

# Signal

the European Rail Traffic Management System

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## ERTMS tackles corridors

### The development of ERTMS foresees a corridor approach. Why is this?

Obviously, the point of departure varies depending on the Member State. In some countries, existing systems need to be replaced as soon as possible by the ERTMS system, generally speaking because they are obsolete or insufficiently secure. In other countries, where the existing system can continue to be used for several years, immediate installation of the ERTMS system is justified mainly by the benefits associated with interoperability.

But these benefits can only be exploited if the ERTMS system is developed along the full length of a corridor. A rail company equipped with the ERTMS system can only operate along the entire corridor under this condition.

Therefore, if no action is taken at European level, there is a risk of some countries deploying the ERTMS system rapidly, but without this significantly improving the competitiveness of long-distance rail transport throughout Europe. In this case, locomotives will still need different national systems in order to pass from one ERTMS equipped area to another. The objective of corridors is precisely to facilitate this circulation.

Coordination along corridors is necessary to ensure free-moving railway traffic. Corridors should also serve as examples and demonstrate that rail freight is a dynamic sector with significant potential. In this second issue of Signal, you will find more detailed information on this important subject and other news about the ERTMS that you should not miss. In fact, decisive developments for European rail infrastructure took place in June, while the new call for proposals launched could give the opportunity to obtain EU financing for implementing the ERTMS system. Once again, we hope that you will enjoy reading this informative issue...

*The Signal team*





### **What will the development of the ERTMS system contribute to an entire corridor?**

Six corridors have been studied in depth. Even if each situation has its own particular features, it is clear that the ERTMS system leads to an improvement in rail competitiveness by reducing in particular waiting times at borders and by increasing the flexibility of the locomotive fleet.

On the other hand, the ERTMS system increases competitiveness between rail undertakings. Under the current system, they would need several years to equip their locomotives with the necessary systems and to carry out the necessary tests. This generates expenses that the ERTMS system renders unnecessary. Once the signalling technical barrier has been lifted, it will become much easier for “foreign” operators to use the infrastructure and offer new services.

### **Why introduce other measures in addition to ERTMS?**

Several additional measures are necessary along a corridor in order to achieve a major qualitative change: administrative measures to facilitate vehicle certification, better coordination in path allocation, suitable priority to freight trains, harmonisation of operation rules in order to facilitate the work of drivers and improve safety, and infrastructure improvement works so as to allow trains with an appropriate length and axle load to circulate etc.

### **What are the objectives?**

Clearly, the objectives differ depending on the corridor. To cite two examples:

- along the Rotterdam-Genoa corridor the objective is to double the volume transported by 2020, by increasing punctuality by 26% and reducing travel time by 20%.
- along the Antwerp-Lyon, Antwerp-Basle corridor, the objective is to increase the volume transported by 55% by 2020. This will be achieved by reducing travel time by 15%, by reducing the number of late trains on the Antwerp-Lyon branch by a factor of more than four, and by halving those on the Antwerp-Basle branch.

### **What are the challenges?**

If, for instance, anticipated measures are adopted in a coordinated way on the Rotterdam-Genoa segment, they will allow 28 billion tons/km of merchandise to be transported by rail instead of by road on an annual basis. This represents, at each point of this 1300 km long corridor, 1 lorry loaded with 26 tons of merchandise every 37 seconds, 24 hours per day, every day of the year.

Along the Antwerp-Lyon/Basle corridor, the measures will allow about 7 billion tons/km of merchandise to be transported by rail instead of by road. The benefits for society in terms of pollution, congestion and safety have been estimated at over 140 million euros per year.



## The ERTMS Call for Proposals

A call for proposals has been launched within the framework of the Trans-European Transport Networks in order to accelerate the development of ERTMS. In fact, as long as only a few lines are equipped, there is no real interest for rail companies to equip themselves in the short term, given that locomotives still have to be equipped with the old system as well. The situation is similar for infrastructure managers: why pay for the installation and maintenance of a European system for several years while most locomotives will, in any case, be equipped with a national system?

Paradoxically, although the collective interest of the sector is to develop the European ERTMS system rapidly, it is quite often in the interests of individual stakeholders to wait until others are equipped. In order to speed things up, the European Commission proposes the following simple strategy: equip now and obtain community support for up to 50% of the costs within the framework of the 2007-2013 financing, or equip later, albeit with no financial assistance.

### Access to the call for proposals:

[http://ec.europa.eu/dgs/energy\\_transport/grants/proposal\\_en.htm](http://ec.europa.eu/dgs/energy_transport/grants/proposal_en.htm)

## Points of reference for European railways

Last June, new developments in rail infrastructure – opening to traffic of new lines equipped with the European train control system – enabled progress and marked a distinct milestone for the European railway network. The first section of the 300km long High Speed East European Line has been open to traffic since the 10th June, and links Paris and Baudrecourt at a speed of 320km/h. This is the first segment of a 1500 km European railway line aiming at linking Paris and Bratislava (Slovakia) by 2015.

The Lötschberg tunnel was inaugurated in Switzerland on 15th June; this is a development that should allow railways to increase their share of transalpine traffic even more. Finally, the Betuweroute, linking the Dutch port of Rotterdam to Germany, opened on 16th June; this is a 160 km stretch that is the first railway in Europe reserved exclusively to freight.



## Management of technical specifications – What are the differences between the management of the ERTMS system and that of national systems

The ETCS version known as 2.3.0 was officially adopted by the Commission on 6 March 2007. It constitutes the only technical reference to be used as a basis for all projects. The European Railway Agency is currently working with the sector in view of concluding on test specifications.

The European Railway Agency is also gathering information on an increasing number of projects in operation. These projects are in fact an important source of information on all aspects associated with the performance of the system, its availability or its maintenance. On-site contact with projects is also fundamental for ensuring that difficulties encountered in “a real situation” are resolved with all stakeholders in a coordinated manner. The interoperability challenge requires that technical issues associated with the specifications are not dealt with directly by the supplier(s) and the customer but, on the contrary, that the European Railway Agency be involved.

This is a fundamental difference with respect to the past. While in the past we had a system produced by an industrial stakeholder for a given customer, today we are confronted with a multitude of stakeholders: railway companies, infrastructure managers and industry. Interoperability requires that all the technical issues that will certainly arise in the coming months be discussed under the aegis of the European Railway Agency, especially during the current critical phase when specifications have only just been defined.



For further information on ERTMS, see: [http://ec.europa.eu/transport/rail/interoperability/index\\_en.htm](http://ec.europa.eu/transport/rail/interoperability/index_en.htm)

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