



ANNUAL ACTIVITY REPORT OF COORDINATOR

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ERTMS PROJECT

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This report only represents the opinion of the European coordinator
and does not prejudice the official position of the European Commission.

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1. INTRODUCTION

Rail transport in Europe has seen a worrying decline for more than thirty years, especially in the area of freight transport, but significant progress has been made in some Member States in the last years. The climate change discussion puts an ever growing pressure on the overall transport system. Rail, as an environmentally friendly transport mode, should be able to offer an alternative to road and air transport. However, rail has to be able to offer its customers a good service in terms of cost, reliability, punctuality, flexibility and safety. Without guaranteeing an excellent service, rail will never be able to make a real contribution to changing the balance between modes of transport and addressing the needs of the climate change.

The European Rail Traffic Management System (ERTMS) is a tool to establish an integrated and intelligent railway transport system in Europe. There are currently over 20 signalling systems in use across Europe, many of which are incompatible and obsolete. Implementing a common European speed control and signalling system across key freight and high-speed corridors - and ultimately the wider rail network - will greatly improve the competitiveness of European railways. This is the aim of ERTMS.

ERTMS is composed of two distinct features: GSM-R, based on GSM technology, but using radio frequencies specific to the railways, to exchange information (voice and data) between trackside and on-board; and ETCS (European Train Control System), in which a train-based computer controls the speed of the train in relation to the operational characteristics of the track.

Using the most up-to-date technologies, ERTMS allows for reduced transport costs and improved capacity use, punctuality and safety. ERTMS makes rail travel across national borders easier by ensuring interoperability. And it helps make rail a more competitive alternative to road, air and sea transport. ERTMS is a key element of several trans-European transport network (TEN-T) priority projects.

ERTMS is gradually replacing obsolete national systems and is being deployed along key high-speed and freight corridors. The larger goal is to implement ERTMS across the wider European rail network: the system has already been installed on over 2,000 km of lines in Europe (end 2007) and a further 20,000 km are contracted or planned.

2. DEVELOPMENTS IN THE 3RD YEAR OF ACTIVITY

During the first year, the Coordinator concentrated his efforts on the activities of the MoU ERTMS Steering Committee, in particular on the definition of the freight Corridors, including a methodology to carry out detailed performance studies. In the second year, significant progress was made in setting up the freight Corridors and in addressing the financing issues for ERTMS in general. The Coordinator actively supported the European Railway Agency (ERA) in stabilising the technical standard for ETCS¹.

In the 3rd year of activity a significant part of the Coordinator's efforts continued to be concentrated in stabilising the technical standard for ETCS and in defining the way

¹ http://ec.europa.eu/ten/transport/coordinators/index_en.htm

towards ETCS baseline 3. He also advised the Commission in the selection of ERTMS projects for EU financial support under the TEN-T programme. The Coordinator continued to support the work of the freight Corridors throughout the year.

2.1. ERTMS MoU Steering Committee

The Commission signed in March 2005 a Memorandum of Understanding (MoU) with the European Railway Associations (CER, EIM, UIC, UNIFE), with the objective to implement an EU-wide network of interoperable rail corridors within a 10-12 year timeframe. The MoU set up a Steering Committee and the Coordinator chairs this committee. There were seven more meetings in the course of the year; from September 2007 to May 2008.

2.2. Development of ETCS technical standard

'2.3.0d'

Several lines using ETCS are currently in service in various Member States (e.g. Italy, Spain, Luxembourg). These projects involve several manufacturers and have now been operational for several months, or even several years in some cases. At the same time, other projects are underway in Europe, in particular for high-speed infrastructure. These projects will connect lines equipped with ETCS across several Member States (Germany, Belgium, France, Luxembourg and the Netherlands). The same train will have to be able to run using the ETCS system on lines located in these five countries.

A study carried out by the manufacturers at the start of 2007 showed that certain ambiguities in the specifications had not been interpreted in exactly the same manner, both in the case of projects which had been in service for a few months, and for the projects about to be put into service. Therefore a so called crash programme was launched by the ERA to set out the correct interpretation of the specifications.

