



16 November 2022

SAFETY AT WORK

Protecting rail workers
from trains

100 YEARS
ANNIVERSARY





INFRABEL

// Safer-W

Digitalization and railway safety
Rethinking worksite protection under ERTMS

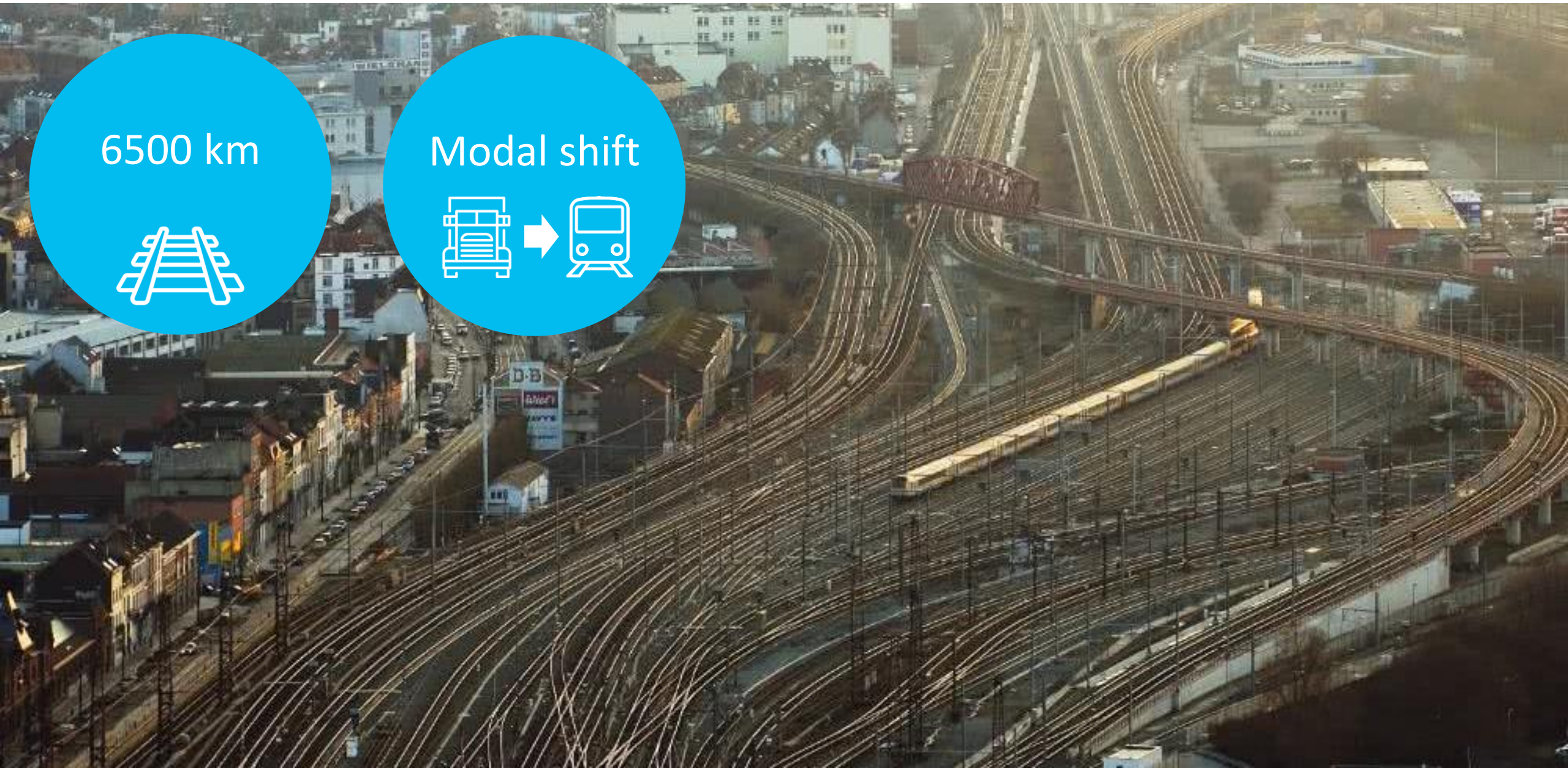
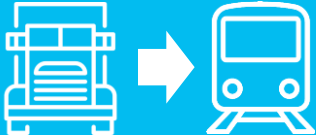
Leslie Steen – Program Manager

16.11.2022

6500 km



Modal shift



Our ambition: full ETCS by 2025




	km in dienst en service	km einde Masterplan prévu par Masterplan	% à l'uitgerust déjà équipé
ETCS1 FS	1.984	2.726	73%
ETCS2 FS	215	2.361	9%
ETCS1 LS	351	1.170	30%
ETCS1+2 FS	142	142	100%
Tota(a)l	2.692	6.399	42%



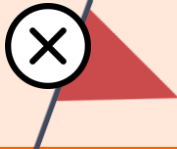
The worksite protection challenge

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

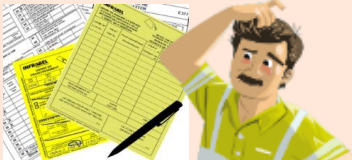



Complexity procedures


Security methods depending on the type of infrastructure



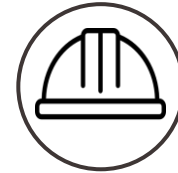
Many procedures to be known by personnel on site



