrastructure projects that are being realized by each Corridor Infrastructure Manager.

5.1 ProRail

5.1.1 Key Performance Indicators

Due Date of Reporting	31.12.12	IM Result [%] Plan	88	IM Result [%] Actual	72
Projects Total	9	Projects Finished	3	Projects Pending	6
Start	03.01.00 (earliest project)				
End	31.12.15 (last project)				

PSP	Project	Results and Milestones achieved
1.1.1.1.1	Zevenaar to border electrification 25 kV AC	Initial plan study has been completed Strategic technical study completed Revision of technical study has been started Budget is approved (2012) Building licence is given (2012)
1.1.1.1.2	3 rd track (Zevenaar – border)	Initial plan study has been completed Budget is approved (2012) Building licence is given (2012)
1.1.1.2	Betuwe line	Go live (2007)
1.1.2.1	Maasvlakte 2: Extension harbour	Construction works have been completed (2012) Go-live (2012)
1.1.3.1	Electrification of marshalling yard of Kijfhoek	Initial plan study has been started Strategic technical study completed Revision of technical study has been started
1.2.1.1	ETCS Barendrecht – Kijfhoek	Building licence is given (2012) Construction started (2012)
1.2.1.2	ETCS Zevenaar to border	Building licence is given (2012) Construction started (2012)
1.2.1.3	Upgrade ERTMS Betuwe line from 2.2.2.c to 2.3.0d	Construction works have been completed (2012) Go-live (2012)
1.4	Harbour line	Havenspoorlijn Go-live (2009)

5.1.2 Work Progress

5.1.3 Achievements

By the end of 2012, the overall actual work progress sums up to 72% compared to 45% last year. With a little delay construction and planning of major infrastructure projects have been completed.

Electrification 25 kV & ECTS (PSP 1.1.1.1.1; 1.1.3.1; 1.2.1.1; 1.2.1.2)

In connection with ERTMS, the solutions for the 15/25 kV on the border section Zevenaar – Emmerich were also developed and approved. In Zevenaar the preparation for the construction of 25KV and ETCS started this year.

3rd Track Zevenaar Border – Emmerich (PSP 1.1.1.2)

In 2012 the necessary decisions were made in connection with the 15/25 kV project study. As this project is of cross-border nature, ProRail and DB Netz work closely together for the planning and layout. DB Netz will build the 3rd track in phases from Oberhausen in direction of Emmerich border. The ProRail part will fit in this planning in a seamless way, although it is foreseen to finish the construction earlier in The Netherlands than in Germany.

Betuwe Line (PSP 1.1.1.2 / PSP 1.2.1.3)

The growth of the number of trains started after the economic crisis in the last quarter of 2009 and continued, resulting in 2012 in a weekly number of trains above 420.

For the existing ERTMS installations the project to upgrade them to SRS 2.3.0d was completed successfully.

Extension of Harbour (PSP 1.1.2.1)

The formal start of the construction works for Maasvlakte 2 began in October 2009 and the works were finished in October 2012. As part of these works, which include the reclamation of 2000 ha of land from the sea for harbours, terminals and industrial activities, the Corridor is extended by a 12 km railway line. The construction of the extension of the port line equipped with ERTMS is integrated in the tender of Maasvlakte 2.

5.1.4 Risk Management and Chances

With the acceptance of the technical solutions at Zevenaar border section some important risks could be eliminated.

Although the ERTMS, 25 kV and third track projects are still complex, specific risks are not reported yet. However, ERTMS installation in this section as well as 25 kV at Kijfhoek still lacks some financing. The use of Level 1 instead of Level 2 at Zevenaar border section has been proposed which may result in operational and safety risks due to the short distance for level changes from Level 2 to Level 1 and back to Level 2. Whereas the problem identification and solution finding study for 25 kV still has to be undertaken.

5.1.5 Change Request Management

No changes to report.

5.1.6 Outlook

Looking at the actual progress of all projects, it can be expected that ERTMS will be installed and in operation along the whole corridor between Rotterdam Harbour and Zevenaar border by 2015. Also the projects to expand capacity are running successfully.

One item, the realization of non-stop 25 kV from the border to the starting point is still insecure due to the complexity and, hence, high costs at Kijfhoek.

In the Port of Rotterdam new terminals in the Maasvlakte will make possible a further increase of volumes and, subsequently, further growth of transport volumes on the Corridor.

5.2 Dutch-German Bilateral Working Group

5.2.1 Activities and Achievements

Overview

The status of specifications and design regarding the interfaces between the infrastructure of DB Netz and ProRail in the section Zevenaar – Emmerich has been elaborated by bilateral working groups and several subgroups of the common DB Netz – ProRail organisation which had been established in November 2010.

The following technical interfaces have been studied by the common organisation:

- ERTMS interface
- GSM-R interface
- Interlocking interface
- Traffic Control interface
- 25kV Traction Power interface
- 25kV Catenary interface
- 25kV Electrical grounding system interface
- Hotbox detection interface
- Environmental Impact Analysis (EIA)
- Third track interface.

Due to the fact that German and Dutch railway systems do not have standard interfaces which easily fit together, specifications and designs are needed in order to determine what will be built exactly and how technical and organizational interfaces have been defined. Finally, this will lead to agreements between ProRail and DB Netz which clearly define a plan about the scope of building activities and the related time schedule.

The projects Zevenaar – DE/NL and the Emmerich – DE/NL border are responsible for the design and construction activities between Zevenaar and Emmerich.

The main goals of the project are:

- Realisation of 25kV and 15kV
- Realisation of ERTMS
- Realisation of a third track.

Other goals of the project to be fulfilled are:

- The realisation of the communication between the German and Dutch traffic control systems in order to optimise traffic flows as a significant increase of trains is expected between 2013 and 2025;
- The realisation of a hot box detection system between Emmerich and the border to prevent trains with hot axles running into the Zevenaar tunnel.

ERTMS Interface

Based on the decisions which were made early 2010, a detailed study was performed to compare possible solutions in the border section of Zevenaar – Emmerich regarding the implementation of ERTMS Baseline 3 & PZB in Germany and ERTMS Baseline 2, V2.3.0d in the Netherlands. The study resulted in a solid technical analysis of ERTMS transitions between Level 1 in the Netherlands and Level 2 in Germany as well as Level 2 in the Netherlands and Level 2 in Germany. The transitions were elaborated for both directions from Germany to the Netherlands and vice versa.

The decision for ETCS L2 (SRS 2.3.0d) in the Netherlands was made in February 2012. In a first step the implementation will start with the transition from PZB to ETCS L2. A common Interface Requirement Specification (IRS) for Step 1 was signed in February 2013.

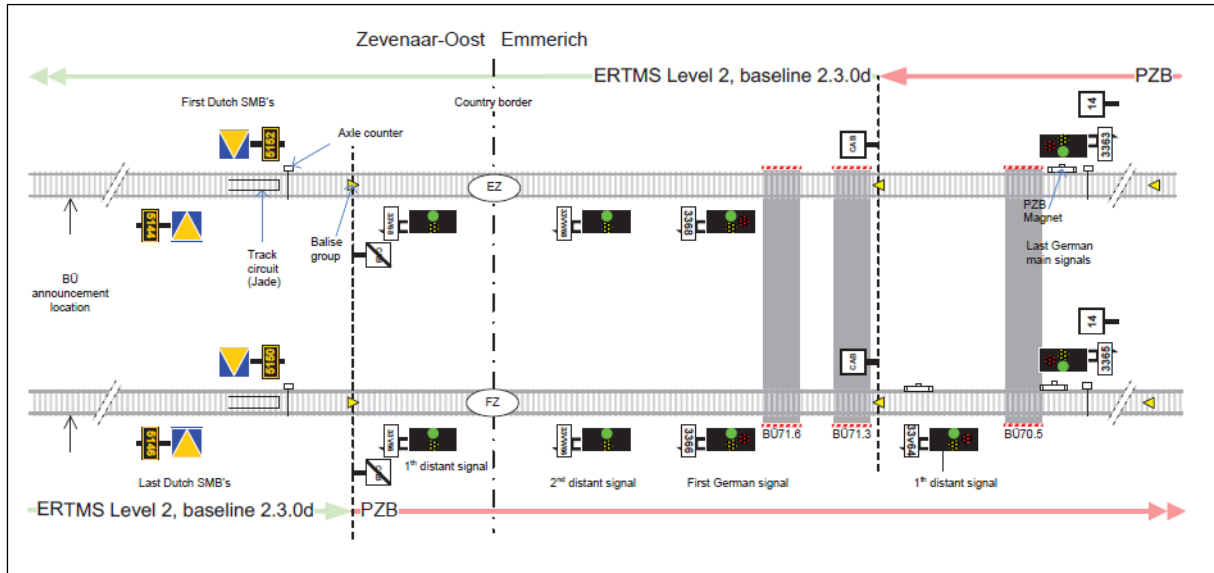


Figure 21: Interface CCS for Step 1

The final layout of the interface (ETCS L2, SRS 2.3.0d in NL and ETCS L2, Baseline 3 in Germany) can be seen in figure 22.

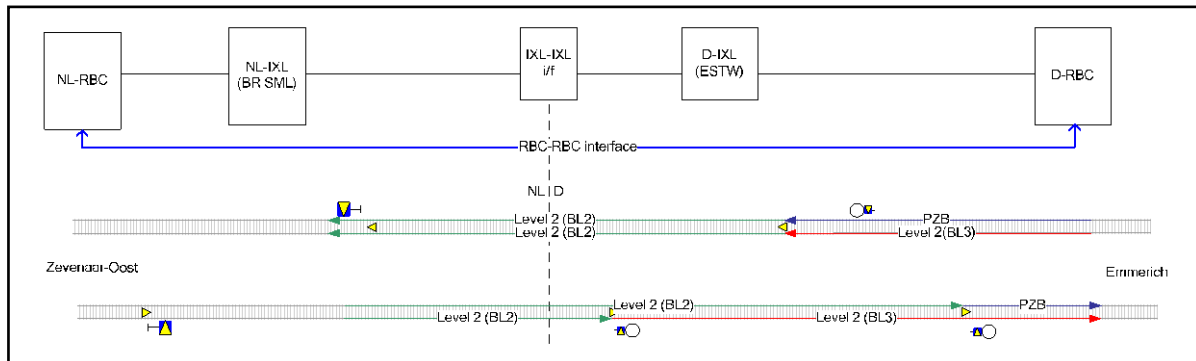


Figure 22: Level 2 – Level 2 solution border NL

GSM-R Interface

Together, DB Netz and ProRail have performed additional measurements which were used to define the final configuration on the border section. A common nominal cell plan (NCP) for the border section was planned and intended to be signed by DB Netz and ProRail at the beginning of 2013.

ProRail and DB Netz are both responsible for the changes in their own networks. Nevertheless, whenever there are combined activities possible, ProRail and DB Netz shall help each other.

Operations

All operational interfaces between ProRail and DB Netz have been described by means of operational scenarios. The scenarios detail the joint operational procedures as well as the interaction between operational staff and the systems and infrastructure in order to ensure safe and efficient operation.

The main focus in 2012 was to describe and discuss the necessary operational regulations for construction stages in 2015.

Energy (Catenary systems / Voltage Change Over 25kV Traction Power interface / 25kV Catenary interface / 25kV Electrical grounding system interface)

Based on the decisions which were made in early 2010 regarding the location of the Voltage Change Overs in Germany and the Netherlands, the activities focused on the three main interfaces to connect the Catenary and Traction Power systems of DB Netz and ProRail:

- The catenary interface between the German Re200 system and the Dutch B4 system
- The interface between the Dutch 25kV and the German 25kV traction power system
- The interface between the German and Dutch earthing/grounding systems.

For these three interfaces, suitable solutions were found to connect the German and Dutch systems.

