

#EUYearofRail



# What Future for Passenger and Freight Rail Transport in Portugal and Spain?

## The Portuguese National Railway Plan

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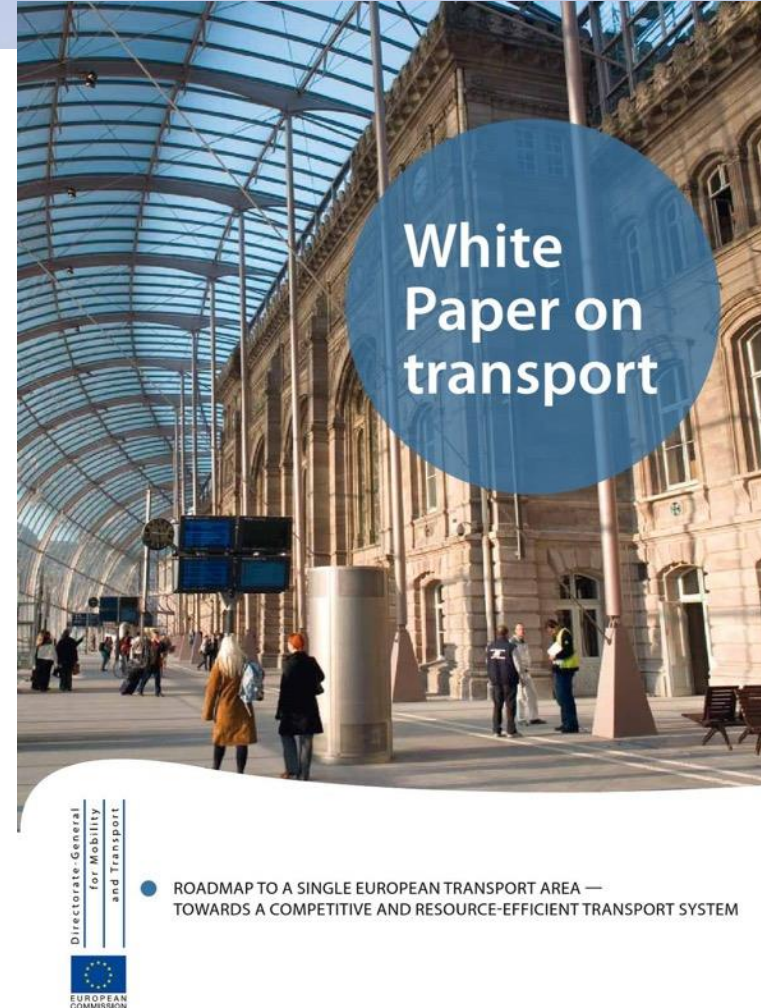
# The National Railway Plan

- Plan the future Rail Network (2050+ horizon)
- Increase rail modal share of passengers and freight
- Ensure accessibility to all main urban centres
- Territorial Planning instrument, aligned with National Territory Planning Policies
- Aligned with global EU policy giving priority to rail transport



# EU Policy Background

- Shift of 50% of road passenger and freight traffic above 300 km to rail until 2050 (30% until 2030)
- 60% reduction of GHG emissions from transport
- Complete Core TEN-T until 2030 and comprehensive TEN-T until 2050



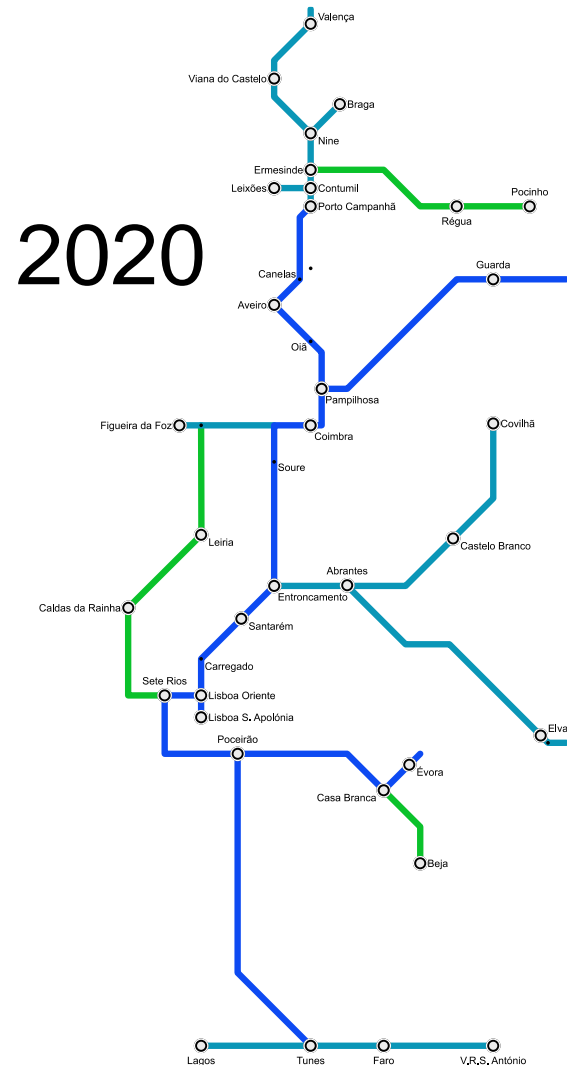
# EU Policy Background

- Double rail freight transport until 2050, with reference to 2015
- Triple high-speed passenger transport until 2050, with reference to 2015



