SAFETY AT WORK
Protecting rail workers from trains
Digitalization and railway safety
Rethinking worksite protection under ERTMS

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6500 km

Modal shift
Our ambition: full ETCS by 2025
The worksite protection challenge

**Roll-out of ETCS**
- The driver no longer has to look outside
- Current safety procedures (e.g. red flag) are no longer usable
- Need for new security methods for works on ETCS lines

**Less impact on capacity**
- Fewer options for security methods for works
- Increase in use of “total line interruption” with impact on available capacity
- Impact on organization & planning investment and maintenance works

**Complexity procedures**
- Security methods depending on the type of infrastructure ≠
- Many procedures to be known by personnel on site
- Risk of incidents
Challenge accepted!

- Protect our workers as well as we do our trains
- Minimizing capacity restrictions
- Reducing costs
A two step approach

- **Today**: We have implemented workable and most efficient solutions everywhere to be able to perform works safely on our ETCS network.
  - Paper safety procedures have been replaced by user-friendly digital alternatives.

- **2025**: We have implemented a uniform efficient solution for securing the railway works on our ETCS network.

- **2030**: The safety procedures are integrated into the safety solutions.
By the end of 2025: safety in ETCS environment

More adapted security measures and digitization procedures

- Warning approaching train
- Warning stopping a crane
- Warning limits of works area
- Warning crane
- Digital procedure management

Scope 2025

- Stopping ETCS FS trains
- Warning approaching train
- Warning forgotten equipment in the tracks
Our vision: an “ETCS” for worksite protection

SPI: the Safety Protection Integrator

Advantages SPI:
- One unique interface for the end user
- Reduction of mistakes in safety procedures
- More comfortable moral feeling for the track workers
- Faster installation (and removal) of safety measures > less impact on capacity
Key Success Factors

**European playing field**
Worksite protection and ETCS, Reference CCS Architecture (RCA), EULynx

**Keeping up with technology**
Building the bridge between online and on site

**Rethinking the process end-to-end**
From planning to real-time

**The human factor**
Involving our stakeholders and convincing our people to protect themselves
Engage with us!