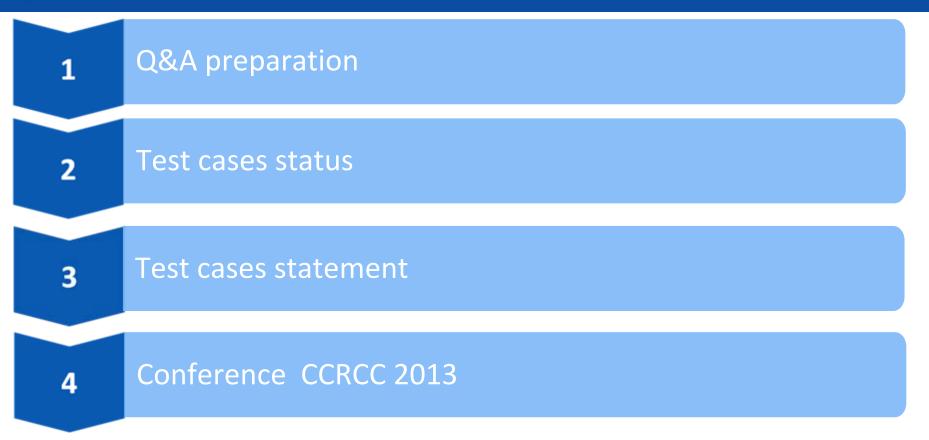# Certification and Authorisation Workshop in Poland

**Question and answer session - GSM-R related**

*30,4h of July 2013*

**ERA ERTMS Unit**

# Content

1. Q&A preparation

2. Test cases status

3. Test cases statement

4. Conference CCRCC 2013

## 1 Q&A preparation

# GSM-R certification - basics

- Does GSM-R network require to be EC Verified and granted EC Verification certificate?

*ERA: Yes, GSM-R Network is part of  the trackside subsystem*

- Since GSM-R network is part of CCW – will it be then partial / interim EC Verification certificate?

*ERA: GSM-R Network is part of  the trackside subsystem and needs an own certificate*
*a) Voice*
*b) Data (ETCS)*

- Certification of constituents

- Safe integration of constituents

*Details see process description*

- In order to perform GSM-R network EC Verification is it necessary to use ETCS equipped train?

*ERA: Not for the network certification; only for train track integration of L2 trains*

- What in case if GSM-R network is being done in separate contract than ETCS wayside and on-board?

*ERA: GSM-R network certification is independent of the ETCS part*

- Which equipment/ components should be included in the GSM-R infrastructure assessment process – e.g. which core components, which BSS components, GPRS (future usage for L2),…?

*ERA: All equipment what is necessary to ensure the essential requirements is part of the scope of the authorization of the GSM-R network*

- In case of first implementation (so full NSS and pilot BSS config.)
*ERA: See above*

• In case of BSS extension (so new BTSes are connected to existing NSS upgrade in subject of capacity)

*ERA: Essential requirements have to be tested. The MS has to define/agree if a new authorisation is needed.*

•Should and how the "track" should be tested (coverage & QoS) can be enough for BSS/track certification in case of connection to existing NSS

*ERA: Essential requirements have to be tested*

•System or contract certification – so what to do if Customer order the "limited" or "extended" system → i.e. no BSC redundancy or single/dual coverage or no FDS (in the GSM-R contract)

*ERA: Designed network has to be certified*

# Modules to be used and documentation

• Which modules should be used for which cases?

*ERA: see basic introduction ; SIM card not to be tested by NoBo*

• Which documents has to be delivered to NoBo's for the different modules to execute them successfully?

*ERA: see basic introduction*

Which tests (based on which test cases) has to be (or can be) executed by the supplier before?

*ERA: No test for certification ,only tests based on contractual agreements (supplier – buyer)*

# Other equipment linked to GSM-R

- Is there a need, to "approve" other equipment which is not considered by CCS TSI and which has no relevance to EIRENE – e.g. BBRC, transmission interfaces,…

*ERA: Certification only for MI related functions. NoBo has to guarantee, that options are not influencing the Mi functionalities*

- Poland specific

*ERA: Only if the national rules are notified*

- What can be/should be/must be a part of GSM-R system in term of certification

- What if some equipment are not in Contract?

