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Train localisation : a major game changer

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ERSAT GGC Final Conference

26/Nov/2019, Prague

Train localisation – a game changer

A major game changer : Train localisation has various operational applications. It may have short term goals (customer information, TMS), medium goals (enhanced ETCS odometry) and long term goals (full automation of train operation)

Satellite navigation : could be part of the solution but satellite navigation standalone is not the solution

What CER is expecting on train localisation standardisation

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Technological neutrality : The definition of Minimum Operational Performance Levels and standards on interfaces are of paramount in that respect. No mention to specific technology or technical solution

Upgradability: The system architecture must be modular with open interfaces suitable for the future CCS architecture (e.g. OCORA)

Interoperability: The standard defines a European solution suitable with all lines(regional line or main line) in all environment (urban, mountainous, …). Migratability from today "trackside train detection" towards tomorrow "on-board train localisation" shall be addressed.

Technical feasability: the feasibility of the localization shall be demonstrated with various operational scenarios. At least Technology Readiness Level of TRL 7(*) before any modification of the standards. The certification and validation process shall be part of the standards (eg. scenarios, process, …).

Business-case oriented: A positive business case, with multiple suppliers, affordable costs for trains, is still expected for IM and RU, having regards to balance costs and benefits

Safety/Reliability/Cybersecurity: must be sufficient to support the overall Safety and Operational targets

TRL7 means system prototype demonstration in all types of railway environment