



Eress Customer Forum 2011 Report



The Eress Customer Forum 2011 on "energy efficiency – smart metering & billing" was held on June 16th, 2010, in Brussels. The event drew more than 140 participants from 20 different countries including representatives from European Commission, major infrastructure managers, railway undertakings, as well as railway equipment manufacturers in Europe. The total number of participants has increased from 95 in 2010 to 140 this year (+47%). This shows that issues related to energy metering are taken seriously all over Europe by the whole rail industry. The event was a great success and Eress has already decided to hold a new Eress Forum next year including various topical issues that will be debated in both plenary and workshop sessions.

Eress is a non-profit cooperation between Banedanmark (Danish National Railway Agency), Infrabel (Belgian Railway Infrastructure Manager), Jernbaneverket (Norwegian National Rail Administration) and Trafikverket (Swedish Transport Administration). Eress is an open partnership for infrastructure managers. New partners join with the same rights and obligations as the existing partners. The Eress partners will fulfill requirements for a neutral and non-discriminatory operation as infrastructure manager, whilst railway undertakings will understand their use of energy and thereby save energy and costs. Eress goal is to make Erex the preferred solution for the railway sector and to attract new partners.

Through Eress Customer Forum, Eress aims at promoting knowledge-sharing, best practice and particularly interest in energy metering and efficiency amongst all European railway actors by bringing them to a common forum.

The conference was structured into 3 main sessions.

The morning plenary session:

The conference was opened by Girordano Rigon, representative of the European Commission. Rigon presented the 2011 White Paper "towards a competitive and resource efficient transport system" and the results of RMMSⁱ 2010 survey. He pointed out that the market share of incumbent rail freight companies exceeds 20% in several European countries, whilst the expected outcome from market opening for passenger transport services has been slow to materialize even if it rose. There are also significant disparities between Member States regarding track access charges. In order to be in line with the objectives set in the 2001 Transport White Paper, the rail industry has to undertake profound reforms and look beyond its traditional borders and make efforts to improve the overall modal share of rail freight and passenger transport.

Dyre Martin Gulbrandsen, Eress Director, also argued in favor of a more cooperation between rail infrastructure managers. Eress itself is a result of cooperation of infrastructure managers who managed successfully to overcome national differences and to focus on the relevant answer to our common needs. Solutions like Erex will strengthen the competitiveness of the rail sector, particularly given the emergence of new competitors. Eress strives to enhance rail competitiveness and interoperability by offering a smart settlement solution for train energy consumption at the lowest price available on the market.

Eress Director also took the opportunity to officially announce the new Eress profile and brand structure. Eress products and services will be known for now on as "Erex." This change affects the name only. The products and services themselves are identical in all other aspects. Eress took this decision in order to clearly distinguish between organization and product name. Eress has seen an increased interest in Erex those last years. Several railway undertakings are presently testing Erex through an agreement called "test participant concept".

Eress' involvement in European standardisation programs will ensure a continuous improvement and compliance with standards of Erex. Erex covers the whole chain from energy metering to energy billing solutions. As result, it then appeared important for Eress to dissociate between what a rail infrastructure manager joins and what it uses.

Bart Van der Spiegel presented the status of the European standardization work. In addition to the UIC leaflet 930, the CR LOC&PAS TSI has also been approved and the EN 50643 is expected to be published next year. The ERA study on energy billing and settlement solution will lead likely to a new TSI on energy settlement. Click [here](#) to view the complete report of the workshop 1.

Marnix Schrijner, KEMA, explained the role of KEMA as Notified Body, National Body and Metrological Institute in the certification and homologation of energy metering solutions and how such institution checks the compliance of a meter with the EN-standard. It emerged from the discussion that Railway undertakings do not need to wait before choosing an energy meter. They can agree with the rail infrastructure managers on the type of meter to be used on the latter's railway grid. The remaining question was how to obtain a cross acceptance of metrological certification.

A session dedicated on energy efficiency and CO2 emissions concluded the morning session. Wim Bontinck from SNCB-Holding presented the different indicators for energy efficient rail transport and classification of energy efficiency measures. Through 3 illustrated examples of energy efficient driving, he stressed that punctuality and energy efficiency can go together. This session also includes presentation on energy management solutions for Smart Grids, Suppliers and End-Users; results of the GreenRail project which successfully decreases cost of train circulation, power utility and increases punctuality and the use of traction power infrastructure; and the benefits from the use of the Bombardier TRAXX DE ME.

The poster session and tradeshow

The second part was devoted to manufacturers, sponsors of the event, where they had the opportunity to present briefly their solutions. Over the last few years manufacturers have shown great interest in providing energy measurement equipment solutions to the railways. As result various and flexible solutions in compliance with the accuracy described in the EN 50463 were presented by the manufacturers. This session was followed by a walking lunch combined with a poster session. During the poster session participants had the possibility to expand their international network and to request detailed information from the manufacturers.

Afternoon session: parallel workshop sessions

In the workshop 1, was debated issues related to the implementation and verification of metering solutions. All railway players, particularly notified bodies and manufacturers, were asked to submit a pragmatic solution regarding the following issues: verification of the energy meter installed on an existing rolling stock, guarantee that an energy metering equipment fulfills the required metrological performances during operation and cross-acceptance of metrological certification.

In the workshop 2, researchers, manufacturers and other railway players discussed about the implementation and benefits from the use of different train advisory systems (Eco-driving at NS; EBI Drive 50 by Bombardier; Computer Aided Train Operation (CATO) by Transrail). Christophe Tassin from NMBS-SNCB also presented the results of analysis on driving style through the on-board energy meter. He concluded that even without using a compliant metering equipment, energy metered data can be used to improve driving style, understand energy consumption and recuperation levels on AC/DC). The session was completed by a presentation on the results of analysis of energy data from DC trains by Dr Stuart Hillmansen and on the potential achievement on energy savings thanks to traffic flow management by Markus Lerjen. Train advisory system is seen as a complementary tool to better achieve energy efficiency. An energy metering and management system is fundamental to invoicing of train energy consumption. Both can co-exist but do not fulfill the same primary purpose.

Conclusion:

The conference ended by a panel session composed of the Terje Stømer, Eress chairman; Ian Papworth, WS1 Chairman, Director Ian Papworth & Associates Ltd; and Bart Van der Spiegel, Energy Management, Infrabel, replacing Henning Schwartz (WS2 Chairman).

All participants agree that the future is "METERED." All players in the railway sector railway undertakings, infrastructure managers as well as manufacturers have to continue their work and involvement in order to ensure a better competitiveness and interoperability of the railway sector. Railway undertakings should be invoiced based on their actual energy consumption. Access to the metered energy data coming from the energy settlement solution will give them the opportunity to undertake energy saving programs and better control their energy consumption. Eress partners and

customers have already understood that a better energy management necessarily requires a better control, and this is fulfilled by Erex.

ⁱ Rail Market Monitoring