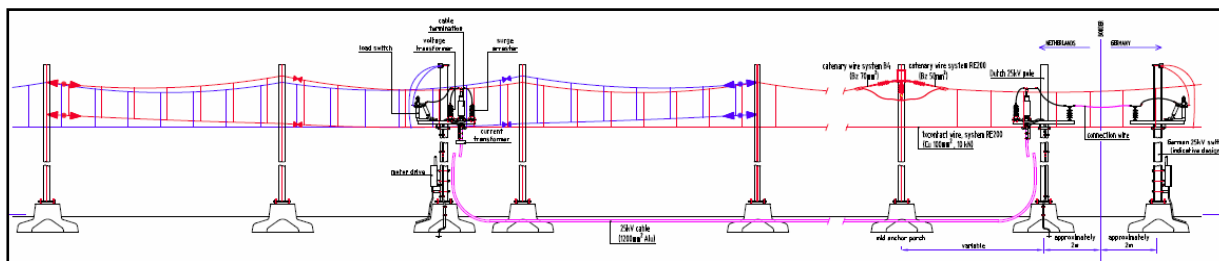


Figure 23: Detailed drawing of the interfaces

The design will comply with the TSI Energy requirements. Height of the overhead wire will be 5.5 m and trains with both 1.600 mm and 1.950 mm pantographs will be able to use the line. For each interface, technical agreements were made:

- Catenary:
 - A fixed point interface will be built on the Dutch side of the border
 - Insulated overlap will be built on the Dutch side of the border
 - Only German overhead wire will cross the border
- Traction:
 - ProRail will supply the energy which is needed for the German 25kV system.
 - Both DB Energy and ProRail can switch off the 25kV system in Germany.
- Earthing/Grounding:
 - The German and Dutch grounding systems will be connected to each other.

In 2012 the preliminary planning was completed and approved for the blueprint planning.

Hot box detector

In the present situation, a hot box detection system has been installed at the Dutch-German border to prevent trains with a hot axle to enter the tunnel Zevenaar. In the future situation, the location of the Dutch hot box system at the border will have to be shifted into the direction of Emmerich because of the higher speeds.

ProRail is responsible for the realization of the shifting of the hot box detection system which is now located at the border.

DB Netz will assist ProRail in the procurement and the project management of these activities which will take place in Germany on the infrastructure of DB Netz.

The type of hot box, which is going to be build, should have an admission for TEN-High-speed tracks in both countries Germany and the Netherlands.

In the figure below, the new location of the hot box system has been indicated

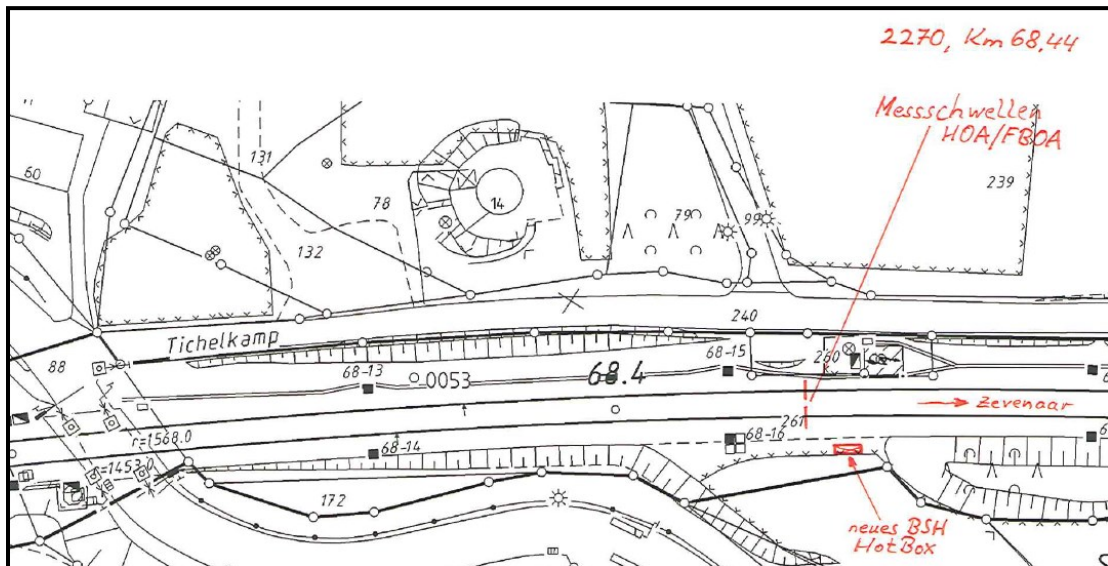


Figure 24: New location of the hot box detection system

Environmental Impact Analysis (EIA)

The Dutch environmental impact studies were laid open to public in Emmerich in September 2012. The completion of the German environmental impact studies will be in 2013 because of continuing clearance with the corporation of Emmerich.

Third Track

In 2012 the exact location of the tracks at the border and the design parameters for the new track on both sides of the border have been harmonized and defined. This information has been combined in a common DB Netz - ProRail design drawing (draft).

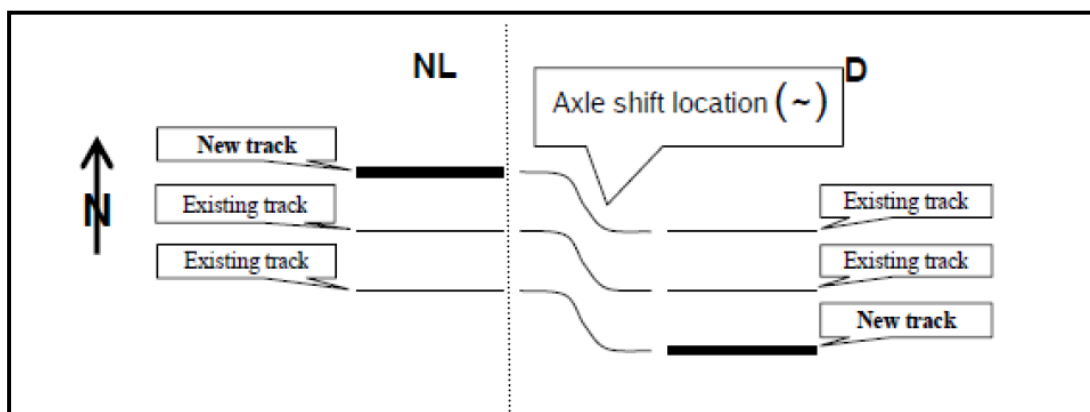


Figure 25: Overview axle shift third track



Expectations for 2013 include:

On-going planning will lead to first construction stages (ETCS in the Netherlands, PZB in Germany) by the end of 2014.

The extension of the Dutch GSM-R network in Germany has been scheduled before the tests of the ERTMS – PZB transition start (1st quarter of 2014).

Operational aspects regarding the offering & accepting of trains have to be discussed in more detail before this can be implemented.

The document Operational Scenario's Zevenaar – Emmerich will be amended in the near future with respect to the implementation of ERTMS Level 2 on the Dutch side of the border. It is also expected that a joint DB-ProRail approach will be discussed further; it shall be agreed how to inform the Railway Undertakings on the operational implementation of ERTMS, 25kV and the third track.

Energy

Start of the blueprint and approval planning in 2013

Hot Box Detectors

It seems most appropriate for ProRail to ask DB Netz Duisburg to organise the realisation of the hot box system in Germany and to interface the system at the border between Zevenaar and Emmerich.

Third Track

The planning approval documents (expert opinions on noise emissions and vibrations, environmental impact study) will be completed for the planning approval section 3.5 Elten. Parallel to this action, first discussions of coordination about the continuation of the blueprint planning will occur (for example: positions of signals).

5.3 Infrabel

5.3.1 Key Performance Indicators

Due Date of Reporting	31.12.12	WG Result [%] Plan	23	WG Result [%] Actual	23
Work Packages Total	10	Work Packages Finished	1	Work Packages Pending	9
Start	03.01.2010				
End	31.12.2025				

PSP	WP	Results and Milestones achieved
2.1.1.1.1	Level Crossing removal	Ongoing, in 2012 one level crossing was removed
2.1.1.1.2	Side tracks 750 m	Ongoing
2.1.1.2	Brugge - Dudzele L51, L51A, L51C construction 3rd track	Building licence
2.1.1.3	Gent - Brugge L50A-B 3rd and 4th track	Building licence + Start of construction
2.1.1.4	Construction curve Ter Doest	Go Live (2012)
2.1.1.5	Junction Ledeberg, Melle and Schellebelle + Merelbeke	Initial plan study
2.1.2.1	Master plan port of Zeebrugge	Zwankendamme: initial plan study
2.1.2.2	Port of Antwerp	2nd access: Initial plan study
2.1.3.1	Hasselt tracks reorganisation	Initial plan study
2.2.1	ETCS Equipment	Belgian part foreseen to be equipped by 2020

The work packages of Infrabel were integrated in the business plan in 2011, the monitoring of the work progress (baseline) has started in 2012.

5.3.2 Work Progress

5.3.3 Achievements

In July 2012, a new division dedicated to the development of rail freight corridors through Belgium was created within the direction "Access to the Network". This led to a change in the representation of Infrabel in the Management Committee of the Corridor.

The multiannual investment plan (2013-2025) for which the financing was to be negotiated with the government in 2012, was not approved yet at the end of 2012 and a fourth scenario was elaborated. It is foreseen now that the investment plan will be approved in June 2013 after consultation of the Regions. This means that for a number of projects the financing is not secured yet and a number of projects are scheduled to be moved back in time.

One of these projects is the construction of the second access to the port of Antwerp, whose realisation will depend on additional financing. The aim of this new infrastructure is to enhance the possibilities of circulating between the main hub in Antwerp-North and the station of Lier. The routes are being studied and a decision should be taken by the Flemish

Region in the second half of 2013. Another important project in the port of Antwerp, the Liefkenshoek Rail Link, connecting the left bank with the right bank of the river Scheldt, is scheduled to be put into service in 2014.

Regarding ETCS, Infrabel is carrying out its Master plan ETCS, which was approved in June 2011 and aims at equipping its whole network by 2022. The Belgian part of the Corridor is foreseen to be fully equipped by 2022.

On the 5th of November 2012 the curve “Ter Doest” was put into service. This 1.7 km link between the rail systems of the Eastern and Western areas of the port of Zeebrugge prevents unnecessary train movements, since trains no longer have to go to Bruges and back in order to reach the other area of the port.

A number of major infrastructure works are ongoing or are being planned in the port of Zeebrugge aiming at increasing the capacity for receiving and sending trains to and from this port, such as the new arrival and departure yard with 24 electrified tracks near Zwankendamme and the expansion of the current yard. Others concern the access to the port, such as the third track between Dudzele and Brugge and the 3rd and the 4th track between Brugge and Gent. The railway investments contribute to the further improvement of intermodal, sustainable transport.

5.3.4 Risk Management and Chances

Infrabel is still awaiting the approval of its multiannual investment plan (2013-2025) by the Federal Government after a fourth scenario has been elaborated. Depending on the choices that will be made, this will have an influence on the investment projects planned along the Belgian part of Corridor A/1.

5.3.5 Change Request Management

Due to the insecurity of financing, some projects are postponed or will be realised at a later date as planned (e. g. track reorganisation Hasselt).

5.3.6 Outlook

In accordance with the available budget projects will be continued in 2013.

