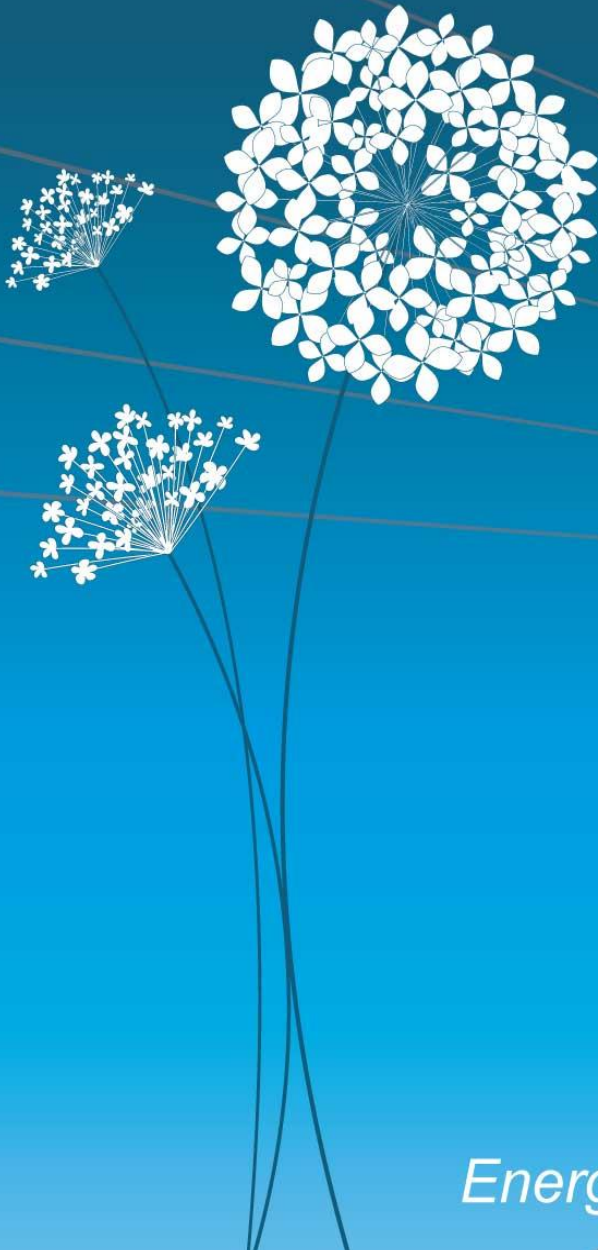


ANTWERPEN, 16 - 19 JUNE



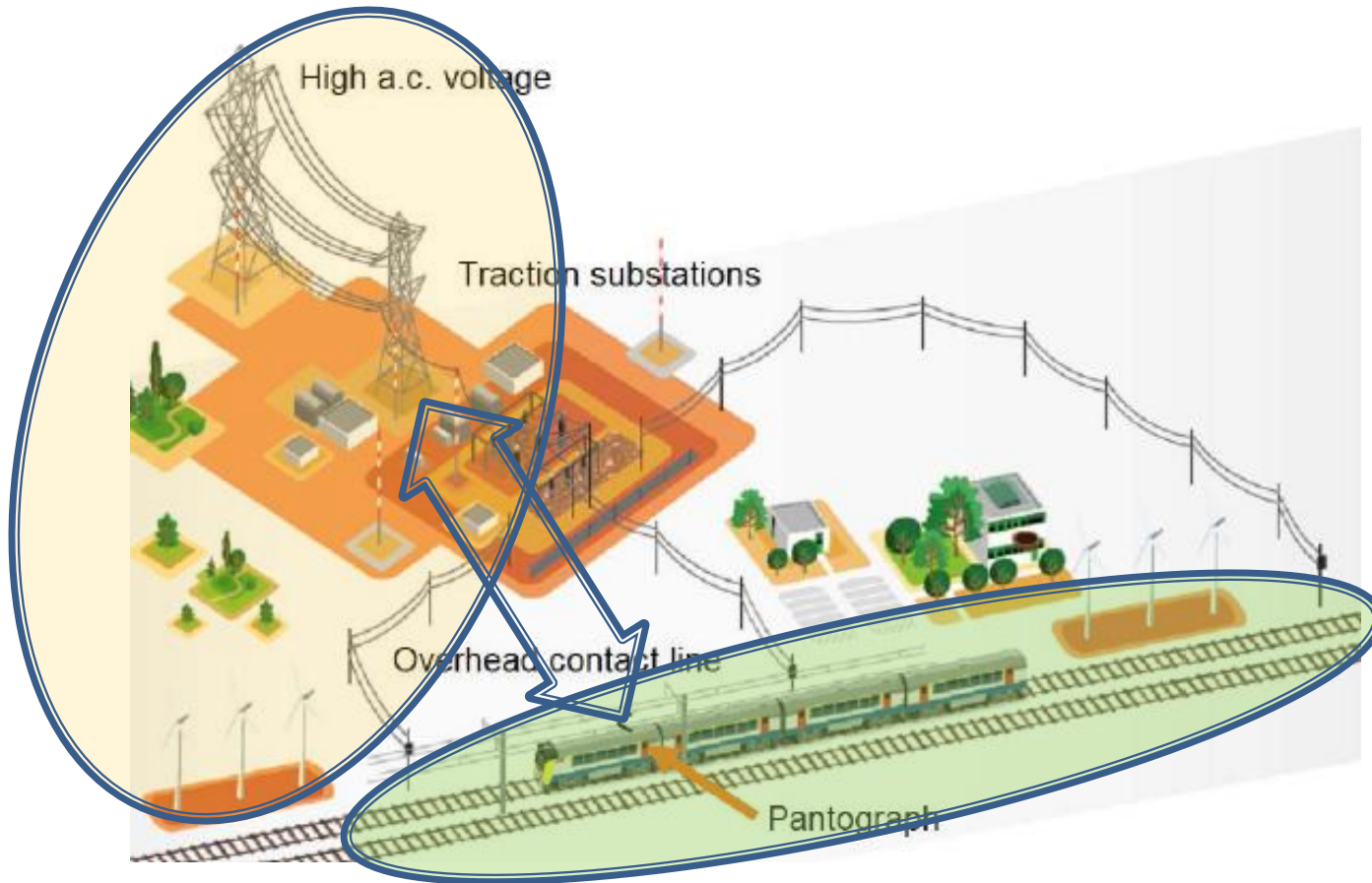
WHY ALL RAILWAY PEOPLE SHOULD BE INTERESTED IN ENERGY EFFICIENCY

IR RICHARD MARCELIS

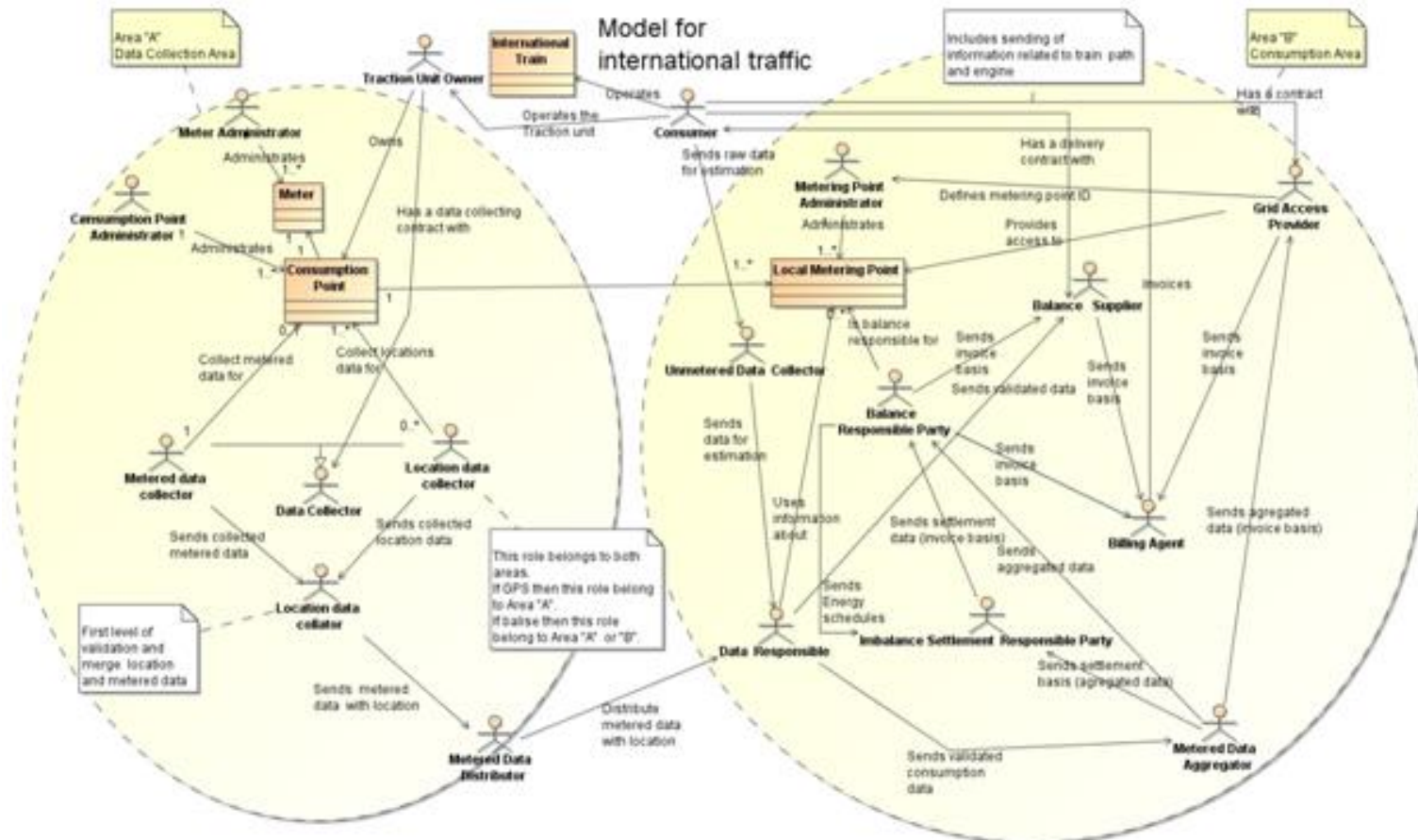
HEAD OF POWER ENGINEERING INFRABEL

Energy Efficiency, the best fuel to move our trains!

THE ENCOUNTER OF TWO WORLDS



TEN YEARS AGO...



... STARTED A NEW AREA OF INTEREST



IT'S ALL ABOUT THE DATA ,....



Infrastructure



- Track locations
- Altitudes
- Stations

Position



- GPS receiver
- Tachometer
- ERTMS

Timetable



- All stations and passagepoints
- Arrival/Departure
- Expected track

Track usage



- Updated track usage
- Transmitted real-time

Speed Limits



- Permanent limits
- Temporary limits

Train Characteristics



- Length and weight
- Maximum speed
- Resistances
- Acceleration/braking



SUSTAINABLE RAILWAY || SMART NETWORK

