



Human Environment and Transport
Inspectorate
*Ministry of Infrastructure
and Water Management*



Increasing the Pressure for Cybersecurity in Dutch Rail Sector

Combined approach to
decrease vulnerability of
legacy systems

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ATO

Goals for SOTDLC:
blems in current approach!
dise in security policy?



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<https://www.ilent.nl/onderwerpen/toezicht-op-cybersecurity>



Problem: Insecure Trains

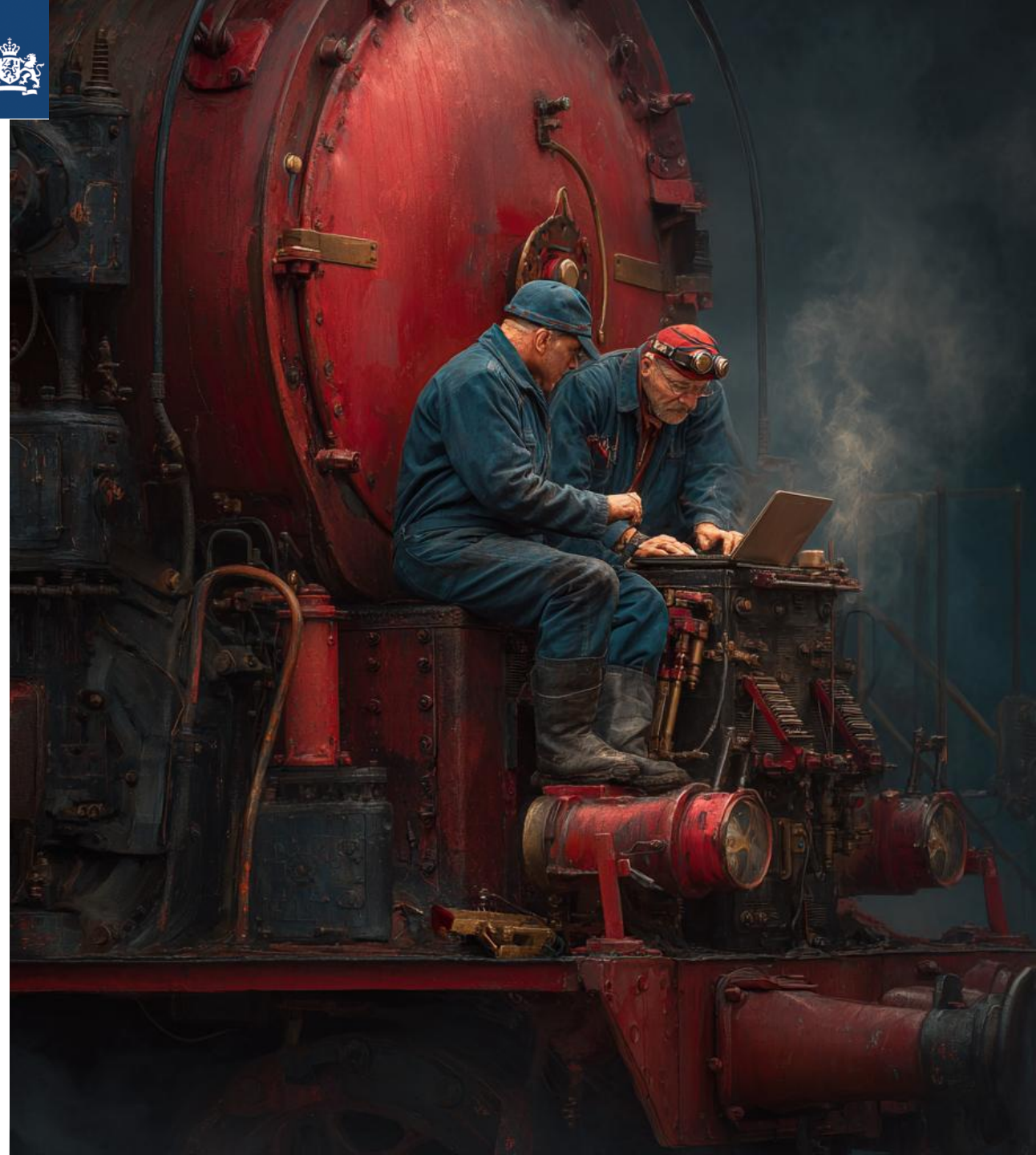
- No Security before 2015
- 2015-2025 mostly insecure
- Not NIS(2) compliant
- Type/vehicle approval:
 - Expensive to Retrofit
 - Complex to Retrofit





Approach: combined forces

- Use of SERA-directive
 - Requirements Capture + NIS(2)
- Use of existing developments
 - ERTMS implementation
- Communication
 - Obligations
 - Consequences
 - Acceptable Means of Compliance (e.g. passive network monitoring)
 - Possibilities for collaboration between RU's