5.4 DB Netz

5.4.1 Key Performance Indicators

Due Date of Reporting	31.12.12	IM Result [%] Plan	73	IM Result [%] Actual	56
Projects Total	82	Projects Finished	23	Projects Pending	59
Start	02.01.84 (earliest project)				
End	15.12.2030 (last project)				

PSP	Project	Results and Milestones achieved
3.1.1.1.1.1	Emmerich – Oberhausen/ 1. stage: Node Oberhausen	Go-live (2004)
3.1.1.1.1.2	Emmerich – Oberhausen/ 2. stage: Electronic Interlocking	Initial plan study completed (2003) Budget approved (2003) Building licence granted (2008) Start of construction (2008) Start of acceptance and certification (2010/2011) The first part of ILX Emmerich was going into service in September 2012. (Emmerich – Wesel) The second part (Wesel - Oberhausen will go into service in 2013
3.1.1.1.1.3	Emmerich – Oberhausen/ 3. stage: 3rd track	Initial plan study completed (2008) Preparation for the planning approval procedure finalised, except Zevenaar – Emmerich (2009) Start update of planning approval procedure due to BVWP-Prognosis 2025 (2010/2011/2012) Restart planning approval procedure PFA 1.1., 3.1 and 3.3. (2011) Open the planning approval procedure for PFA 1.4 and 3.2 (2011) Open the planning approval procedure for PFA 1.2, 1.3, 2.1, 2.2., 2.3 (2012)
3.1.1.2.1	Karlsruhe – Basel/ 2. stage ABS/ NBS Karlsruhe – Rastatt Süd (StA 1)	Initial plan study completed (1994) Budget approved (1994) Building licence granted (1998) Financial agreement signed (2012)
3.1.1.2.2	Karlsruhe – Basel/ 1. stage: Rastatt Süd – Offenburg (StA 2-6)	Go-live (2004)
2.1.1.2.3	Karlsruhe – Basel/ 2. stage: ABS/ NBS Offenburg – Kenzingen (StA 7)	Initial plan study completed (1998) Budget approved (1999) Preparation and process planning approval procedure on-going (2010)
3.1.1.2.4	Karlsruhe – Basel/ 2. stage: ABS/ NBS Kenzingen – Buggingen (StA 8)	Initial plan study completed (1998) Budget approved (1999)

PSP	Project	Results and Milestones achieved
	NBS)	
3.1.1.2.5	Karlsruhe – Basel ABS/ NBS Kenzingen – Freiburg – Buggingen (StA 8 ABS)	Initial plan study completed Preparation and process planning approval procedure on-going (2010)
3.1.1.2.6	Karlsruhe – Basel ABS/ NBS Buggingen – Basel (PfA 9.0, 9.2, 9.3)	Initial plan study completed Budget approved Planning approval PfA 9.2 (2010) Financing for PfA 9.2 and 9.3 (2010) Start of construction PfA 9.2 (2010) Preparation planning approval procedure PfA 9.3 on-going
3.1.1.2.7	Katzenbergtunnel (PfA 9.1)	Initial plan study completed (2002) Budget approved (2002) Building licence granted (2002) Go-Live (2012)
3.1.2.1	Terminal KV Drehscheibe Westliche Ruhr (Duisburg)	Initial plan study completed Budget approved Building licence granted Start of construction (2010) Go-live 1. Building step (2011) Start of construction 2. Building step (2012)
3.1.2.2	Terminal Köln Eifeltor	Initial plan study completed Budget approved Building licence granted Start of construction (2009) Go-Live (2012)
3.1.2.3	Terminal Basel	Go-live (1999) Continuously extended afterwards
3.1.2.4	Terminal Basel (Southern access)	Initial plan study completed Budget approved Building licence granted
3.1.3.1.1	Marshalling Yard Oberhausen Osterfeld 1. stage	Go-live (2008)
3.1.1.3.2	Marshalling Yard Oberhausen Osterfeld 2. stage	Initial plan study completed
3.1.3.2	Marshalling Yard Duisburg-Ruhrort Hafen	See 2.1.2.1
3.1.3.3	Marshalling Yard Köln Gremberg (North-South system)	Go-live (2011)
3.1.3.4	Marshalling Yard Köln Gremberg (South-Nord system)	Initial plan study (2007) Approval of budget (2007) Building licence (2007) Start of construction (2008) Go-live 2011
2.1.3.5	Marshalling Yard	Go live (2004)

PSP	Project	Results and Milestones achieved
	Mannheim (West-East system)	
3.2.1.1 – 3.2.1.16	ETCS projects (16 projects)	Emmerich – Oberhausen: plan study started (2008) Emmerich – Oberhausen: plan study completed (2009, update in 2011 due to decision of NL to implement L1 on Dutch side) Opladen (Solingen 1. BS): plan study completed (2009) Sections between Darmstadt (2.2.1.8) and Basel (2.2.1.16): plan studies completed (2009) Basel: Initial plan Study completed (2010)
3.2.2.1 – 3.2.2.35	Electronic interlocking projects (35 projects)	Emmerich (ESTW-A Elten, Empel-Rees, Mehrhoog, Wesel): Go-Live (2012) Troisdorf: go-live (2001) Osterspai: go-live (2007) Duisburg Wedau: go-live (2006) Opladen (Solingen 1. BS): initial plan study completed (2009); Approval of budget; building licence; approval for realisation (all 2010); start of construction works (2011) Go-Live (2012) Gremberg: initial plan study completed; approval of budget; start of construction works (all 2010), go-live (2011) Rechter Rhein (2. BS): construction works ongoing Bensheim (ILX Nördliche Bergstrasse): initial plan study completed; approval of budget; start of construction works (all 2010), partially go-live (2011); Go-Live (2012) ILX Südliche Bergstrasse: Go-Live (2012) Karlsruhe: Initial plan study completed (2009); approval of budget; start of construction works (all 2010), go-live (2011) Rastatt: Initial plan study completed (2009); approval of budget; start of construction works (all 2010), go-live (2011) Achern: go-live (1996) Appenweier: Initial plan study completed (2009); approval of budget; building licence (all 2010), go-live (2011) Offenburg: go-live (1997) Orschweiler: go-live (1999) Denzlingen and Leutersberg: Initial plan study completed (2009); approval of budget; start of construction works (all 2010), go-live (2011) Buggingen: go-live (2009)
3.2.3.1 – 3.2.3.11	GSM-R projects (11 projects)	Technical installations completed, adaptation on ETCS Level 2 areas are expected

5.4.2 Work Progress

5.4.3 Achievements

By the end of 2012, the actual work progress of the German projects (infrastructure, ETCS) is 56% which is just a slight progress compared to last year's 54% while planned progress in 2012 is expected at 73%. Out of 82 national projects along the Corridor, 23 could be

completed, 59 remain open or pending. Especially major infrastructure projects as “3rd track Emmerich – Oberhausen” and “ETCS deployment” are delayed and causing further backlog.

In July 2012, DB Netz was asked by the German MoT to prepare an ETCS concept for a trackside installation. DB Netz proposed a mixed level design with ETCS L2, where it was necessary due to speed or capacity, and with ETCS L1 LS, where it was sufficient. For the ETCS L2 sections, most probably 6 new electronic interlockings are required and for existing e-interlockings interfaces to connect the ETCS-centre (RBC) are necessary. Additionally terminals and related line sections to connect the Corridor have been studied and preparations for financing the pre-planning phase started.

By legalisation of Baseline 3 one fundamental prerequisite for ETCS L1 LS implementation in Germany has taken place.

Emmerich – Oberhausen (PSP 3.1.1.1.1 - 3.1.1.1.3)

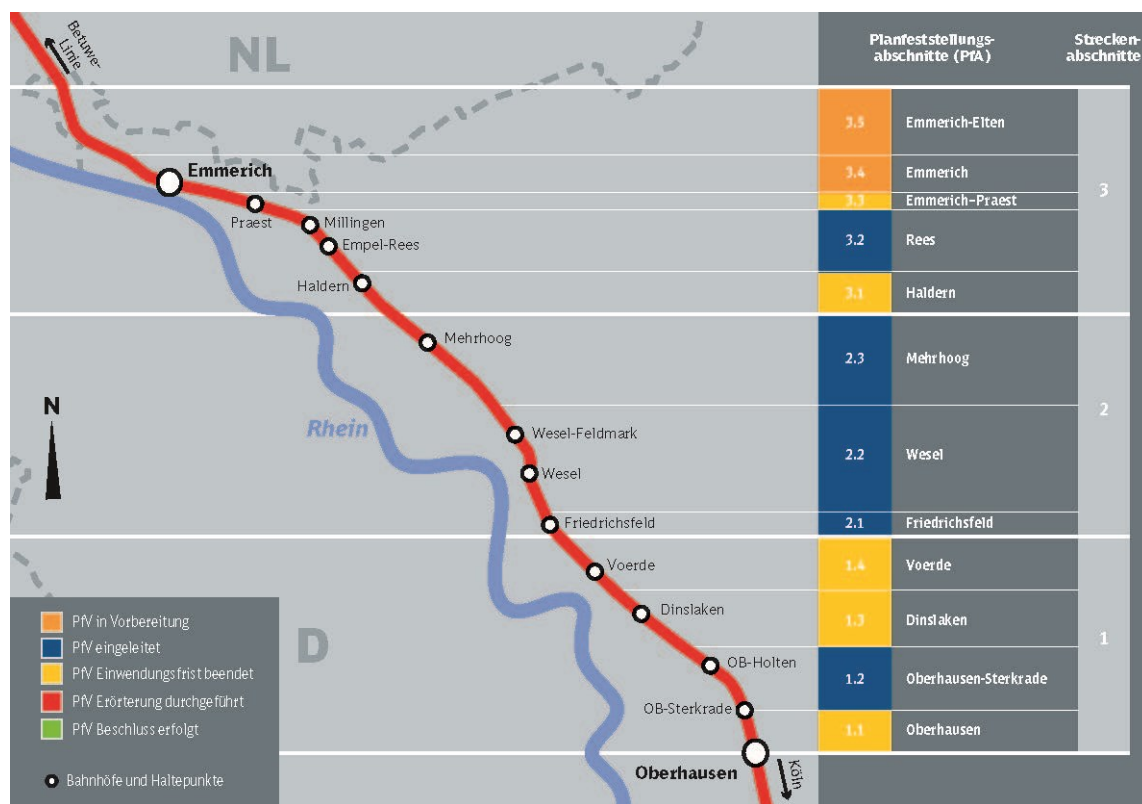


Figure 27: Update Emmerich – Oberhausen, level of planning 2012

The Emmerich electronic interlocking for the line section Wesel - Dutch/German border went into operation in May 2012.

Ten out of 12 planning approval procedures started by the end of 2012 for the third track topic. An agreement was reached with the City of Emmerich on substitutes for the elimination of the railway crossing in planning sections 3.4 and 3.5 which is crucial for starting the planning approval procedures. A cross-national master plan was prepared by the bilateral “third track subgroup”, which shows the future situation at the border region.

Further information can be found in Chapter 3.2 - Dutch-German bilateral working group.

Karlsruhe – Basel (PSP 3.1.1.2.1 – 3.1.1.2.6)

StA 1

Tender documents and procurement contracts are currently being prepared for the approximately 16 km long new build section on the most northern section of the new and upgraded Karlsruhe – Basel line, following the signing of the financing agreement between the German government and DB AG in August 2012. Preliminary construction works will begin in 2013, while construction works for the Rastatt tunnel will start in 2014.

StA 7/8

The project committee set up as a result of a political initiative by the Federal Ministry of Transport, Building and Urban Development (BMVBS) and the State of Baden-Württemberg held its constituent meeting on 5 October 2009 and its 7th meeting on 5 March 2012.

DB is in the process of completing the required in-depth studies on the comparability of an optimised line running parallel to the motorway and an optimised proposed route. The official authorisation to perform these studies was given in the project committee meeting that was held on 8 February 2011. The initial results of the noise control measures were submitted to the project committee in 2012. The studies required on additional comparative criteria (environment and nature conservation) will be performed in close consultation with the working group. Interim results will be presented at the next project committee meeting (2013).

The common goal of the German government, the State and DB must be to obtain the acceptance of rail freight operations by local residents and to minimise the impact of rail noise.

STA 9.1

The Katzenbergtunnel (PSP 3.1.1.2.3) commissioned in December 2012 in planning section PfA 9.1 (Schliengen - Eimeldingen), including connections to the existing line in the North and South of Schliengen and Eimeldingen.

The 9.4 km long tunnel is the biggest civil structure of the project and a direct link between the stations Bad Bellingen and Efringen-Kirchen. Due to the new alignment a significant improvement of travel time and more operational flexibility can be achieved. The Katzenbergtunnel is designed according to the latest international standards with two single lined tunnels and cross-cuts every 500m. In addition to that the Katzenbergtunnel is the first high speed railway tunnel in Germany with emergency routes accessible by vehicles and hence meets the highest safety requirements.

The drilling works started with the launching of the tunnel boring machines (TBM) in June 2005 for the Eastern tunnel and 4 month later in October 2005 for the Western tunnel. With the breakthrough of TBM East on 20/09/2007 and TBM West on 01/10/2007 the drilling works were finalized within the scheduled timeframe. Throughout construction 63,000 pre-cast reinforced concrete segments were installed and 1.8 Mio m³ solid soil was excavated. Conveyors were used to transport the soil to a quarry nearby for disposal. The civil works were finalized in 2010 with the installation of the slab track system. In a final phase in 2012 the overhead line and other technical equipment has been installed.

