



# ERTMS deployment – current state of play, outlook for the future

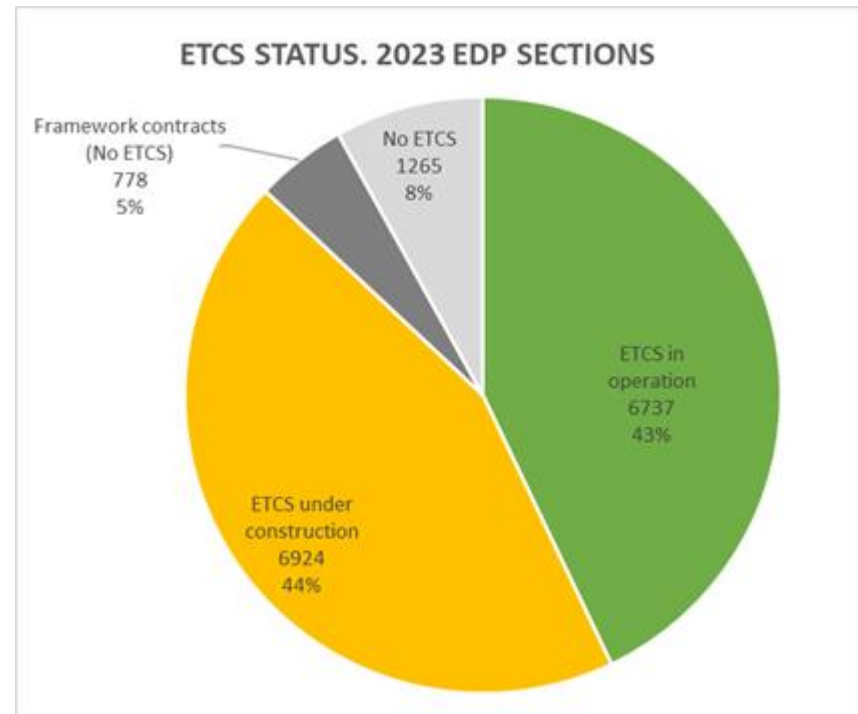
Matthias Ruete,  
European Coordinator for ERTMS

Platform of Rail Infrastructure Managers in Europe  
18th Plenary Meeting  
18 November 2021

# Most CNC lines scheduled under the EDP for 2023 are operational or under construction

## Trackside ERTMS covered by EDP – State of play

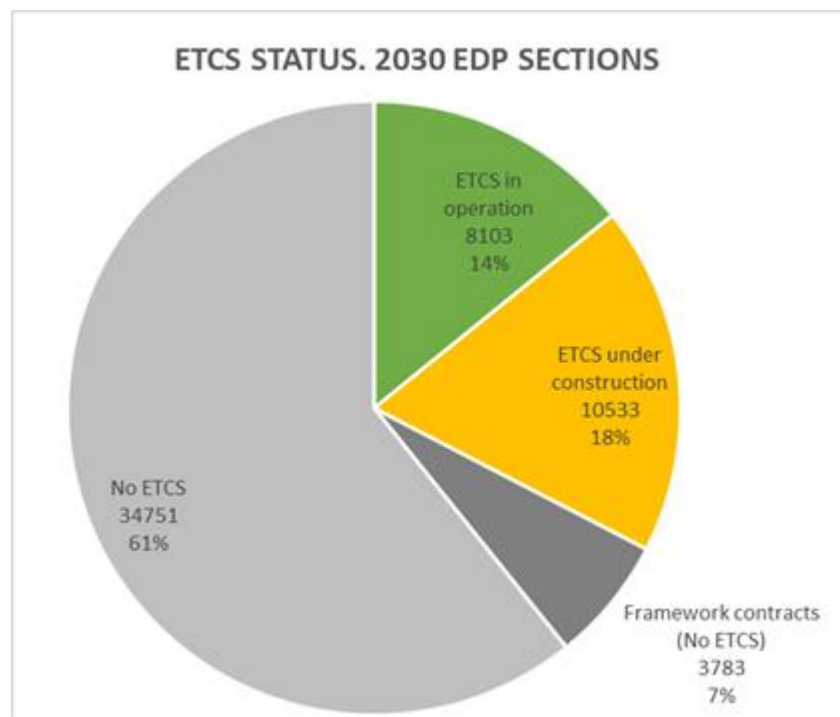
- The majority of CNC lines scheduled for 2023 are in operation or under construction (but with some delays).
- By September 2021, ETCS was deployed on **43%** of the lines of the CNC expected to be equipped by 2023 (EDP – Total 15,703 km)
- Additional **49%** are covered by contracts (including framework contracts)



