**Workshop: Installing and using energy meters for invoicing - discussion on good practices and challenges.**

**Agenda**

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| Introduction:  Experiences in Switzerland and Norway | 10 min | Short introductory presentations with ca. 2 Slides each from Raidun and John  Possible Topics:   * How did the installations of meters in the country go? * Did it take longer than expected, why? * Were there issues on conformity? * What are important considerations when planning installations? * Other tips and tricks for IMs and TOs * Why is it important to have meters installed on trains? |
| Interview with meter suppliers:  ÖBB and Mors Smitt | 15 min | Two equal parts ca. 7 minutes, same for each supplier.   1. Short presentation from supplier with focus on new developments (max. 3 Slides, max 4 minutes)   Suggested topics:  **EN50463:2017**   * When will the EN50463:2017 norm be supported? * What benefits does the new interoperable protocol for DHS-DCS (on-board to ground) communication defined in EN50463:2017 bring for a) the train companies and b) the equipment suppliers?   **Support Services**   * Support services, please describe what kind of Support services your company offer during the life time of the meters? * Once meters are installed, which services need to be provided for the operation of the meters and management of the meter data?  1. Two questions in interview mode (3 Minutes)    1. How can meter suppliers help the train companies with the installation and conformity assessment of the EMS?    2. What other applications could be implemented to increase the business value of the meters beyond just invoicing? |
| Introduction to group discussion | 5 min | Present the questions to be discussed in the groups, the timing and how the results are to be recorded and collected.  (2 pages with the topics printed for taking notes to be provided at each table) |
| Group Discussion on 2 topics | 30 min | **Topic 1: Key challenges involved in EMS installation**   * What is hindering installation of EMS? * What could be done to promote/facilitate installing of EMS?  By whom? * What challenges or issues have you experienced in getting compliance documentation, certificates and cross-acceptance? (e.g. from NoBos, with different IMs etc.   **Topic 2: Potential applications using metering data**   * Use of data coming from EMS: besides billing, what other applications could be foreseen? |
| Quick feedback from group discussions | 10 min | Short feedback via interview at a few tables.  Collect the written notes taken in the discussions (number of tables depending on time available) |
| Conclusion | 5 min | Short summary and information about what happen with the results collected. |