

Energy in railways

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Infrastructure managers views on the
EU developments

Introduction

A Finnish case study

A recap of the Technical Specifications for
Interoperability

What are the next steps to push our sector
forward?

EIM – Basic Facts



Geographical coverage



EIM in a nutshell

Founded:	March 2002
Legal entity:	AlSBL (International Non-Profit Association)
Office:	Brussels, Belgium
Coverage:	11 countries
Members:	12 full members and 2 associate members
President:	Antti Vehviläinen (Finnish Transport Agency)
Executive Director:	Monika Heiming

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Mission

- EIM promotes the development, improvement and efficient delivery of rail infrastructure in the EU
- EIM represents its members' political, technical and business interests to all relevant EU institutions
- EIM supports business development by providing a forum for cooperation

Vision

- EIM supports an open and seamless European rail network, promoting a safe and sustainable transport system

1. Introduction to EIM – Current challenges - the EU rail transport system

► EIM believes in making rail the transport system of the future in the EU

Deliver excellent value for money for customers and taxpayers

Serve more passengers and carry more goods

New services, better information

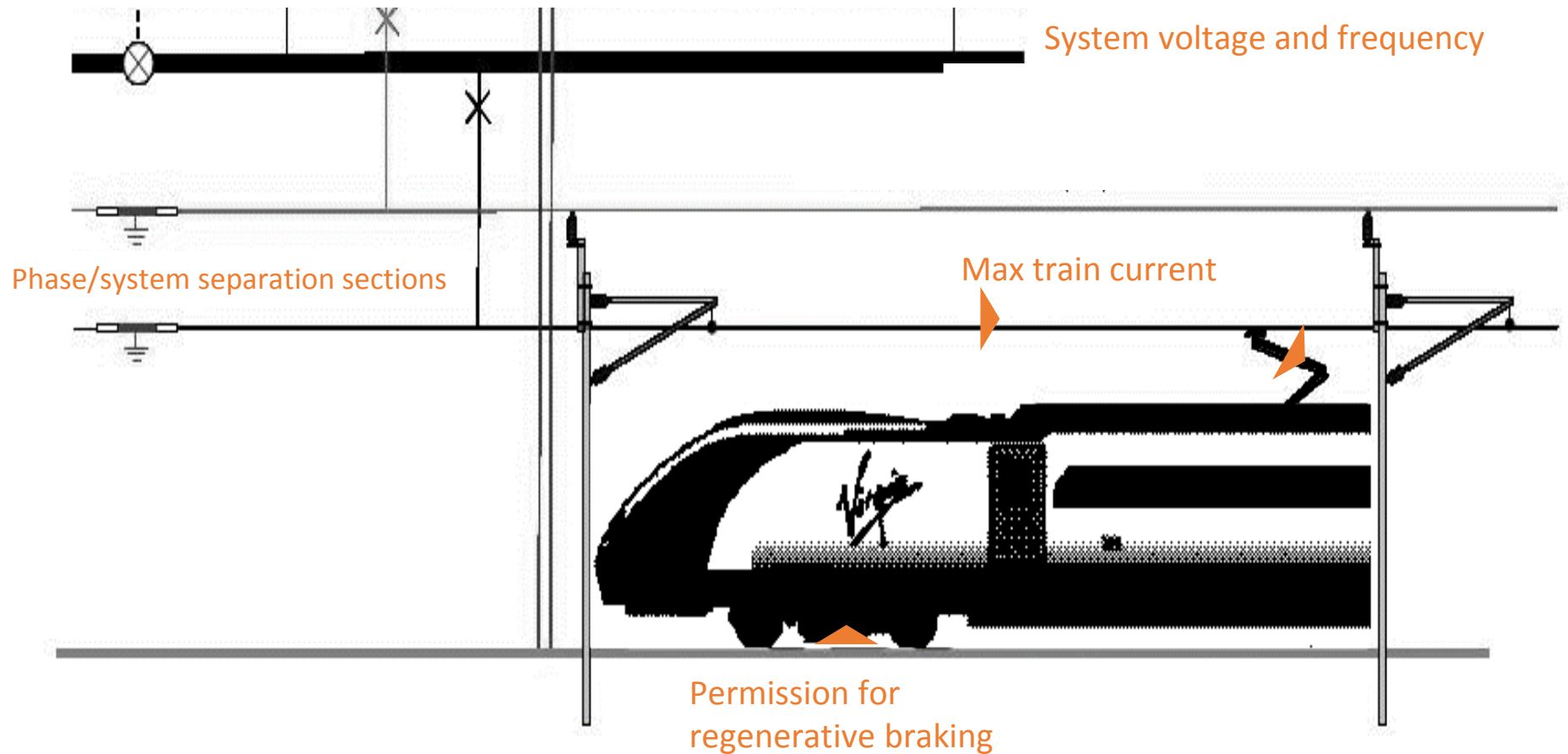
Increase its overall energy efficiency