# The deployment on the CNC lines scheduled for 2030 is also taking momentum

## Trackside ERTMS – State of play

- The deployment on the lines scheduled by 2030 is also gradually taking momentum. This regards also lines included to the CNC under CEF2.
- By September 2021, ETCS was deployed on 14% of the lines of the CNC expected to be equipped by 2030 (CEF 2 alignment - Total 57,170 km)
- Additional 25% are covered by contracts (including framework contracts)



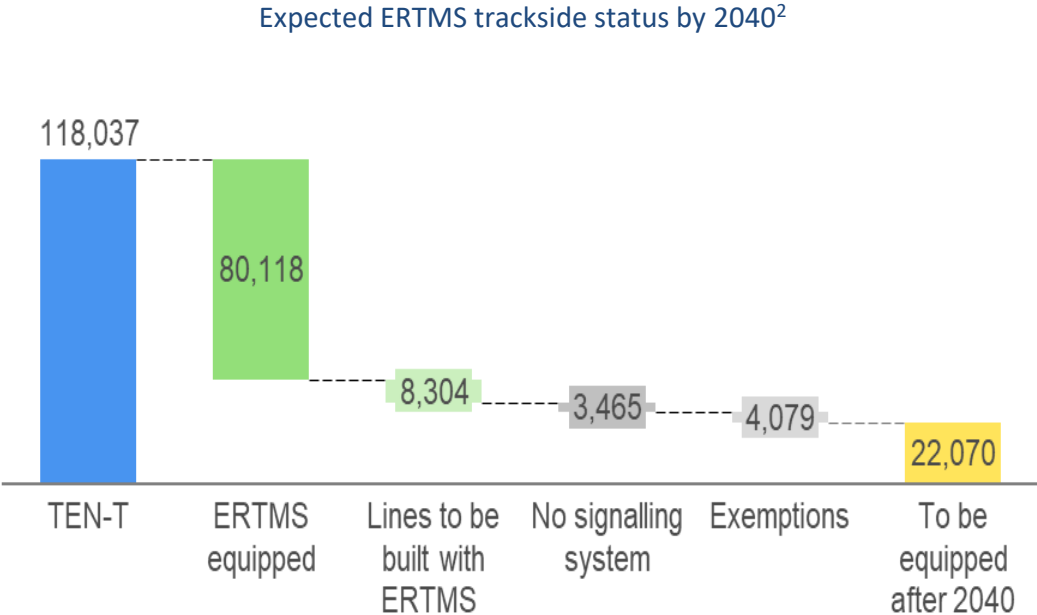
# ETCS deployment status on CNC in September 2021



Based on current plans and commitments, by 2040, the vast majority of the TEN-T Network and beyond will be equipped. A number of Member States will have equipped their whole network by then.

### Trackside ERTMS – Outlook

- **By 2040**, the majority of the TEN-T network will have been equipped.
- Given national plans, by 2040, **less than 20% of the TEN-T Network will still require class B system onboard to run.**



