



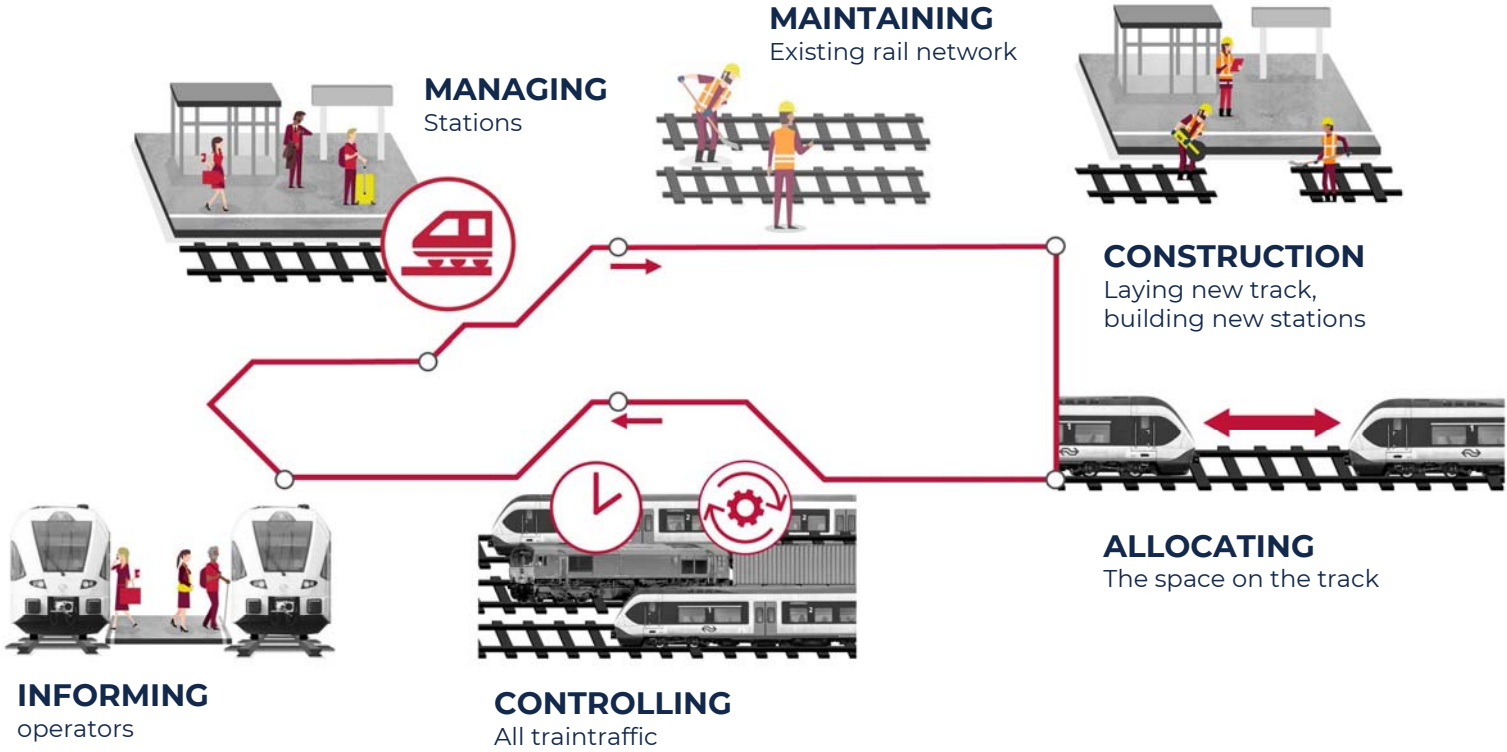
How the Data Driven Vision of ProRail contributes to our challenge of 30% more passengers and freight in 2030.