The Coordinator actively supported both the ERA in dealing with the technical questions and the Commission in explaining the situation to the Member States in the Committee on the interoperability and safety of the European rail system. A Commission Decision on version 2.3.0d was adopted on 23 April 2008². This version constitutes the unique and interoperable technical reference to ensure interoperability of all ETCS equipment deployed in Europe.

'3.0.0'

During the last part of the activity year, the Coordinator focused on a new Memorandum of Understanding. This new MoU complements the existing one, but concentrates on more technical issues.

² COMMISSION DECISION 2008/386/EC of 23/04/2008 modifying Annex A to Decision 2006/679/EC of 28 March 2006 concerning the technical specification for interoperability relating to the control-command and signalling subsystem of the trans-European conventional rail system and Annex A to Decision 2006/860/EC of 7 November 2006 concerning the technical specification for Interoperability relating to the control-command and signalling subsystem of the trans-European high speed rail system.

ERTMS can succeed only if, on the one hand, there is full technical compatibility between the tens of thousands of kilometres of track and the trains to be equipped and, on the other hand, deployment is carried out swiftly and in a coordinated manner. The new MoU addresses these two fundamental issues, mainly by:

- using a single technical baseline³ for all railway lines equipped with ERTMS in the European Union up to the end of 2012;
- getting manufacturers to agree to include software updates in new contracts at a client's request. Clients (rail companies and infrastructure managers) currently complain about the excessive costs imposed by manufacturers;
- agreeing on a programme enabling a new version of the specifications⁴ to be drawn up by the end of 2012 in such a manner that trains equipped with this new version can run on lines equipped with the old version;
- improving and harmonising test procedures for checking the compatibility and compliance of equipment and
- accelerating deployment of ERTMS, particularly by adopting a binding European plan and equipping new models of engine.

The MoU was signed in Rome on 4 July 2008 by the Commission, the European Railway Associations CER, EIM, UIC, UNIFE, who were signatories of the first MoU, and in addition the GSM-R Industry Group and the European Rail Freight Association (ERFA) joined the signatories.

2.3. Freight corridors

As indicated already in the Coordinator's 1st annual report, the deployment of ERTMS on the freight corridors requires a methodology and proper project management structures. In addition to ERTMS, in order to optimise the performance of the Corridors, it is also important to address infrastructure bottlenecks and to harmonise operational procedures.

The Coordinator is concentrating his efforts on the following freight Corridors:

- A – Rotterdam-Genoa
- B – Stockholm-Naples
- C – Antwerp-Basel-Lyon
- D – Valencia-Lyon-Ljubljana-Budapest
- E – Dresden-Prague-Budapest-Bucharest-Constanta
- F – Aachen-Berlin-Warsaw-Terespol

The ERTMS MoU Steering Committee decided that the methodology to be followed on each Corridor is based on a Letter of Intent, signed by the Ministers of Transport of the

³ Version 2.3.0d of the specifications

⁴ Version 3 of the specifications

Member States concerned, giving the broad objectives and the political commitments and defining the project management structures. The project management structure includes an Executive Committee, composed of transport ministry representatives and a Management Committee, composed of infrastructure managers, to deal with all aspects concerning the deployment of ERTMS.

The main developments since the last annual report in setting up the required project management structures were: the signature of the Letter of Intent for Corridor F in November 2007 and the extension of Corridor E to Romania in April 2008. The EEIGs are now in place for Corridors A, C and D.

The Coordinator has had several meetings in the course of the year with Corridor A. The aim of these meetings has been to try to clarify the situation concerning the technical requirement for ETCS implementation on the German and Swiss sections of the Corridor A by 2012 and 2015. The DB and the SBB are of the opinion that to be able to meet the 2012 deadline, a version of the ERTMS/ETCS specification including harmonised braking curves and limited supervision needs to be legalised in 2009. The Coordinator has proposed that the progress towards baseline 3 will be analysed towards the end of 2008 and based on the analysis the Commission may consider an intermediate legal version, although the latter is not the preferred solution.