Allow end-to-end journeys within and across modes

Highest standards of safety

Cutting edge information technology

A Finnish case study



A Finnish case study



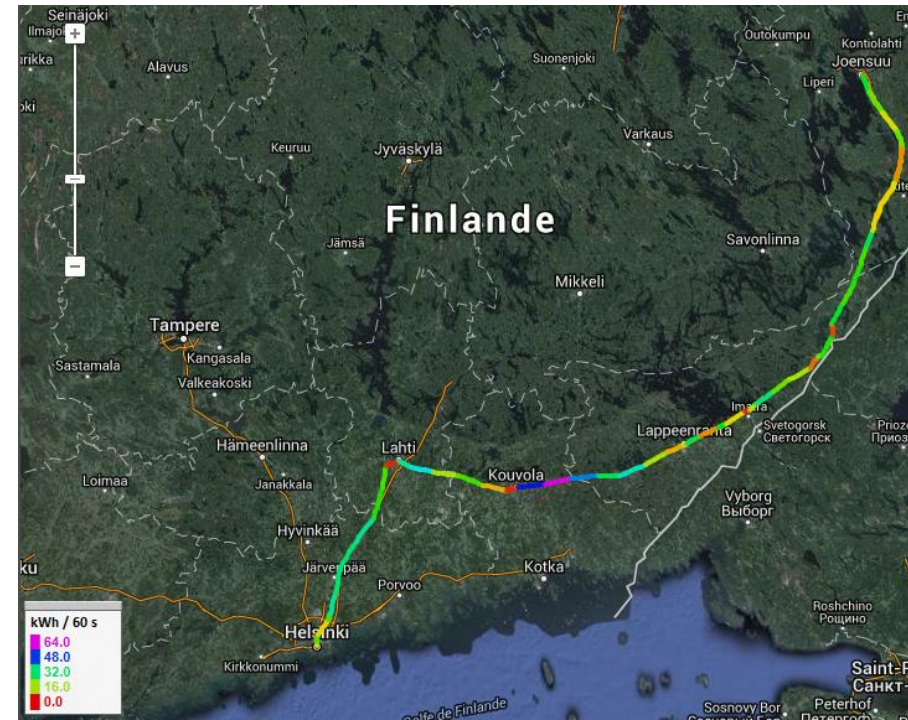
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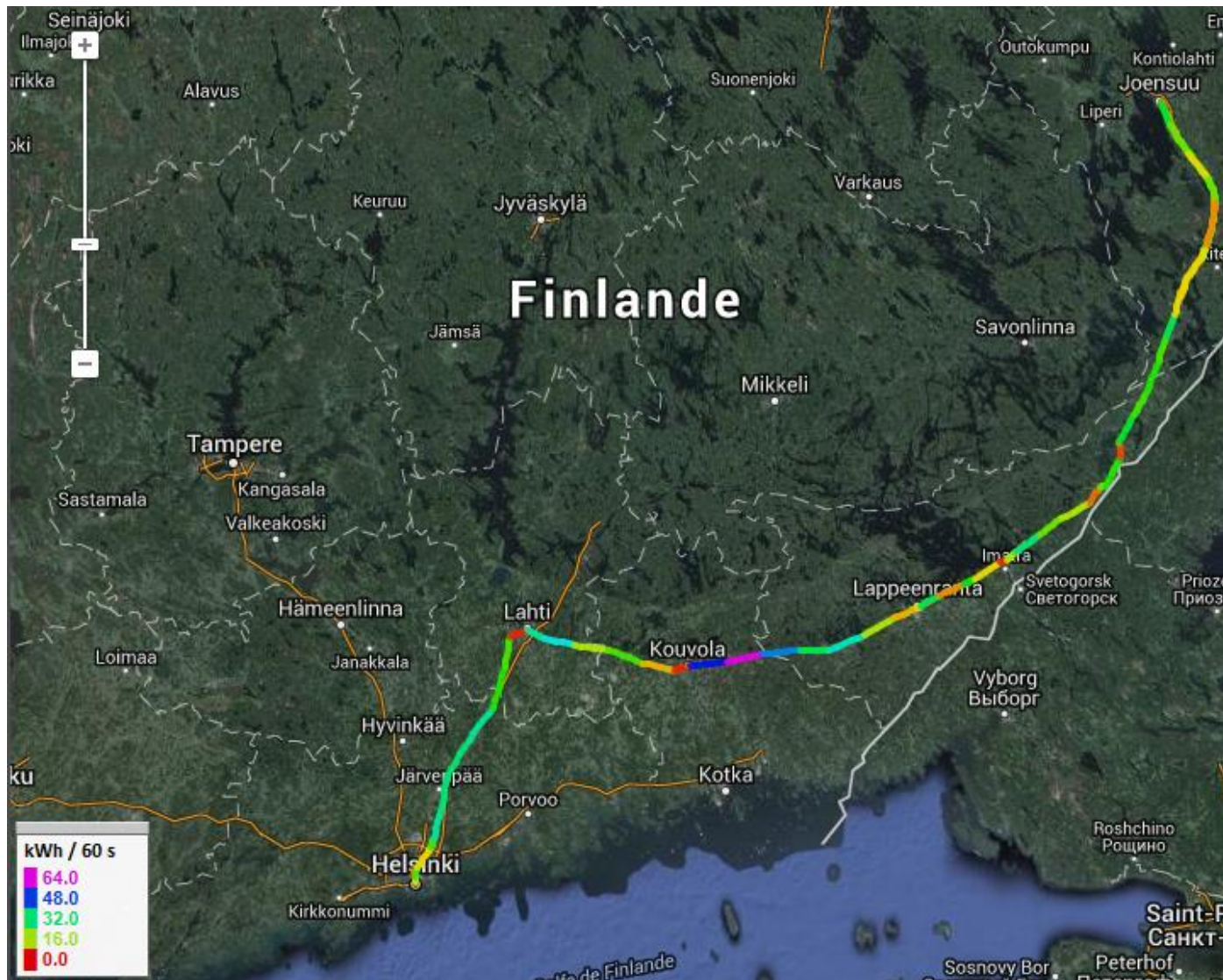
- ▶ The test installations for energy meters in Finland were conducted in co-operation with the IM and the RU
 - ▶ What to do?
 - ▶ Do plan the installations together as IM/RU
 - ▶ Do the installations as part of a bigger overhaul
 - ▶ Test your first EMS in a laboratory – including the data connection
 - ▶ What not to do?
 - ▶ Do not power-up the EMS
- ▶ the first time when it is installed
- ▶ into the locomotive – test it
- ▶ before