Setting up operation of a new railway section is a complex process with assigned tasks, duties and responsibilities. The TSI and TEIV (Transeuropäische Eisenbahn Infrastruktur Verordnung) infrastructure requirements must be kept in order to obtain the permit for going operational. A clear and common understanding of all involved parties is the basis for a successful commissioning. A clear organizational structure was set up in order to define all responsibilities and interfaces. The organization comprises a parent steering committee, a steering committee and different working groups.

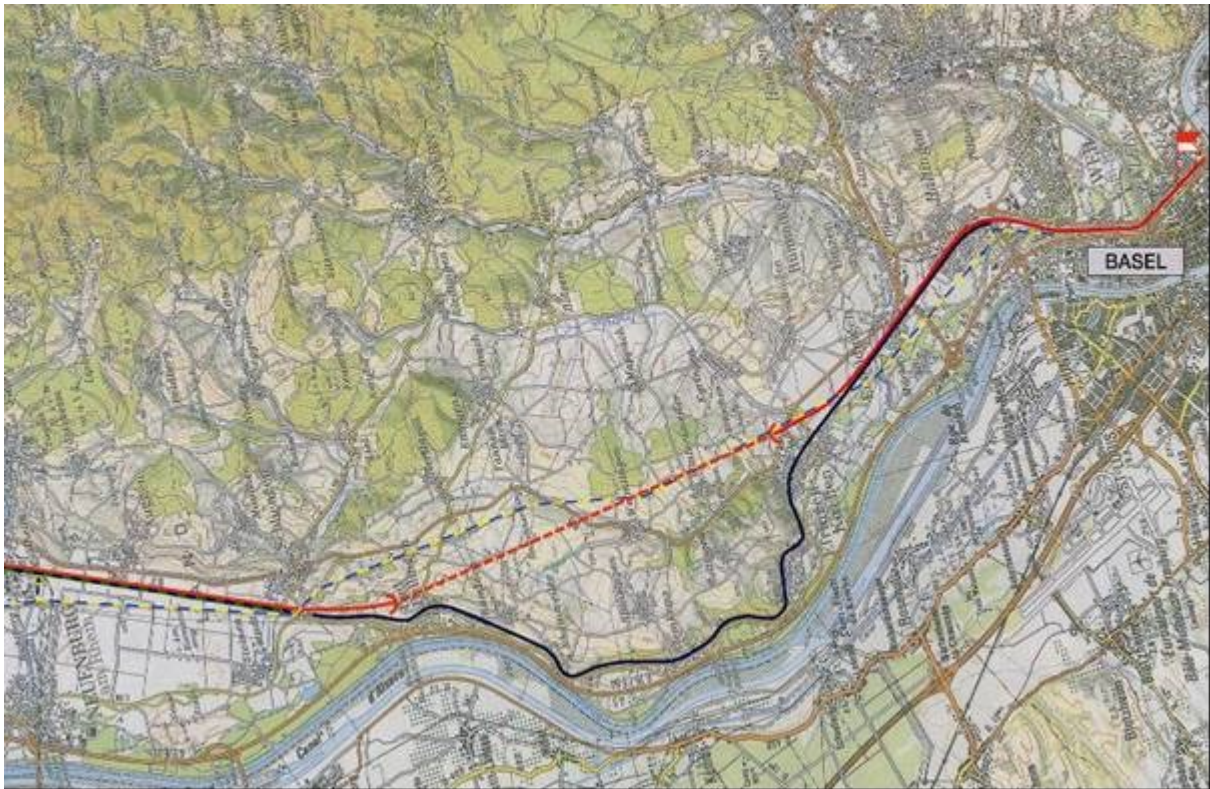


Figure 28: Karlsruhe – Basel; Katzenbergtunnel

Construction in section 9.2 began in the last quarter of 2010. The connection of the second Rhine-bridge took place in December 2012.

PfA 9.3 is on Swiss territory; to start the planning approval procedure is now expected due to an architectural competition, preceding the approval procedure in 2014. The initial construction will start in 2015.

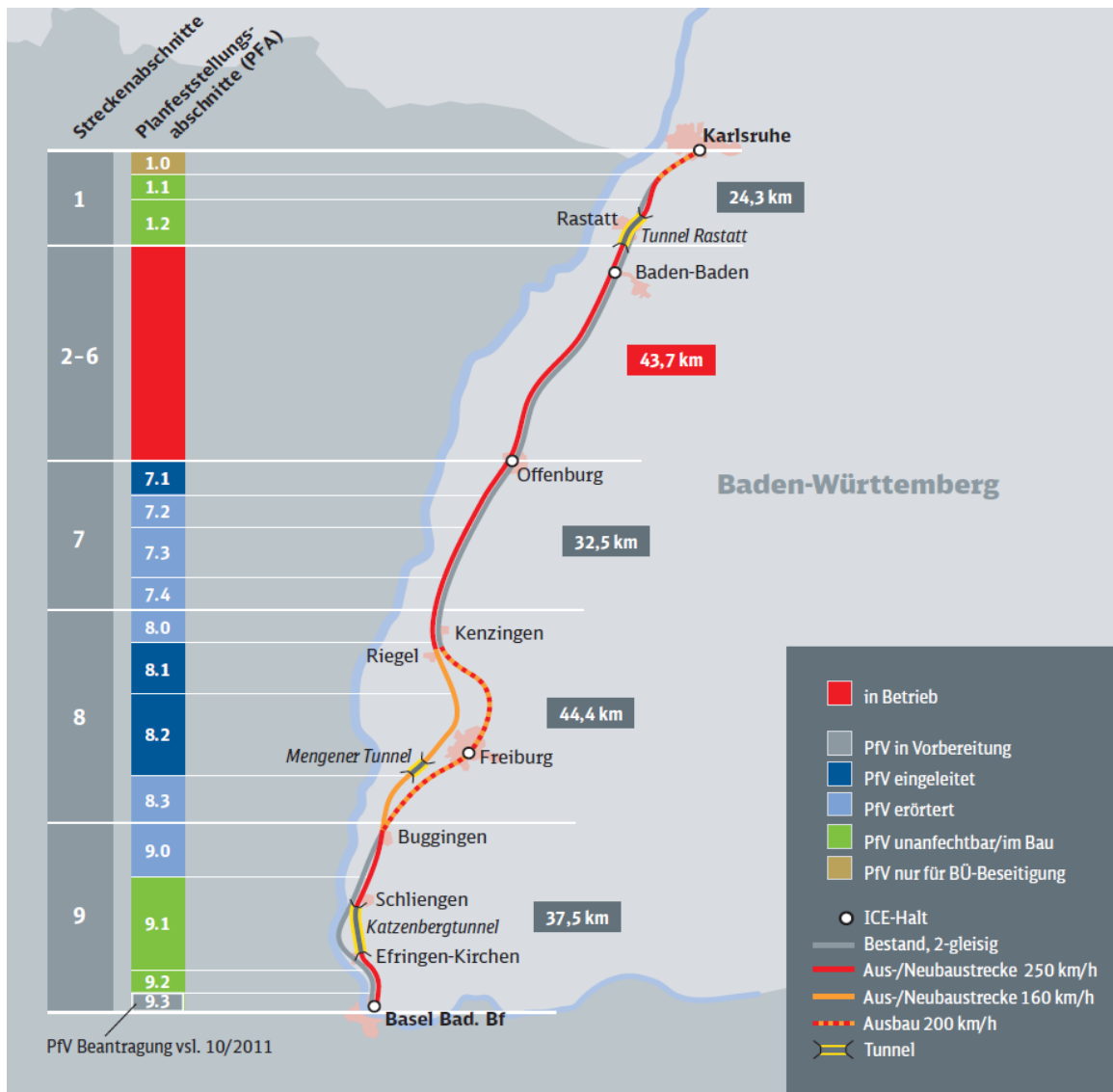


Figure 29: Update Karlsruhe – Basel planning 2012

ETCS Projects – 16 Projects (PSP 3.2.2.1 – 3.2.2.16)

Due to the decision of the German MoT the ERTMS projects are on hold. Nevertheless, the financing activities for the Corridor will be an on-going process between the German MoT and DB Netz.

An exception is the section Emmerich – Oberhausen financed out of the “Bedarfsplan”, where in 2011/2012 a detailed study was performed to compare possible solutions in the border section of Zevenaar – Emmerich regarding the implementation of ERTMS Baseline 3 & PZB in Germany to ERTMS Baseline 2, V2.3.0d in the Netherlands. The decision to realise the preferred transition from ETCS L2 (SRS 2.3.0d) in the Netherlands to PZB/ETCS L2 (Baseline 3) in Germany was made in February 2012.

Because of the different schedules for ETCS realisation in NL and D, the project was divided in different steps. These steps are:

1. ETCS implementation in the Netherlands with transition from ETCS L2 (NL) to PZB (D) (step 1)
2. ETCS L2 (Baseline 3) in Germany with transition from ETCS L2 (NL) to PZB/ETCS L2 (D)

For step 1 a common interface requirement specification (IRS) was signed between DB and ProRail in March 2013.

Electronic Interlocking Projects – 35 Projects (PSP 3.2.3.1 – 3.2.3.35)

All e-interlockings financed out of the German Recovery Programme (GRP) had their go-live at the end of 2011 respectively early 2012 (all remote controls; e-interlockings Gremberg, Bensheim with Darmstadt-Eberstadt and Karlsruhe Gbf) as shown in figure 30.

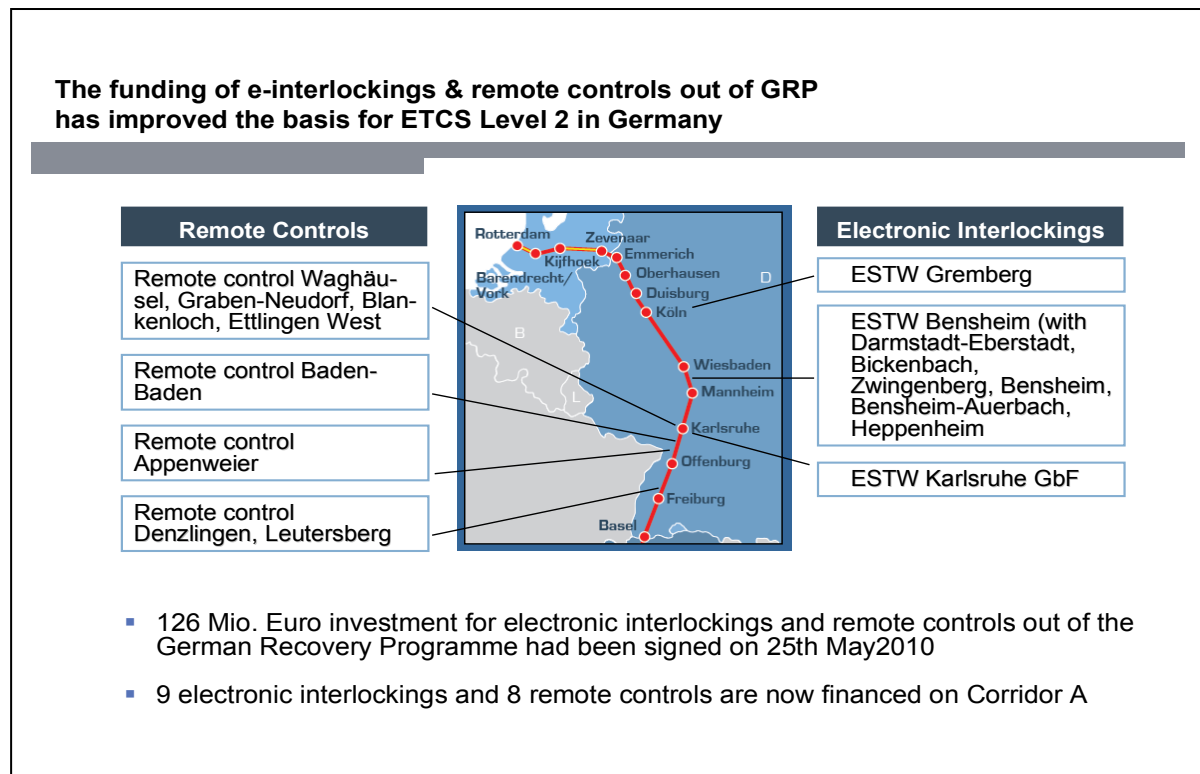


Figure 30: Overview Remote Controls / Electronic Interlockings

GSM-R – 11 Projects (PSP 3.2.3.1 – 3.2.3.11)

Activities concerning GSM-R are depending on the activities of the trackside implementation of ETCS Level 2. Parallel to the planning of the ETCS projects, it has to be clarified if the existing GSM-R network has to be adapted.

