Energy Efficient Innovation

Lighthouse Project Roll2Rail

UIC Energy Efficiency Workshop
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Energy Efficient Innovation

SiC Converter
Car Body
Running Gear
Standardization

Market Conditions

Agenda
Energy Efficient Innovation Needs Market Pull

Energy weighting in tender evaluations

Weak focus on energy

Strong focus on energy

Schematic Return on Investment

Cost, Savings

Time [years]

Initial Cost

Savings

Energy cost € / kWh in European Countries / Operators


This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No. 636032.
Traction innovation: SiC

- Reduction of Weight
- Reduction of Volume
- Specific Consumption Improvement

PINTA Overall Targets incl. SiC & others (Selection):

- Regional TD: 10% savings
- Suburban TD: 15% savings

* TD = Technical Demonstrator

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Car Body & Running Gear

Car Body Weight
- Materials
- Structures

Running Gear Weight

Running Resistance

Energy Cost

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Standardization

Future

Adoption of EN 50591 method for rolling stock procurement + energy validation

Recommendation of TS 50591 for further development

Gaps in TS 50591

Improvement Recommendations

prEN 50591

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Summary & Outlook

Future

Continuation of Roll2Rail work within Shift2Rail:
- PINTA (traction)
- PIVOT (subsystems)
- FINE1 + OPEUS
- IMPACT (KPI)
Thank you for your attention!

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