

## Signal

The ERTMS Newsletter

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## Welcome

The European rail network is currently based on a variety of more than 20 stand-alone and non-interoperable train control systems. With the aim of interoperability, talks started in the late 1980s to deploy a common European System for international rail services. The ERTMS project is the exponent of these plans.

**ERTMS (European Rail Traffic Management System)** aims to create a single Europe-wide standard for train control and command systems to enhance cross-border interoperability and therefore contribute to completing the Single European Rail Area. This will significantly improve the competitive positioning of rail transport and stimulate the single market of signalling equipment.

The European Commission and the European coordinator for ERTMS have recently decided to launch a Programme Support Action to deploy ERTMS through the [9 Core Network Corridors \(CNC\)](#) in Europe. This quarterly newsletter will keep you up to speed on the latest developments in ERTMS deployment.

This edition features an interview with the European coordinator for ERTMS, as well as some news updates and more background information on the topic.

On behalf of the whole ERTMS team, we welcome you all to read this **renewed version of the ERTMS newsletter "Signal"**.

## Top Story

### Status of ERTMS Deployment in Europe

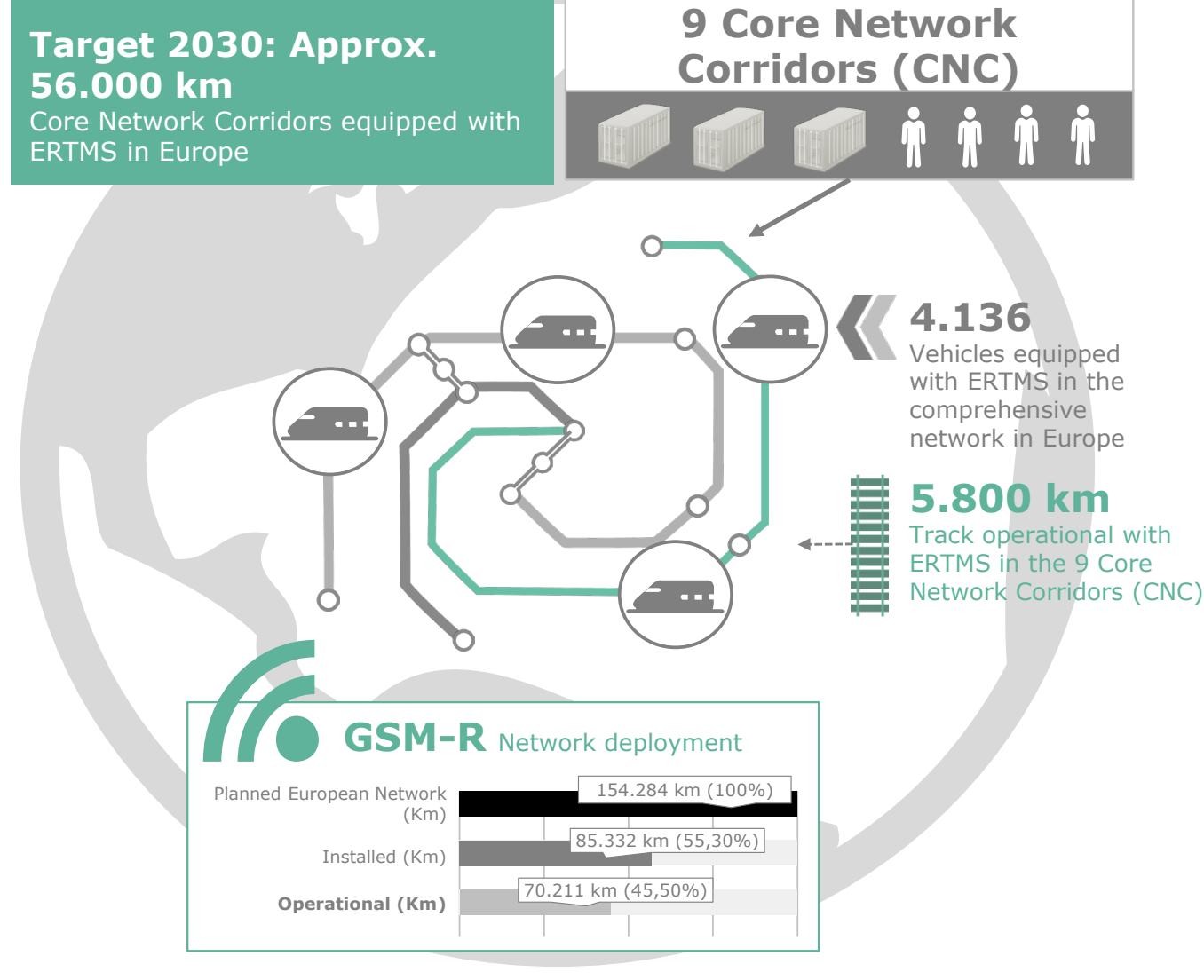
An assessment on the state of play of the European ERTMS deployment programme demonstrates that despite the provision of significant EU funding, deployment on the corridors is behind schedule, resulting in an uncoordinated and patchy deployment. Current publications show that, although the operation of the system has been demonstrated in different European projects, the current status for the deployment is far behind on its foreseen deadline, as determined in the European Deployment Plan, adopted in July 2009.

