#space4rail enabled Intelligent Transport Assistance

Train Collision Avoidance and Beyond

Dr. Thomas STRANG
CEO Intelligence on Wheels (IoW) GmbH
thomas.strang@intelligence-on-wheels.de

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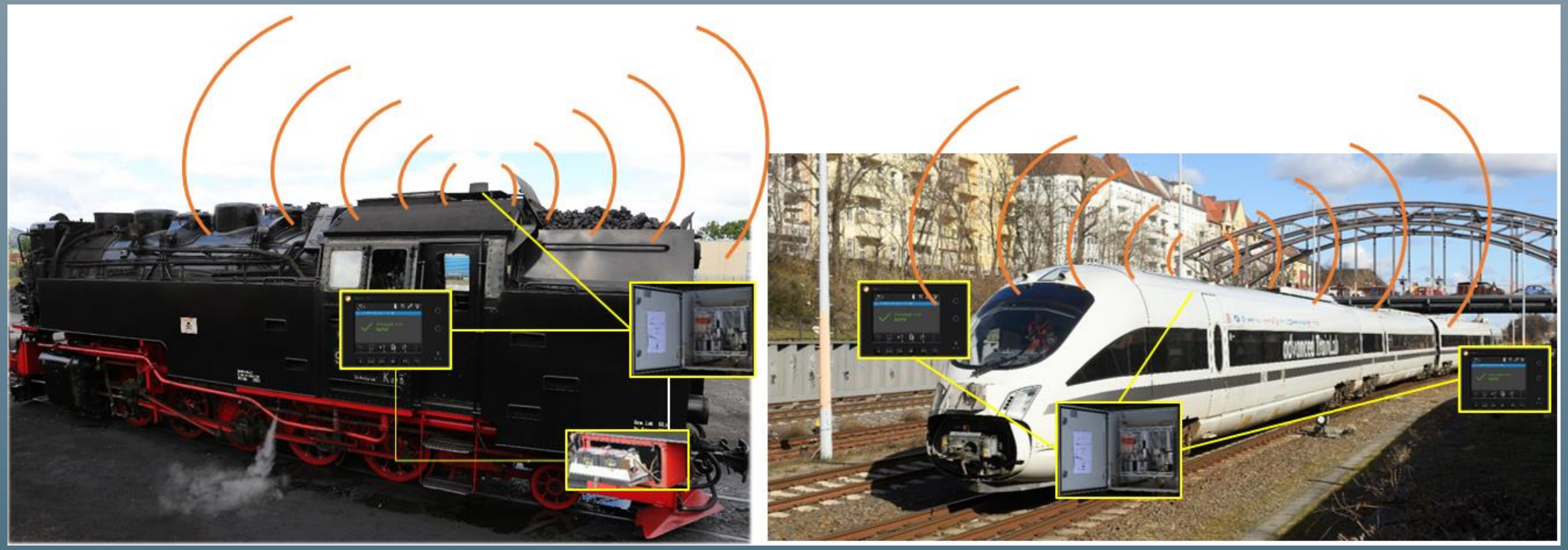
(Foto: picture alliance / ANE / Eurokinissi)

Transfer of a Success Story in Aeronautics

DLR

intelligence on wheels

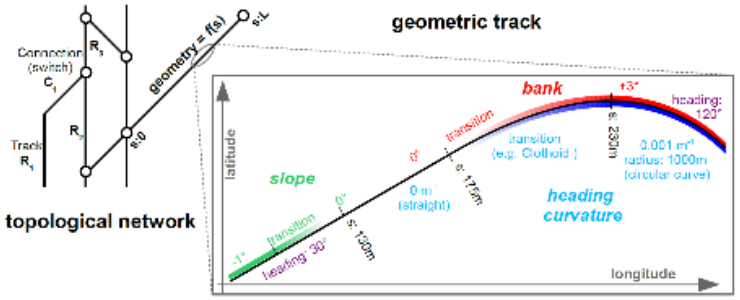
Retrofit Assistance for Trains of any kind and age



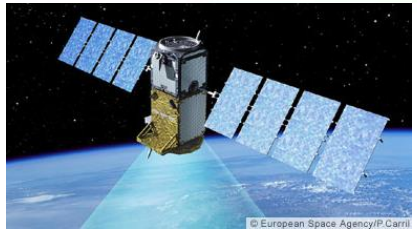
Key benefits:

- ✓ One onboard-unit per train and a driver interface. Costs scale only with number of trains, no longer track-km
- ✓ Formally, in most cases as add-on system no SIL2/4-qualification required
- ✓ **Most important: No installation along infrastructure required**

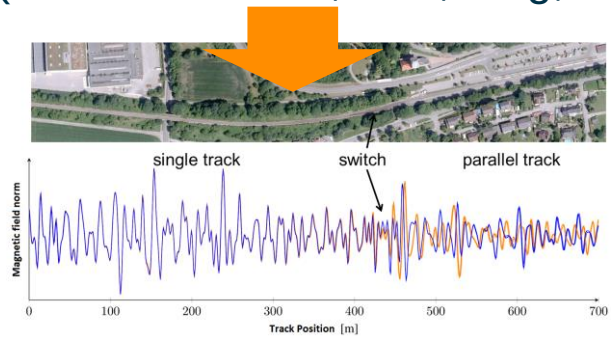
Key technology: Track-Selective Onboard Localization

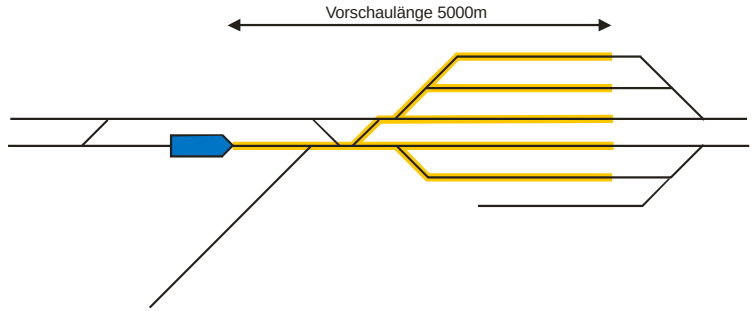


digital track data (map)



onboard sensors
(Galileo/EGNOS, IMU, Mag, etc.)



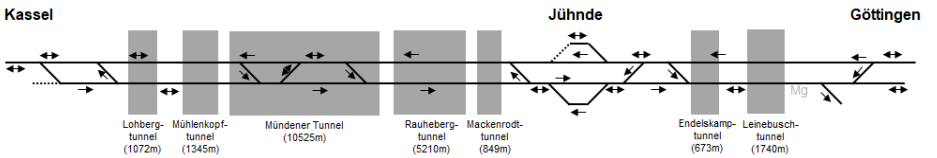


train movement model

Solution: Onboard multisensor
train localization
in relation to track

… even inside tunnel!

Breakthrough in Localization within Difficult Railway Environments



Video of changing tracks inside 10.5km tunnel with ICE
https://twitter.com/i/status/1369705272973930509

SCAN ME