

13th UIC Sustainability Conference



Digital communications and energy efficiency in railways

:- Driving, metering and billing

Moderator Ian Papworth



12, 13, 14 October 2016

WELCOME



Goddag!

¡buenas tardes

Добрый день !

Boa Tarde!

Dobré Odpoledne !

こんにちは ! Good Morning !

Buon Pomeriggio !

Goedemiddag !

Dober Dan!

God Ettermiddag !

Hyvää Päivää !

Guten Tag !

مساء الخير !

Bonjour !

Bună Ziua !



SDG8: Promote Sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all



Target 8.4

- Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead.





Digital Communication and Energy Efficiency in railways: **Driving, Metering, and Billing**





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Digital Communication and Energy Efficiency in railways: Driving, Metering, and Billing



Opportunities in this field: Improving current systems on energy consumption information and efficiency systems allows companies to reduce costs, saving resources for the society in a environment of potential scarcity.

- An accurate measurement of energy consumptions and improved systems for the exchange of information between main actors may improve measurement and saving policies.
- Systems helping efficient consumption for driving integrating technologies and knowledge in efficient operation will be required to improve the energy efficiency.



Workshop Programme :- 0920 - 1100



1) Development of a Real-Time Energy Metering Device for Electric Railway Vehicles.

Yoon-Young Chun, Transportation Research Team, Korean Railway Research Institute.

2) The Railpower Box :- The energy metering system for future railways.

Harald Jony, Sales Director, OBB-Infrastruktur AG

3) Working together on railway energy solutions

Dyre Martin Gulbrandsen, Managing Director, Eress

4) Digital Communications in Railways (metering and driving).

Bart Van der Spiegel, Infrastructure Manager, Infrabel

Panel and Workshop Session





SPACER for the Various Presentations





WORKSHOP SUMMARY





- **PROTOCOLS – standard interfaces**
- **HARMONISATION – data transmissions**
- **FUTURE PROOFING – 30 year ‘vision’**
- **BENEFITS**
 - **Cross Border Traffic**
 - **Modular - Implementation**
 - **Efficiency – Cost – Business Cases**





CYBER SECURITY





THANK YOU

Next Workshops Commence 1115