In light of the above, it clearly appears that ERTMS deployment and the removal of interoperability bottlenecks require greater coordination and expertise. Therefore, the European Commission and the European coordinator for ERTMS have decided to take action and launch a Programme Support Action under the first Connecting Europe Facility work programme. ERTMS deployment will now be supported by the Deployment Management Team, launched by DG MOVE, that will follow-up its implementation in an efficient and interoperable way.

Deployment of ERTMS is a priority for the European Commission. Definition and maturing of the system has already been achieved and the only way to promote and maintain the ERTMS system is through its use. The main action to encourage the deployment of ERTMS will be the update of the ERTMS Deployment Plan. The success of ERTMS will largely depend on its implementation from end to end in the 9 Core Network Corridors (CNC).

## Did you know...

...that the ERTMS system is based on 2 major components, being (1) the ETCS (European Train Control System), an automatic train protection system and (2) the GSM-R, a radio system providing both voice and data communication between the track and the train by using specific GSM frequencies.



Sources: European Commission Staff Working Document on the state of play of the implementation of the ERTMS Deployment Plan (2014), Core Network Corridor Studies (2014) and UIC (2012)

## In the spotlight: Karel Vinck

### Why do you see the need for a Breakthrough Programme in 2015-2016?

Since my nomination as European ERTMS Coordinator in 2005 significant results have been achieved in Europe: more than 5.000 km of trackside as well as 4.000 locos have been equipped, technical specifications have been defined and several Member States as well as countries outside of Europe decided to completely switch their national system into ERTMS in the upcoming years. All these developments provide evidence for ERTMS as a definite solution: it has been acknowledged and confirmed by all Member States and rail sectors as the common signalling system in Europe. In other words, we have reached the point of no return; ERTMS is the interoperable train control system in Europe.

Nevertheless, the implementation has not progressed as planned and expected from the stakeholders for a number of reasons: the only way out of this vicious circle is to implement the Breakthrough Programme that addresses the problems at source.



Karel Vinck, European Coordinator for ERTMS

### Could you please explain the principles of the Breakthrough Programme?

The principles are very simple: we have to give up the *designer approach*; we should rather focus on the *needs of the users*. The system has been sufficiently defined. As of now, we should only concentrate on and invest in *deploying* ERTMS.

According to my definition, the users are the railway undertakings that have to work in a competitive environment and need to adapt their locos to the networks of different Member States. Therefore *standardised on-board equipment* that allows *running everywhere in Europe* is indispensable to be competitive in this sector. Standardisation of on-board units could contribute to *reduce costs*, but further reduction could be achieved through the harmonisation of operational and authorisation rules and through the withdrawal of national requirements.

### What are the objectives of this programme?

The main condition of a successful Breakthrough programme is to be able to define a limited number of objectives that can be reached within a very short period of time. In this case, I have identified the following objectives to be reached by the end of 2016:

1. A realistic and committed deployment plan
2. A stable and mature set of specifications
3. An interoperable and compliant infrastructure
4. A clear and transparent regulatory framework
5. Facilitation of the deployment
6. Definition and standardised on-board equipment

### You mention "a realistic and committed deployment plan". How do you intend to proceed?

There are two important differences between the existing ERTMS European Deployment Plan and my work plan: the geographical scope and the final deadline for ERTMS deployment. By 2030 the entire Core Network will have to be equipped with ERTMS. In order to define realistic implementation dates for different Core Network Corridor sections (passengers and freight), I have proposed a two-step strategy. First, in 2015, together with the Members States, I will define the sections that are to be implemented between 2015 and 2020. Particular focus is placed on cross-border sections: the more border crossing points can be solved from a technical point of view in the first phase, the faster the remaining sections of the corridors can be implemented later on. Second, in 2016 I will negotiate with the Member States about the sections to be equipped between 2020 and 2030, so that at the end of that year we have a complete and comprehensive deployment plan for the Core Network Corridors.

### What do you expect from the ERTMS Deployment Management Team?

The Commission has signed a contract with a consortium (Ineco and EY) the so-called "Deployment Management Team" to support an efficient, synchronized, interoperable and timely implementation of the ERTMS deployment for each Core Network Corridor and to ensure the consistency on the network, both ERTMS trackside and on board trains.

