PRESENTATION
V-MON RANGE

V-MON

HISTORY

5 febuary 1949
SIEMA (Société Industrielle d'Electromécanique Appliquée) begins its activity in design and manufacture of relays.

1989
Development of Monitoring product : REMI-LSA

1994
Creation of a railway infrastructure monitoring product range

1999
Commissioning of LN1 SIAM ST2 with 39 sites

2006
Commissioning of SIAM and SENSOR systems on the Eastern LGV.

2008
1st deployment of SIAM ST3

2010
Creation of a new product line of IoT sensors

2018
Creation of the V-MON product line for acquisition & transmission measurement

2020
Development of a new module for a turnout point machine

V-MON
AGENDA

01
V-MON
Product range

02
V-MON
Acquisitions modules

03
V-MON
Architecture

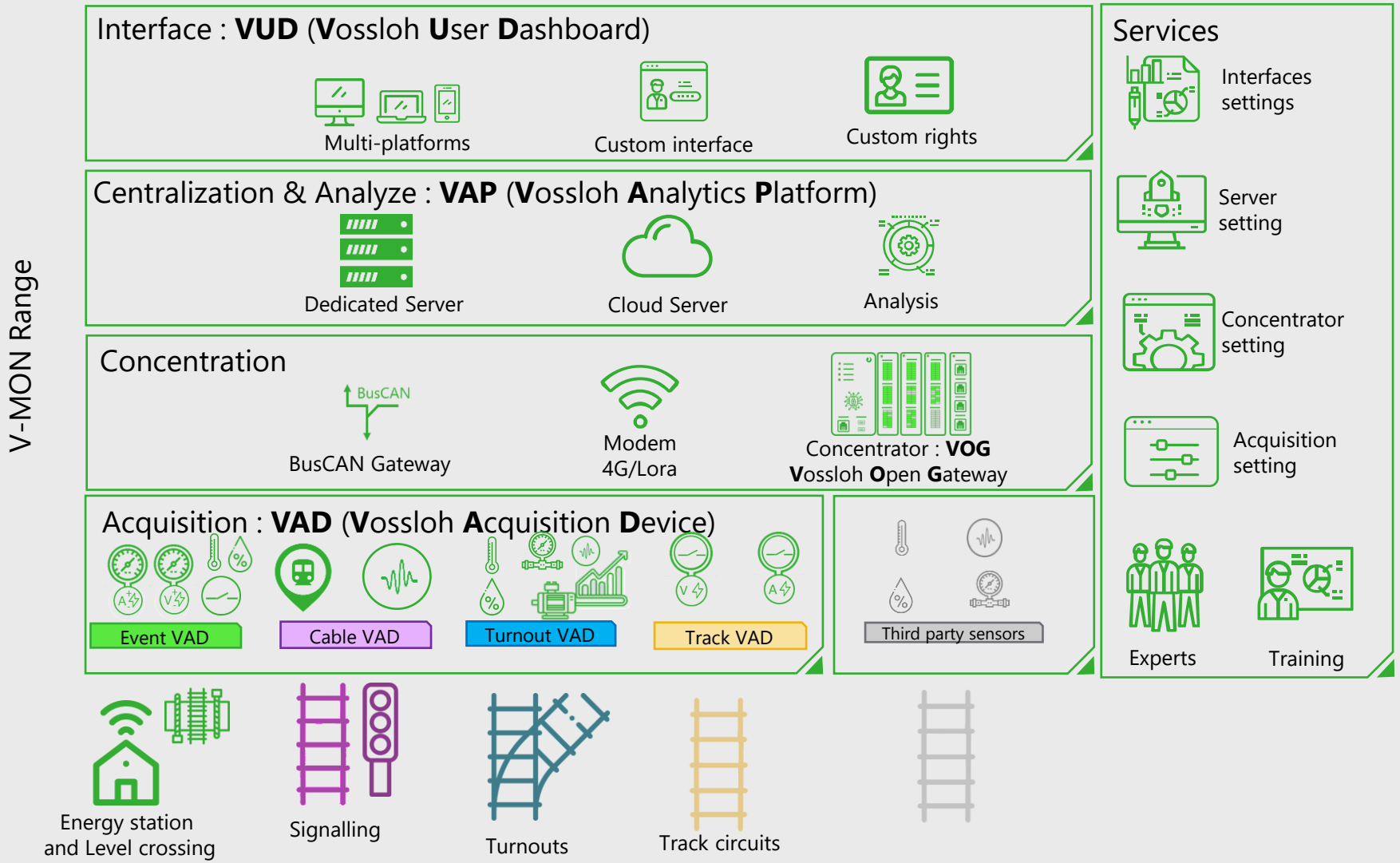
04
V-MON
Success stories

01

V-MON : PRODUCT RANGE

GAMME V-MON

V-MON CONTENTS



02

V-MON ACQUISITIONS MODULES

V-MON

ACQUISITIONS MODULES

V-MON Product range

Event VAD

Trackside infrastructure events Monitoring VAD

Monitoring of discrete I/O
- 8, 12, 24 , 48Vdc

Monitoring of Analog I/O
- 60 Vdc
- 260 Vac
- 4-20mA

On/off output control