# Expected ETCS status by 2040 according to the national plans

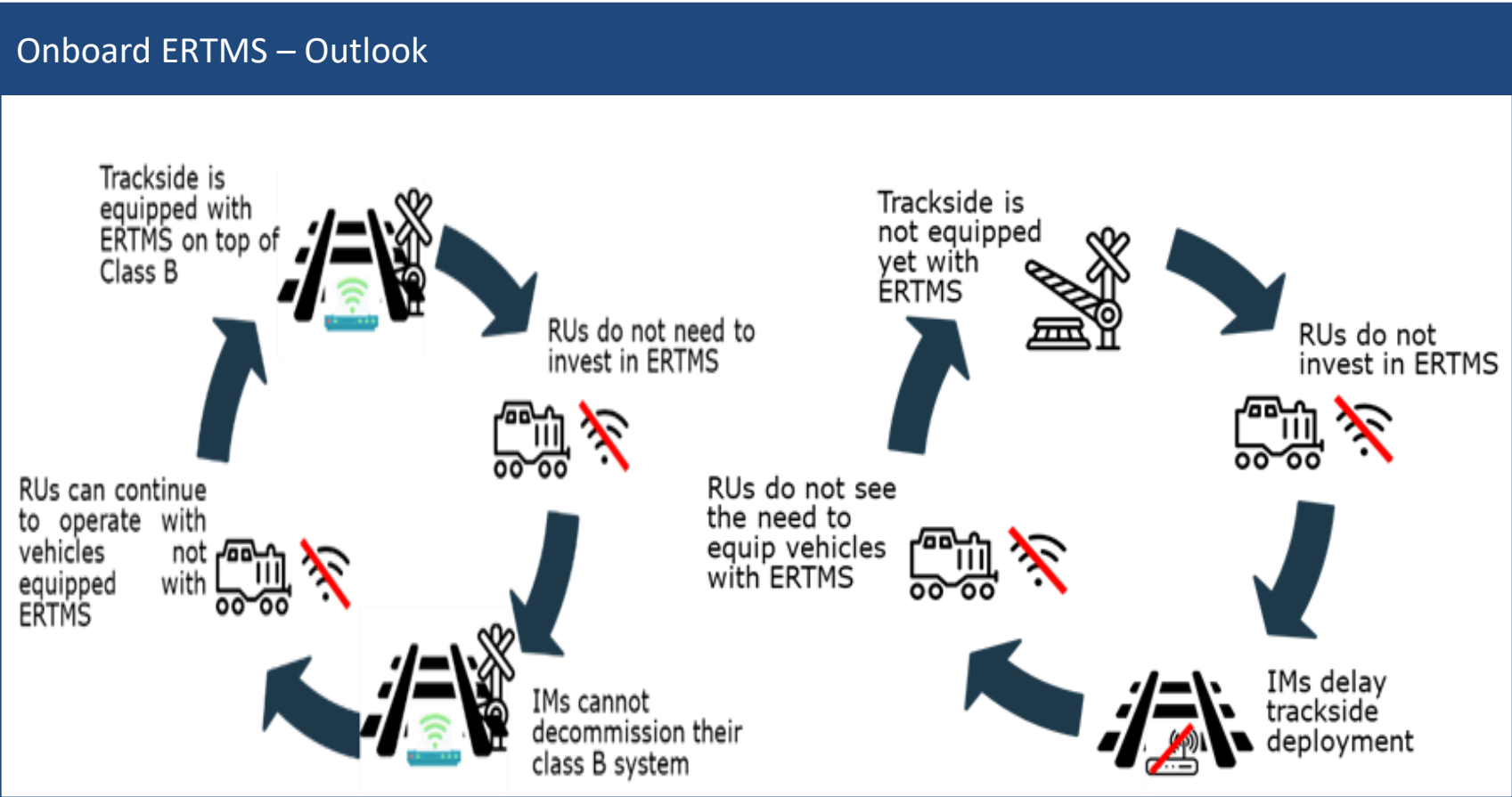


**10 countries** will have achieved full network coverage, and in total **no class-B system** will be required onboard in **14 countries**

## Expected ETCS status by 2040 according to national plans by MS

- **Belgium, Czechia, Estonia, Finland, Germany, Italy, Luxemburg, Norway, Sweden and Switzerland** plan to equip their entire network
- **Bulgaria, Denmark, Greece and Slovenia** do not plan to equip their entire networks but Class B systems will not be required on-board
- **Ireland, Latvia and Lithuania** are exempted and no plans except for the Rail Baltica
- **Austria, Croatia, France, Hungary, the Netherlands, Poland, Portugal, Romania, Slovakia and Spain** do not plan to deploy ETCS on their entire network by 2040. **Most of the Member States** in this group **do not have detailed deployment plans going beyond 2030**, thus the possible state of play in terms of ETCS deployment in 2040 should be more positive.

