

Pre-ambule

Since several years SNCB is going through a huge transformation to improve the customer experience. With the recent signed '**PSO contract**' SNCB got now also the financial means to develop and implement **a long-term strategy**. This is of great importance, especially in the industrial activities where typical long cycles times are applicable.

This session aims to give an insight on how the technical department of SNCB drives operational excellence.

Driving Operational Excellence in Fleet Maintenance

SNCB – Railtech event

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Onderweg. Naar beter.
En route. Vers mieux.



Key facts about SNCB

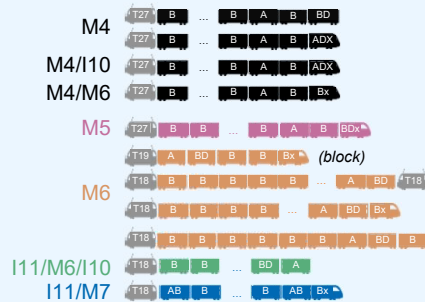
SNCB operations	Organization <ul style="list-style-type: none"> • 17,000 employees 	Operations <ul style="list-style-type: none"> • 550 stations • 3,750 trains/day • 81 mio train km/year • 227 mio passengers/year • Punctuality: 89.2% • National transport + International (classic + high speed) 	
Current fleet (dec/22)	Overview rolling stock <ul style="list-style-type: none"> • 803 electric multiple units • 206 locomotives • 1,477 carriages 	<ul style="list-style-type: none"> • 3,931 'bodies' & 352,639 seats • 46% fleet older than 25 years • 80.5% of fleet equipped with ETCS 	Maintenance organization Technics <ul style="list-style-type: none"> • 5,000 employees • 2 central / 9 traction workshops • Central support services
'Public Services Offering' contract (dec/22)	Key elements <p>10 years contract, increase of 30% passengers, 10% increase in train km's, better correspondence, performance trajectory, increased rolling stock availability and reliability, gradual renewal of 50% of the rolling stock fleet (purchase of new rolling stock), increased train capacity, increased passenger comfort (passenger information systems, bicycle spaces, autonomous access, airco, ...), investments in maintenance facilities</p>		

Define a clear Rolling Stock Product strategy – Simplification and standardization are key

2020

	International	IC (/P) Low density	IC (/P) High density	S / L (/P) Low density	S / L (/P) High density
Double				AR41, AMB6	
Triple		AM75, AM08, AM06			AM08
Block		M4, M5, M6, M7			
Long	I05, I10, I11				

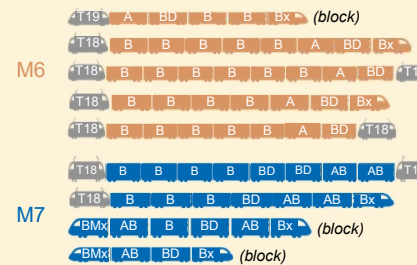
~50 compositions



> 2030

	International	IC (/P) Low density	IC (/P) High density	S / L (/P) Low density	S / L (/P) High density
Double				AR41	
Triple		AM08, AM06	AM08		
Block		M6, M7			
Long	I11				