Usage

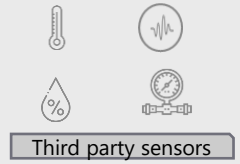
Energy station
- Power supply
- I/O monitoring (Analog & digital)

Level crossing
- Railway traffic signalling light
- Barrier condition
- Battery level
- Barrier breaking

Insulation defects

Traffic detection

Acquisition : **VAD** (**V**ossloh **A**cquisition **D**evice)



V-MON

ACQUISITIONS MODULES

V-MON Product range

Cable theft VAD

Cable Monitoring VAD

Line echo measurement using two modules positioned on both side of cables.

Usage

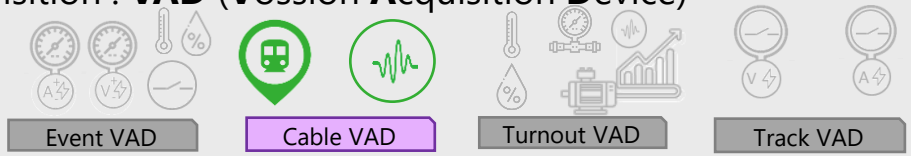
Cut-off detection

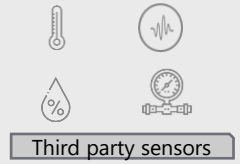
- Position(s)
- Cable type and length
- Send an automatic alerts

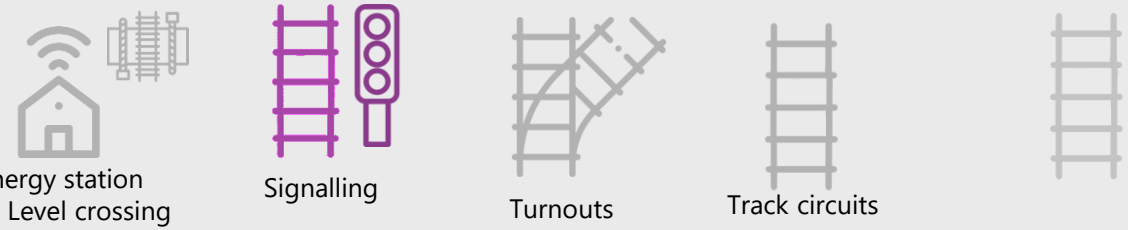
Emergency call

- SMS instantly routed to security.

Acquisition : **VAD** (**V**ossloh **A**cquisition **D**evice)







V-MON

ACQUISITIONS MODULES

V-MON Product range

Turnout VAD

Turnouts monitoring VAD

Control monitoring
- Power consumption Current
- Pressure
- Vibrations & chocks 3 axes
- Temperatures
- Humidity

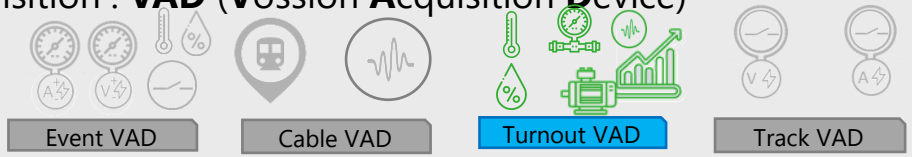
Control monitoring
- Current control of control relay