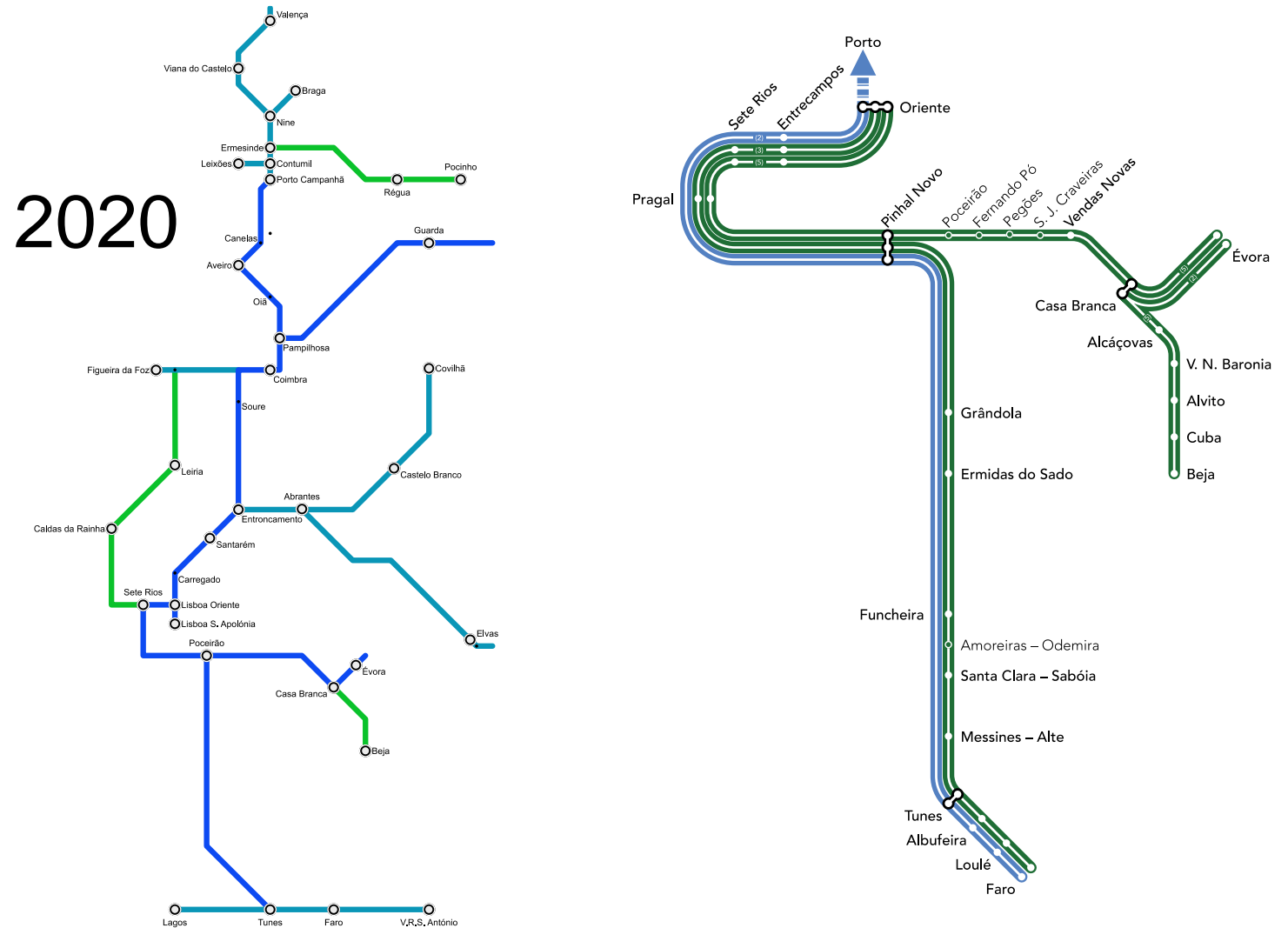
# Portuguese Rail Network Structure

- Existing network mostly has a tree topology, imposing a fragmented service pattern



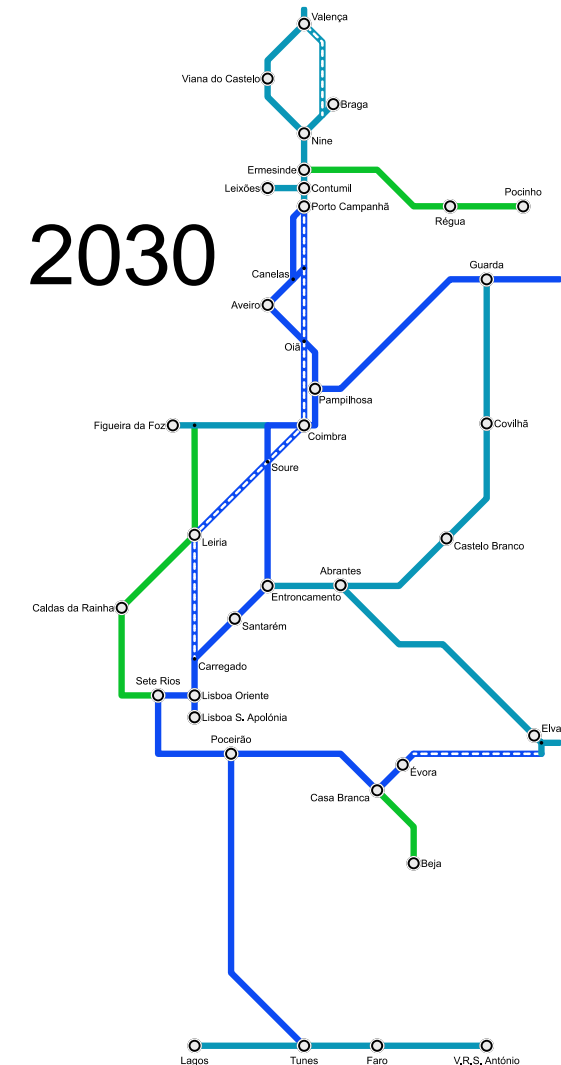
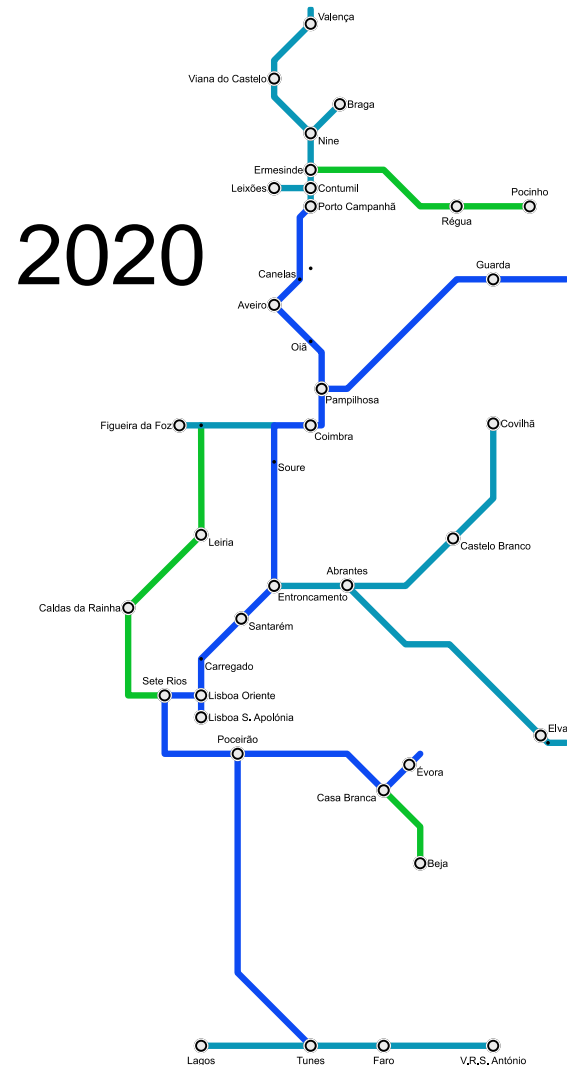
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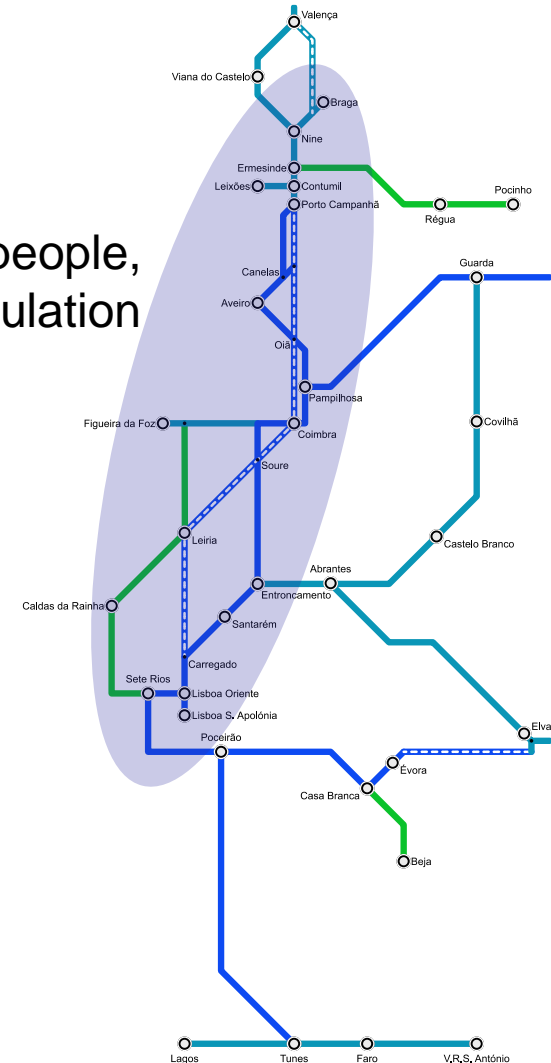
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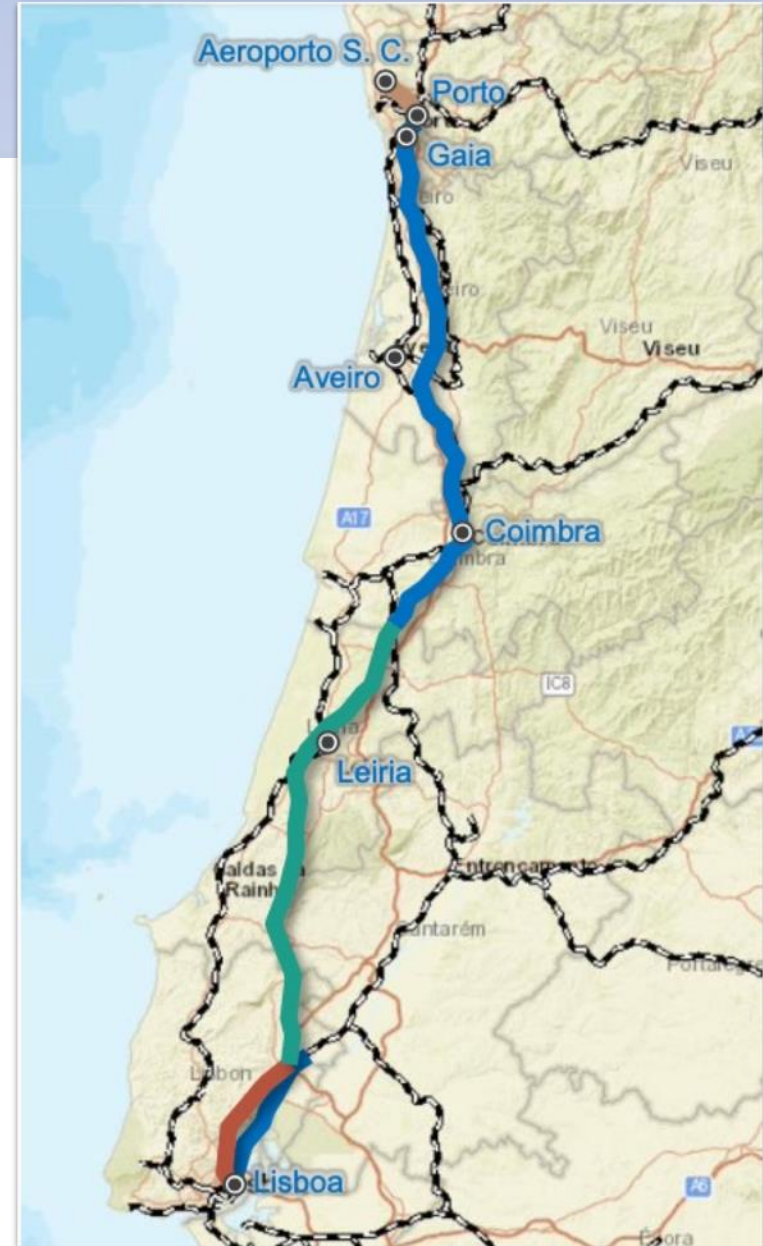
Approx. 8 million people,  
80% of Portuguese population



