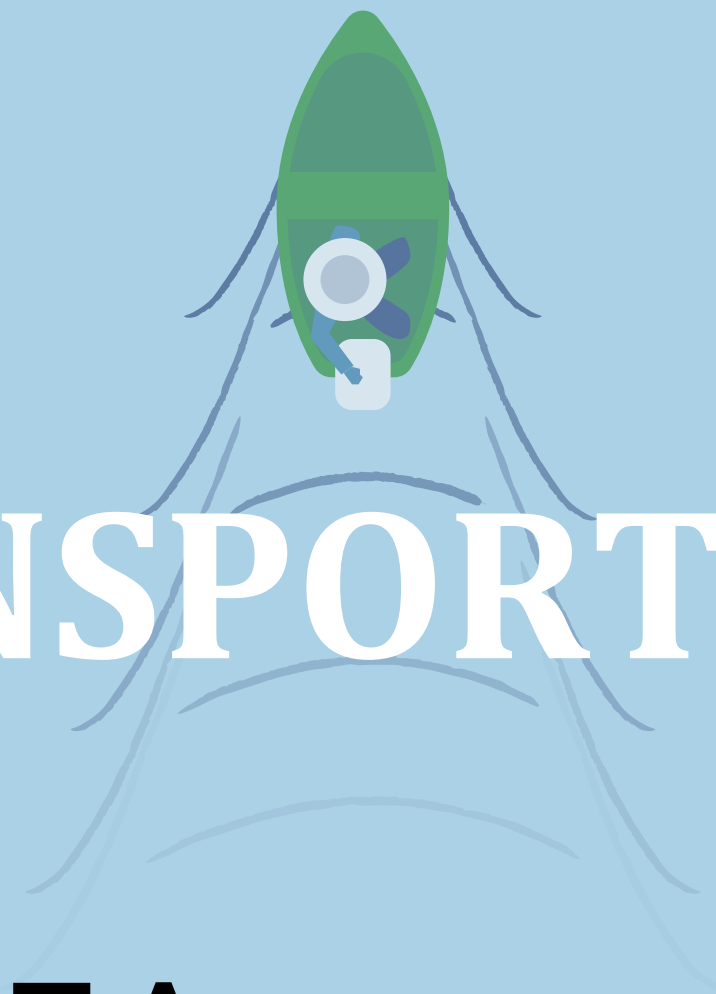


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INTERNATIONAL TRANSPORT SEMINAR

NORTH ADRIATIC SEA

Edith HART
Simon TESSIER
Ange MARTIN
Adrien THEROND
Raphael THOMAS



RIVIERA

FRENCH-ITALIAN
INTERNATIONAL TRANSPORT SEMINAR
IUAV - CY CERGY PARIS

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PASSENGER TRANSPORT

NORTH ADRIATIC SEA



THE QUESTION



What are the main challenges and opportunities linked to the mobilities in the area of Venice, in a context of environmental, political and economical dynamics ?





