

**Rail Baltica**  
GLOBAL FORUM  
April 10 – 11, 2018, Tallinn

Working Session II  
*"Rail Baltica - Digitalisation and Innovation  
opportunities"*

*ADIF Digitalisation and Innovation  
experience*



# Rail Baltica – Project of the Century

Three Baltic countries & North Sea-Baltic Core Network Corridor



# Haramain High Speed Railway Project



# DaVinci Integrated Solution

## Rail Traffic Management and Operations Efficiency

- ▶ Adif and Indra: Technological Partners for its development
- ▶ Spain's HS Network fully controlled from the DaVinci environment



# BIM Capabilities & Experience

## Transport Infrastructure Projects

- ▶ Adif partnership with INECO
- ▶ INECO leads Spanish Ministry of Public Works at EU BIM Task Group



# Railway Asset Management

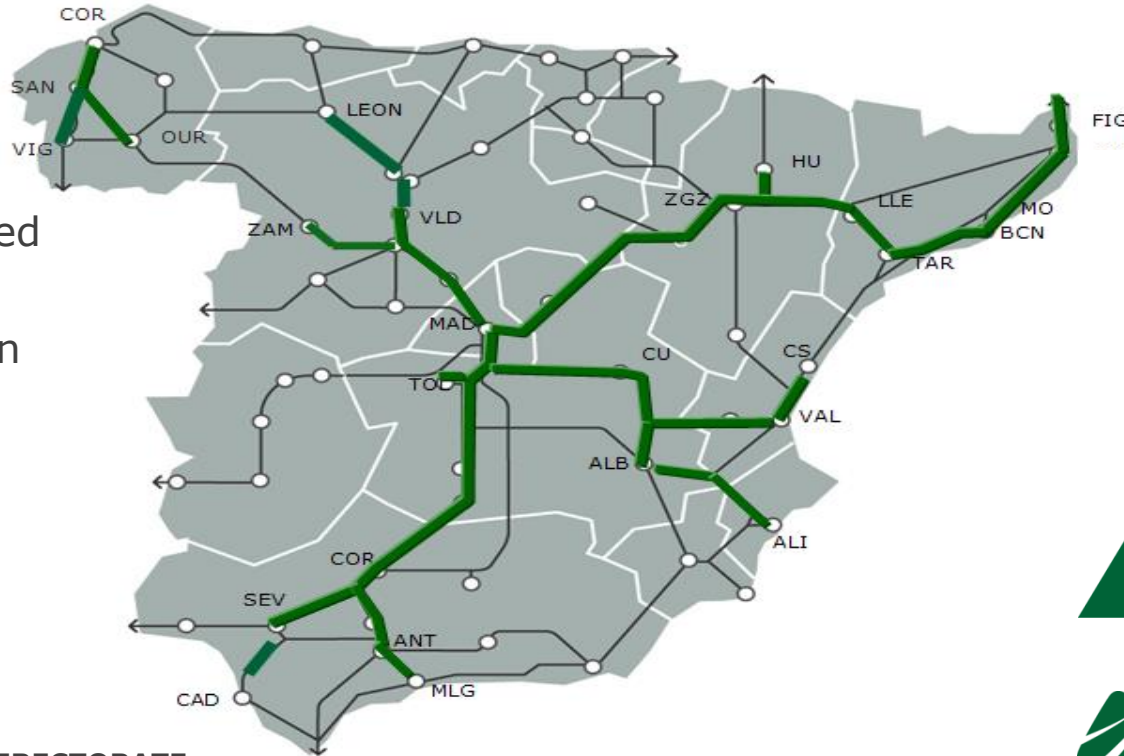
Achieving appropriate balance of asset cost