There are 4 main areas where I see the contribution of the Deployment Management Team:

- By closely monitoring the implementation of the work plan, we will avoid a patchy implementation of ERTMS in Europe;
- By providing technical assistance to projects, we will remove those identified bottlenecks and avoid inconsistent deployment of the ERTMS in Europe;
- By building financial and economic methodological instruments, guidance will be provided to select the appropriate financing schemes according to the projects' specificities;
- By providing an online one-stop-shop on ERTMS and other information, common knowledge will be shared.

We have to use the momentum of the Breakthrough Programme to turn the challenges into opportunities.

## Breaking news

### Save the date: TEN-T days 22-23 June 2015 in Riga

Karel Vinck, the European coordinator for ERTMS will be chairing the ERTMS session on the 22nd of June from 11h00 - 13h00.

For more information, please visit the INEA (Innovation & Networks Executive Agency) [website](#) or contact [info@tentdays.eu](mailto:info@tentdays.eu).

### Save the date: ERTMS CCRCC 2015, 22-23 September 2015 in Lille

The European Railway Agency is organising the [ERTMS Conference in Lille](#), France on the 22nd and 23rd of September 2015. This year's main theme will be 'Turning a Mature System into a Business Case'.

### EU supports all Member States to switch to a common train control system

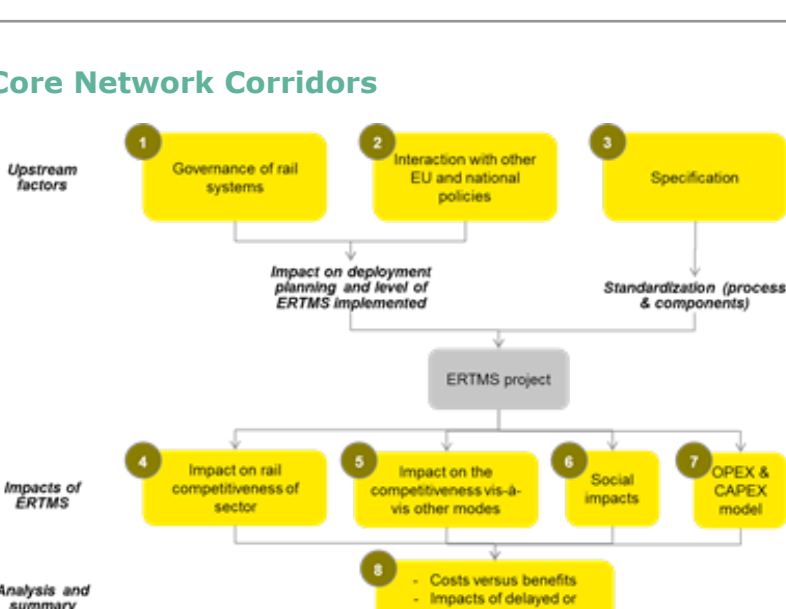
The [EU's TEN-T Programme supports the development and installation of the common European Train Control System](#) (ETCS) in Belgium, Luxembourg, Denmark, Slovenia and the UK with over 35 million Euros. The system will improve the interoperability, safety, reliability and capacity on European railways. The projects were selected for EU funding with the assistance of external experts under the [TEN-T Multi-Annual Call 2013](#), priority 'European rail traffic management system'.

In addition, the first CEF call was closed in early March 2015. From the total CEF budget, 300 million Euros were allocated for ERTMS projects (including 100 million Euros for Cohesion countries). As mentioned in the call, higher priorities were given to projects focusing on track-side and on-board deployment. However, specifications maintenance, trainings, simplification and facilitation of placing in operation as well as operational rule were also named as objectives in the call. The evaluation is on-going and the successful proposals will be announced in July 2015.

### A business case for ERTMS on the 9 Core Network Corridors

Interoperability of the systems is a crucial issue of European rail policy to enhance the opportunity for a modal shift from road to rail and increase cross-border flows. This is why ERTMS is one of the infrastructure requirements and one of the priorities of the Commission.

The business case will consist of an analysis of the impacts of ERTMS on the railway sector. As a first approach, the effects on international rail traffic consist of different elements: investment costs in rolling stock, reduction in travel time, safety, capacity increase, increased competition for suppliers and also for railway undertakings... All the upstream factors and downstream impacts linked with ERTMS deployment will be studied on a qualitative and a quantitative point of view.



Source: Deployment Management Team (2015)

The Deployment Management Team is currently working on the business case for 2 corridors: Rhine-Alpine and North Sea Mediterranean. The main milestones are:

- Until end of July 2015: sharing and discussing the methodology with all stakeholders
- Until end of August 2015: validation of the main assumptions used through interviews with stakeholders
- 22-23 September 2015: presentation of the intermediate results of the Business Case for the first 2 corridors at the ERA conference
- October 2015: final business case for Rhine Alpine and North Sea Mediterranean corridors
- 2016 and beyond: business case for other corridors and at European level

## Contact details

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