STUDY AREA

Austria

Slovenia

Italy

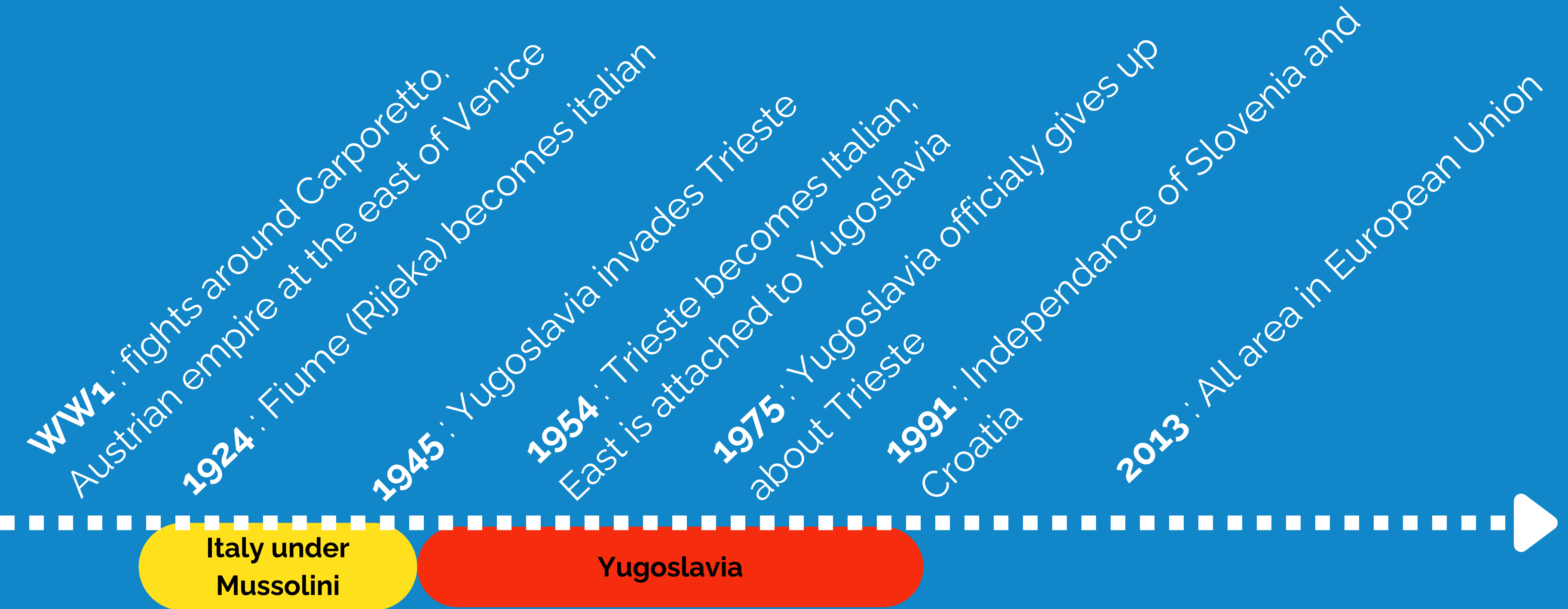
Croatia

Study Area



A TURBULENT HISTORY IN THE XXTH CENTURY

- Our study area was **influenced by italian** since the Middle Age, with Republic of Venice (697 - 1797)
- The recent history can explain mobilities difficulties of today



CONSEQUENCES FOR TODAY

- **Significant improvments since 2003 :**

- 2003 : Slovenia in EU
- 2007: Slovenia in € area
- 2013 : Croatia in EU
- 2023 : Croatia in € area

- Today:**

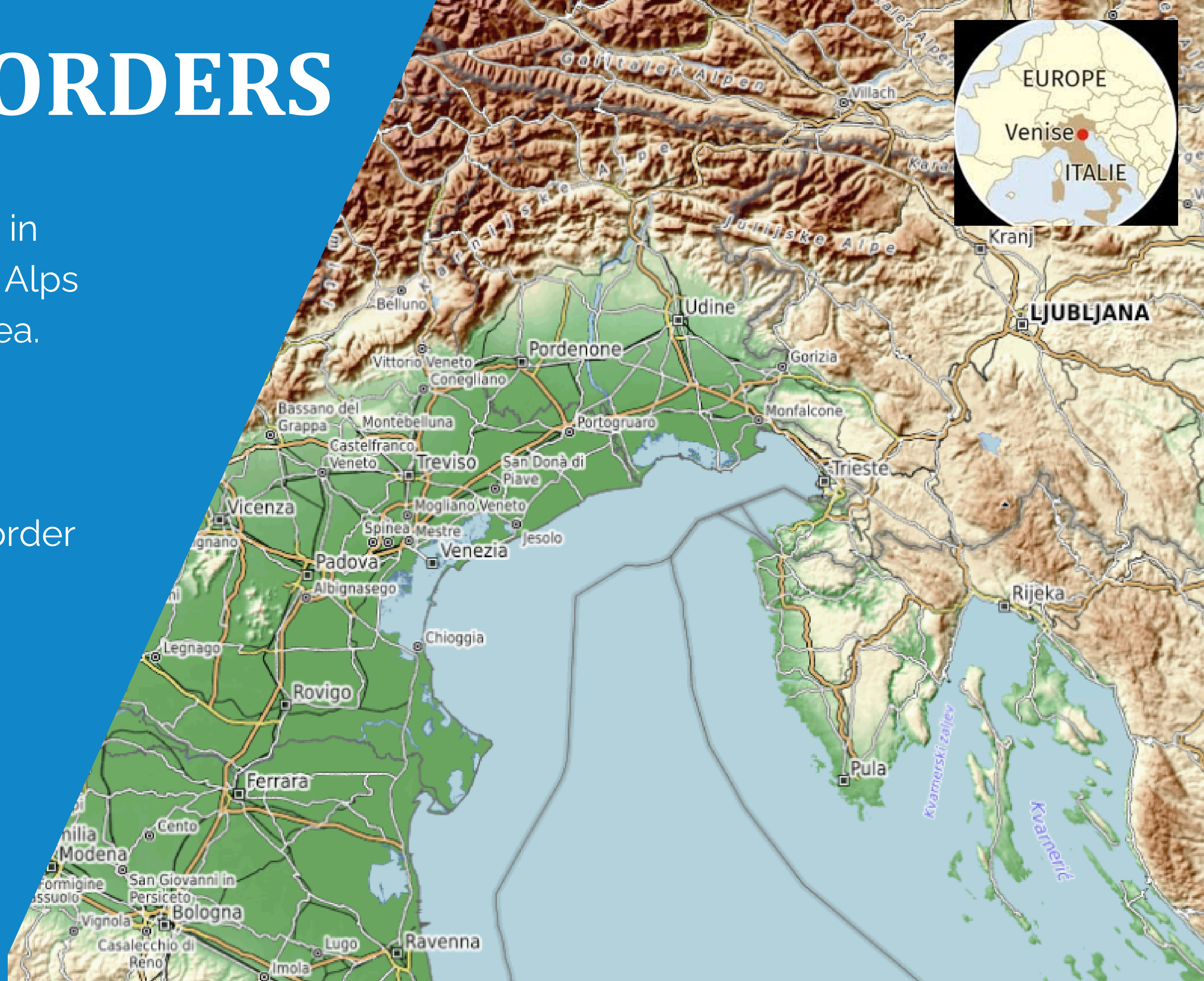
Italy, Slovenia and Croatia together in Schenghen area