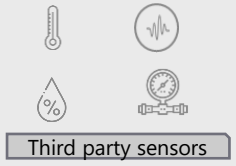
Usage

Turnouts monitoring module
Turnouts
- Blades displacement
- Movement phase control

Control monitoring
- Control relay
  - Contact States
  - Leakage current
  - Shortcuts

Acquisition : **VAD** (**V**ossloh **A**cquisition **D**evice)



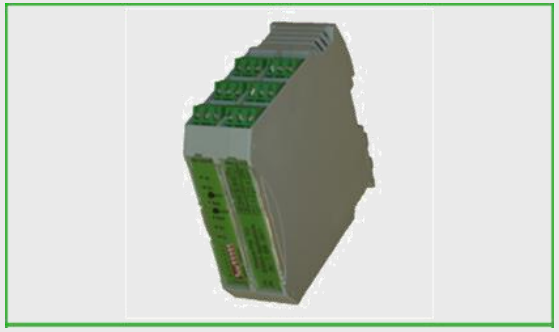


V-MON

ACQUISITIONS MODULES

V-MON Product range

Tracks VAD



Track circuit monitoring VAD (SIL4 acquisition)

ITE
- High voltage pulse

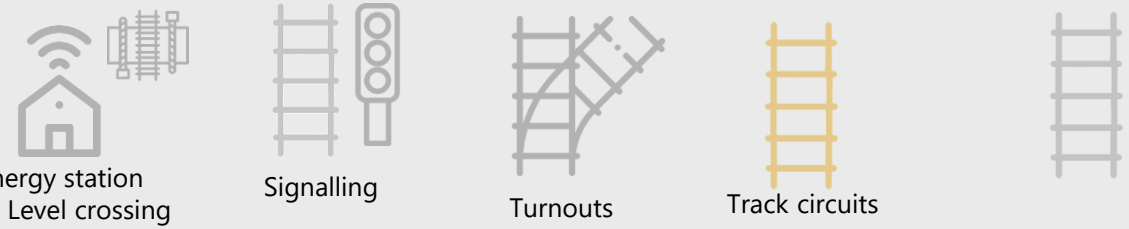
UM71
- Frequency

Acquisition : **VAD** (**V**ossloh **A**cquisition **D**evice)

Usage

ITE
- Insulating joint
- Traction feedback
- Recurrence frequency
- Signal quality
- Traffic detection