Corridor B remains the only outstanding Corridor, where the countries i.e. Sweden, Denmark, Germany, Austria and Italy have not yet reached an agreement on the Letter of Intent. Thus, no Corridor management structures are yet in place. In June 2008 Mr Vinck together with Mr Van Miert met both the DB and the German Ministry of Transport in order to try to progress on the development of Corridor B and TEN-T priority project No 1 in Germany.

Work on the other Corridors, covering all three aspects, is progressing well.

2.4. Financing

TEN-T financing for ERTMS projects

Financial support from the TEN-T budget is of paramount importance for a rapid migration towards ERTMS. This is vital because a critical mass of ERTMS deployment needs to be reached as quickly as possible, which in turn will induce more and more infrastructure managers and railway undertakings to equip tracks and locomotives with ERTMS.

In the TEN-T Multi-Annual Programme 2007-2013, an indicative amount of €500 million is reserved for ERTMS investments. The first call was published in 2007 and the second is expected in early 2009. The support rate for ERTMS investments is up to 50% of the eligible cost of the project. The Commission together with the Coordinator has fixed specific funding ceilings for both track side and on board investments.

In total 49 ERTMS projects were submitted in the first call, of which 4 were reclassified under the Priority Project field of the Call, and 1 was ineligible. Of the 44 projects evaluated, requests totalled €1 500 million (€1 200 million for trackside (80%) and €300 million for on board (20%)).

The Coordinator's advice has been taken into account in the Commission's selection of projects to be supported. Particular attention was paid to proposals submitted jointly or in a coherent manner by several Member States or by organisations involving several infrastructure managers from different Member States. In this framework, specific consideration was given to the projects submitted by the six freight Corridors.

Because of the high demand and the high quality of projects, the ceilings laid down in the call had to be strictly applied and the maturity and EU dimension of the projects were carefully considered. In the evaluation of proposals, a number of criteria were applied as a general rule: project activities should start in 2007/2008 and should be completed by 2012 for trackside projects and by 2009 for onboard projects. Even with this strict approach, it was necessary to increase the indicative amount to €271.59 million.

Private sector contribution to financing the freight Corridors

The full benefits of ERTMS can only be realised if infrastructure bottlenecks are also addressed and steps are taken to harmonise operational procedures along the Corridors. Having analysed the financing needs of the six freight Corridors, the Coordinator has reflected on ways to raise the necessary financing needed especially on infrastructure bottlenecks to improve the Corridors. He has had preliminary discussions with some financial institutions in order to explore ways to raise the financing needed.

2.5. ERTMS deployment – national plans and EU plan

The technical specifications for interoperability for control-command and signalling require each Member State to draw up a national plan for the implementation of ERTMS. Based on those plans, the Commission is to draw up an EU level master plan. The Member States had to submit those national plans to the Commission by 28 September 2007. The national plans need to explain how the Member States intended to move progressively from the existing situation to the final situation in which ERTMS is deployed over a wide network.

Following the reception of those national ERTMS deployment plans, the Commission launched a public consultation on the way forward towards an EU level master plan, which offered three different options (not necessarily mutually exclusive) for consideration:

- Option A: voluntary ERTMS European Deployment Plan centred around the development of corridors – national plans are collated in a document which is not binding. Coordination takes place only at the level of corridors.
- Option B: binding ERTMS European Deployment Plan which includes lines with renewed signalling – ERTMS would be compulsory on all new trans-European network lines and conventional trans-European network lines on which signalling is renewed.
- Option C: binding ERTMS European Deployment Plan based on a target deployment rate – Member States must submit deployment plans with targets (e.g. 3% of the trans-European network per year and/or certain key corridors). On that basis, a binding Plan is drawn up.

The Commission received 29 responses in total – 12 from Member States and 17 from stakeholders within, or involved with, the railway sector. The majority of respondents was in favour of Option C, which foresees the introduction of a legally binding deployment plan.