**ProRail**

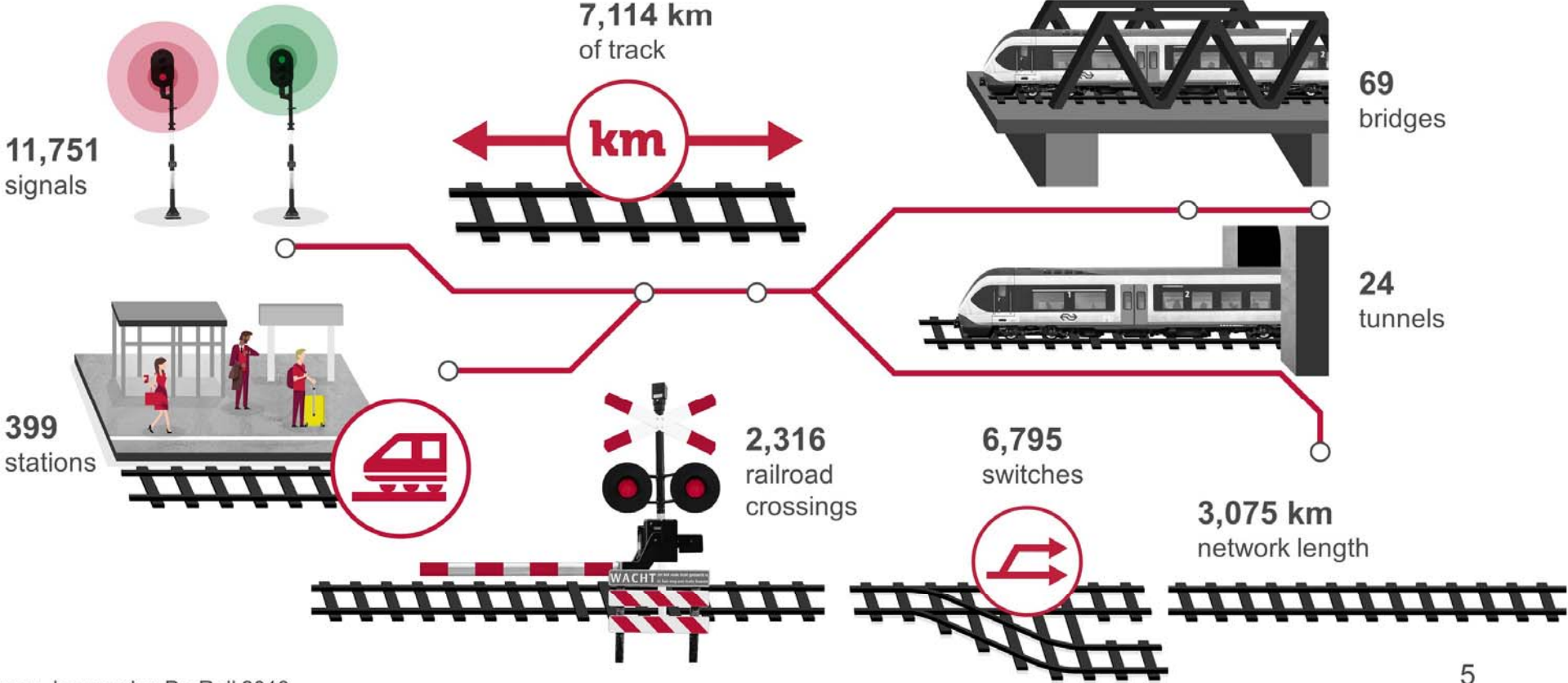
Verbindt. Verbetert. Verduurzaamt.

Inge Hofland  
Manager Infradata @ProRail IT  
Robert Voûte  
Vice President Consulting @CGI

## WHAT WE DO



# Infrastructure



Source: Jaarverslag ProRail 2018



# Rail challenges in The Netherlands



## Increase in mobility demand

*30% growth of passengers and freight in 2030*



## Technology

*Keeping up with technological innovations to improve the performance of our infrastructure.*