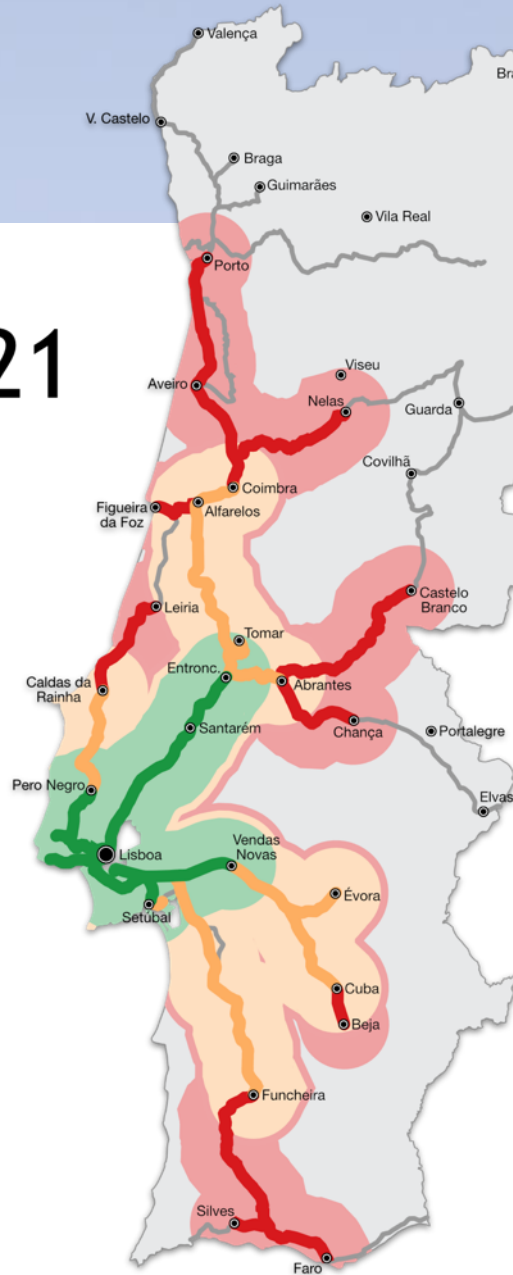


# Porto – Lisboa HSL

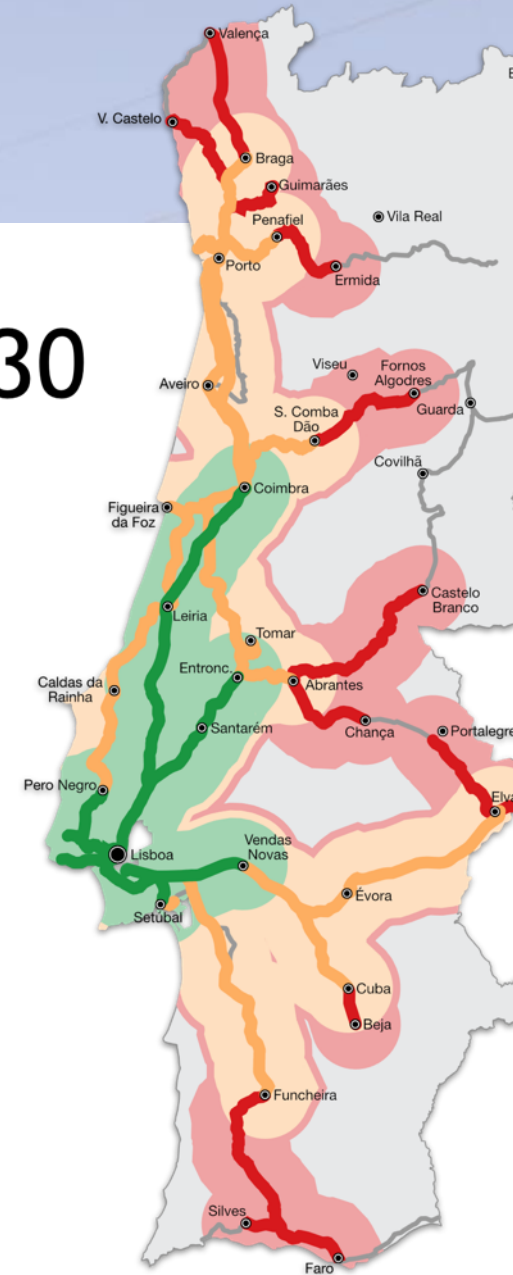
- Key component for any plans for future rail network
- Creates high-capacity and high-performance rail mesh between two main Portuguese cities
- Corridor with, by far, highest passenger and freight transport demand
- Future extension to the North, connecting with Spanish Atlantic Axis