5.4.4 Risk Management and Chances

With regard to the implementation of ETCS on the German corridor sections the pending decision concerning financing the trackside ETCS equipment leads to an implementation after 2015. The German MoT will give its indication according to the new timeline for the realisation of TSI CCS.

The risks to be mentioned are the timeline for the realisation of ETCS which cannot be evaluated seriously due to the open question of financing.

Due to the necessity to update the planning documents for the 3rd track of Emmerich - Oberhausen and to restart planning approval procedures started in 2011, the actual commissioning date cannot be determined.

The expected rise in freight traffic (even dangerous goods) leads to critical discussions with concerned communities regarding major investment projects such as Emmerich-Oberhausen and Karlsruhe-Basel. This leads to time risks and higher investment volumes if e.g. planning approval procedures are extended by objections and lawsuits.

In general, procedures in the construction law proceedings are delayed by political influence, studies of new versions (including key demands of the region) as well as legislative and policy changes. This has a major impact on PfA 7 Offenburg – Kenzingen. It was decided to look on a scenario called “Offenburger Tunnel” and a second scenario called “Autobahnparallele”.

Therefore, a specification of the timing of the planning approval (building law) is currently not possible. This development has an impact on all infrastructure projects and leads to unpredictable timelines.

5.4.5 Change Request Management

Due to the financial framework for ETCS, the baseline containing all corridor projects of DB Netz will be adapted in 2012 without changing the overall scope.

The timeline for projects concerning the realisation of Karlsruhe-Basel leads to uncertainties due to political influence, studies of new versions (including key demands of the region) as well as legislative and political changes. The commissioning of the infrastructure projects cannot be predicted before the planning approval procedure has been finalised.

5.4.6 Outlook

The main emphasis in 2013 will be the realisation of building activities:

1. Emmerich – Oberhausen (PSP 2.1.1.1.1 - 2.1.1.1.3)

- Hot box detection systems – start of building – 3 hot box detection systems
- Switch renewal – start of building – 2 different projects - Go-live electronic interlocking 2. Step (Oberhausen – Wesel) in Sept. 2013 Track renewal – start of building - 8 different projects
- Realisation of planning approval procedure for increasing the number of block sections
- Open the planning approval procedure for all remaining sections PFA 3.4 and 3.5

2. Karlsruhe – Basel (PSP 2.1.1.2.1 – 2.1.1.2.2.6)

The execution of the architectural competition and preparing documents for approval procedure is ongoing.

3. Electronic Interlocking Projects – 35 Projects (PSP 2.2.3.1 – 2.2.3.35)

For the section of Karlsruhe-Basel the decision of the concept in the node of Basel has to be taken. The connecting line sections to the terminals along the Corridor and the extension of activities to Antwerp and Zeebrugge are part of the Corridor 1 and have to be regarded in the development.

5.5 Swiss – German Bilateral Working Group

5.5.1 Activities and Achievements

The cross border activities between Haltingen and Basel SBB have a complex structure due to the realisation of several infrastructure projects in Germany and Switzerland – e.g. reconstruction of the node of Basel (see figure 31), as well as the ABS / NBS Karlsruhe – Basel, and a new bridge over the river Rhine. While reconstructing the node of Basel, framework ETCS installation has to be integrated during many different building steps.

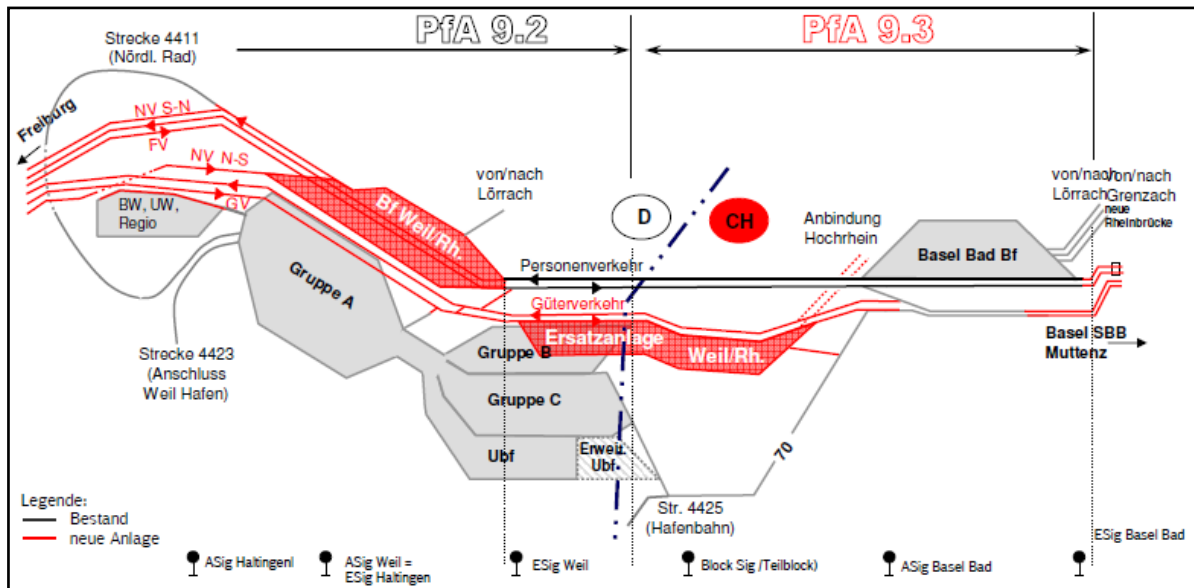


Figure 31: Planning approval sections node of Basel

Border Section Node of Basel - Progress in 2012

- 14.02.2012: Letter from BMVBS (German MoT) to DB Netz AG stating that the equipping concept for the node of Basel has already been definitely refused by EBA.
- 05.03.2012: Answer from DB Netz to BMVBS stating that from the DB perspective EBA has not refused the equipping concept and that ETCS equipment of the node of Basel, as being part of the Corridor A, was still necessary according to the TSI CCS, despite the STM decision.
- 18.09.2012 Conclusion of a licence agreement between DB Netz and Siemens AG for testing ETCS L1 LS (D) in 2013 in Weil am Rhein.
- 27.11.2012: Meeting with EBA, BAV, DB Netz and SBB Infrastruktur in Munich: In a first building step, the node of Basel will be equipped with EuroSignum/EuroZUB. ETCS L1 LS (D) will be contracted within the framework of the project Karlsruhe-Basel PfA (planning approval section) 9.3

5.5.2 Outlook

Expectations for 2013 include:

Licence agreement for the node of Basel:

Drafting a new licence agreement for testing ETCS L1 LS (D) on the line section Basel Bad station – Klein Hünningen port – Rhine bridge on Swiss territory with obtaining the approval of the concerned Infrastructure Manager resp. land owners (SBB, HSB, municipality of Basel, canton of Basel) and the required legal approvals from the State and the canton.

Plan approval documents for Basel Bad Bf shall be prepared as well as finalised and the plan approval process with BAV for Basel Bad Bf will start. This was postponed because of an architectural competition for about 1 year.

5.6 SBB Infrastruktur

5.6.1 Key Performance Indicators

Due Date of Reporting	30.12.12	IM Result [%] Plan	44	IM Result [%] Actual	50
Projects Total	8	Projects Finished	0	Projects Pending	8
Start	01.01.90 (earliest project)				
End	31.12.25 (last project)				

PSP	Project	Results and Milestones achieved
4.1.1.1.1	Gotthard base tunnel	Initial plan study completed (1997) Budget approved (1996) Building licence granted (1996) Breakthrough at GBT in 10/ 2010 East tunnel Breakthrough West tunnel in 2011
4.1.1.1.2	Ceneri base tunnel	Initial plan study completed (1997) Budget approved (1996) Building licence granted (2006) Drilling works on-going (42% completed)
4.1.1.1.3	Basel – Chiasso headway reduction	Initial plan studies finished Construction on-going (1 st project Axentunnel) Construction (2 nd project Castione) started in 2009 Progress of works as planned
4.1.1.2.1	Cadenazzo – Pino (Capacity increase)	Initial plan study started (2009) Progress of works as planned
4.1.1.3.1	Bern – Thun headway reduction	Initial plan study for final project started in 2009 Progress of works as planned
4.2.1.1	ETCS Basel – Gotthard – Chiasso	Initial plan study completed (2006) Budget approved (2006)
4.2.1.2	ETCS Basel – Gotthard – Belinzona – Pino	Initial plan study completed (2006) Budget approved (2006)
4.2.1.3	ETCS Basel – Lötschberg – Simplon – Iselle -Domo	Initial plan study completed (2006) Budget approved (2006)

5.6.2 Work Progress

5.6.3 Achievements

By the end of 2012, the overall actual work progress sums up to 50% versus 44% of planned work progress. Due to good progress at GBT works, SBB are again ahead of schedule.

Gotthard and Ceneri Base Tunnels (PSP 3.1.1.1.1 and 3.1.1.1.2)

Works at the Gotthard base tunnel broke through on 15 October 2010. As a result of the excellent progress of the construction works, Alp Transit Gotthard AG revised its time schedule. Subsequently, the commissioning and handover of the tunnel to its future operator SBB Infrastruktur is now scheduled for the end of May 2016. In spite of the early commissioning date the process of testing, trial operation and authorization will not be affected and the starting date of the commercial operation by SBB remains unchanged.

Stand der Arbeiten, 1. Januar 2013

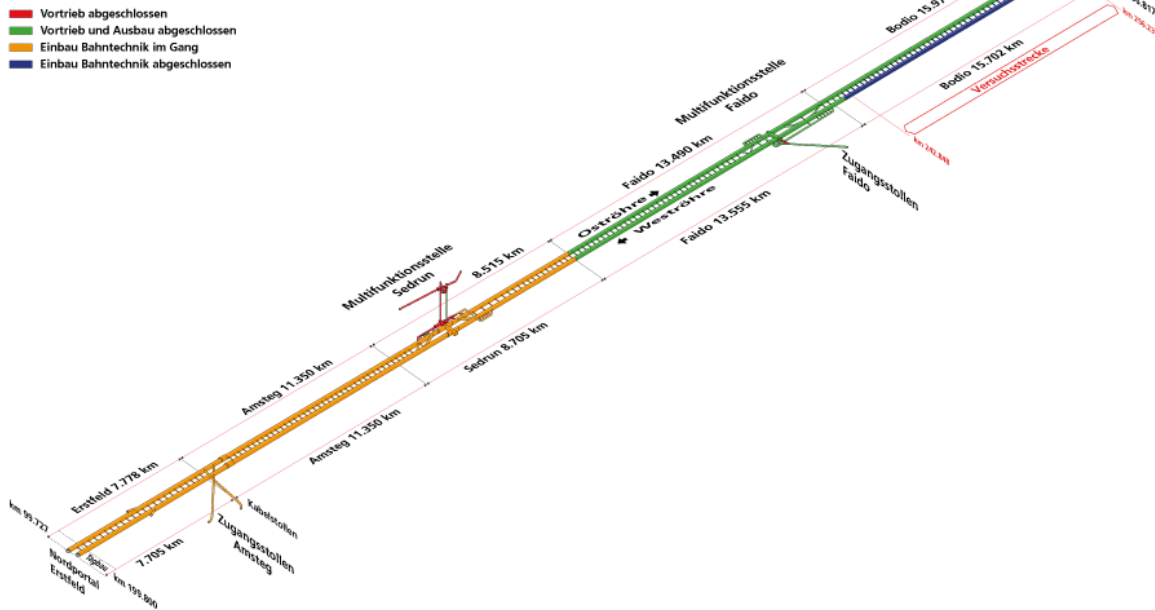


Figure 32: Drilling works at Gotthard base tunnel (31.12.12)

