



INFRABEL
Right On Track



Digitalisation @ Infrabel

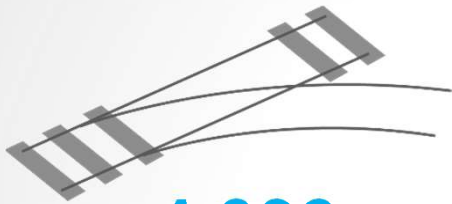
**Intelligent Maintenance
Systems**
08-09.09.2020

Jan MYS

Deputy Director
Infrabel Asset Management



Key Figures



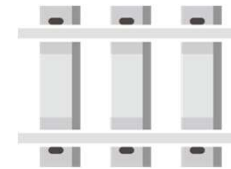
4.099

turnouts



11.426

CE structures



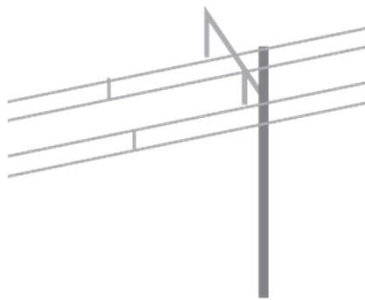
6.515 km

Main line



1.713

Level crossings



5.871 km

Electrified main
line



10.196

Signals



10.434

Employees

Our Priorities

Safety First !



**A railway network for
all the trains of
tomorrow**



**In tune with
the society**



Trains on time

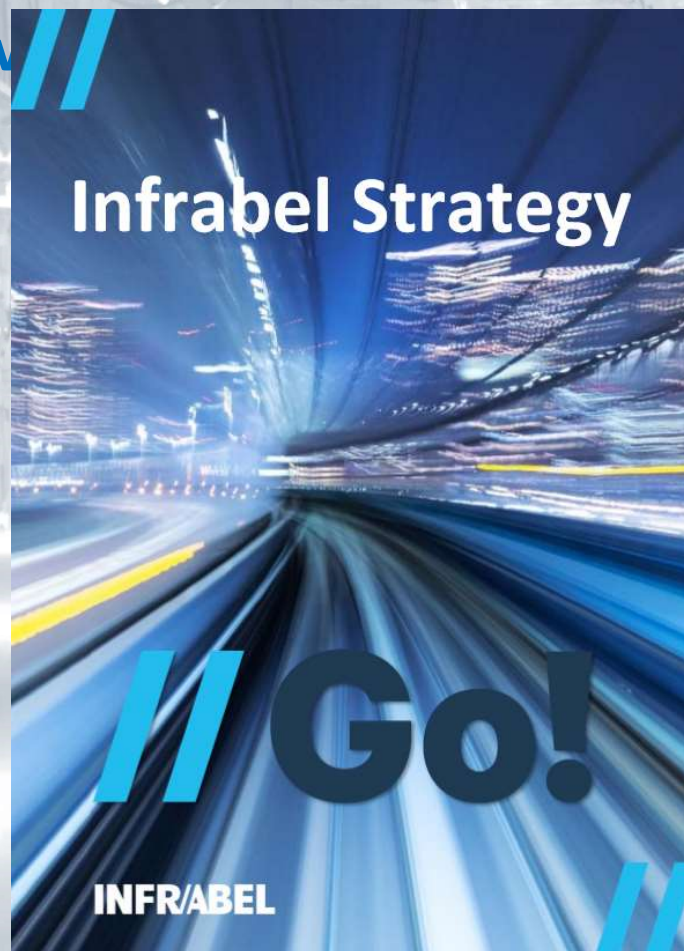


A financially fit company



Stakeholder expectations





de



Infrabel Digitalisation projects



Smarter-M



**DATA CELL
Evaluation**

PLANIFICATION

Works
Possession &
Management

**DIGITAL
STATUS
CHECK**

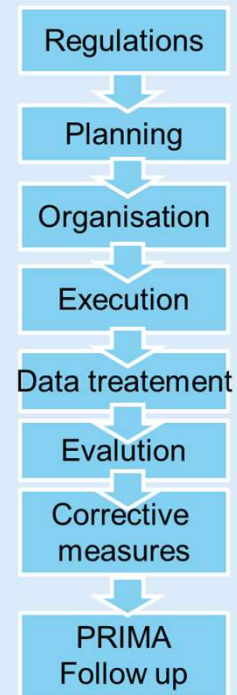
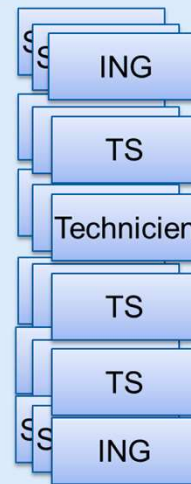
EXECUTION

