

Project status quo

MyRails

**An ongoing Energy
research project
of 2016 EMPIR Call**



Overview of the project



MyRailS:

Metrology for smart energy
management in electric railway
systems

Duration Sept 2017 - Aug 2020

Coordinator: INRIM (Italy)

Consortium : 14 funded partners

➤ **6 EURAMET Metrology
Institutes**

INRIM, Italy, CMI, Czech Republic, FFII,
Spain, LNE, France, NPL, United
Kingdom, VSL, Netherlands
And 10 other participants

Overall objectives of the project

- to develop the metrological infrastructure for accurate measurement of energy exchange and for reliable system monitoring
- focuses on the characterisation of the railway subsystem as a producer-consumer, with a view to its integration in a wide smart grid, as well as on the assessment of eco-driving performances.

Need for the project



- The European railway system consumes about 36.5 terawatt-hours of energy each year. To meet the ambitious EU target of reducing CO₂ emissions from rail transport by 50 % by 2030, efficient use of energy across Europe's railway system is mandatory.
- This requires accurate and reliable knowledge of the energy exchanged between the train and the railway grid, and real-time power quality.



Project objectives



- will develop the infrastructure needed for accurate measurement of energy exchange and power quality, under the highly dynamic conditions experienced in transit.
- will also focus on the characterisation of the railway subsystem as a producer-consumer, able to transfer excess energy, with a view to its integration in a wider smart grid.

Expected impact on standardisation



Results of this project will:

- underpin the energy efficient management of Europe's railway networks, and allow upcoming EU legislation concerning railway energy management to be met.
- will promote the results and will provide input to more specific technical committees on on-board energy measurements: CENELEC/IEC TC9X, CENELEC/IEC TC38 (WG47 and AHG 50), CENELEC/IEC TC85, International organisation on legal metrology OIML TC12 and WELMEC WG11.

Thank you for your attention!

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