Stand der Arbeiten, 1. Januar 2013

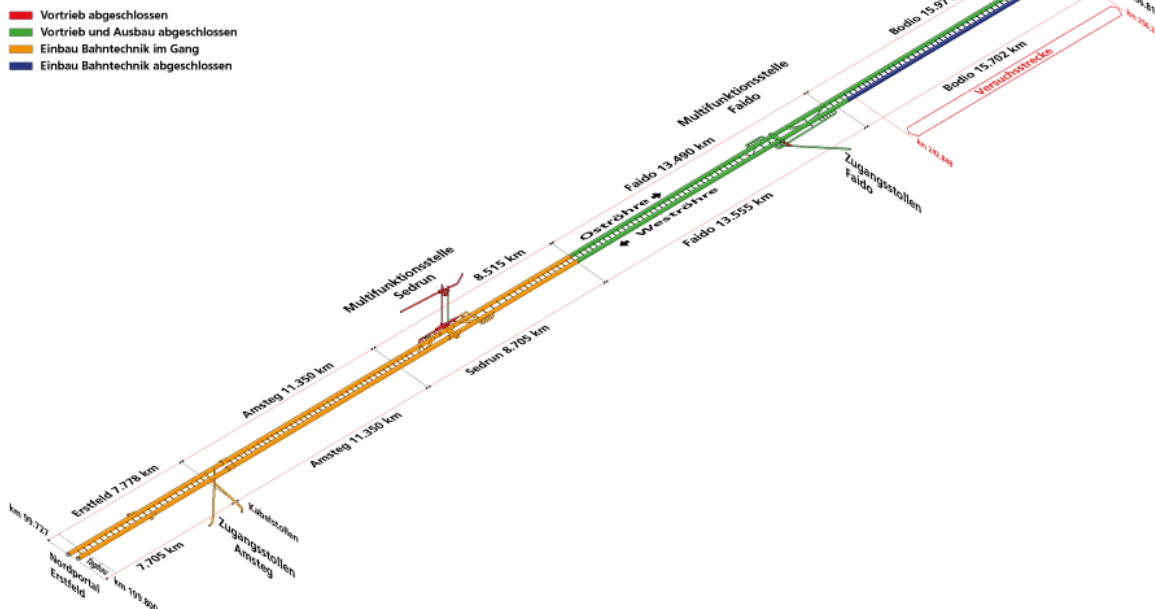


Figure 33: Drilling works at Ceneri Tunnel (31.12.2012)

Implementation of ETCS is on schedule; in 2012 suppliers have been contracted and installation of balises has started on the corridor lines.

5.6.4 Risk Management and Chances

The major risk rated A1 regarding braking curves / ETCS L1 LS which jeopardized the performance of trains / lines operated in ETCS L1 LS mode could be mitigated in 2009.

5.6.5 Change Request Management

No changes to report

5.6.6 Outlook

In 2013 several important topics are on the agenda. The financing of the railway infrastructure will be a major discussion. The preparation of the 4 meter gauge for the Gotthard and Ceneri base tunnel branch line has to be done. The new access charging system will be implemented in time in January 2013 as foreseen.

5.7 BLS Netz AG

5.7.1 Key Performance Indicators

Due Date of Reporting	31.12.12	IM Result [%] Plan	80	IM Result [%] Actual	80
Projects Total	2	Projects Finished	1	Projects Pending	1
Start	01.01.90 (earliest project)				
End	31.12.30 (last project)				

PSP	Project	Results and Milestones achieved
3.1.1.3.2	1 st stage of Lötschberg	Go-live (2007)
3.1.1.3.3	Completion of Lötschberg	Project start scheduled for 2025 Variants and conditions for further expansion of LBT are identified

5.7.2 Work Progress

5.7.3 Achievements

Lötschberg Base Tunnel (PSP 3.1.1.3.2)

Since the opening of the Lötschberg Base Tunnel (LBT) on the 9th of December 2007 more than 158'000 freight and passenger trains passed the almost 35km long tunnel. The average utilisation of the LBT is almost 80% of the available train paths, on peak days it reaches regularly 100%.

After more than 5 years of full service on the first NEAT-Axis (Neue AlpenTransversale) BLS Netz as Infrastructure Manager draws a positive balance: Infrastructure and the operational concept work well. The LBT has an availability of almost 99.9% - which means only one out of 1000 trains is not able to pass the tunnel due to a technical problem of the infrastructure. Two longer interruptions of service on the Gotthard-Axis in June and November due to landslides showed the importance of having two complementary transit lines through the Swiss Alps. During June 2012 extraordinary measures - with the acceptance of a loss in punctuality for all trains - allowed the transit to a maximum quantity of trains on the Lötschberg-Axis (LBT and mountain line). On the 12th of June a peak of 113 freight trains (with 148'225 gross tons) has been reached.

Performance Management and Data Quality

For improvements in the daily work, institutionalised information exchange and regular bilateral meetings with the involved IMs and RUs continued. New reporting tools based on international TIS Data improved the information about the quality of selected traffic on the Corridor as a basis for the performance manager work.

In workshops among all involved parties operational problems on the border line between Brig and Domodossola have been evaluated. Several measures to improve quality have been introduced. For example better information processes in case of disturbances within the different IMs and RUs went into force last year.

Still open is the next step in the CCL³ project which SBB started together with RFI and BLS in 2010. The full integration of train running data from Italian database in the dispatching systems of the BLS traffic control centre in Spiez is planned in 2013. Subsequently, real-time data for dispatching will be fully available as well as better data in TIS/EPR for analysis by the performance management.

³ CCL = controllo circolazione linea; Italian system for communication of train positions

5.7.4 Risk Management and Chances

No risks to report.

5.7.5 Change Request Management

No changes to report.

5.7.6 Outlook

Completion of Lötschberg (PSP 3.1.1.3.3)

Growth of transit traffic through Switzerland will continue. On the BLS network the main bottleneck for optimised operations is the Lötschberg Base Tunnel (LBT) as capacity limits are almost reached. Significant traffic increase will only be possible by upgrading the middle section of the LBT with the second track respectively in a second step the completion of the tunnel on its full length. Nevertheless the usability of additional capacity in the LBT depends also strongly on the capacity on the connecting lines (Aaretal, Simplon south side, Domodossola II and lines South of Domodossola).

Political discussions about the financing of the further development of the Swiss railway network are in a decisive phase. The Projects "FABI" (*Finanzierung und Ausbau Bahninfrastruktur*) and "BIF" (*Bahn Infrastrukturfonds*) will determine the next steps and projects. Upgrading of Lötschberg (middle section) is one of the additional proposed measures. With this official denomination, the project becomes more concrete. In the foreseen timeline a project start is now scheduled for 2025. Variants and conditions for further expansion of LBT have already been identified.

5.8 Italian – Swiss Bilateral Working Group

5.8.1 Activities and Achievements

In November 1999 a bilateral agreement was signed by the Italian Ministry of Transport and the Swiss Ministry for environment, transport, energy and communication to guarantee a competitive connection between the Italian rail network and the new rail transit through the Alps (NEAT - *Neue AlpenTransversale* or NFTA - *Nuova Ferrovia Transalpina*).

The agreement's validity ends in 2020. In order to monitor the progress of the approved actions and the quality of the traffic in general a steering committee was appointed by representatives of the Ministries. The steering committee organised itself in four working groups:

WG1 Infrastructure and Monitoring

WG2 Rolling stock, Capacity, Interoperability

WG3 Simplon Operational Agreement

WG4 Transport Policy, Road, Statistics.

WG1 follows the progress of rail infrastructure together with representative of RFI, SBB and BLS.

During 2012, the works focused clearly on the preparation and the signature of a common Memorandum of Understanding. In this document, signed by the two transport ministers Doris Leuthard (Switzerland) and Corrado Passera (Italy), the common interest in investing in rail infrastructure for freight traffic on the North-South axis (Gotthard and Lötschberg) is described. In particular, the focus was put on the enhancement of the loading gauge to P/C 80 on the Gotthard axis, giving priority to the section Basilea-Chiasso-Milano, and the construction of a terminal in the region of Milano. This way, the combined traffic will be strongly supported in its growth above-average, as the road fleet is continuously moving into the standard of trailers with 4m height, which can only be transported on rail if the loading gauge is at least P/C 80.

On the basis of this MoU, different activities were started by the Infrastructure Managers. In particular, the financing question is now actively discussed and will be finalized in 2013.

Furthermore, the demand forecast was updated and extended for the time horizon 2030. These values are coordinated with the forecast of the WG Infrastructure & Terminals of the corridor organisation.

5.8.2 Outlook

During 2013, the focus will be on the building of a common monitoring system for the measures which are described in the Memorandum of Understanding.

Furthermore, the coordination of the ETCS solution at the border section will continue with the goal of finalizing the specification and finding a final agreement of the chosen solution.

5.9 RFI

5.9.1 Key Performance Indicators

Due Date of Reporting	31.12.12	IM Result [%] Plan	(41)	IM Result [%] Actual	(34)
Projects Total	18	Projects Finished	3	Projects Pending	15
Start	02.07.01 (earliest project)				
End	30.04.26 (last project)				

PSP	Project	Results and Milestones achieved
5.1.1.1.1	Upgrade southern access Simplon/ Doubling Vignale – Arona (0264.PO)	Initial plan study completed (2004) Start of the studies for the building licence re-scheduled for 2016
5.1.1.1.2	Simplon platform (several small projects)	(*)
5.1.1.1.3	Novara Node (0223.PO)	Initial plan study started (2008) Preliminary project of the first sub-project completed. Financing not granted.
5.1.1.1.4	Linking of Novara-Domodossola track near Gozzano (0239.AM)	Initial plan study completed (2001) Budget approved (2005) Building licence granted (2007) Construction completed (2011) Go live (2011)
5.1.1.1.5	Upgrading of Novara-Alessandria line (1178.PO)	Go live (2007)
5.1.1.2.1	Luino platform (several small projects) (1282)	(*)
5.1.1.2.2	Doubling of Laveno-Luino (0265.PO)	Project start scheduled for 2016
5.1.1.3.1	Chiasso-Monza section (0266.PO)	Initial plan study completed (2003) Project start scheduled for 2016
5.1.1.3.2	Bergamo-Seregno section upgrade (0277.PO)	Initial plan study completed (2005) – building licence completed in 2012 Works start scheduled for 2017
5.1.1.3.3	1. Quadrupling of the track Rho-Parabiago 2. 3 rd track Gallarate- Rho (0294.PO)	Initial plan study completed Budget approved for the first phase Start of works begin in 2012 for the first phase
5.1.1.3.4	Giovi pass and double track Genoa –Milan (AV 20)	Executive project completed. Geognostic activities started.
5.1.1.3.5	Doubling of Bergamo – Treviglio (0222.PO)	Go-live (2007)
5.1.1.3.6	Doubling of Bergamo – Treviglio (0222.PO)	Extra measures for noise mitigation on-going (until 2014)
5.1.1.3.7	Quadrupling of Tortona-Voghera section (0286.PO)	Initial plan study completed (2006) Building licence completed (2011) Start of works expected in 2017.
5.2.1.1	ETCS Domodossola-Genoa	The whole Italian ERTMS project has been reviewed and the proposal has been presented to the European
5.2.1.2	ETCS Luino-Genoa	

PSP	Project	Results and Milestones achieved
5.2.1.3	ETCS Chiasso-Milan	Commission in December 2012 according to the provisions in the decision 2012/88/EU.
5.2.1.4	ETCS Milan-Genoa	

(*) The Luino and Simplon Platforms are a set of measures of different nature agreed upon at bilateral level. Their contents and changes are now embedded in the new baseline.

5.9.2 Work Progress

5.9.3 Achievements

The new MoU between RFI and the Italian Ministry of Transport was signed mid-2012. It does not foresee significant improvements in the financing of the works so that the main financial constraints are still not overcome and the postponement of some major projects is confirmed.

To alleviate bottlenecks and according to bilateral agreements between the Italian and Swiss ministries the preliminary studies of smaller interventions such as the reducing of travel time by means of shorter safety sections and the increase of siding lengths are now in the stage of planned financing.

Upgrading of Southern Access Simplon Pass/ Doubling Vignale – Arona (PSP 5.1.1.1.1/ PSP 5.1.1.2.1)

The start of the project is scheduled for 2016.

Simplon Platform (PSP 5.1.1.1.2)

The projects included in this Platform and those of the Luino Platform are now included in the new bilateral MoU between the Ministries of Italy and Switzerland signed in December 2012 and are part of the implementation plan.