Proces redesign with impact on Organisation

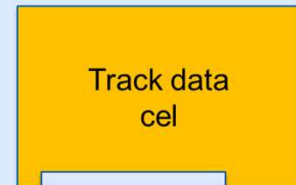
Turnout maintenance



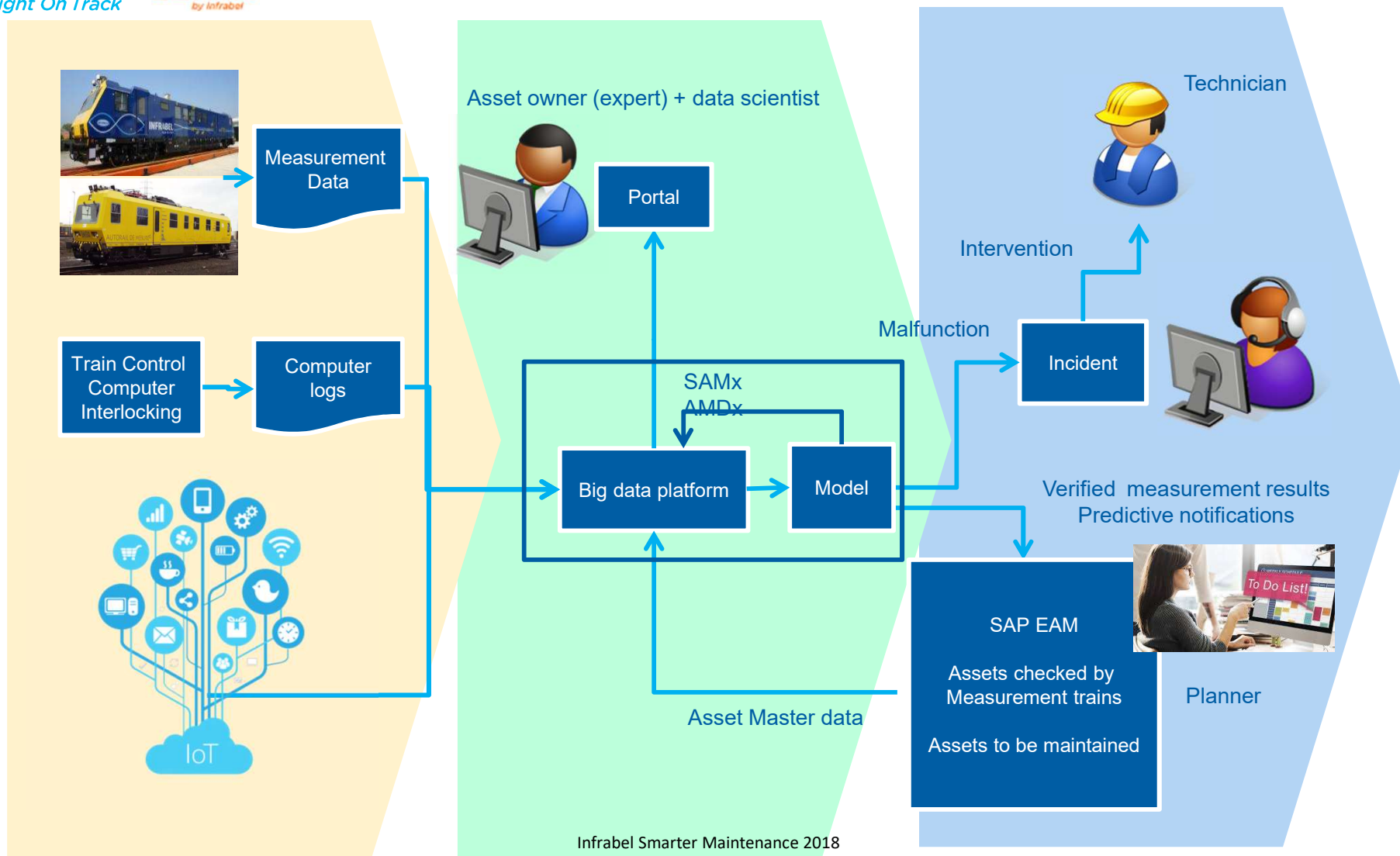
AS-IS



TO-BE



E2E Asset Management information flow



Dia 10

- MJ3** Je eerste paragraaf zou voor mij als zeer eenvoudig moeten overkomen. "we collecteren alle data in een centraal platform, laten hier wat routines op los en voorspellen zo wanneer de techniker het onderhoud moet doen. Zo gaat de techniker alleen als het nodig is.
Mys Jan; 6/06/2018
- MJ4** In de volgende stap kan je uitleggen waarom dat niet zo evident is. Voorspellen is niet evident. De techniker heeft ook nog een planning en staat niet klaar op uit te rukken als het dringend wordt en de informatie moet op een correcte manier verzameld en gecommuniceerd worden.
Mys Jan; 6/06/2018

DATA CELL Evaluation



Artificial Inteligenc



Digital WO



Smart asset



Measure train

**Workers
Interaction**



Safer-M



**Train
Access
Restriction**



**Machine
Restriction**



PRODIGIS

PROcedures Digital Infrabel Safety

Before my
team can **enter**
the track...