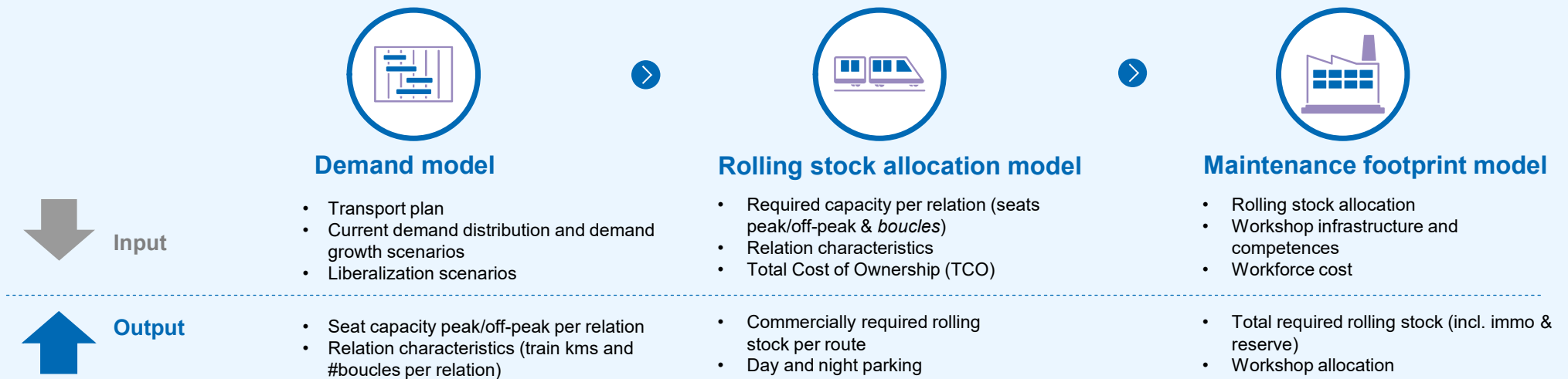
9 compositions



- Clear product offering: **adapted train types per type of train connection (IC, S/L)** and a **maximum of 2 types** of rolling stock per train connection
- **Less different types:** minimization of the number of different carriage compositions by a **fixed number and sequence of carriages**
- Use of Multiple Units / Block trains: **usage according to needs peak/off-peak**
- New Multiple Units MR30 → **Same platform, adapted configurations for different exploitations (incl. battery operations)**

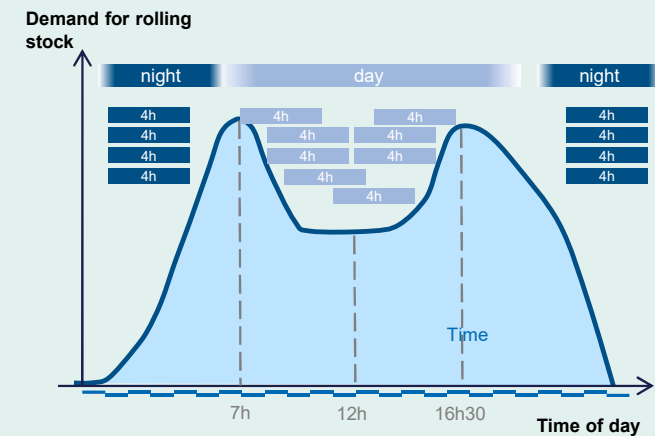
➔ **Improved customer experience, lower maintenance costs**

Implementing an effective maintenance strategy to increase availability – Adapting the maintenance approach matching the long term needs



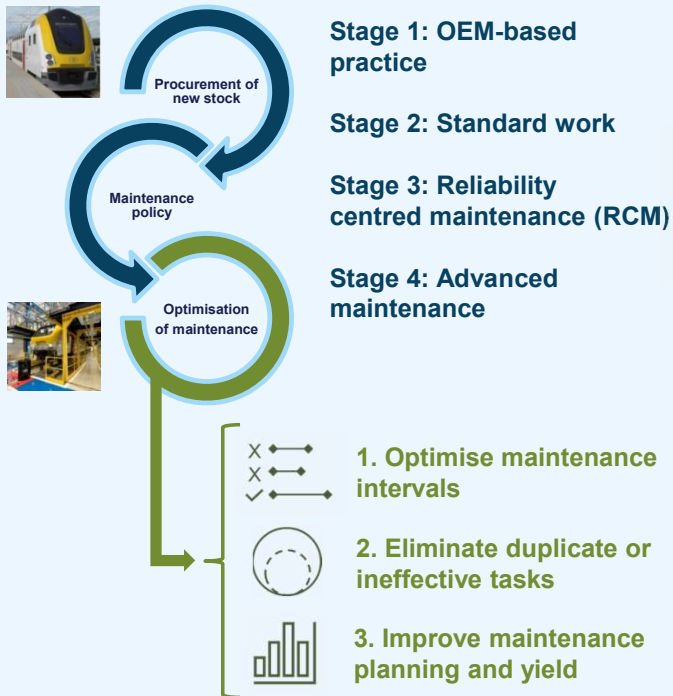
Timetable Integrated Maintenance (TIM) integrates in a smart way the maintenance in shifts to reduce downtime

- Workshop entry **slots of 4h** within the timetable **with minimal immobilization**
- Preventative and curative **maintenance**
- Critical mass of a rolling stock to **standardize** operations and competences
- Compatible with rolling stock types: Multiple Units / Block trains
- **Evolution to shift work regimes** require a culture change



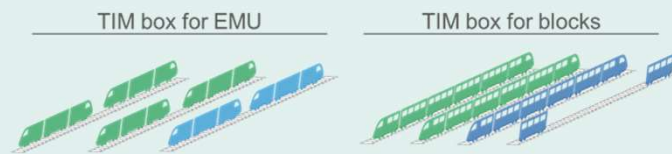
Implementing an effective maintenance strategy to increase availability – Adapting the maintenance approach

Reviewing the maintenance engineering on a regular basis

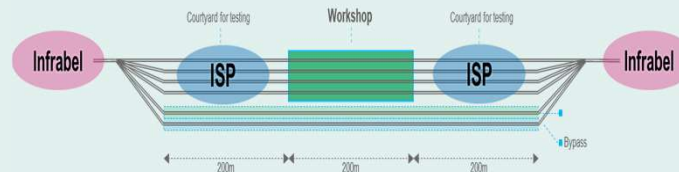


Standardized workshops as part of maintenance strategy

- Use of workshop infrastructure for triple and block trains in **TIM maintenance**



- Most **flexible** workshop layout:
 - Long workshops of 180m
 - Parking zones
 - Standardized equipments: platforms, overhead cranes, warehouse, ...