- **Some tensions :**

- 2004 : creation of a day of Memory in Italia
- 2009 : disputed borders between Croatia and Slovenia (Piran)
- 2020 : Borders are back with COVID19

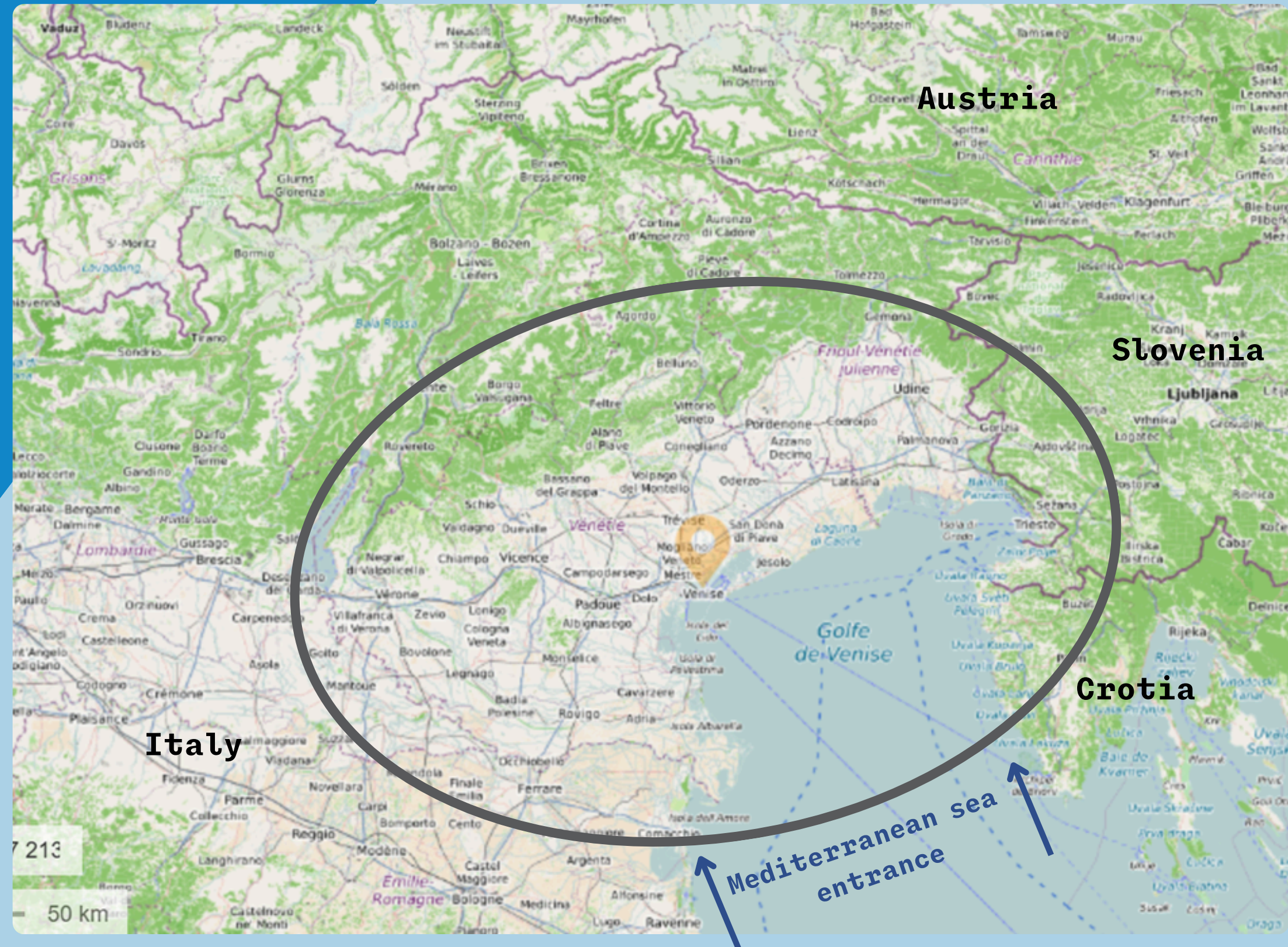
NATURAL BORDERS

- The Venice region is located in north-east Italy, south of the Alps and bordering the Adriatic Sea.
- At the **center of Europe**
- Alps to the north = natural border
- **Adriatic Sea** - opportunities
 - Accessible passenger transport by sea
 - Tourism accessibility
 - Natural amenities