...I need to
make sure
that the **area**
is **secured**.



Out of tension

Out of service

Rail gauge intrusion

Planned traffic

Guarding a cross leveling

Working with contractor

Etc etc....



So I need to
apply some
paper based
procedures.



Actually:
(Too) many
safety procedures
(Too) many
documents

Up to **15** !!!



We brainstormed
on how we can
**improve this
process**

The **end users**
helped us defining
the shape of their
future solution



Design thinking



It resulted in 3 key ideas



1

Make **all relevant data** available to **all stakeholders**

2

Everybody sees the **same data** at the **same time**

3

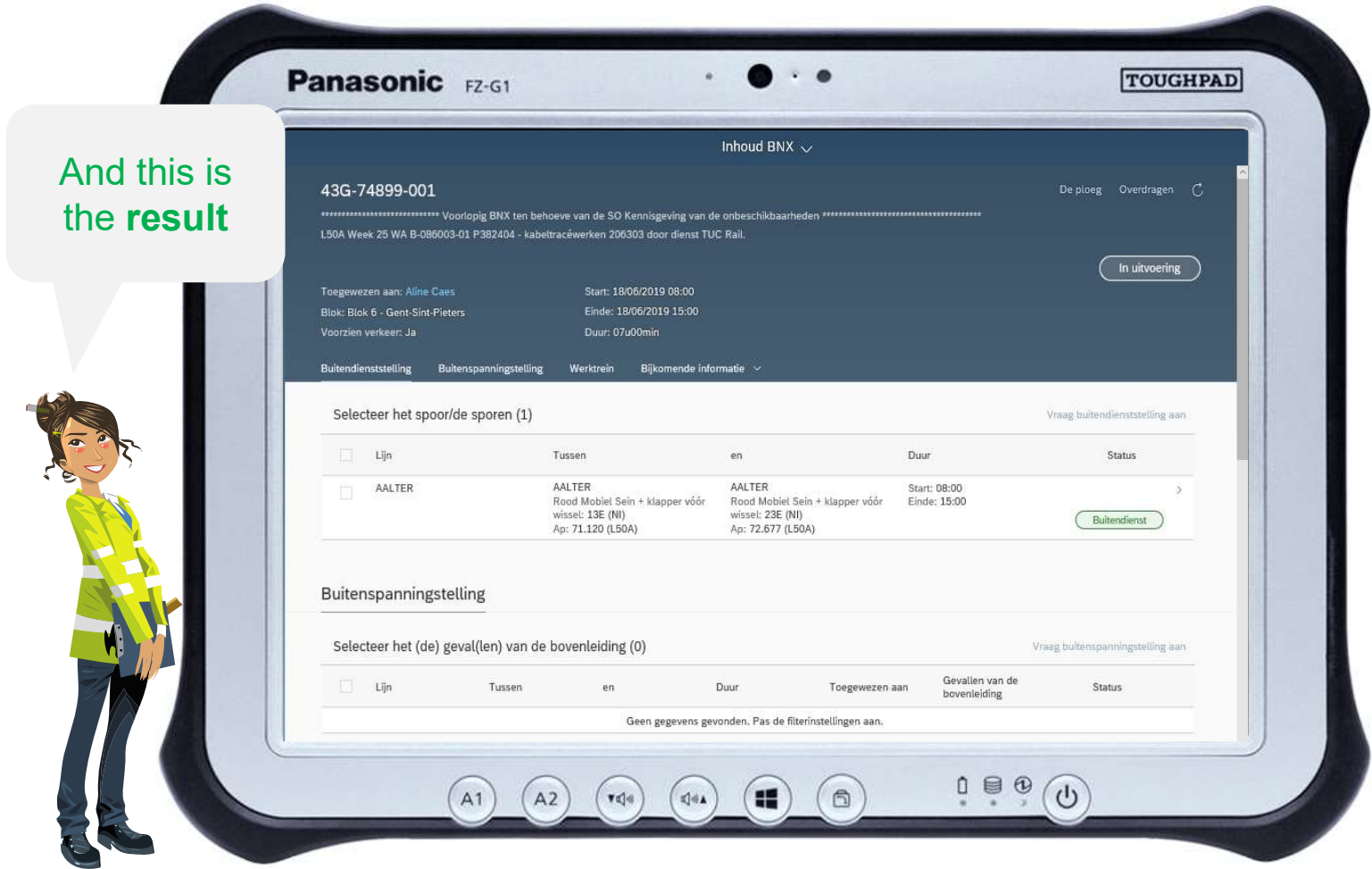
No data input required

Together with



we build







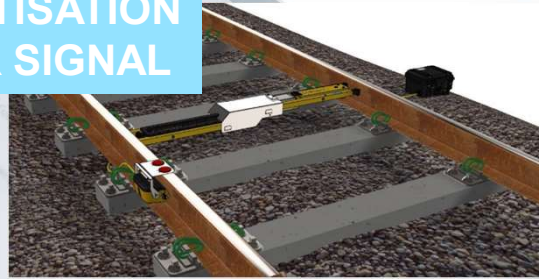
Keep it simple



TRACKING
BORDER SIGNAL



AUTOMATISATION
BORDER SIGNAL



Safe
Protection
Integrator

Interlocking

lateral

ETCS

SPADWATCH



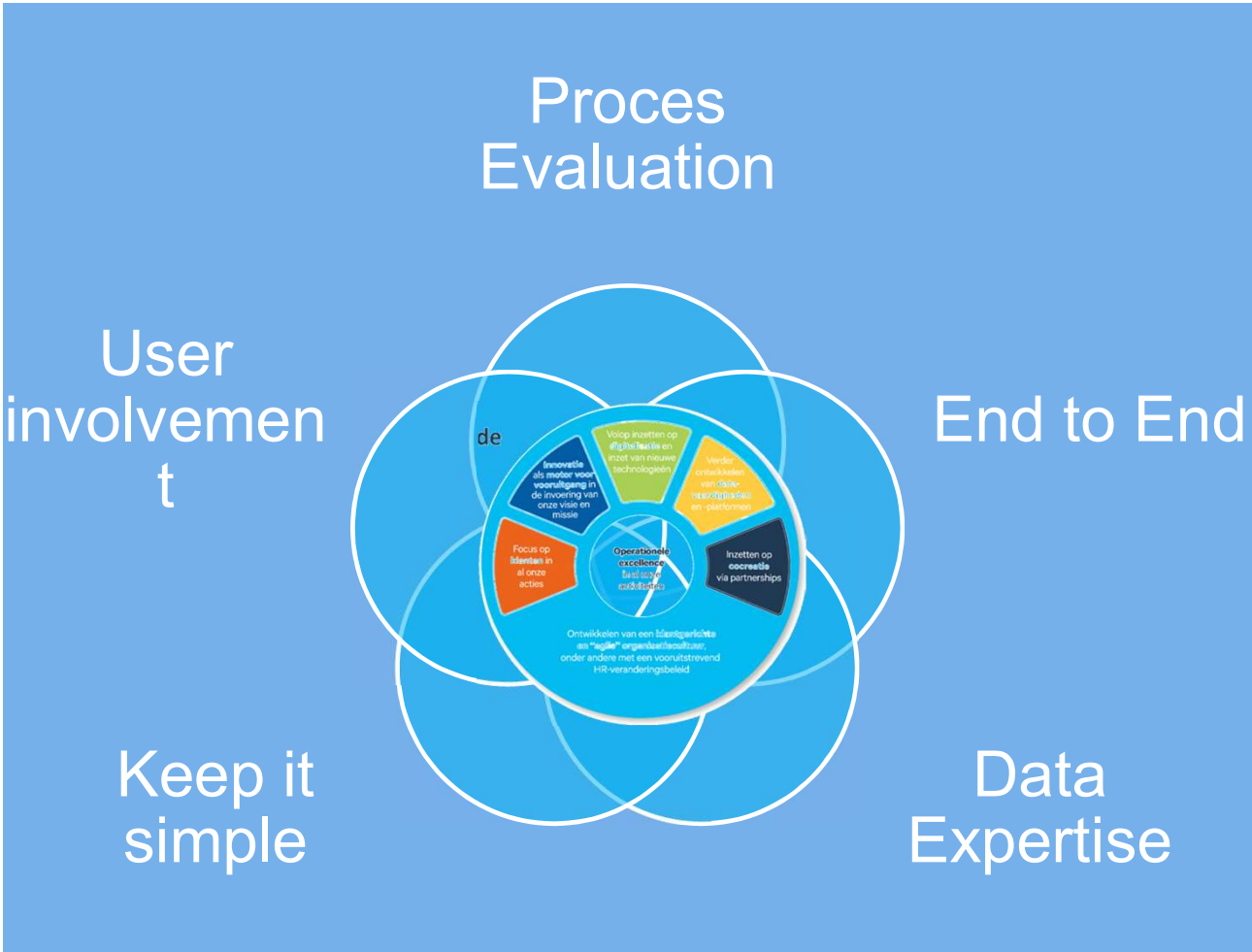
**Workers
Interaction**

INFRABEL

Right On Track

Digitalization of working interaction

Digitalisation Succes Factors





QUESTIONS

Digital Maintenance @ Infrabel