



ERTMS DEPLOYMENT IN ITALY

ERTMS LEVEL 2 IN OPERATION



Italy as an early investor into ERTMS, distinguishes itself by the use of ERTMS Level 2 on the main national axis, from Turin to Salerno allowing for mixed traffic (passengers and freight) on what is nationally called a "High Speed, High Capacity" network. In many of the lines, Level 2 is used as the only signalling equipment (without fall-back system and without lineside signals), which allows for considerable savings on maintenance costs. ERTMS has helped gain significant market share for rail transport in Italy and the completion of the High Speed "T" network is expected to bring considerable economic and social benefits.

What is the status of ERTMS deployment in Italy?

Italy has been heavily investing in High Speed lines since the early 2000s, and the construction of the first ERTMS-equipped lines started in 2004. Italy has opted for the use of ERTMS Level 2, which is currently operating on the following lines:

- Rome-Naples route (245 km) in revenue service since December 2005;
- Turin-Novara route (85 km) in revenue service since February 2006;
- Milan-Bologna route (219 km) in revenue service since December 2008.

Other projects are currently under construction. The following lines will be inaugurated for commercial operation on 12th December 2009:

- Bologna-Florence (78km);
- Novara-Milan (40km).

The completion of the above-mentioned lines, together with the upgrade of the old Rome - Florence "Direttissima" High Speed line, will enable High Speed travel between Milan and Rome in less than three hours. This travel time is expected to be even further reduced once new customised stations are built in Rome, Florence, Naples & Bologna.



How was ERTMS implemented in Italy?

Italy has made the critical decision of installing ERTMS Level 2 as the only signalling system applied to its new High Speed lines without installing any fallback system. This has allowed considerable cost savings to be achieved since lineside equipment needs to be carefully designed fit for purpose and needs all the relevant disciplines for its installation and any ongoing or associated maintenance costs are avoided.

ERTMS Level 2 does not need lineside light signals and allows for a significant increase in terms of traffic capacity.





What are the benefits brought by ERTMS in Italy?

In addition to the example of the Rome-Milan line (see below), ERTMS already brought considerable advantages to the Italian railways.

As far as the first ERTMS line that came into service (Rome-Naples) in Italy, it doubled its number of passengers in less than a year.

ERTMS has also proved to allow for very high speed travel, and this despite a difficult natural environment, where many railway lines go through the Alps or Apennines. For instance, 73km out of the 78km route between Bologna and Florence are made of tunnels. In recent test trips (the full line is foreseen to open by the year's end), a new worldwide speed record in a tunnel was achieved at 362 km/h!

Modal shift in action: the Rome-Milan line

In the first 50 days of commercial service of the Rome - Milan High Speed line (even if not yet completely equipped with ERTMS), the airlines connecting Milan Linate Airport with Rome have lost a total of 91,000 passengers (almost 2,000 per day, representing 30% of the market). Conversely, the High Speed service has gained 1,600 new passengers per day. On the whole Rome-Milan route, the transport mode share in the first 50 days of High Speed service reveals that rail transport is now dominating the market:

- Rail market share: 48 %
- Air transport market share: 39%
- Road market share: 13%

Such modal shift translates itself in considerable CO₂ savings. This High Speed line is even opening new opportunities for operators, and Ferrovie Della Stato is even considering the introduction of "low-cost services" for High Speed train, as it exists already on some airlines.



SUPPLIERS