- Deliver value from the assets to the organisation

- Tool developed

- Help decision making

**Renewal  
VS  
Maintenance**

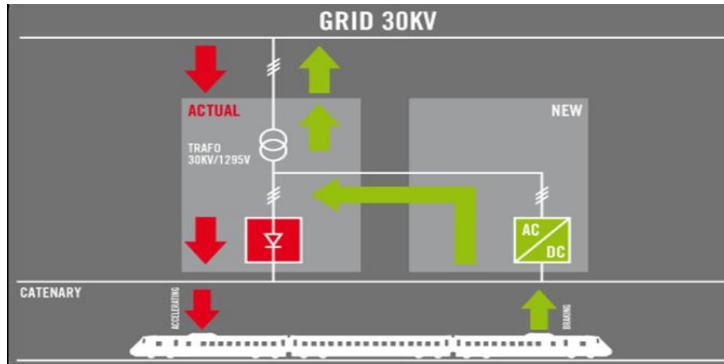




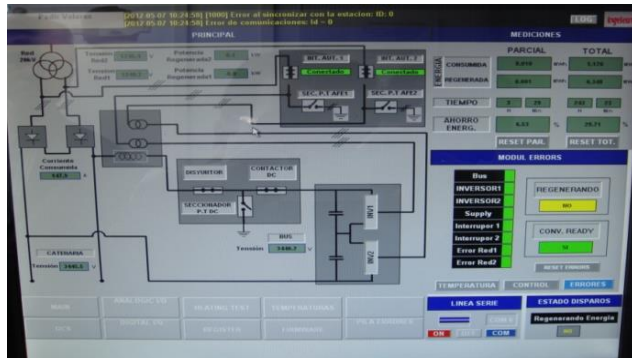
# Innovation experiences

## Reversible substation

- ▶ Commuter Railway Lines with high frequencies

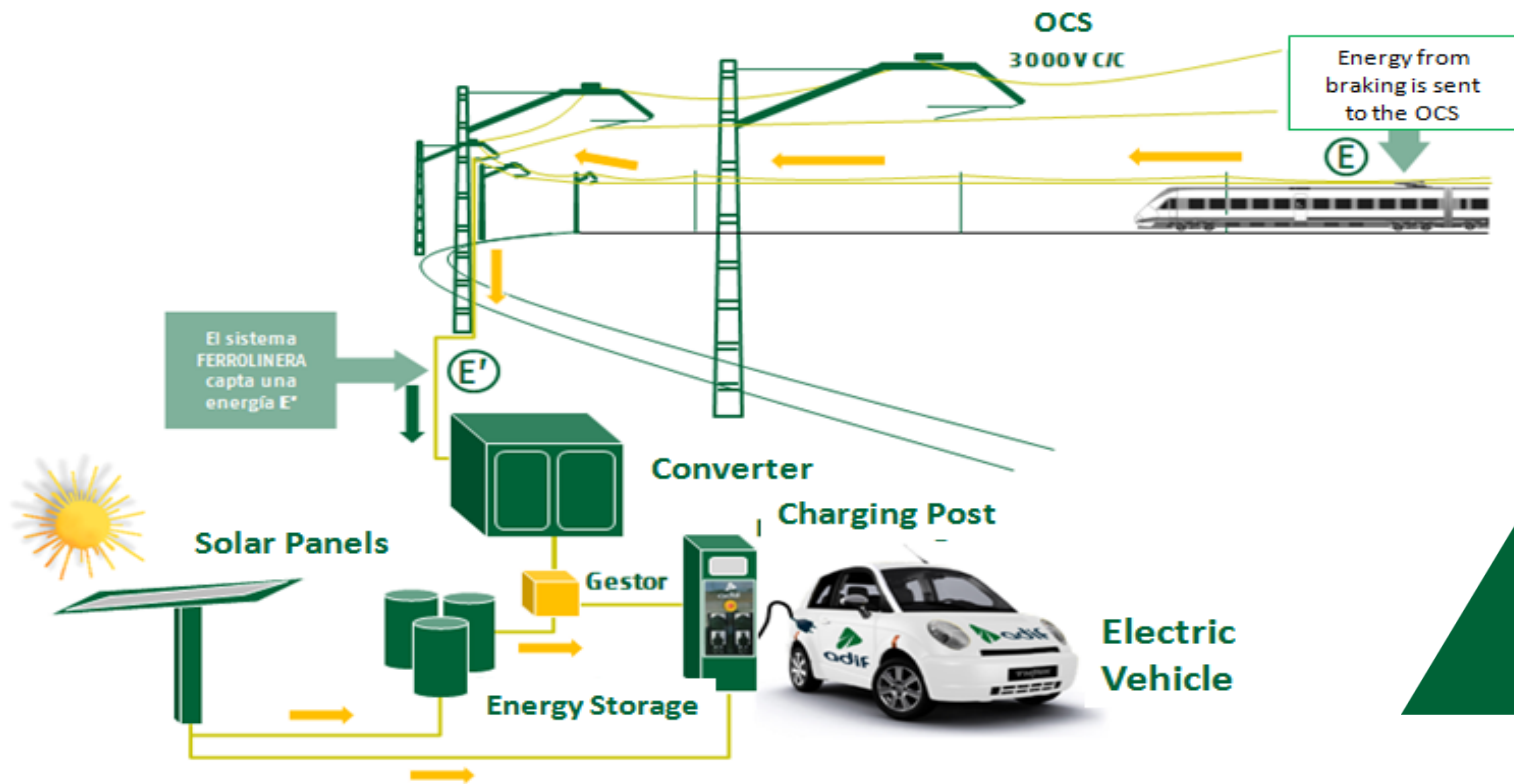


- ▶ RST with regenerative braking
- ▶ Inverter energy recovery module
- ▶ 15% energy savings
- ▶ Estimated 6-7 years ROI



# Innovation experiences

## Ferrolinera ® Project





# Innovation experiences

## Smart Stations

- ▶ Smart stations concept linked to Smart cities



- ▶ Broaden area of influence
- ▶ Transport hub
- ▶ Commercial activities
- ▶ Successful business model



# Innovation experiences

## Smart Stations

- Málaga Station suits under this concept



# Innovation experiences

## Gauge changing facility

- ▶ Automatic axle gauge exchangers from Standard to Iberian gauge
- ▶ Process is performed at 20 km/h



- ▶ Reliable solution to connect with third countries
- ▶ Expand the network through a technical facility



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