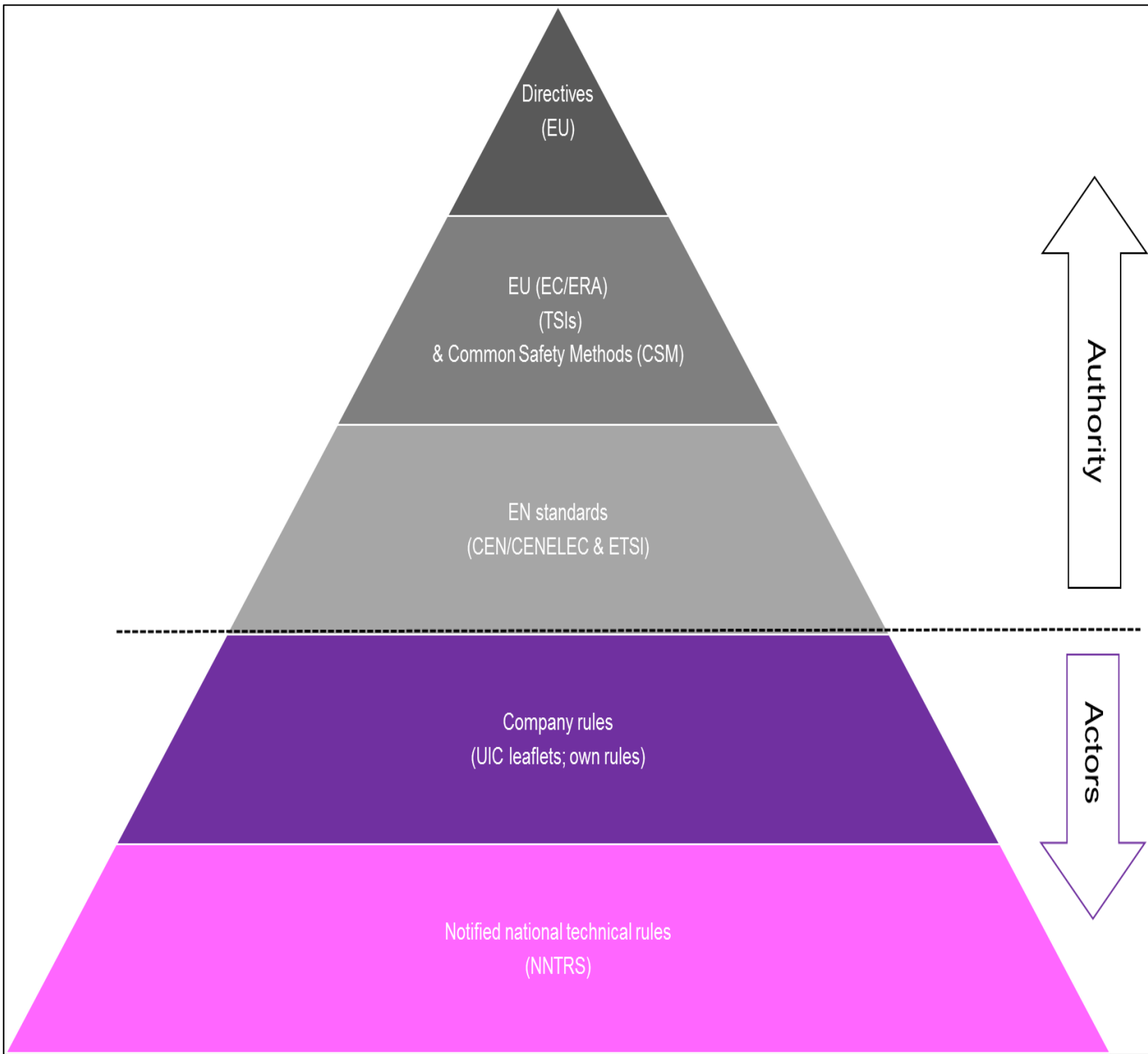


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A recap of the Technical Specifications for Interoperability (TSI)

- ▶ The TSI drafting has systematically approached the objective of measuring the electrical traction energy consumed on the railway's of Europe:
 - ▶ The merged ENE TSI 2014 defines requirements related to the On-ground energy data collecting system
 - ▶ EIM members have been committed to install the trackside energy data collection system for years
- ▶ The merged LOC&PAS TSI 2014 states:
 - ▶ The fitment of the on-board energy measuring system is mandatory for new, upgraded and renewed vehicles intended to be operated on networks equipped with the on-ground energy data collecting system

Energy Union and the next steps

- ▶ One of the key pillars of the Energy Union is to improve the energy efficiency
 - ▶ Transport sector is one of the key sectors where the usage of energy can be improved
 - ▶ Target is to improve energy efficiency 27 % by 2030
- ▶ Decarbonization of transport
 - ▶ Transport is one the major producer of CO₂/green house gasses (GHS)
 - ▶ We have have a fundamental chance of cutting the GHS emissions up to 40 % by 2030
- ▶ The research and innovation
 - ▶ The EC is planning to support advances in low carbon technologies
 - ▶ Foster the usage of interoperable recharge systems for electric vehicles
 - ▶ EIM is part of the multi sectorial platform for electro mobility and the subgroup of infrastructure of this platform to develop interoperable solutions in the railway station areas

Energy Union

- ▶ Fully integrated internal energy market
 - ▶ Aims to promote competition among the energy suppliers
 - ▶ Improving the flow of energy and natural gas throughout Europe
 - ▶ Provided that the 3rd energy package is fully implemented

- ▶ In order to really decrease costs for railway traction energy, having energy meters on all trains is identified as one of the biggest challenge
 - ▶ EIM members in general are in favour of TPA to the Rus
 - ▶ To this end EIM members have committed themselves to the principle of transparent and consumption based energy billing
 - ▶ EREX is recognised to be a good tool of choice for this purpose

Thank you for your attention