POLITICAL BORDERS

- An area **close to several countries**
- 4 countries in the area :
(Italy/ Austria/ Slovenia/ Croatia)
- All border countries are in the **European Union**
- Venice is **major city** in Italy enabling the development of infrastructure



2. DYNAMICS OF MOBILITY

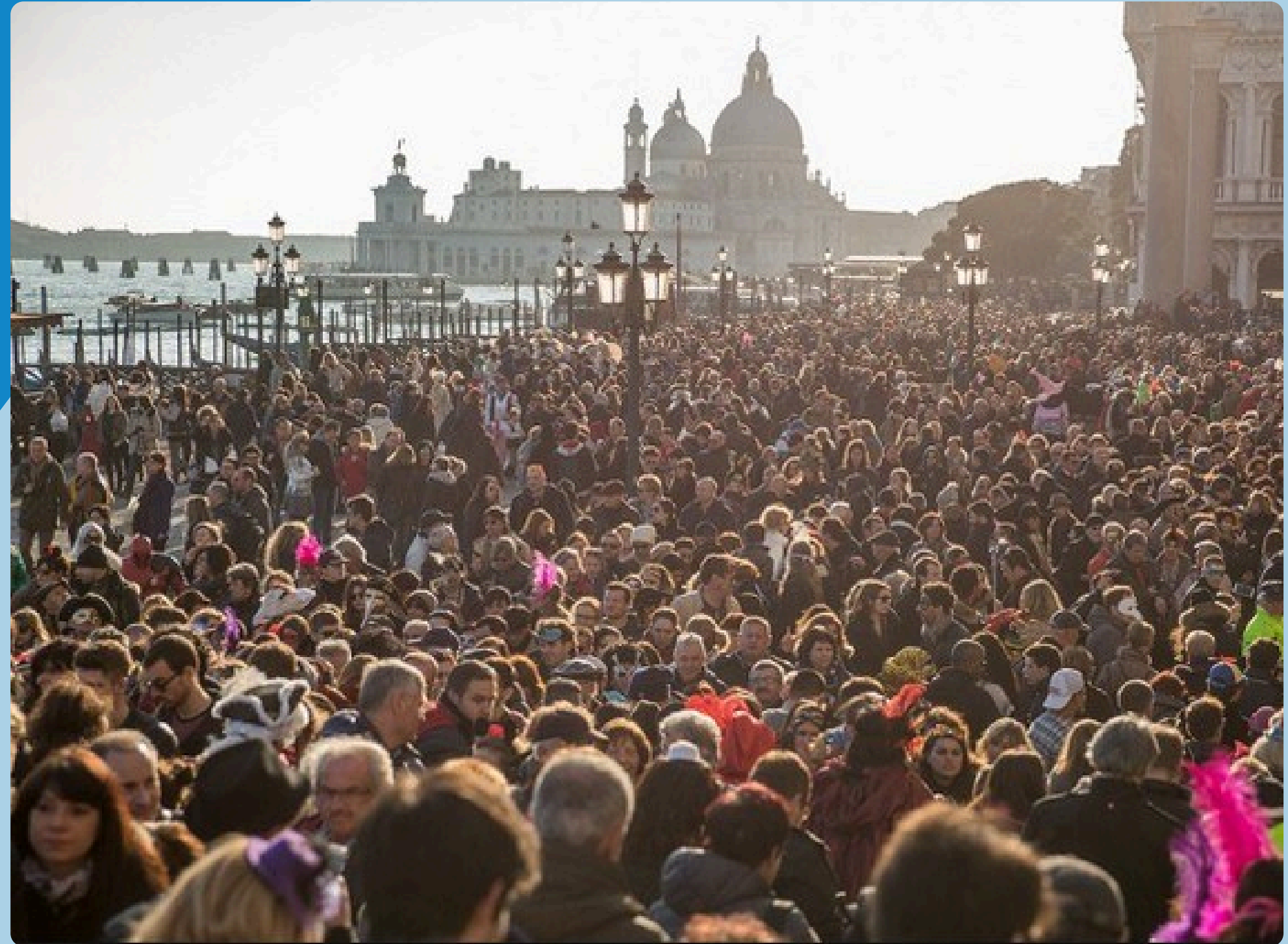
ECONOMY AND TOURISM

Exemple of Overtourism in Venice

- In 2023, **12 millions** of people visited Venice. Tourism generated more than **1,67 Billion €**. Tourists stayed an average of **2,7 nights**.
- Unemployment is very low (4,5%).

