



Wabtec
CORPORATION

/// ENERGY METERING DAY

ERESS FORUM, October 2020

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/// NUMEROUS REFERENCE

 Thousands installed base, 22 countries, 5 continents



Incomparable return of experience and network knowhow

/// RETURN OF EXPERIENCE / INNOVATION

Solution-focused Innovation



RELIABILITY

Applicable standards do not include exceptional conditions frequent in the complex railway systems.



ACCURACY

Accuracy is impacted by the severity of the environment



MAPPING

Detail energy mapping to understand consumer impact (HVAC, Traction, etc.)



ANALYSYS

Data analysis (Energy, Diagnostic, context, etc.) are foundation of any operational cost saving action



WABTEC defined with customers the most severe tests on top of standards to qualify and produce robust equipment during 30 years lifetime



WABTEC use its important return of experience and tests to study the lifetime and environment impact on accuracy.



WABTEC developed a new ultra compact Micrometer to install easily on train additional energy measurement



WABTEC is testing Artificial Intelligence with Deep Learning to corollate energy data with weather data base and geographic data

Innovation for customer and market benefits

/// PROJECT OF INTEREST

SNCF case > 2 000 EMS

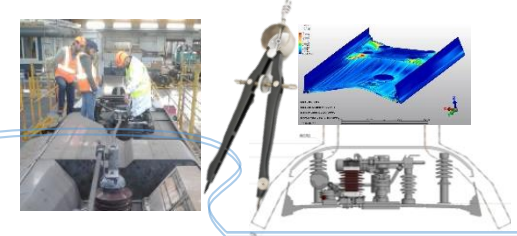
RELIABILITY CHALLENGE:

WABTEC demonstrate capability of EMS sensors to withstand during lifetime by specific severe tests.



TURNKEY SOLUTION CHALLENGE:

20 different type of traction units designed by WABTEC COC (mechanical, FEM simulation, HT/BT electrical, sealing, cabling, safety).



ADMISSION CHALLENGE:

WABTEC manage European standard and directive, CSM and Admission constraints, conformity assessment files, etc.



INDUSTRIAL CHALLENGE:

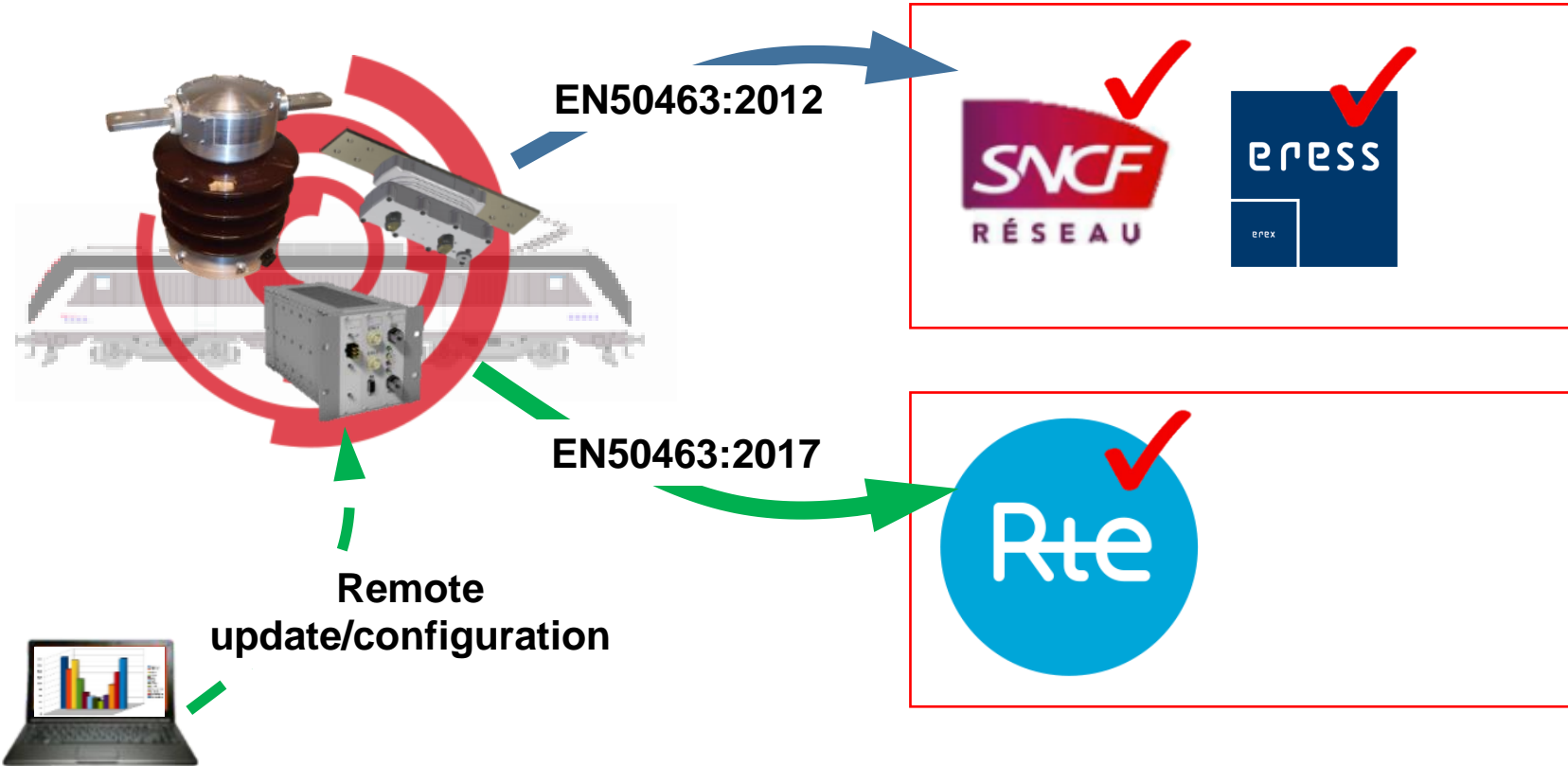
WABTEC developed a modern production line with its own metrological laboratories and special process control for high quantitative and qualitative deliveries



Demanding customers leads to supplier excellence

/// EN50463:2017

Compliance to EN50463:2012 & 2017 is requested for project



Multiple protocols to serve DCS transition period



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