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

2025

2030



We have implemented **workable and most efficient solutions** everywhere to be able to **perform works safely on our ETCS network**

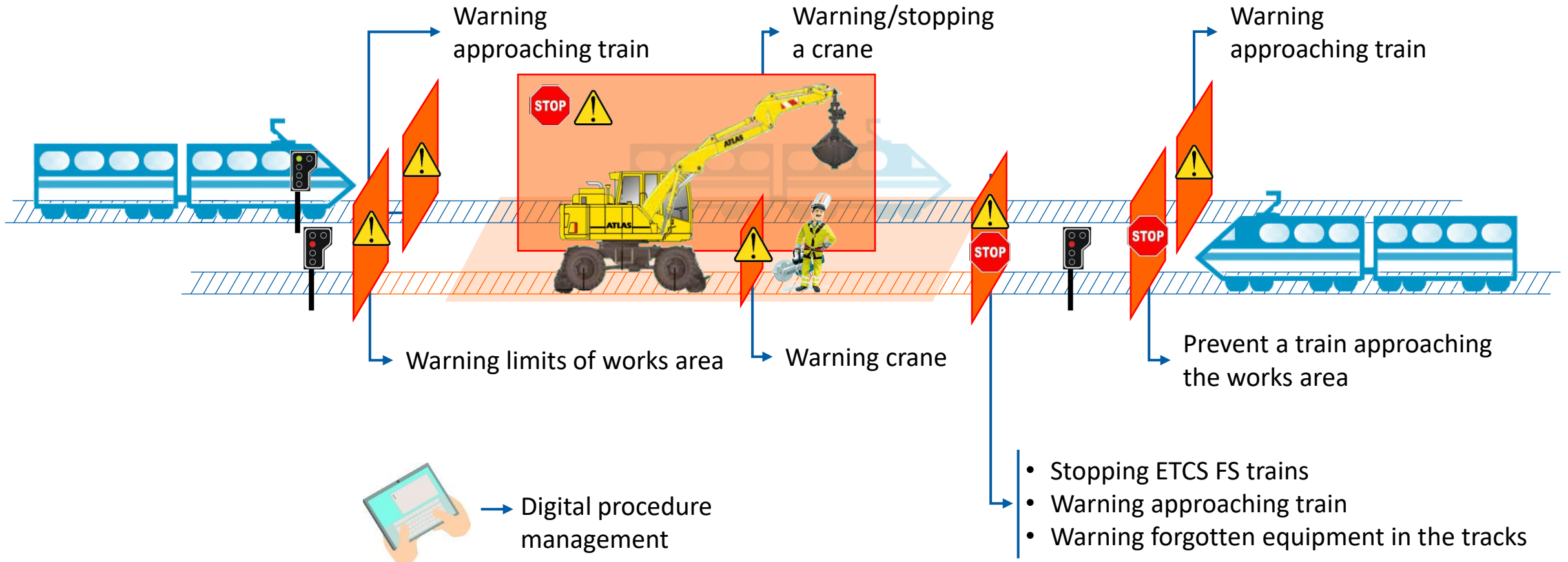
Paper **safety procedures** have been replaced by **user-friendly digital alternatives**

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

The safety procedures are **integrated into the safety solutions**

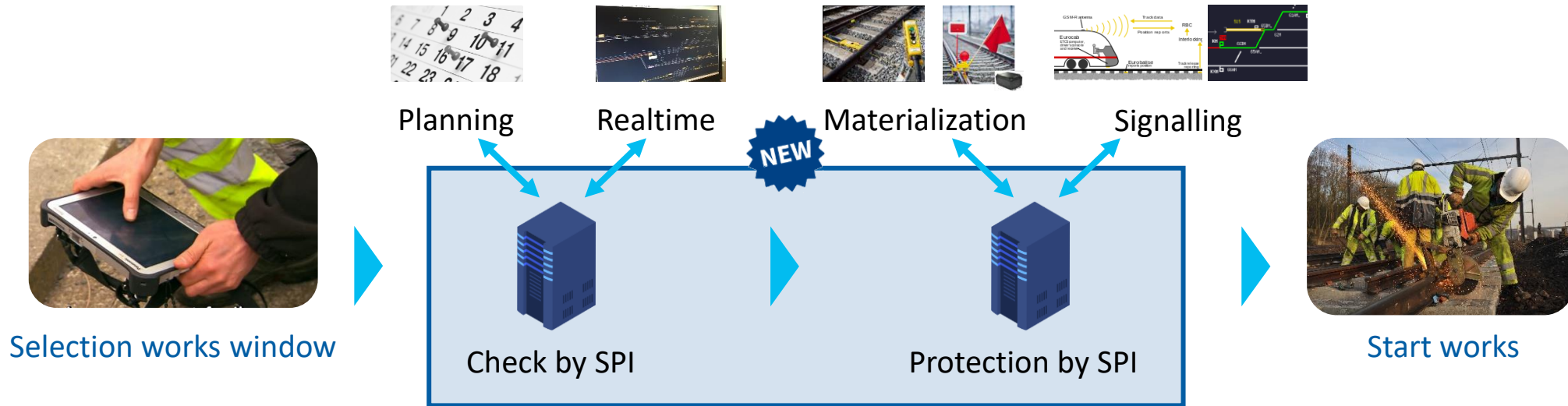
By the end of 2025: safety in ETCS environment

More adapted security measures and digitization procedures



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!