## Sustainability

*Sustainable infrastructure.*

*Re-use of materials, renewable energy*



**ProRail Connects**

**ProRail**



**ProRail Improves**



**ProRail Sustainable**

**Verbindt. Verbetert. Verduurzaamt.**



# Use case DDIO

DDIO | Data Driven Infra Onttrekkingen Nightly Angela Brands | Beheerder

Invoer  
Werklocatie  
Sectie  
 85BT  
Uitbreiding tbv NVW

Resultaat  
Kaartlagen

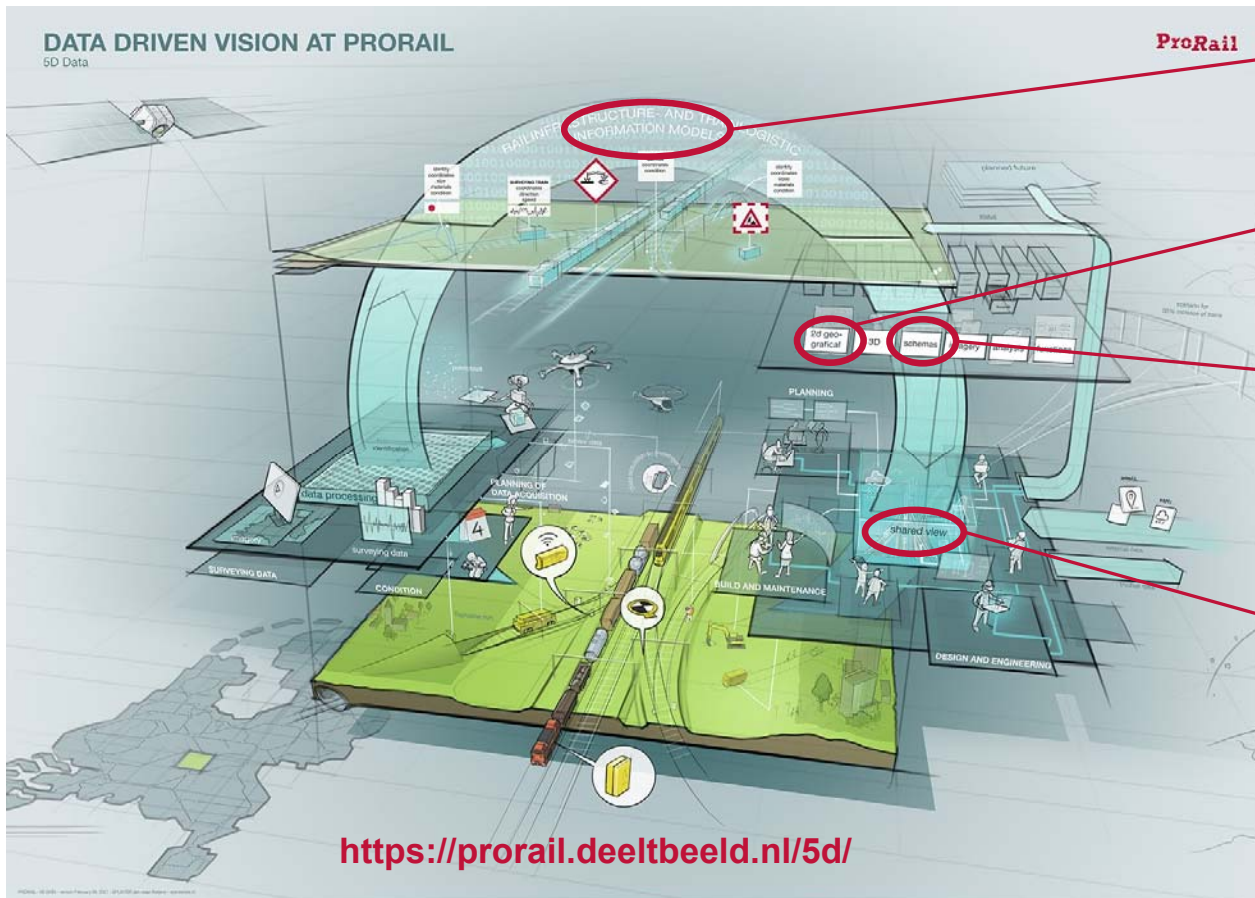
Powered by Esri

# ProRail

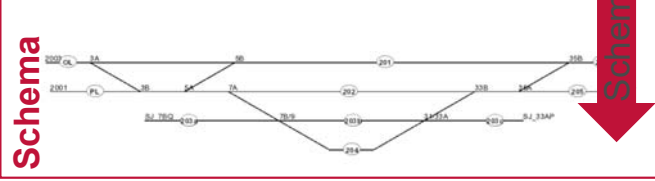
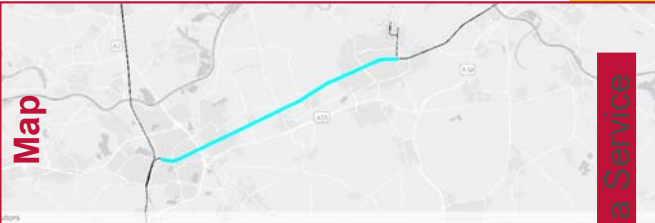
Verbindt. Verbetert. Verduurzaamt.