2021

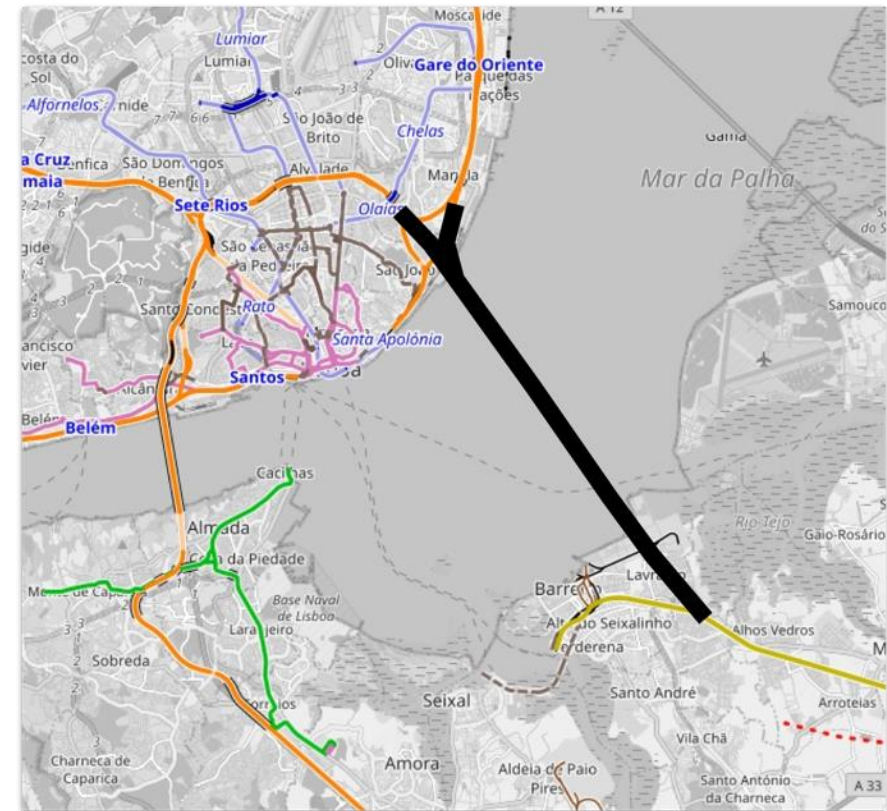


2030



# New Crossing of the Tagus

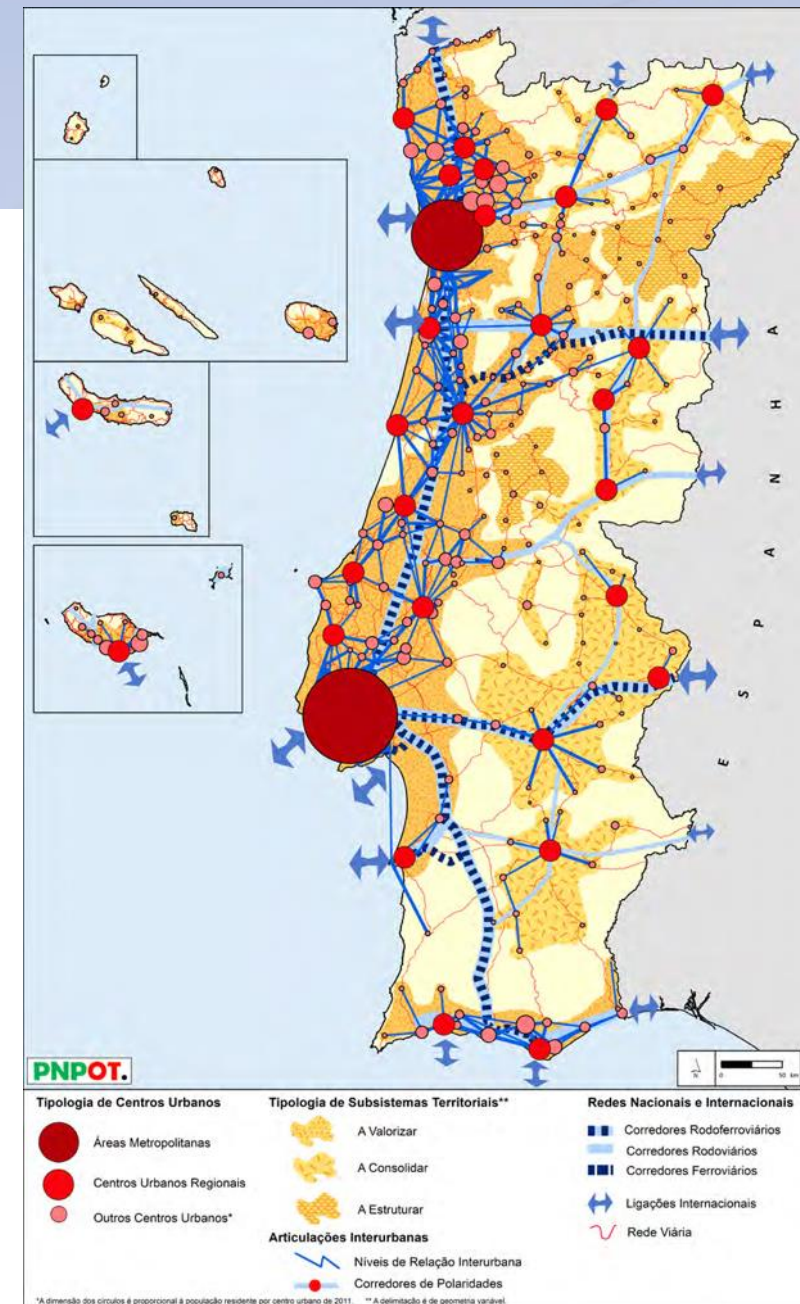
- Important connection at all scales: local, national, international
- Cuts ~30 minutes in all connections between Lisbon and destinations south of the river, incl. Setúbal, Faro and Madrid
- Removes limitations of freight trains across the existing bridge