In parallel to the public consultation, the Commission reviewed the national deployment plans and compiled a consolidated version in order to see the extent of ERTMS deployment along the European network in 2012, 2015 and 2020. This analysis revealed a number of gaps, or missing links, across the network which often occur at national borders. EU action will focus on this issue as the importance of removing potential missing links and ensuring a coordinated deployment along corridors.

As a next step the Commission together with the Coordinator will engage in discussion more directly with the relevant actors in order to better identify the most important "missing links" in the network. Afterwards the Commission will enter into bilateral discussions with the Member States in order to define a European Deployment Plan. This plan would consist of a core network on which the implementation of ERTMS would be mandatory at specific target dates (2012, 2015, 2020 as well as a date by which the whole Trans-European network shall be equipped).

2.6. Publicity

The publication of the ERTMS newsletter SIGNAL continued. Two additional issues were published in 2007 and four issues were published in 2008. SIGNAL focused on current affairs concerning ERTMS development and deployment. The latest issue of the newsletter was devoted to the signature of the new MoU and it included an article by the Coordinator. SIGNAL also acts as a valuable platform for stakeholders for example the July edition featured an article by Mr Paolo Costa, MEP, Chairman of the European Parliament's Committee on Transport and Tourism.

The Coordinator has also participated in a number of important events and conferences with various stakeholders from the railway sector in order to keep the railway sector experts and the general public up to date on the progress of the ERTMS project. A specific press conference was organised at the same time as the Commission adopted the decision on '2.3.0d' in order to explain the importance of the step for the overall ERTMS deployment in Europe.

3. PRIORITIES FOR THE 4TH YEAR OF ACTIVITY

In the 4th year of activity, the Coordinator will concentrate his efforts on monitoring progress on the development of issues defined in the new MoU. There are clear milestones for the development of the baseline 3, which have to be kept, in order to keep the final deadline of 2012. Also for improving the testing procedures, a number of steps have to be taken.

The Coordinator will of course continue to support the performance optimisation programmes of the Corridors. Corridor B remains the only one without a Letter of Intent. Thus, this Corridor should be analysed in more detail in order to see what could be done to make significant progress on this Corridor in the course of next activity year.

The Commission is working on a European deployment plan for ERTMS based on an analysis of the national deployment plans. Although the European deployment plan is discussed with the Member States, who will also formally adopt the plan, the railway sector is also involved and consulted in the framework of the ERTMS MoU Steering Committee.

The TEN-T financing decisions for the ERTMS projects selected for supported will be adopted in the course of autumn 2008. At the same time, it is important to establish the priorities for financing under the next call for proposal for ERTMS projects, which is due to be published in early 2009. The Coordinator will make recommendations on the financing priorities and these will be also discussed in the ERTMS MoU Steering Committee.

Once the projects are running it is of paramount importance to put in place a good follow-up mechanism to monitor the project implementation in order to ensure that technical solutions implemented within the project are consistent with the Technical Specifications for Interoperability. The Commission has launched a call for tender for the provision of external technical assistance to help it to monitor the implementation of the ERTMS projects. The follow-up has to be carried out in close cooperation with the TEN-T Executive Agency and also with the ERA.

4. CONCLUSIONS

A significant step in the field of ERTMS deployment was taken in the 3rd activity year and that was the Commission decision on the version 2.3.0d of the ETCS specifications. This allows for the system to be deployed throughout Europe with a guarantee of full interoperability across the whole network. Another important step was the signature of the new MoU which paves the way to baseline 3 of the ETCS specifications through the strong commitment of all stakeholders involved.

Work on the Corridors is progressing and the Commission has been in a position to grant financial support to ERTMS implementation on all of these Corridors.

Work on the European Deployment Plan for ERTMS has progressed following the submission of the national deployment plans and the Commission will shortly propose binding targets for ERTMS deployment in Europe.

Overall, the 3rd activity year has been an important one and significant steps have been taken in the field of ERTMS. Nevertheless, we have to keep the pressure on and to meet the agreed targets and common deadlines for ERTMS implementation in order to fully realise the underlying objectives of increased capacity, better reliability and improved safety, offered by ERTMS.