# Vision: digital twin – one world, two views



IMSpoor = Information Model Rail



Common (operational) picture

# ProRail

Verbindt. Verbetert. Verduurzaamt.

# ProRail Schemaviewer

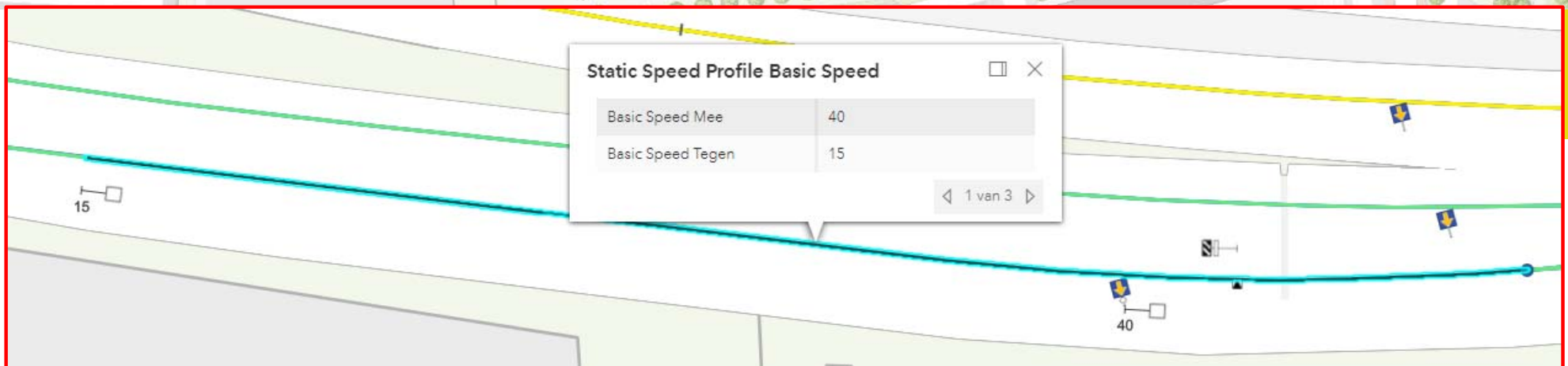
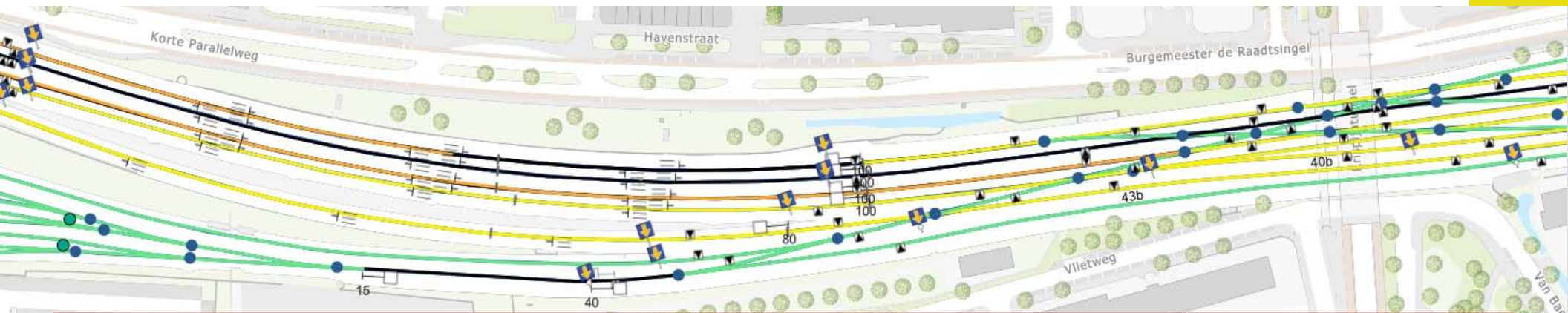


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Verbindt. Verbetert. Verduurzaamt.



## Track Changes: speed limits



**ProRail**

Verbindt. Verbeterd. Verduurzaamt.





Dia 13

# Botlektunnel system / monitoring

- Determine deformation of the joints between segments, due to a road construction nearby
- Drilled tunnel, underwater
  - 62 rings with 7 tunnel segments
  - The segments may move
- Dashboard
  - Status of the rings
    - Absolute values
    - 5 different warning colors