Novara Node (PSP 5.1.1.1.3)

The building licence of the first sub-project has been concluded mid-2012. At the moment no further financing is available to progress in the project.

Link of Novara-Domodossola track near Gozzano (PSP 5.1.1.1.4)

In operation

Novara – Alessandria Line (PSP 5.1.1.1.5)

In operation

Luino Platform (PSP 5.1.1.2.1)

See Simplon Platform.

Doubling of Laveno – Luino section (PSP 5.1.1.2.2)

The start of the project is scheduled for 2016.

Chiasso – Monza (PSP 4.1.1.3.1) / (PSP 5.1.1.3.6)

The start of the building licence is scheduled for 2014. Works are not financed.

Bergamo – Seregno (PSP 5.1.1.3.2)

The project is on-going. Building licence completed mid-2012. Start of works is planned in 2017.

3rd track Gallarate – Rho (PSP 5.1.1.3.3)

The project is on-going. The go-live of the first realisation phase (quadrupling of the section Rho-Parabiago) is foreseen in 2015. The start of the sub-project regarding the third track between Parabiago and Gallarate is postponed to 2017.

Giovi Pass and Double Track Line Genoa – Milan/ Alessandria (PSP 5.1.1.3.4)

The project consists of an about 53 km long line, a relevant part of which in tunnels. The technical requirements meet those of a high speed (HS)/high capacity (HC) line: mixed traffic, max speed 250 km/h, max gradient 12‰, max axle load 25 tons, 3 kV DC / 25 kV AC, ERTMS / ETCS Level 2.

The realisation of the new pass will allow re-planning the rail traffic of the area around the port of Genoa, considerably improving the rail freight connection from the maritime area to the European hubs and main destinations in Italy.

The cost of the whole project is estimated at € 6,200 Mio. In 2012, 1,100 Mio were assigned to the project to finance the second sub-project.

Recipients of the funding (Sub-projects 1 and 2) are preliminary activities linked with the Northern and Southern accesses of the tunnel, and the realisation of a first tunnel in Campasso.

The go-live of the project is planned for the second half of 2020.

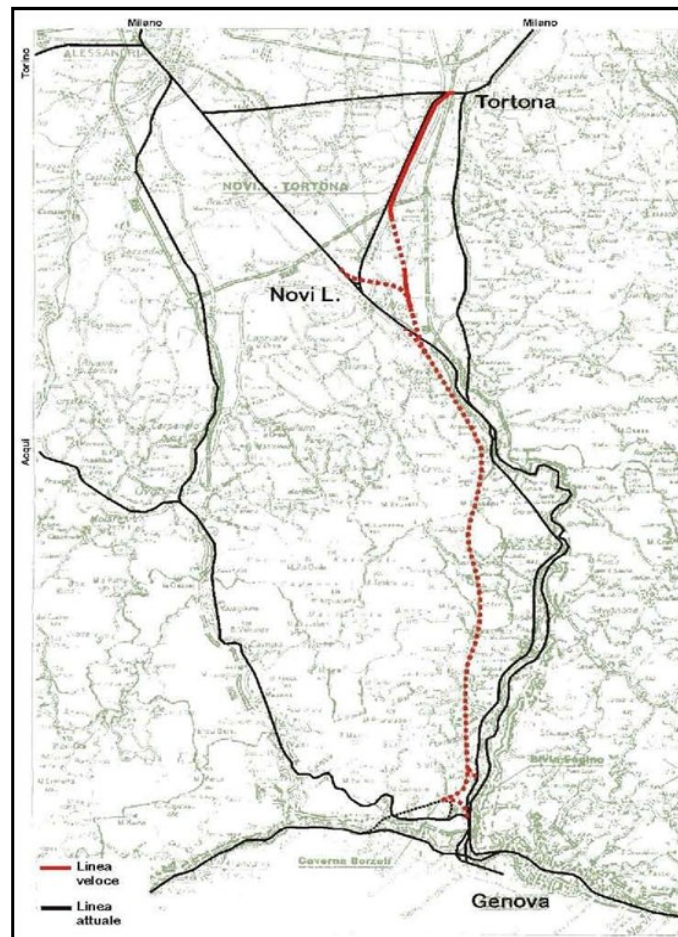


Figure 34: Giovi Pass

The executive project has been completed. The preparation of the work sites is ongoing and first activities for the geognostic tests have been started in Val di Lemme.

Doubling of the Bergamo – Treviglio Line (PSP 5.1.1.3.5)

Is in operation

Doubling of the Bergamo – Treviglio line – noise Mitigation (PSP 5.1.1.3.6)

The doubling of the capacity of this section led to additional environmental requirements. In order to mitigate the noise emissions and to protect the affected residents, noise screens became necessary. These works are still on-going and will be finished approximately in 2014.

Quadrupling of Tortona – Voghera Section (PSP 5.1.1.3.7)

The building licence has been submitted. The start of works has been postponed to 2017.

ETCS Projects (PSP 5.2.1.1 to 5.2.1.4)

In August 2012, a MoU was signed by the CEOs of RFI and SBB Infrastruktur with the general objectives to guarantee the quality of the timetable between the two countries, to realise sufficient capacity for all type of traffic, to proceed in the realisation of the control command interoperability by 2020 and monitoring the progresses in the development of infrastructure. At the same time a board to monitor the progress of the MoU has been set up by the IMs. The MoU is valid until 2025.

In accordance with the provisions of this first MoU, a second one explicitly aiming at ETCS development was signed. This MoU focuses on the procedure for the implementation of trackside train control systems on the cross border sections between RFI and SBB Infrastruktur. A bilateral working group has been set up and a general action plan has been defined that comprises: 1) collection of the border requirements; 2) development of the conceptual design; 3) development of the conceptual design in Chiasso; 4) Review and approval by the NSA; 5) final design for the nodes Chiasso, Luino, Domodossola and the lines Iselle-Domodossola and Ranzo-Luino; 6) implementation; 7) implementation of national values in Domodossola II; 8) Analysis of the requirements for the dynamic border transition.

In December 2012 the Italian ministry forwarded to the European Commission the proposal for a revised ETCS deployment plan in Italy. This proposal is still subject to possible significant changes.

- Green within 2015
- Red within 2020
- Blue within 2025

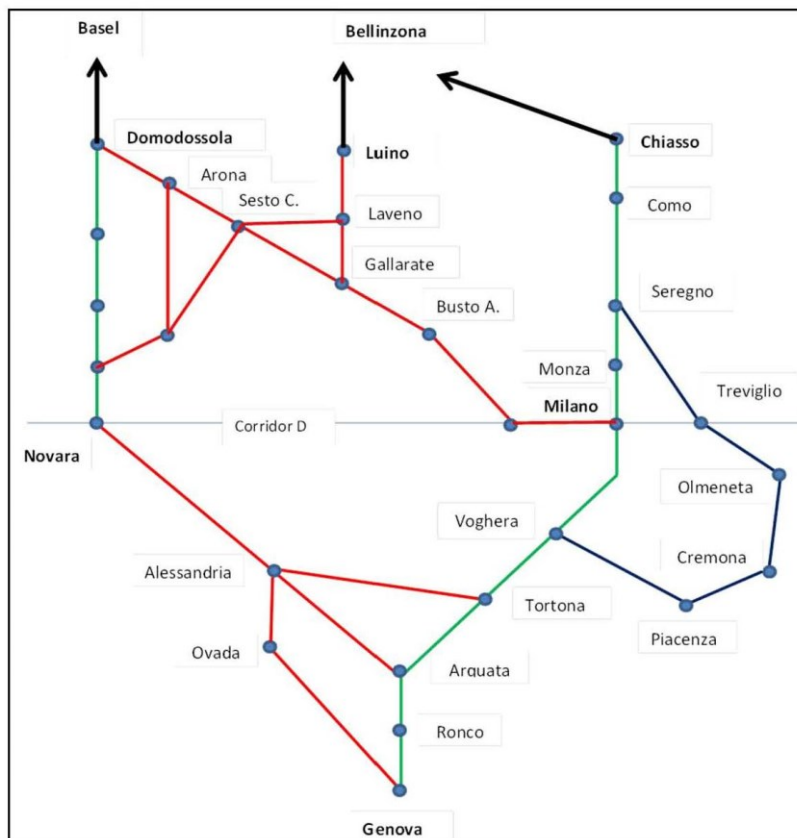


Figure 35: Revised ETCS deployment plan Italy, still under negotiation

5.9.4 Risk Management and Chances

The risk for the Italian infrastructure investments continues to be the funding. For projects including relevant works the “financing life cycle” was split in two phases: financing up to the building licence and financing of the works. The latter phase has been delayed for several projects.

5.9.5 Change Request Management

No changes to report.

5.9.6 Outlook

Since the lasting financial constraints we expect for 2013 to proceed with the analysis and preliminary studies of smaller projects and with the further development of executive planning of the major projects.

6 Noise Platform of the Ministries

Railway noise remains a key topic for the future growth of freight traffic on the Corridor. The goal is to achieve considerable and lasting reductions in train noise by 2020. Although noise is a European issue, there are different approaches within the Corridor to cope with this problem.

The retrofitting of existing wagons is one of the most efficient and effective ways to significantly reduce the noise by 2020. The noise platform of the ministries of transport of Corridor A/1 continued to discuss the further development and introduction of incentive schemes in the corridor countries. The IMs of the Corridor support the initiative.

In 2012, the following approaches existed on the Corridor:

The Netherlands:

On the Dutch rail network, the incentive system gives a bonus to silent wagons used per kilometre, which are older than 2008 and retrofitted with low noise brakes.

Germany:

A noise differentiated track access charging system (NDTAC) was started on 9 December 2012 with financial incentives for silent wagons, which had been retrofitted with silent brakes since September 2012, as well as for the silent axles 2012.

The system consists of two components:

- a) A track access surcharge of 1% on freight trains, which consist of less than 80% of silent wagons, is applied.
- b) Wagon owners receive a bonus based on the kilometres run per axle, which are retrofitted with low noise braking systems.

Switzerland:

In Switzerland, the RUs receive a bonus on the track access charges per kilometre for each silent axle running on the network. Moreover, there is an announcement for 2020 that there will be further measures to ban "non-silent" wagons from the Swiss network.

Belgium and Italy:

No incentive programmes are yet introduced by the ministries. Italy is interested in the results from the German programme, and furthermore the financing has to be solved.

EU:

The EU has re-established the noise working group and works on a regulation to implement a European wide approach. Moreover there are discussions on EU-funding for retrofitting of freight wagons, as well as a revision of the TSI Noise, so that the maximum noise levels are also obligatory for existing rolling stock about 10–12 years after a transition period.

7 Conclusions

The major activities of the corridor organisation in 2012 are summarised as follows:

- Analysis the requests stated in the RU Position Paper and investigation and prioritisation of the issues together with the RU Advisory Group (RAG)
- Setting up the Terminal Advisory Group (TAG) and analysis in two workshops of the possibilities for involving terminal operators in the capacity management process
- Rework of the ERTMS implementation plan due to the changed decision of the German MoT to equip ETCS trackside in the German corridor sections as fast as possible by deploying Level 1 LS to a great extend
- Continuation of preparation by corridor working groups of concepts for topics related to the implementation of measures of Regulation (EU) No 913/2010, which have to be materialised until November 2013, as well as supporting RNE in the establishment of respective common guidelines for rail freight corridors
- The improvement of quality through continuous enhancement of TIS data quality and performance management together with RUs
- Publication of a European call for tenders and contracting of a study on an efficient information and data management environment for rail freight corridors

For the future development of the Corridor, the following aspects may have an impact and should be taken into account:

Critical aspects:

- The automotive sector in Italy is stagnating considerably. This impact on the market for half-finished products like rolled steel sheets (coils) and car parts, as well as new motor cars which might lead to a drop of transport volumes crossing the Alps, because Germany is the most important trading partner in these goods;
- In general, the internal market in Italy stagnates thus reducing the import and export trade;
- The intramodal shares might change due to strong competition from new transport and logistics providers coming on the market, e.g. 1 mio. Tons of coal for power plants in Germany is already shipped to Orsoy and Duisburg, before they are distributed by rail;
- Due to the economic recession, the competition in the market may lead to a loss of rail transport versus road transport, which is far more flexible and has less fixed costs;
- Railway noise develops more and more to a critical issue because the public no longer accepts an increase in rail traffic. As a consequence, the implementation of railway projects becomes more difficult risking their completion as scheduled;
- The abandoning of single wagon transport in Italy in 2012 could partly be compensated by rail ports; however this limits the chances of rail freight services.