Cruise industry :

- 4000 jobs in the Venice area
- 410 millions € of incomes
- Only 5% of all the tourists



EUROPEAN TRANSPORT POLICY

- **Trans-European Transport Network**

-> planned network of roads, railways, airports and water **infrastructure** in the European Union

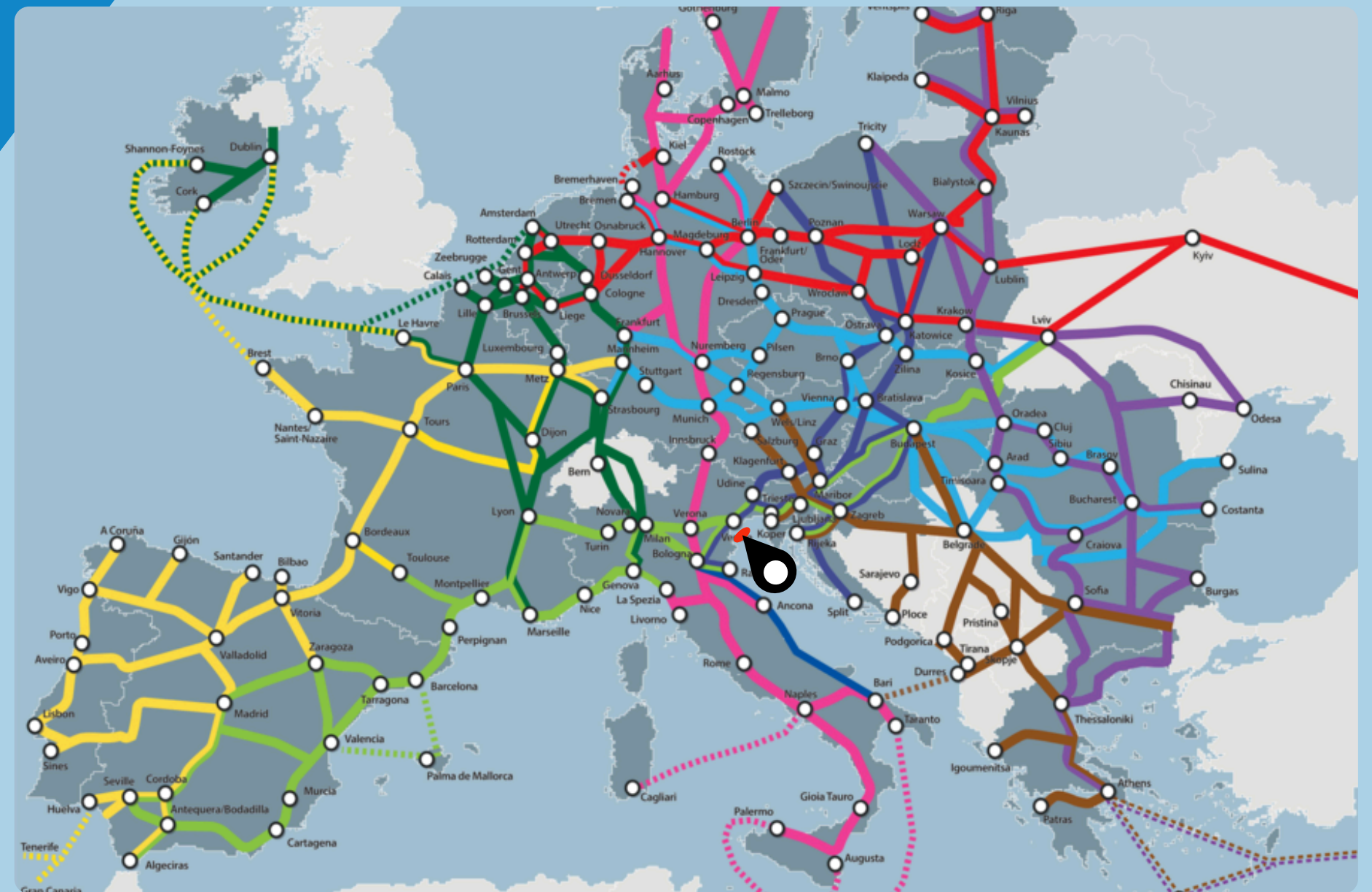
- **The benefits :**

- financial resources
- interoperability
- more traffic

-> high passenger traffic potential