Operators do not fit or retrofit their fleet since they do not see the need to invest in ERTMS because the lines in their area of operation are not yet equipped with ERTMS and/or they can still use class B systems.

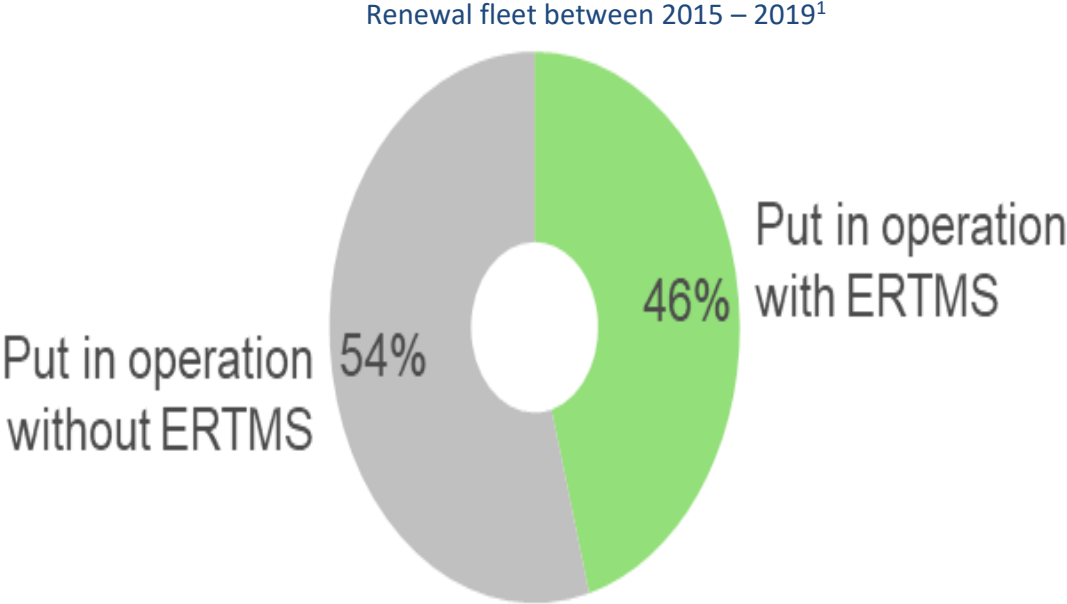




Onboard deployment is lagging behind; currently less than half of new vehicles are equipped.

Onboard ERTMS – State of play

- It appears that less than half of the new vehicles put on the market were equipped with ERTMS between 2015 and 2019 due to existing exemptions



<sup>1</sup>Source: Data collect by UNIFE, by ERA, from interview carried out by Deployment Management Team with RU, additional desk research

## Conclusions

- Change from isolated “**ERTMS islands**” to commercial significant **networks equipped with ERTMS**.
- Prioritisation of **ERTMS deployment on specific sections (missing links)** would enhance international freight operations.
- There are very **large benefits** to be reaped by Infrastructure Managers by achieving a coordinated **ERTMS deployment by 2040** coupled with a **class B decommissioning**.
- **Class B systems** will become **niche markets** and **maintenance costs will rise**.
- **Vehicles need to be equipped**, otherwise the benefits of trackside rollout will not be achieved. **ERTMS** should now become **standard equipment** of the rolling stock.
- ERTMS on-board will gradually become a **replacement for class B systems rather than an additional system**.
- Around 22,000 vehicles (60% of the EU fleet operating on the CN) will reach the end of life and therefore are expected to be renewed in the next ten years. This is an opportunity to **render the fleet green and digital**.

## Next steps

- Revisions of the **TEN-T Regulation and the CCS TSI:**
  - To advance **ERTMS deployment** deadlines on the comprehensive network
  - To set out **class B decommissioning** deadlines
  - To significantly increase the proportion of new **trains equipped** with ERTMS (**vehicles to be fitted or pre-fitted**)



Thank you for your attention!