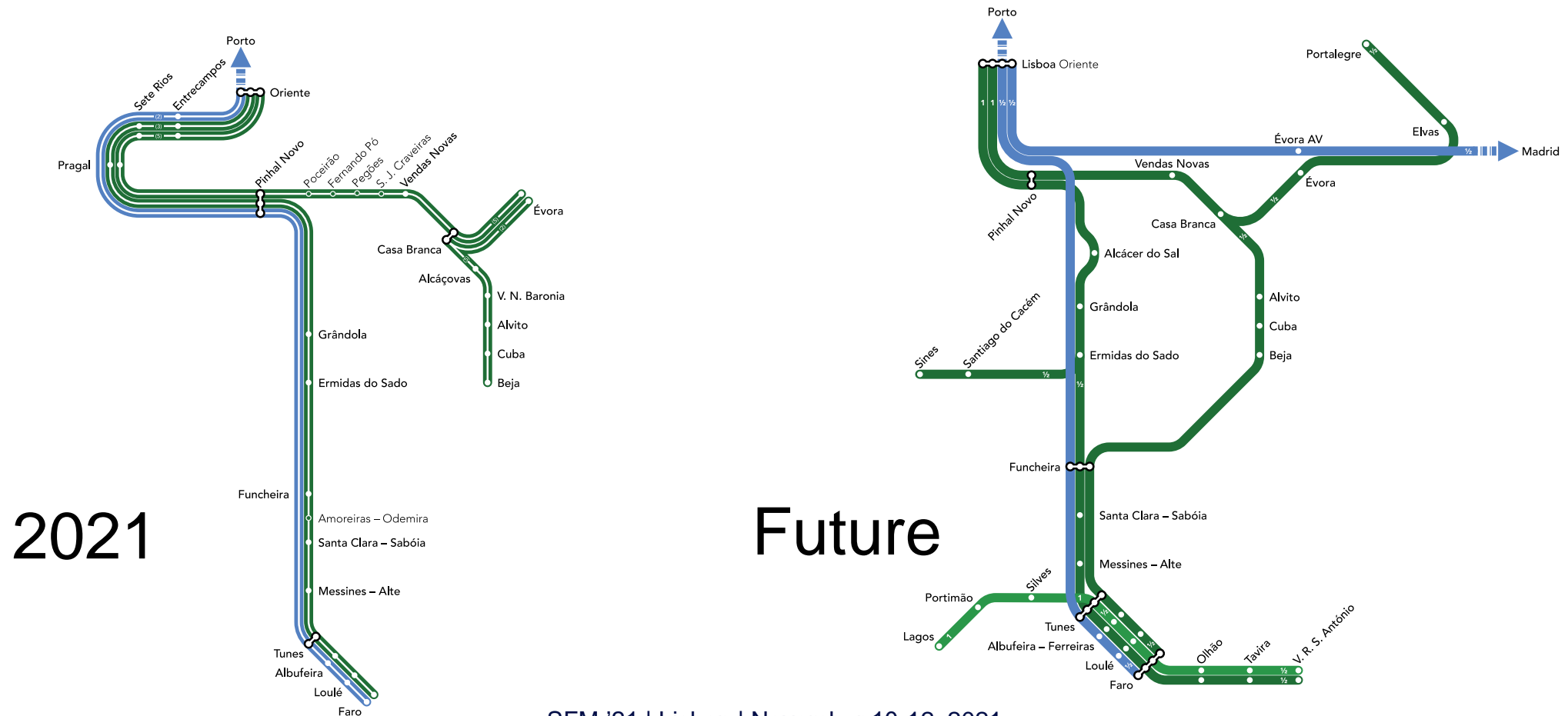
# Small Size of Portuguese Urban Centres

- Only 5 cities in Portugal with more than 100000 people (counting Lisbon and Porto Met. Areas together)
- All are in the Lisboa – Braga Axis
- Other relevant urban centres are between 20000 and 60000 people