Supportive aspects:

- Firm strategic objectives of the European Commission and in the national plans of the ministries to enhance shift towards rail transport are noted;
- Mid-term economic recovery can be expected as the bottom of the crisis should soon be passed;
- Go life of Maasvlakte 2 2014 with new container terminals and train connections should considerably increase rail transport as this will be anchored in their contracts;
- Go life of the Liefkenhoek Rail Link in 2014 will connect the left and the right bank of the river Scheldt in the port of Antwerp and supports composition of block train volumes;
- Go life extension of further hinterland terminals along the Corridor such as Logport III in Duisburg, Basel Kleinhüningen and upgrades in terminals in Milan/Melzo will improve capacity;
- Increasing the train length to 740m along the Corridor would deliver additional capacity of around 15 to 25%. The study investigating this enhancement is key for increasing the productivity of rail freight

The Corridor made a major step forward in the scope of the corridor programme and focused on concept preparations for key measures. This is very important in view of the more and scarcer budget situations of ministries, because these key measures are less expensive and deliver high potential compared to investment projects.

The recent decision of the German MoT to definitely start the migration by implementing ETCS track side, is the paramount development in 2012, which now offers again chances for a corridor wide operation with ETCS. The details linked to this decision will be investigated and will hopefully lead to a major improvement of the ETCS implementation plan.

The C-OSS, which the IMs designated to DB Netz, and which shall start its work in November 2013, will serve considerably the allocation of international paths for applicants. The Corridor aims now to define simple processes, which will enhance the placing of requests. This will contribute to the quality of service and better competitiveness of the RUs.

The extensive communication of corridor related information will also enhance the service for the RUs and will be established by the implementation of professional methods and tools for managing the huge amount of corridor data in an easy and comprehensive manner. The study and completion of a prototype will prove the concept and also allow the RUs to offer faster good services to their customers.

In this context, Corridor A/1 has now again the opportunity to fulfil its major role and responsibility in the ERTMS migration

The Corridor Rotterdam-Genoa is the nucleus for developing competitive rail transport solutions for the whole of Europe. It has to be concluded, that the overall situation justifies the continued and strong support through the ministries and the European Commission in providing stable and sufficient budgets, which is now of utmost importance to establish the corridor targets as they have been announced and expected by the rail freight market.

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List of Abbreviations

ABS	Ausbaustrecke (enhancing and upgrading an existing track)
AB	Allocation Body
AC	Alternating Current
AG	Aktiengesellschaft (German public limited company)
BAV	Bundesamt für Verkehr (Swiss Ministry of Transport)
BLS	Bern Lötschberg Simplon (Swiss railway)
BMVBS	German Ministry of Transport
bn	billion
BP	Bauprojekt (construction project)
BS	Baustufe (construction stage)
B.V.	Besloten Vernootschap (Dutch private limited company)
B3	ETCS baseline 3 (SRS version 3.x.x)
CBT	Ceneri base tunnel
CCS	Control Command and signalling (TSI)
CEO	Chief Executive Officer
CER	Community of European Railway and Infrastructure Companies
CHF	Swiss Franks
C-OSS	Corridor One Stop Shop
CR	Change Request
DB	Deutsche Bahn (German railway)
DC	Direct Current
EBA	Eisenbahnbundesamt (Germany)
EC	European Commission
EEIG	European Economic Interest Grouping
EIA	Environmental impact assessment
EIM	(association of) European Rail Infrastructure Managers
EPR	European Performance Regime
ERA	European Railway Agency
ERTMS	European Rail Traffic Management System
ESTW	Elektronisches Stellwerk (electronic interlocking)
ETCS	European Train Control System
EU	European Union
EWIV	Europäische wirtschaftliche Interessenvereinigung (EEIG)
ExB	Executive Board
FRS	Functional Requirement Specification
GA	General Assembly
Gbf/ GB	Güterbahnhof (cargo station)
GBT	Gotthard base tunnel
GSM-R	Global System for Mobile Communication, subset Rail
ha	hectares
HC	High capacity
HS	High speed
Hz	Hertz ($1/s$)
IBN	Inbetriebnahme (putting into operation)
IM	Infrastructure Manager
IT	Information Technology
IQ-C	International Group for improving the quality of rail freight traffic on the North–South corridor
IWW	inland waterways

KPI	Key Performance Indicators
kV	kilo Volt
L	Level (ETCS), in combination with a number
LBT	Lötschberg base tunnel
LL	composite brake blocks
LoI	Letter of Intent
LS	Limited Supervision (ETCS)
m	meter
MAP	Multi Annual Programme
mio	million (€)
MoT	Ministry of Transport
MoU	Memorandum of Understanding
MS	Member state
NBS	Neubaustrecke (new line)
NEAT	Neue Eisenbahn Alpen Transversale (New Railway Alp Transversals)
NTFA	Nuova Trasversale Ferroviaria Alpina
NETS	Netzweites Trassensystem (Swiss IT system)
NDTAC	Noise differentiated track access charges
NSA	National Safety Authority
OPE	(TSI) Operations
p.	page
PaP	Pre-arranged Path
PfA	Planfeststellungsabschnitt (planning sections)
PGV	Plangenehmigungsverfahren (acceptance process of a construction plan)
PR	public relations
PIM	Programme Infrastructure Manager
P.M.	Posto Movimento (evasion tracks)
PMO	Programme Management Office
PP	Priority project
PSP	Project Structure Plan (Number)
RBC	Radio Block Centre
RFI	Rete Ferroviaria Italia (Italian IM)
RI	Radio Infill (ETCS)
RNE	RailNetEurope
RU	Railway Undertaking
SBB	Schweizerische Bundesbahn (Swiss railway)
StA	Streckenabschnitte (line sections)
S.p.A.	Società per azioni (Italian public limited company)
SRS	System Requirement Specification (ETCS)
t	metric ton(s)
TAF	Telematic Applications (for) Freight
TAP	Telematic Applications (for) Passengers
TEIV	Transeuropäische-Eisenbahn-Interoperabilitätsverordnung
TEN-T	Trans European Network (for) Transport
TEN-T EA	TEN-T Executive Agency
TEU	Twenty foot equivalent unit (standard container)
TIS	Train Information System
TSI	Technical Specification (for) Interoperability
UG	Users Group (ERTMS)
UIC	International Union of Railways
URL	Uniform Resource Locator (internet address)
UVS	Umweltverträglichkeitsstudie / Study on environmental impacts
V	velocity (speed)
VP	Vorprojekt (pre-project)

WG	Working Group
WGM	Working Group Manager
WP	Work Packages
ZEB	Zukünftige Entwicklung der Bahninfrastruktur (Switzerland) Future development of rail infrastructure

Annexes

Annex A: Terminology of Milestones and Planning Phases

Implement- ation Plan	Netherlands ProRail	Germany DB Netz	Switzerland SBB/ BLS Netz	Italy RFI
Initial Plan Study	Variantenstudie (Fase 2A)	Grundlagen- ermittlung und Vorplanung	Studie	Progettazione preliminare
Approval of Budget	Projectuitwerkin g (Fase 2B)	Vorplanung bis Entwurfsplanung Freigabe	Vorprojekt (VP)	Progettazione
Building Licence	Tracébesluit	Baugenehmigung	Plan- genehmigung (PGV)	Definitiva
Financing, Approval for Realisation and Start of Construction	Projectrealisatie (Fase 3)	Freigabe Ausführung	Bauprojekt (BP) Ausführung	Progettazione esecutivo
Acceptance of Construction	Testfase	Herstellen der Funktionsfähigkeit und Abnahme	Abnahme	Collaudo
Go-Live	Indienststelling	Inbetriebnahme (IBN)	Inbetrieb- nahme (IBN)	Messa in esercizio

Figure 36: Terminology of Milestones and Planning Phases

Annex B: Work methodology and organisation

In beginning of 2007, the IMs decided to consolidate all corridor works in one integrated programme, which will be performed under the responsibility of only one overall responsible Management Committee. This Management Committee is supported by the Programme Management Office, which now takes care of the organisation and monitoring of former IQ-C working group activities, measures related to the implementation of Regulation (EU) No 913/2010 (since 2011) as well as all further activities, which contribute to the corridor enhancement. Under the roof of the PMO working groups have been established, chaired by Working Group Managers.

All activities of the WGMs and the PIMs are coordinated and consolidated by the PMO. A monitoring system has been established to track the progress of the work on the corridor. The reporting of the WGMs and the PIMs is corresponding to the underlying baseline.

The term “*baseline*” refers to a structured schedule of measures and activities which are necessary to progress in the corridor programme and comprises the timespan from the planned start to the planned end. Each WGM and each PIM is asked to set up such a structured schedule containing all relevant actions with start and end dates according to the currently known scope in the forthcoming years. These plans of the WGs, containing work packages and activities had been prepared and linked with the implementation plans of each IM⁴, which contain key milestones of projects and project phases of all measures relevant to materialise the corridor. All the baselines are finally consolidated in one overall corridor implementation plan.

The monitoring process now compares each baseline planning and the actually achieved progress of the works. The baselines are frozen as the target and shall be kept. Of course, by implementing the plan during the years, unpredictable risks such as budget cuts, delays or new requirements might occur and require the adaptation of the baseline in order to become a realistic plan again, the changes may be approved and the baseline adapted accordingly. The monitoring process is completed by a yearly report, presented in the present document, summarizing the results and the work progress of the year elapsed.

At the beginning of each chapter, some key performance indicators display the status of the WG or the projects of the IMs. Figure 41 displays such a header as an example.

Due Date of Reporting	07.12.07	WG Result [%] Plan	10	WG Result [%] Actual	10
Work Packages Total	4	Work Packages Finished	1	Work Packages Pending	3
Start	01.11.07				
End	31.12.15				

PSP	WP	Results and Milestones achieved
1.1	Work Package 1	Final report and documentation presented. Work package closed.
1.2	Work Package 2	First analysis phase completed
1.3	Work Package 3	Work package to be started in 10/ 2008
1.4	Work Package 4	Work package to be started in 06/ 2009

Figure 37: Example Header and KPIs of a WG/ an IM

⁴ SBB and BLS subsumed

The *due date of reporting* is the day, up to which all progress, risk, changes and events are reflected in the present report. Usually, the due date is the end of a quarter. The next figure displays the *planned work progress* of the WG (or IM projects), according to the latest baseline. This figure is given in [%], as explained above. The *actual work progress* made is given in the top right box. The second line of the header contains the number of work packages (projects for IMs) dealt with by a WG respectively projects of an IM in total, the ones finished and the ones still pending. The *work packages finished* plus the *work packages pending* shall sum up to the *total number of work packages*. The *start* and *end* dates mark the total time span of planned work of the WG (or the IM). The second table of the header lists all *work packages* (projects for IMs), together with their *PSP* number of the baseline and *the results and milestones* recently achieved.

A final remark about the work progress, which is measured in [%] based on the “earned value”: the figures always refer to the baseline (a working plan for the WGs; an implementation plan for the IMs) which is currently valid. It is an accumulated statement of the work progress. Plans have been overworked in 2012.

Earned value means that only tangible results providing an (intermediate) outcome are counted. In other words: the work progress sticks to the milestones which have been passed up to certain date. Each milestone marks an earned value and a certain result: a completed plan study, an approved budget, a go live of a project or a draft or final concept. Activities or project phases which have been begun but not fully completed do not count for the overall work progress.

The information given in this report is based on the above mentioned principles. It is our objective to report the most realistic and tangible facts about the corridor improvement development and progress of measures and traffic quality. However, the work progress, measured in [%], is partly still subject to an individual estimation by each PIM respectively WGM. Big infrastructure measures are performed over many years and thus not easily providing measurable progress every month. Wrong estimations will be identified by plausibility checks of a sequence of reported data in future. Thus the data quoted in this report is meant to provide a good orientation of the corridor progress and serve the awareness of possible risks and corrective measures to be required in future.