ERTMS 2022 Conference: the Detailed Agenda and all the Slides

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Day 1 - 26 April 2022

12:00 - 13:00

Registration and welcome coffee

13:00 - 13:15

Opening: Introductory remarks

13:15 - 14:45

Workshop Session A

Workshop #1 – ERTMS deployment trackside and on-board. Opportunities and Challenges

The objective of this workshop is to present some best practices and discuss the opportunities and challenges linked to the accelerated and synchronised trackside and on-board ERTMS deployment.

Speaker :

- **Marcin Wojcik**

Workshop #2 – Existing challenges for ERTMS retrofitting and installation

The main objective of this workshop is to present the key steps to carry out an ERTMS installation or ERTMS retrofit project within a vehicle, with a particular focus on the technical aspects. During the workshop, we will also be discussing on how to organise the project in order to achieve optimal type authorization and conformity to type, and how to prepare for the next steps.

Speaker :

- **Marcin Wojcik**
- **Oscar Rebollo**

Workshop #3 – On-board and trackside architecture as foreseen in the TSI CCS 2022

This workshop will provide information about the trackside and on-board signalling architecture as it is foreseen for the TSI CCS 2022. Based on this input, the participants will be invited by the moderators to ask questions and discuss the architecture from different perspectives. Finally, the attendees may provide their feedback on the current status and their expectations about the future evolution of the architecture.

Speaker :

- **Klaus Mindel**

Workshop #4 – Implementing ATO over ERTMS early feedback from implementation

This session will be the occasion for participants to get information on key pilot lines, demonstrations and projects that have already tested or implemented ATO over ETCS.

This will include feedback from:

- ATO GoA2 – Betuwe line
- *Hamburg S-Bahn operation with ATO*
- *ATO tests in Switzerland and United Kingdom in the framework of S2R*

Participants will be provided with insights on these projects and will be able to get more insight on technical and operational aspects surrounding them.

Speaker :

- **Lea Paties**

Workshop #5 – Maximum performance through ETCS

This workshop is aimed at capacity experts and others who would like to get a much broader idea of what can actually be done to maximize capacity with the current "toolbox" of ETCS. Topics might include issues such as braking curves, block divisions, system delays as well as planning details and technologies.

Speaker :

- **Peter Reinhart**
- **Daniel Scherrer**

Workshop #6 – TSI CCS modifications and expected impact

The presentation focuses on providing the main changes in the TSI CCS 2022 text. These can be categorised in the following 2 main areas, the main technical changes within the ERTMS specifications and the impact of these specification changes on the implementation frameworks for vehicle and trackside projects.

Speaker :

- **Wouter Malfait**
- **Juan Hernández Fernández**

Workshop #7 – FRMCS introduction: strategies and perspectives

The introduction of a new Class A radio system requires an update of the TSI CCS and its Annex A documents. This presentation gives an overview of the changes in this TSI, related to the basic parameters, the interoperability constituents and the implementation and migration conditions. It will also give a brief overview of the system characteristics, as covered in the new specifications in Annex

A.

Speaker :

- **Chiel Spaans**
- **Dan Mandoc**

Workshop #8 – CCS Beyond 2022: introducing Europe's Rail Programme

- **The Innovation Pillar**
- **The System Pillar**

I look forward to discussing the objectives of the System Pillar, and what it means for the future evolution of ERTMS and CCS more broadly.

Speaker :

- **Ian Conlon**
- **Giorgio Travaini**

Workshop #9 – Trackside Approval – return of experience

- ERTMS Trackside Approval
- Trackside approval- Return of experience of DB Netze
- Experience of RFI on Trackside Approval
- Experience of PKP Polskie Linie Kolejowe S.A. from on-going ERTMS approval procedures
- Trackside Approval- Experience of Správa železnic
- Considerations about Trackside Approval

Outcomes of the Workshop Trackside Approval will be presented during the conference. Based on the feedback collected from the participants we will report on interesting topics, possible proposals for improvement and experience from our first applicants.

Speaker :

- **Jo De Bosschere**

Workshop #10 – ETCS trackside engineering rules and their effect in operations

The workshop will elaborate on the close link between engineering and operational rules. It will also elaborate on how the ETCS toolbox that is used on the trackside creates different "user experience" on the onboard and requires different reactions from the driver. We will approach the Engineering guidelines produced by EUG as best practice and the role of harmonised marker boards to operational interoperability. To be debated: should more trackside engineering rules be harmonised at TSI level?

Speaker :

- **Georgios Kouparousos**

14:45 - 15:15

Coffee break

15:15 - 16:45

Workshop Session B

Session A replicated

16:45 - 17:15

Coffee break

17:15 - 18:45

Workshop Session C

Session A replicated

18:45

End of day 1

Day 2 - 27 April 2022

08:30

Registration and welcome coffee

09:00 - 09:15

OFFICIAL OPENING

09:15 - 10:00

WHO IS WHO

EC, ERA, EUG, CER, EIM, UNIFE, EU-Rail, NB-RAIL, EAL

10:00 - 10:05

Session 1: 2000-2022 ERTMS ACHIEVEMENTS

Introduction

10:05

ERTMS deployment. Where do we stand now? Where are we going?

10:25

ERTMS evolution

EU Railways will increasingly use ERTMS. The Commission and the Agency will facilitate it in the revision of TSI CCS. This will improve the quality by providing a more robust mechanism for specification changes (inc. error corrections) and flexibility by creating the basis for a modular architecture. It will open the door for performance enhancing innovations: Automatic Train Operation and FRMCS. Future improvements (e.g., train positioning) will be handled in a consistent framework.