- **The mediterranean corridor**

area -> in the middle of the corridor

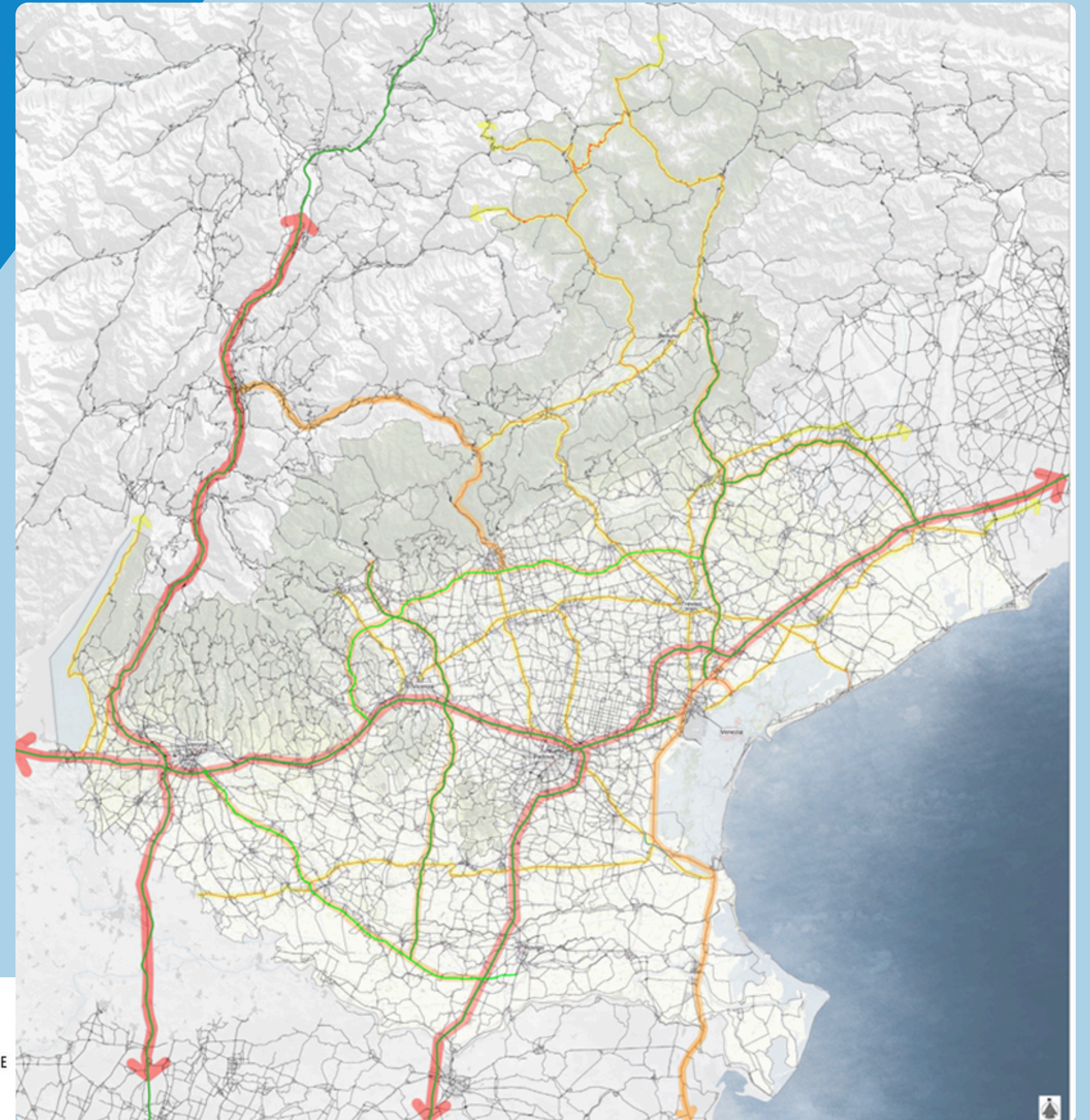


Map of the Trans-European Transport Network

ITALIAN TRANSPORT POLICY

Piano Regionale Triennale della Viabilità

- Venice is **integrated into the Italian transport system** (e.g. high-speed lines and highways).
- The '*Piano Regionale Triennale della Viabilità*' planned by the Venetie region allows to federate **the orientations of mobility**