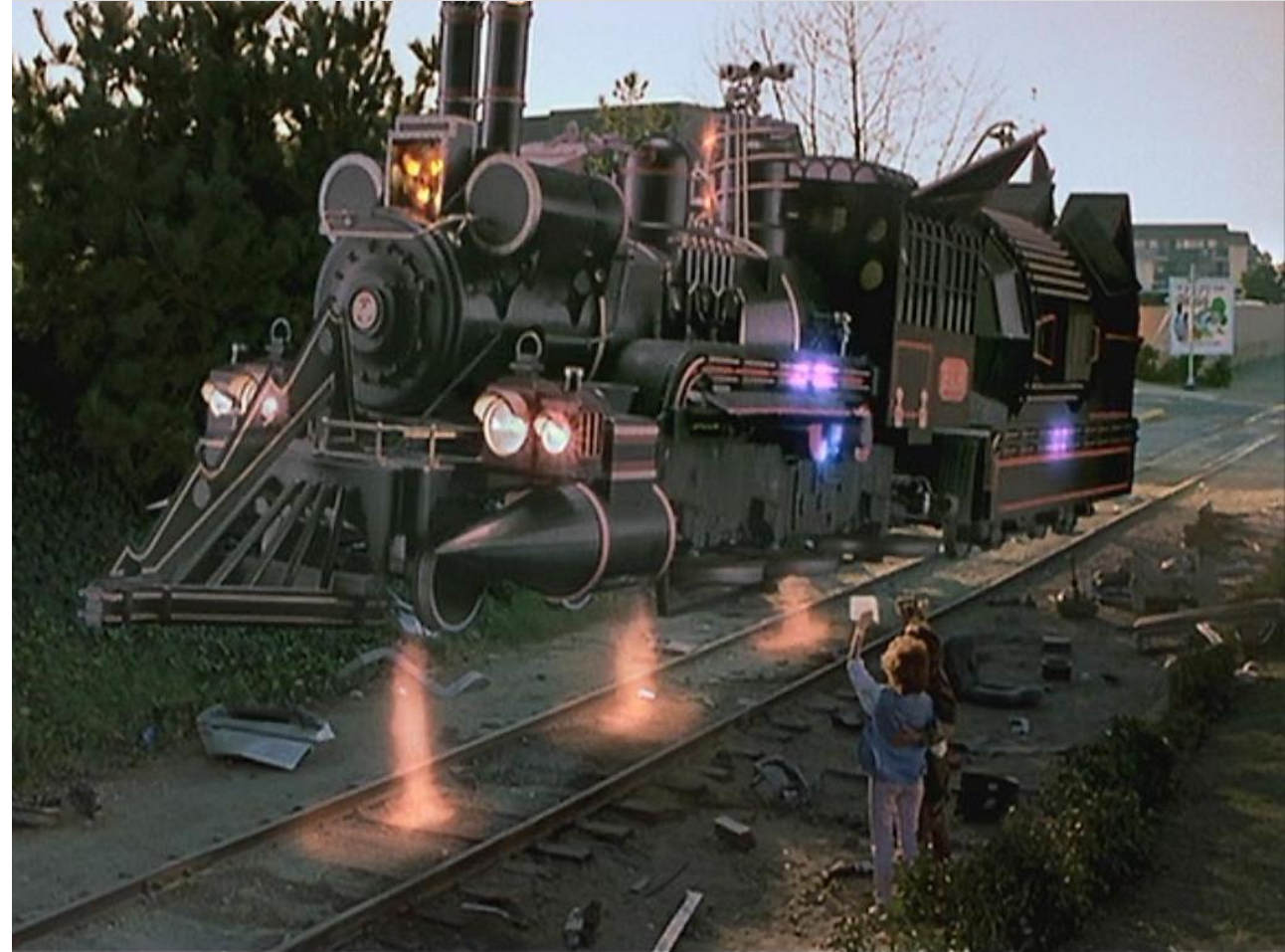


Results & Future

- One RU changed designs of trains
- Now working with another RU

Future:

- Continue with RU's
- Add infrastructure (same legal construct)
- Tram, metro, bus





Thank you!

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Extra: Acceptable Means of Compliance

- Monitoring
 - IDS implementation during retrofit
 - PIS while other measures unavailable
- Physical Security
 - Technical Panels
 - Doors
 - Toilets



Extra: Appeal to Share Knowledge

1. Manufacturers figuring out monitoring rules/use cases
2. Preventive measures & compartmentalisation
3. Cyber incidents
 - Lessons
 - Patterns