10:40

The future

ERTMS establishes a single command, control and signalling systems for the EU. Yet, it needs to become more harmonised, add game changing functionalities and make it easier to deploy innovations added to it. JU's System Pillar will deliver a joint vision and a common system architecture for future development of CCS addressing this and ensuring coherence for development of the digital railway more generally. The rail sector will deliver game changing innovations through the Innovation Pillar of the JU.

10:55 - 11:05

Feedback from Workshop 1 | ERTMS deployment trackside and on-board

Opportunities and challenges

The objective of this intervention is to report on the discussions that will take place in the workshop 1 scheduled for 26 April. The aim of workshop 1 is to present some best practices and exchange on the opportunities and challenges linked to the accelerated and synchronised on-board and trackside ERTMS deployment, coupled with decommissioning of class B systems.

11:05 - 11:25

Questions and Answers session

11:25 - 11:30

Conclusions

11:30 - 11:45

Keynote speech

11:45 - 12:15

Coffee break

Session 2: TSI CCS REVISION PACKAGE 2022

12:15

TSI CCS ETCS - Modifications and its resulting impact and feedback from Workshop 6

12:35

Managing Baseline compatibility

The CCS TSI should consider a compatibility roadmap to provide visibility of future evolutions and a stable and consistent deployment framework. The goal of the stable Baseline roadmap is to carefully manage each individual delivery program in a balanced way while considering the evolutions of the state of the art, reflected by the regulation, and the life cycle costs and revenues of the assets. The capacity of the sector to supply and integrate the changes must be considered.

12:50

TSI CCS modifications on the communication systems and its resulting impact and feedback from Workshop 7: FRMCS introduction: strategies and perspective

13:05

PAD Vehicle Authorisation - Return of experience and feedback from Workshop 2: Existing challenges for ERTMS retrofitting and installations

13:20 - 13:35

Questions and Answers session

13:35 - 13:45

Conclusions

13:45 - 15:15

Lunch break

Session 3: System evolution towards digital rail

15:15

EU-Rail Vision for rail transport

15:20

Feedback from WS 3- On-board and trackside architecture as foreseen in the TSI CCS 2022

The presentation shows the main statements made by participants when the on-board and trackside architecture was discussed.

15:25

System view: On-board and trackside architecture as foreseen in the TSI CCS 2022

16:05

Innovation view and feedback from Workshop 8: CCS Beyond 2022: introducing Europe's Rail Programme

16:35

Transport view

16:55 - 17:00

Conclusions

17:00 - 17:30

Coffee break

17:30 - 18:30

Round table discussion

18:30 - 19:00

Today's conclusions

19:00 - 22:00

Cocktail

22:00

End of day 2

Day 3 - 28 April 2022

08:30 - 09:00

Registration and welcome coffee

09:00 - 09:10

Opening speech

09:10 - 10:00

Railway sector representatives and policy makers share their views

10:00 - 10:30

Coffee break

Session 4: Feedback from the ERTMS projects, part 1

10:30

Towards ETCS over FRMCS in Finland - Return of experience on LTE/5G based deployment

The presentation will provide information about the Finnish ERTMS programme called Digirail and will share details about the use of FRMCS (5g/LTE) solution. Finally, it will show the results gained by the programme so far.

10:45

Norway ERTMS - National Implementation

The purpose of the presentation is to give an overview of the ETCS deployment in the Norwegian fleets. I will explain what are the main challenges, the embedded technical solutions and what is put in place to perform such a massive deployment at country level.

11:00 - 11:15

Preconditions for successful rollout of ERTMS in Germany

Window of opportunity for innovation vs. stable specifications and availability of products needed for advanced vehicle equipment and to upgrade existing routes to ETCS L2 only

11:15

Feedback from Workshop 5: Maximum performance through ETCS

11:20

New scopes for certification

The presentation is divided in two parts: the first one is dedicated to ERTMS Accredited Laboratories activities not only for today's needs but also in light of the preliminary numerous developments of ERTMS/ETCS in Europe; the second part, is dedicated to the Notified Bodies activities that are facing new challenges linked both to the TSI CCS updates and to the growing number of cross-border projects.

11:35

Trackside approval - Return of experience and feedback from Workshop 9: Trackside approval

The aim is to present the current status, the return of experience and the coming improvements of the ERTMS trackside approval.

11:50 - 12:05

Questions and Answers

12:05 - 12:15

Conclusions

12:15 - 13:45

Lunch

Session 5: Feedback from the ERTMS projects, part 2

13:45

ERTMS on the Spanish commuter network and regional lines

14:00

Suppliers view on implementation of ATO and ETCS L3 Siemens

14:15

Feedback from Workshop 4: Implementing ATO over ERTMS early feedback from implementation

14:20

Level crossing optimization with the help of ETCS

14:35

Harmonisation of operational concepts

Harmonisation of operational concepts

- The main goal is to develop a working and efficient meta-process for harmonising Operational Harmonization within CCS+
- Proof the efficiency of the meta-process by applying it to chosen relevant operational scenarios including relevant degraded situations
- Achieve a common understanding regarding the actors and their capabilities
- Find an adequate way of documentation for proof of concept, at the beginning in a semi-formal ay, later on to be refined to match the chosen level of detail of specifications

14:50

Feedback from Workshop 10: ETCS trackside engineering rules and their effect in operations

14:55 - 15:10

Questions and Answers

15:10 - 15:20

Conclusions

15:20 - 15:50

Coffee break

15:50 - 17:10

Session 6: Window of opportunity

ERTMS2022 - Lessons learned

17:10 - 17:30

Closing remarks

17:30

End of Conference