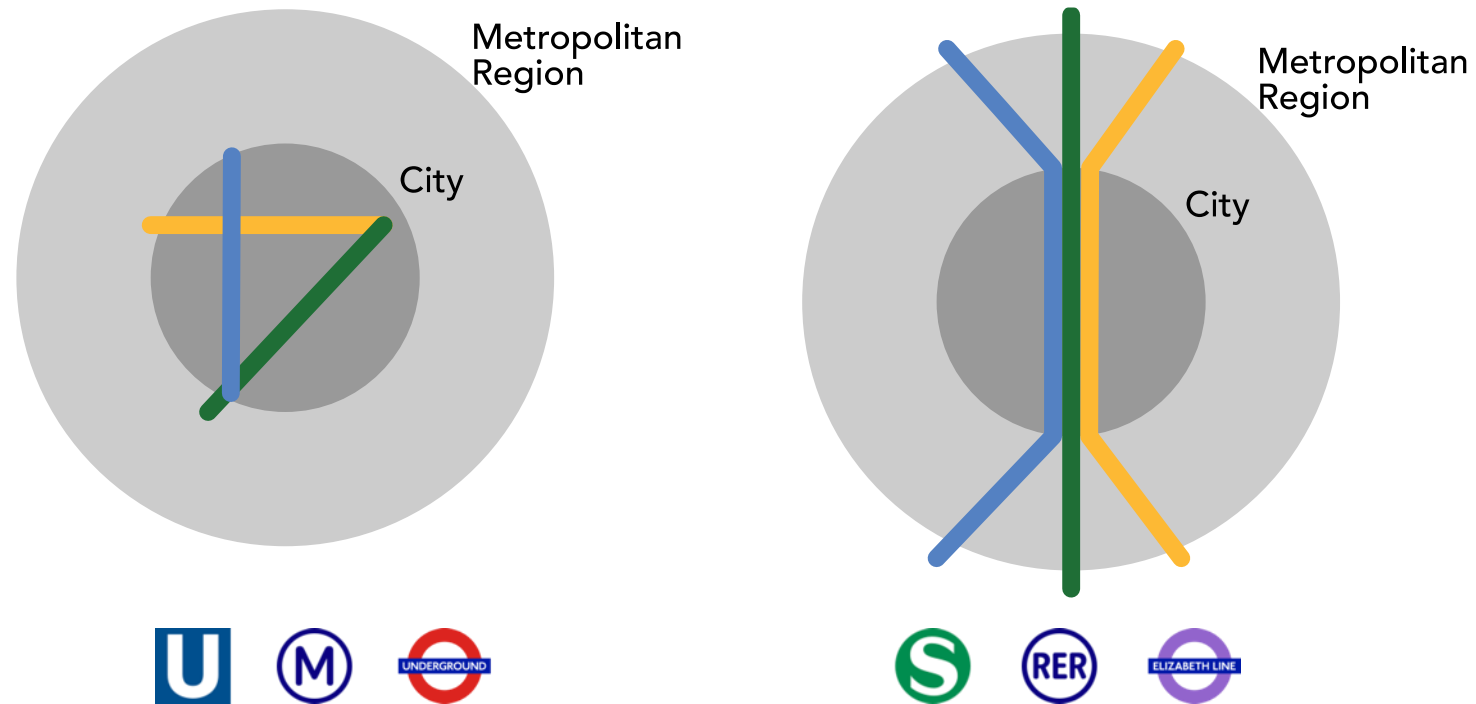




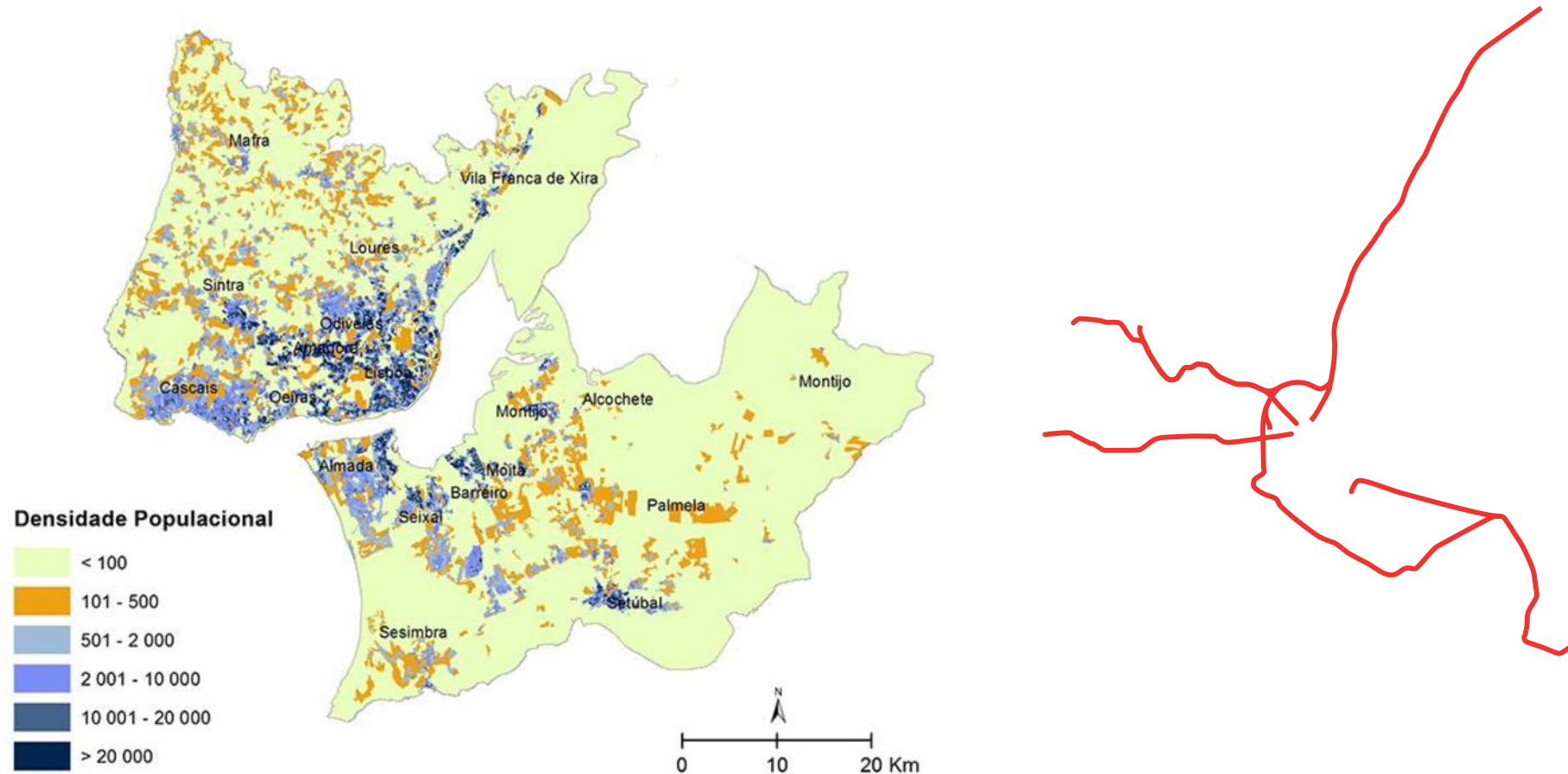
# Example: Southern Portugal Long Distance Services