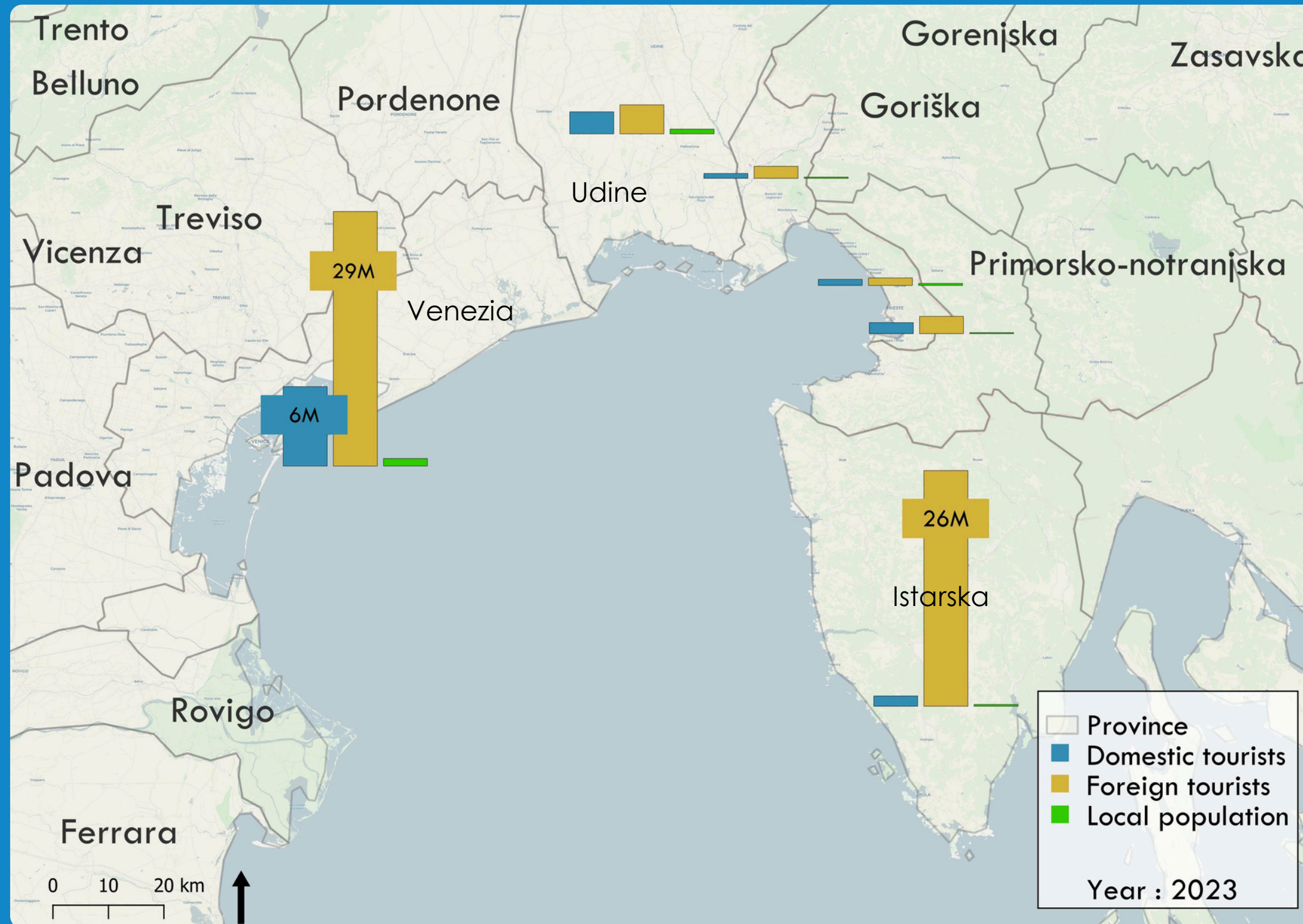
TRANSPORT DATA IN THE AREA

- Heavy rail traffic on an **east-west route**
Milan - Verona - Venice - Trieste
- Venezia in the center of those high passenger traffic destination
- No data found in foreign countries for railway transport



RFI railway transport data map by station

TRANSPORT DEMAND



- Lots of foreign tourists in Venezia and Istarska
- In comparison, far fewer inhabitants (800 000 in Venezia province)
- **Different needs for tourists and local people**
- Peak of frequentation in Summer

Maps representing number of tourists/province. Data : Eurostat

EXISTING OFFER

Venice Marco Polo Airport

- International Airport
- 6th busiest Italian airport in 2023
- Flights especially from/to European countries
- All internal flights are operated by low-cost airlines (except from/to Rome)



Trieste Airport

- A dozen destinations, only in Europe
- 25th busiest Italian airport in 2023
- All internal flights are operated by low-cost airlines (except from/to Rome)