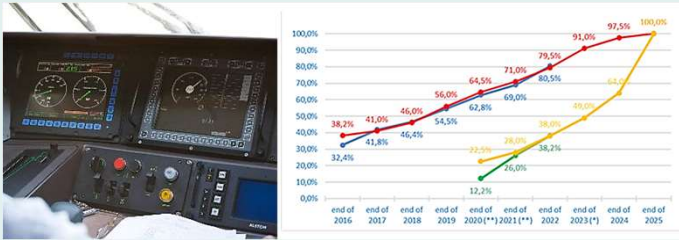


Create Centre of Competences for repair of spare parts

- **Competence centres:**
 - We concentrate repairs in our central workshops that specialize
 - Rationalization of investments
 - Competence building and re-engineering
 - Experts to support internal and external customers
- **Insourcing & outsourcing**
 - We promote our expertise externally
 - We work with external partners for simple repairs
- ➔ We **build up expertise** that is recognized and used internally and externally
- ➔ In Supply Chain we **save in our purchases** (higher volumes and standardization)

Driving key competences – *Develop key specialties*

Frontrunner in ETCS



- Installation of ETCS on all rolling stock SNCB by 2025
- Central workshops provide the installation and migration to ETCS Baseline 3 to ensure compatibility with the Infrabel network.
- Strong knowledge for maintenance in traction workshops

Performing Supply Chain



- Automated MRP management to replenish local storage
- Internal logistics
- Relance: follow up of suppliers
- Inventory management
- Digitalization: self service by vending machines, scanners to follow parts movements
- Part repairs competence (internal by Central Workshops or external)
- Robotized warehouse

Exploit the digitalization

- Mobile devices to work more efficiently
 - Better use of time of all technicians and supervisors:
 - Work faster (real-time info) and monitoring of progress of activities
 - Additional registration to improve data analyse



- Remote Diagnostics: data at service for maintenance
 - Real-time monitoring of fleet status: automatic alerts for early identification and prevention of incidents
 - Increased availability & reliability through root cause analysis and correlation reports
 - Optimized responsiveness through focus on preparation and proactive planning

Unlock potential savings through a structured approach – Driving the performance improvements which also focus on behaviours

Structured program and governance

PACT 32

Performance
Alignment
Culture
Talent
2032

Performance trajectory
SNCB Technics



Cost minded

Efficiency

Knowledge transfer

Involve all employees & stakeholders

Can Do

Work on absenteeism

Develop hard and soft approaches

A mindset essential for success

Talent

Right man, right skill, right place

- Developing the talent of every employee
- Retaining talents in our organisation
- Attracting new people

- ✓ Onboarding new employees
- ✓ Training programme
- ✓ Advancement opportunities

Culture

Yes, together we can achieve more

- Dealing with each other
- Gathering new ideas
- Validating new ways of working

- ✓ Leadership behaviours
- ✓ Communication / feedback
- ✓ Celebrating successes

Alignment

Doing things right and doing the right things

- Ensuring good cooperation between our services
- Set the same priorities and create clear expectations

- ✓ Define fewer, but clear and understandable KPIs at all levels
- ✓ Define clear roles and responsibilities per process
- ✓ Create time to solve problems structurally and avoid firefighting

Where does this bring us in the fleet maintenance? – Concluding remarks

1 Improved **safety** (employees and travellers)

- Annual reduction of accidents at work
- Exploitation safety annually improved through ETCS rollout

2 Greater **availability** of the rolling stock

- Reduction of downtime by 30% by 2025 compared to 2013

3 Greater **reliability** of the rolling stock

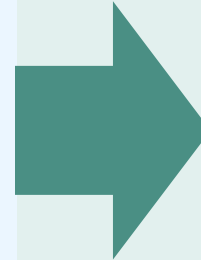
- Reduction of technical incidents

4 **Customer satisfaction** improvements

- Improvement of the tidiness of the rolling
- Improved accessibility to our trains, more bicycles space,
...

5 **Productivity** improvements

- Reduction of operating costs through technical and organisational measures



SNCB has a strong operational track record in maintenance activities :

- improved availability (-20%) since 2015
- pioneer in ETCS installations
- huge technical knowledge
- growing external customer base

A high-speed train is stopped at a station platform during sunset. The train is white with a red door and a large black 'B' logo. The platform has a tactile paving strip. The sky is filled with colorful clouds from the setting sun.

**Thank you !
Bedankt!
Merci !**

Onderweg.
Naar beter.

En route.
Vers mieux.