UM71
- Insulating joint
- Signal quality
- Traffic detection

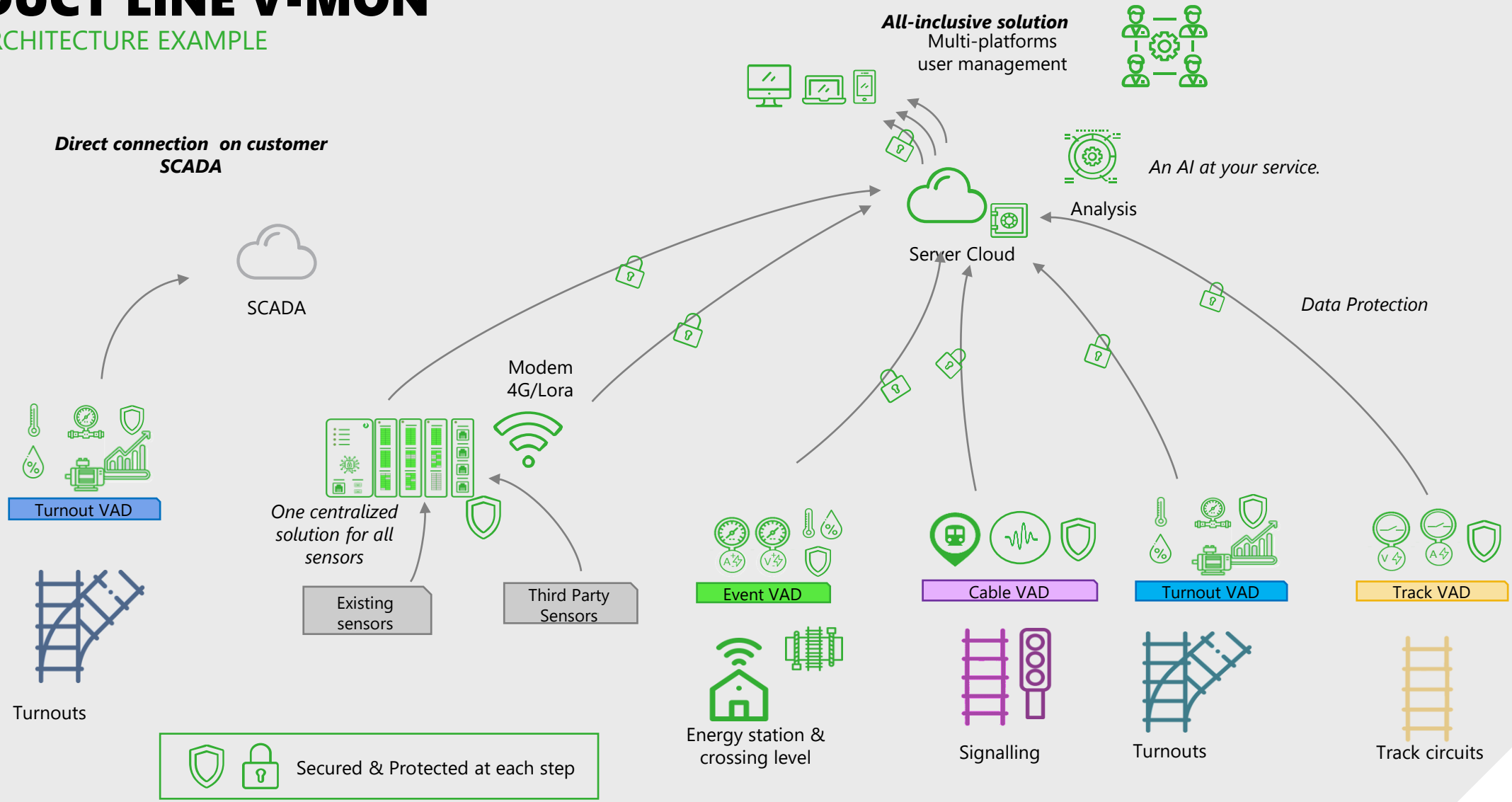


03

V-MON : ARCHITECTURE

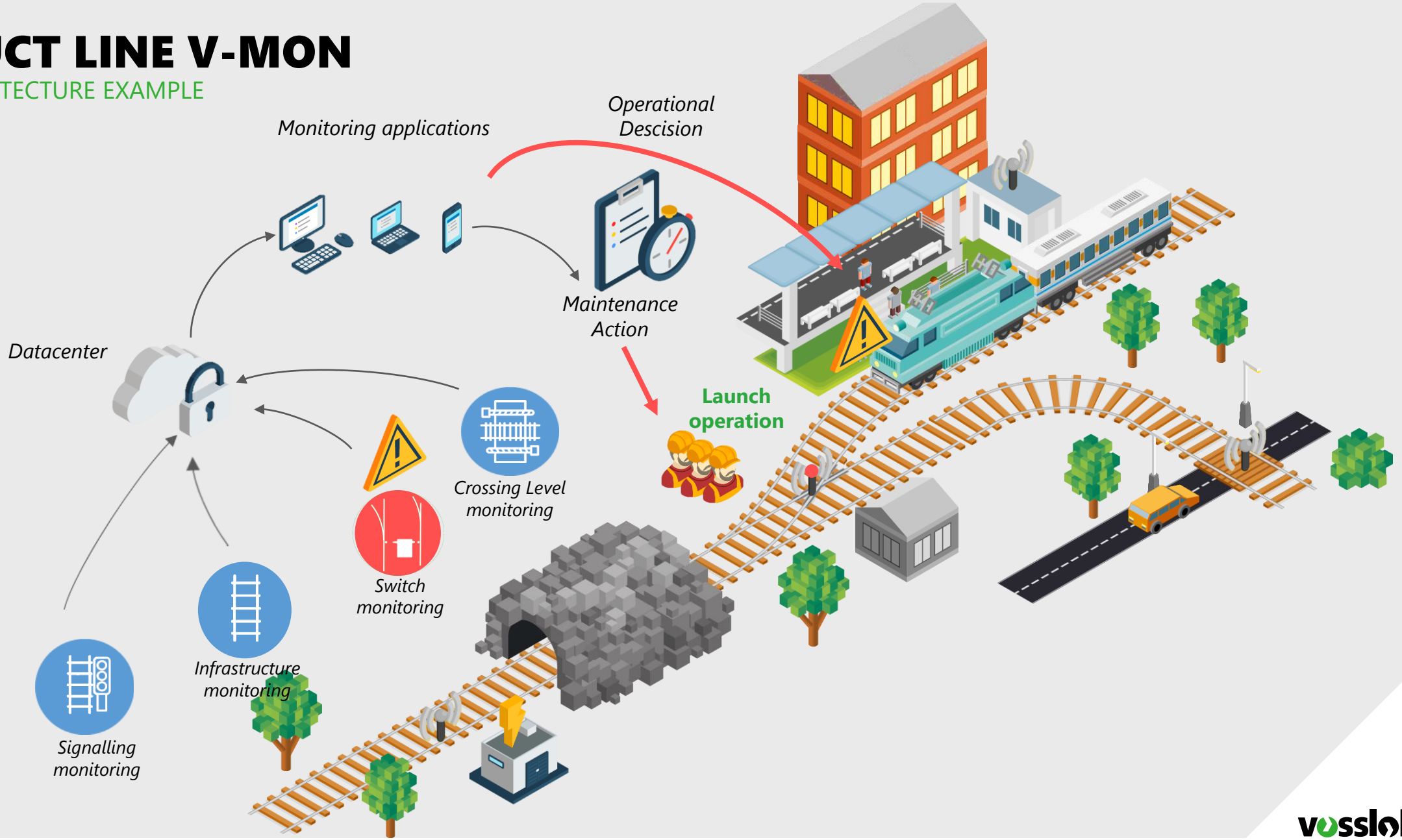
PRODUCT LINE V-MON

V-MON ARCHITECTURE EXAMPLE



PRODUCT LINE V-MON

V-MON ARCHITECTURE EXAMPLE



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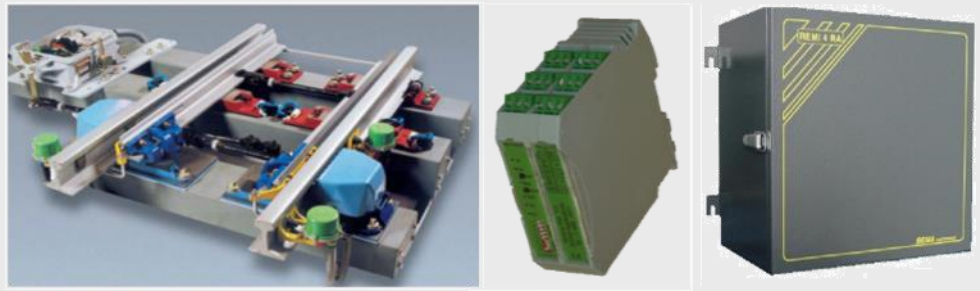
04

V-MON : SUCCESS STORIES

V-MON

SUCCESS STORIES



Turnouts Monitoring :

- 3000 turnouts in France
- Installed in 3 new private high-speed line
- Operational in Morocco on the high-speed line
- Experimentation UK

Track circuit Monitoring:

- More than 300 track circuits in France
- Operational in Morocco on the HSL
- Experimentation UK

Event Monitoring :

- > 300 000 information followed
- Operational in Morocco on the HSL

Cable Theft Monitoring:

- Operational in France

SUCCESS STORIES

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