*ERA: All equipment what is necessary to ensure the essential requirements is part of the scope of the authorization of the GSM-R network*

- Basis for assessment process should be only the current valid SW version.

*ERA: Basis is the SW version prepared for the certification*

- Patches to update the system from time to time should be bundled and lead to a new SW version in the future.
    What software change has to be retested

*ERA: Impact assessment to be done; modifying the essential requirements needs a new authorization.*
*See also basic introduction*

- What if only the hardware has been changed but software has the same SW version

*ERA: If this is a maintenance procedure no authorization, otherwise new authorization*

# Different supplier in one network

Which process has to be considered, if a second BSS supplier will be involved?

*ERA: Nothing is limited to a single supplier*

Who is responsible for IOT in this case?

*ERA: Interconnection has to be done on contractual basis, nothing to do with interop.*

Integration of cab radios thru a third party via an independent RfQ process or by an signaling supplier?

*ERA: Responsible is the applicant of the subsystem*
*Certification path in case of only GSM-R implementation (so no ETCS level2)*

• Certification path in case of dividing the CCS for more than one contract (one dedicated for GSM-R) →should GSM-R be certified before other parts?

*ERA: Dependent on ETCS Level (L1= independent; L2= before ETCS)*

• How to guaranty interoperability with a second system supplier for version

*ERA: Essential requirements must be guaranteed, independent from supplier*

- Neighbour network

*ERA: Same as above*

- BSS/ NSS in a common network

*ERA: Same as above*

**2** Test case status

ETCS Test Cases

GSM-R Test Cases

o **SS 76 For on-board unit** – equipment to be tested in the lab
  - Update to BL 3.0 ready by end of 2013
  - Test cases for 2.3.0.d are belonging to the existing TSI

o **Operational test cases –** field experience
  1. Collected by railway organisations
  2. Transfer in an agreed format
  3. Review by ETCS industry
  4. Delivered to ERA
  5. Assessment by ERA

  - Availability planned by end 2013 for 2.3.0.d
  - New functionalities for BL3 to be testes/validated in the field together with the first installed BL3

- ○ **Test cases for mobile equipment**
  - • **Cab radio**
    - ▪ Basic description available on the ERA WEB site
    - ▪ Mandatory for interoperability (Mi) test cases selection and recommendation/guideline by ERA under preparation
  - • **EDOR**
    - ▪ Basic description under preparation of UIC
    - ▪ Mandatory for Interoperability test case selection and recommendation/guideline foreseen by ERA for 2014
  - • **SIM Card**
    - ▪ Self declaration process and guideline under preparation by ERA, finalised by 1.Q 2014

- ○ **Test cases for communication network** ("fixed network" only via E2E functionality included)
  - • No test of network elements
  - • Basic essential requirements
    - ▪ Ready and validated by end of 2013

**3** Test cases statement

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**Information Documents**

In this section, some documents are provided for information only, because of their interest for the implementation of ERTMS.

It must be noted that they have no binding legal status, that the Agency has not drafted them and it is not responsible for their update.

The documents presented in points 1 and 2 are used as input documents by the basis for the Agency to develop the ERA GSM-R test cases. ERA does not have any responsibility in the interoperability verifications done by any specific provider or in the results. ERA does not endorse any testing activities or results, which are out of the scope of its functions.

**Information Documents**

1. GSM-R industry : Multi vendor interoperability testing for GSM-R networks in mixed configurations, provided by Kapsch CarrierCom and Nokia Siemens Networks.

These documents are the results of the study financed by the TEN-T E Agency Multi Annual Programme 2007-EU-60040-P (Activity 9 : GSM-R Interoperability Tests).

Test Plans
Test Reports

2. DB Systel GmbH: Test Specification for EIRENE networks assessment .
The involvement of the Agency was restricted to the activities related to the test cases description, not to any use of this document to test any set of equipment.

Test Specification

Remark: Test cases for GSM-R defined under ERA control will be part of the Application Guide

**4** Conference  CCRCC 2013

# Control Command and Railway Communication Conference

CCRCC 2013: 12 & 13 November 2013
ERTMS – making the railway system better

❑ Status :
- Draft agenda agreed
- Invitation prepared
- Registration process defined

❑ Next steps:
- Invitation to be sent out CW 32
- Registration start CW 33

**We make the railway system work better for society.**

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