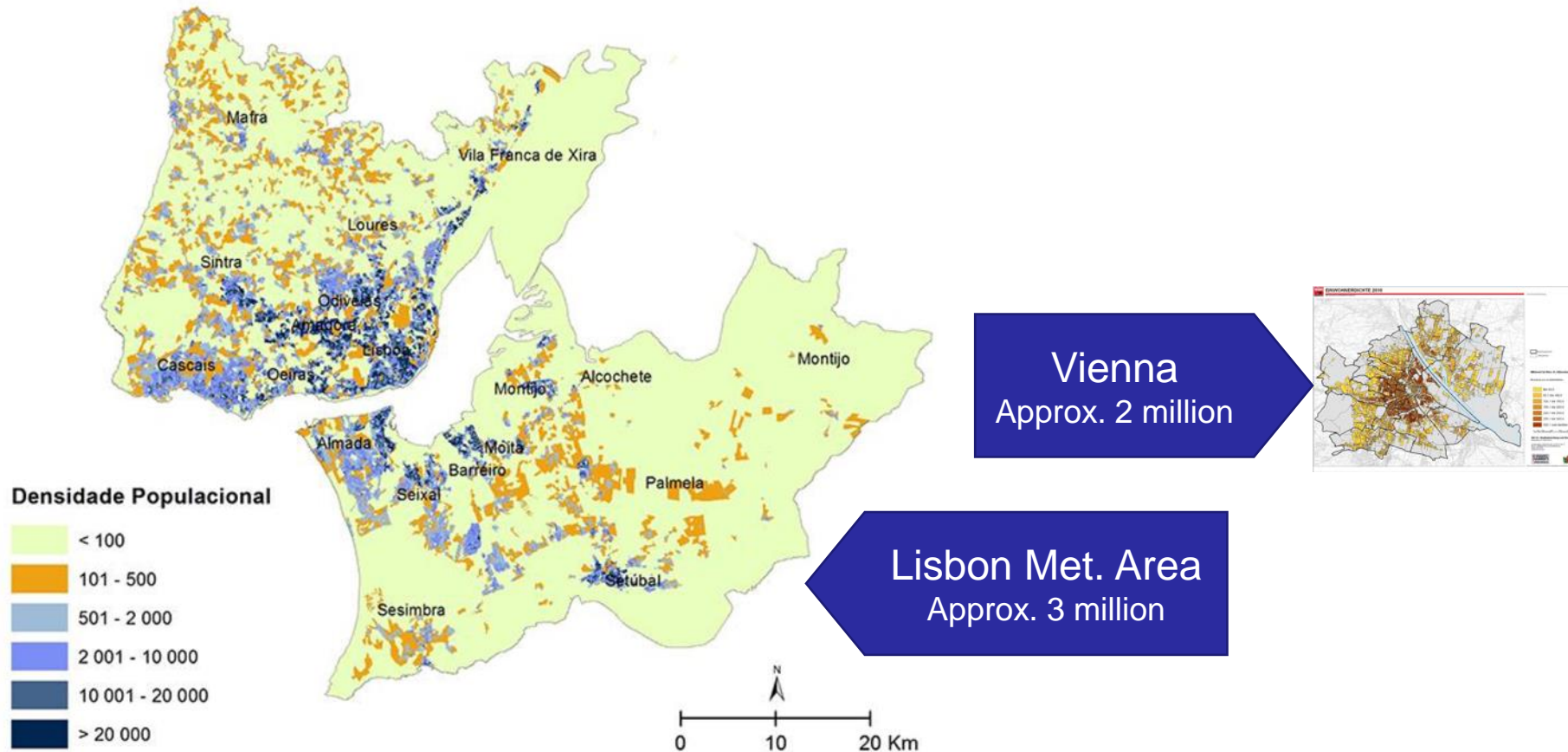
# Metropolitan Rail Networks



# Example: Lisbon Metropolitan Area

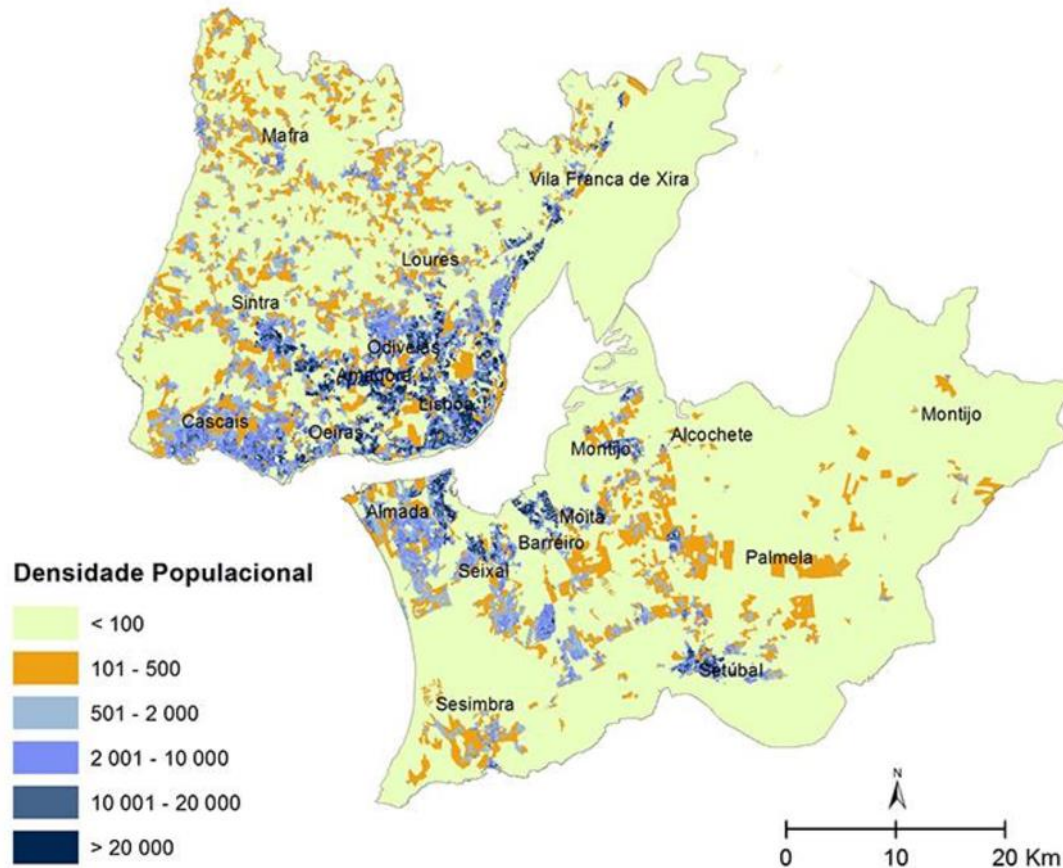


# Example: Lisbon Metropolitan Area



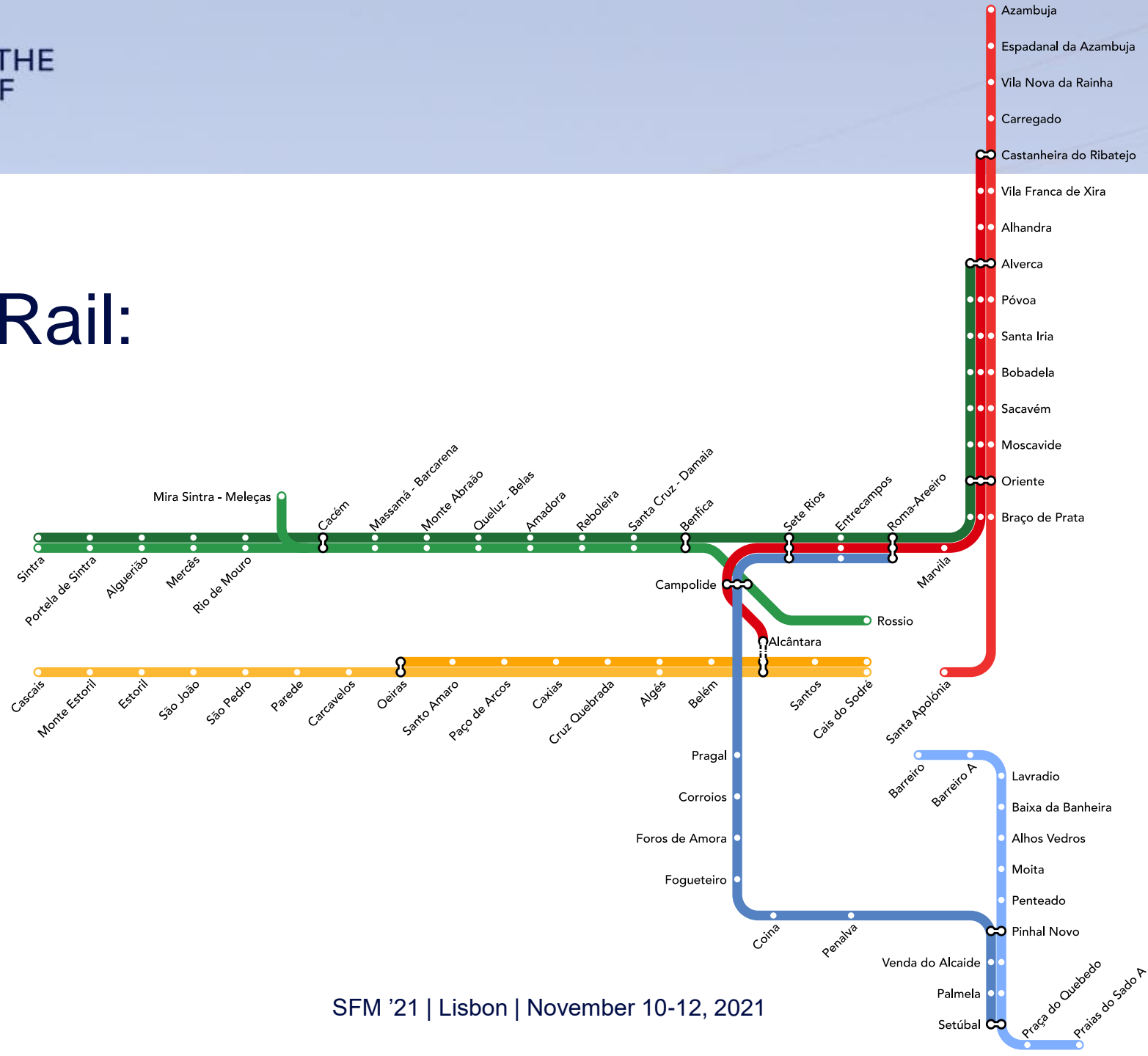


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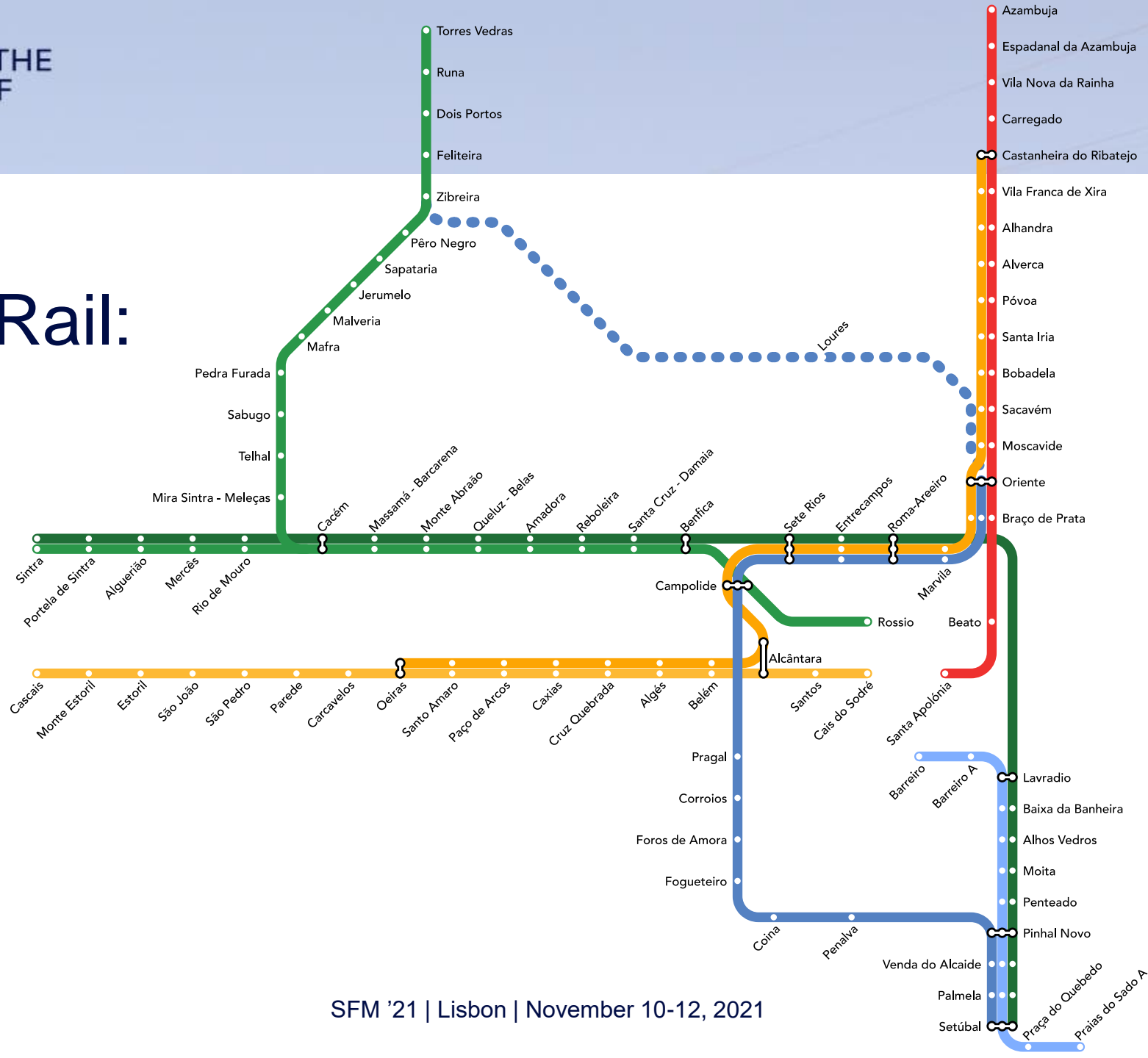


- Lack of density creates difficulties in planning transport networks
- Existing suburban rail network is mainly radial
- Distinction between Metro and suburban rail network may not be so stark

# Lisbon Suburban Rail: Existing Network



# Lisbon Suburban Rail: Working Proposal



# Role of Central Railway Stations



Terminal Intermodal de Campanhã



Moynihan Train Hall, NYC Penn Station



Estação de Viana do Castelo



