



INTERNATIONAL UNION
OF RAILWAYS

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Signalling



INESS General Assembly (Paris, 3 February 2012)

The INESS project launched in October 2008 will be coming to an end in March 2012. To mark the end of the project and present its results the INESS Final Conference was held at UIC Paris on 3 February 2012. The free one-day conference attracted 135 participants from the railway signalling sector and procurement professionals, IMs, industry executives, transport ministries representing European governments and European standardisation bodies and authorities. The morning session included presentations on project results and lessons learned.



The meeting was opened by UIC Director-General Jean-Pierre Loubinoux, who extended a warm welcome to all the participants and key speakers. He explained the importance of the INESS project. Mr Loubinoux underlined in his speech that INESS responds to the stringent needs of railway signalling in the interlocking domain. UIC will commit to a follow-up project using the INESS specifications to build an INESS interlocking functional prototype. He confirmed that UIC is also strongly committed to playing its role of railway coordinator and pre-standardisation body in order to enforce the INESS specification as a norm and later as a TSI; will further maintain all INESS results in a dedicated platform and, finally, that UIC will have its specialists available to enable the results to be appropriately disseminated and exploited further. Michal Klima, EC Project Coordinator, underlined the importance of the INESS project in the signalling domain with 30 partners from the railways, the supply industry, research, academia, 1062 person*months, 102 deliverables and 16,6 million Euro with 10 million Euro of co-funding from the EC. INESS Project Manager Emmanuel Buseyne, UIC, explained INESS' background, its scope, the new specification and design concept emphasising the benefits of using a model-based approach, and demonstrating that INESS has achieved a complete specification work and tool chain fully exploitable for the implementation of an INESS IxL. The keynote speech of the supply industry was delivered by Maurizio Rosi, Ansaldo STS, who explained the importance of railways and industry working together and making the project a success. He confirmed that INESS' outcomes are solid and fit to become the foundation of a further research project; the commitment of most of its participants is proven by their willingness to be together in a new EU-financed project, if ESAR receives the desired green light. The involvement of NSAs and MSs can overcome some difficulties in T&C and SaCa: a closer approach with ERA can fine-tune the strategy of the migration approach.



The railways' point of view was presented by ADIF's representative Jorge Iglesias, who demonstrated the main results achieved by INESS including IxL ERTMS Compliant Common Core; Functional Architecture; Three Interface Definitions (IxL-RBC, IxL-CLC and IxL-IxL); IxL Data Model; Harmonised Safety Case Process (WS G); Harmonised Procedures for Testing and Commissioning (first approach). Dr Iglesias underlined that the ESAR project proposal is the best way to exploit the INESS results and that the final results of the ESAR project will demonstrate the benefits and feasibility of both the extended core of requirements and interfaces specified in INESS in order to be enforced as a TSI by ERA.

The meeting was continued with the presentation of results by workstream leaders. Dr Bernd Elsweller from DB Netz explained that INESS showed fields for optimisation and standardisation. Now we will need appropriate cooperation models to achieve the identified cost saving potentials. Tom Stein, Bombardier, provided explanations on EUDRI; Wendi Mennen, ProRail, further confirmed that her workstream achieved the goal of an ERTMS compliant common kernel, including a model of the common kernel and achieved the goal of having available methods and tools for verification and validation. Jorge Gamelas, Trafikverket, explained the work results of Functional Architecture. Neil Barnatt, NetworkRail, presented the conclusions of work for Testing & Commissioning, including the positive effects of a reduction/removal of on-site testing. These were: a combination of techniques will produce the optimal answer; techniques are not mutually exclusive; a generalised method of assessing the effectiveness of testing has been designed; reduce reliance on bespoke designs, and he explained impact and applicability. Geltmar Von Buxhoeveden, TUBS, and Carsten Trog, showed the work results of the safety case process, explaining that formalisation of CENELEC norms helped to understand the process; GSN method significantly helped to: bring integrity to the safety case argumentation; save time and money by streamlining project meetings and system design in new projects as well as in migration projects. The combination of GSN Tool and DMS makes information very accessible to project management, system engineers and developers, safety assessors and customers.

The General Assembly was followed by two sessions of six interactive workshops including the presentation of the INESS Business model; Who needs EUDRI – how to find a European unified description of railway infrastructures; verification and validation of the common core requirements; INESS system architecture and interfaces – method for evaluating different fallback solutions; testing concepts and how to apply a reduced data set to advantage; improving the safety case development: workflow improvement through tool support. In conclusion, George Barbu, UIC, INESS EU coordinator underlined that INESS is, after ETCS, the most important project in the domain of signalling and train control in Europe and that INESS is a unique chance for railways and industry to conceive together the future of interlocking technology.