# Intermodality in Urban Areas



# Key Concerns for Freight Transport

Capacity  
Required to ensure  
reliability and growth



Connection to main  
demand sources  
(e.g. ports and large  
concentrations of production  
and consumption)



Intermodality,  
incl. rail-road terminals,  
rolling motorways



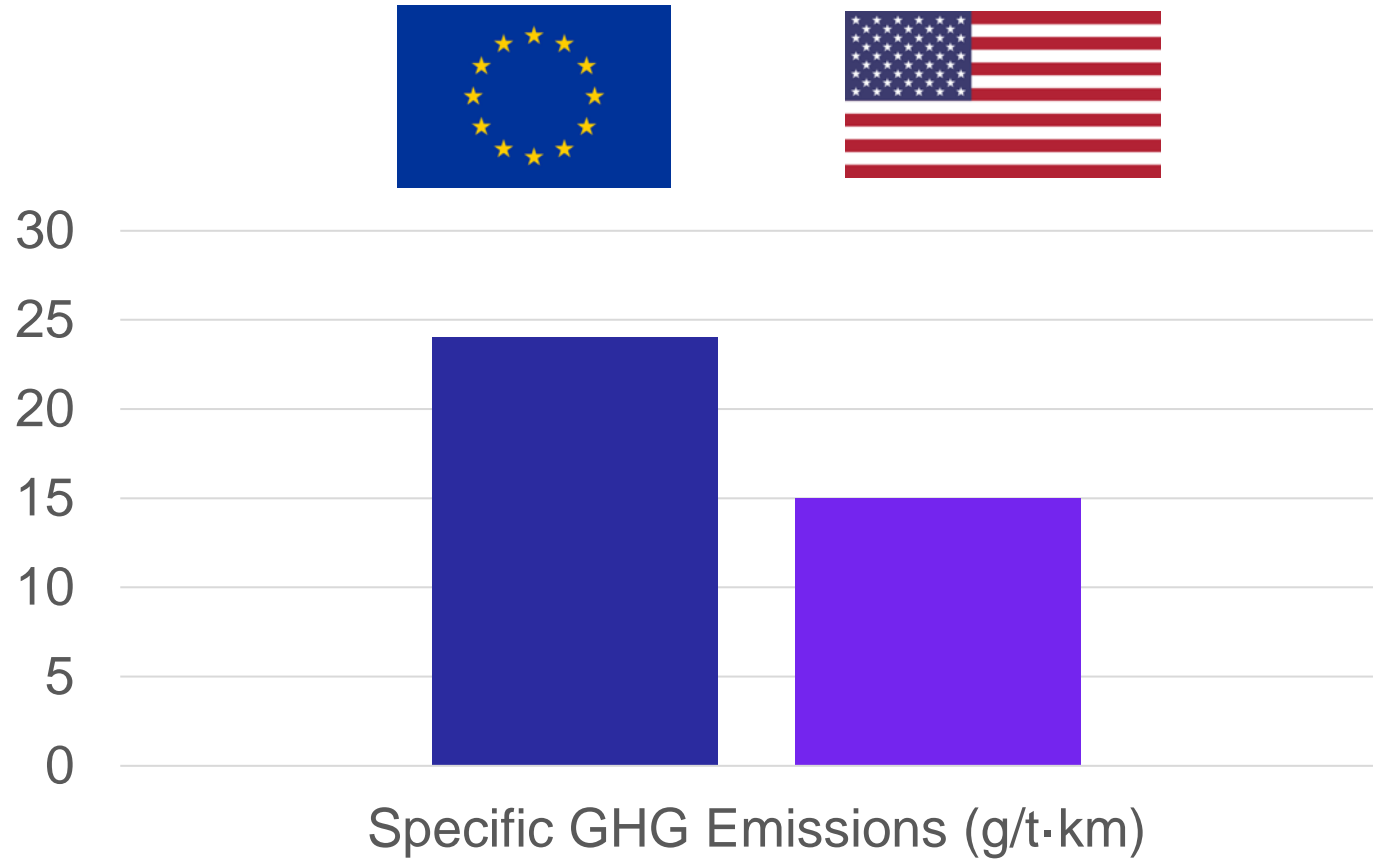
Low Cost,  
with fair competition with other modes



# A provocation about Freight Transport...



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## Some lessons or, at least, some questions.

- Is the introduction of ever more technology making rail freight transport more efficient and affordable?
- Should we be thinking about trains longer than 750 m in Europe?
- Is it worthwhile to have dedicate freight lines?



# PLANO FERROVIÁRIO NACIONAL