EXISTING OFFER



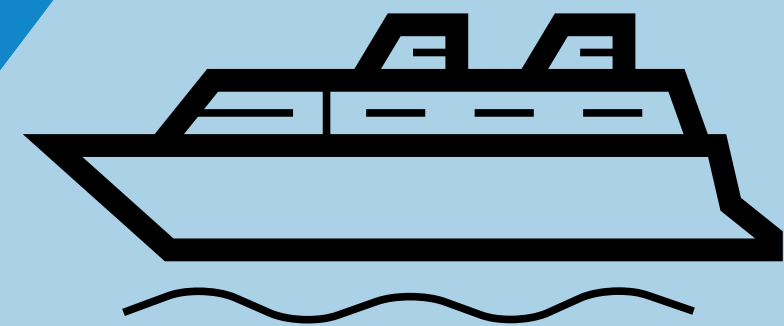
Vaporetto

- Main transport service in Venice
- Around 150 000 passengers per day

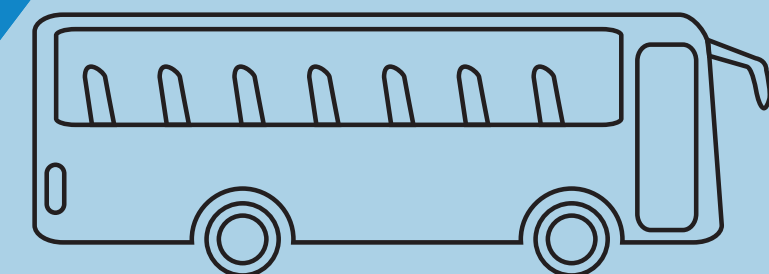
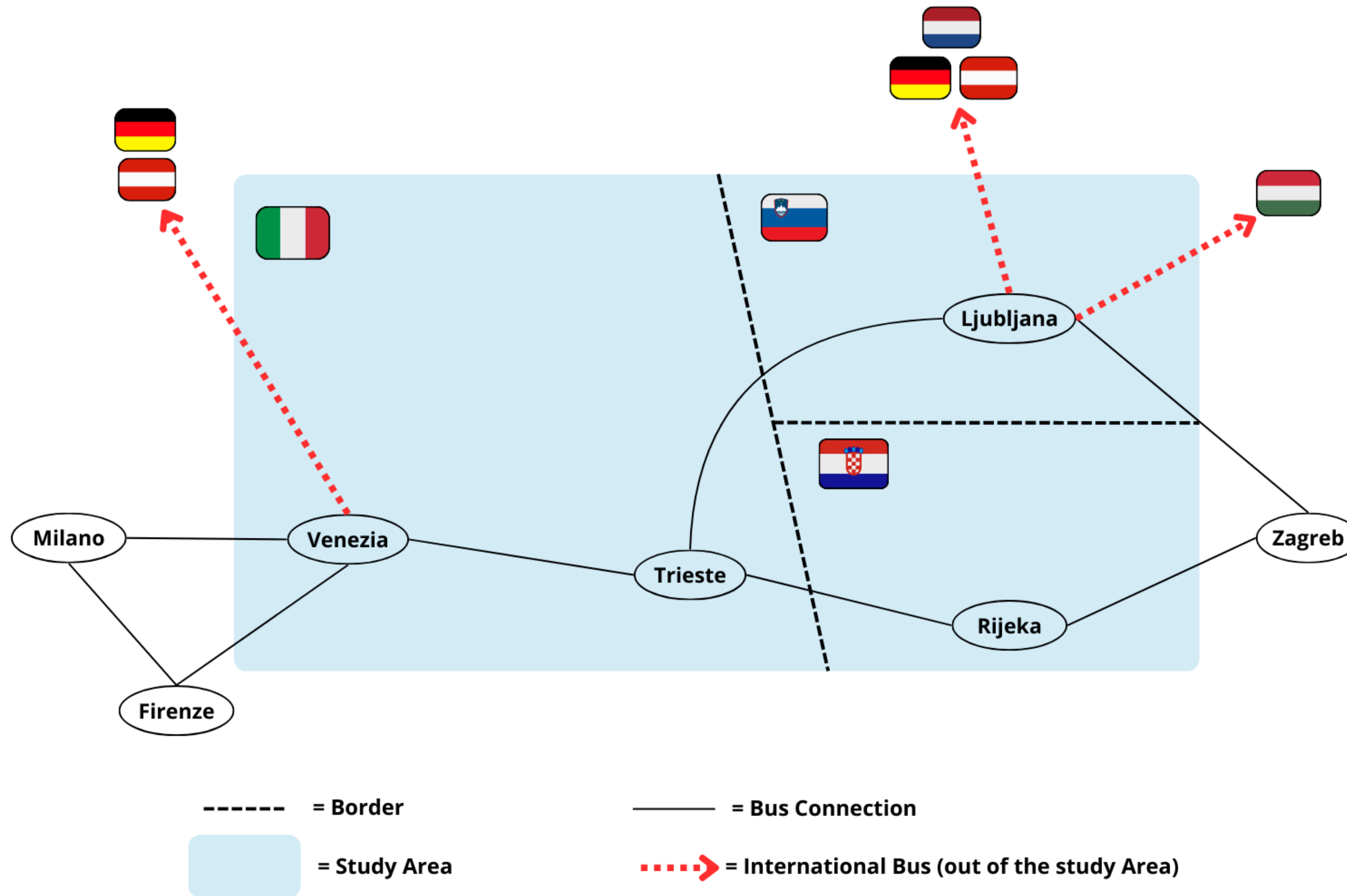


Venice Port

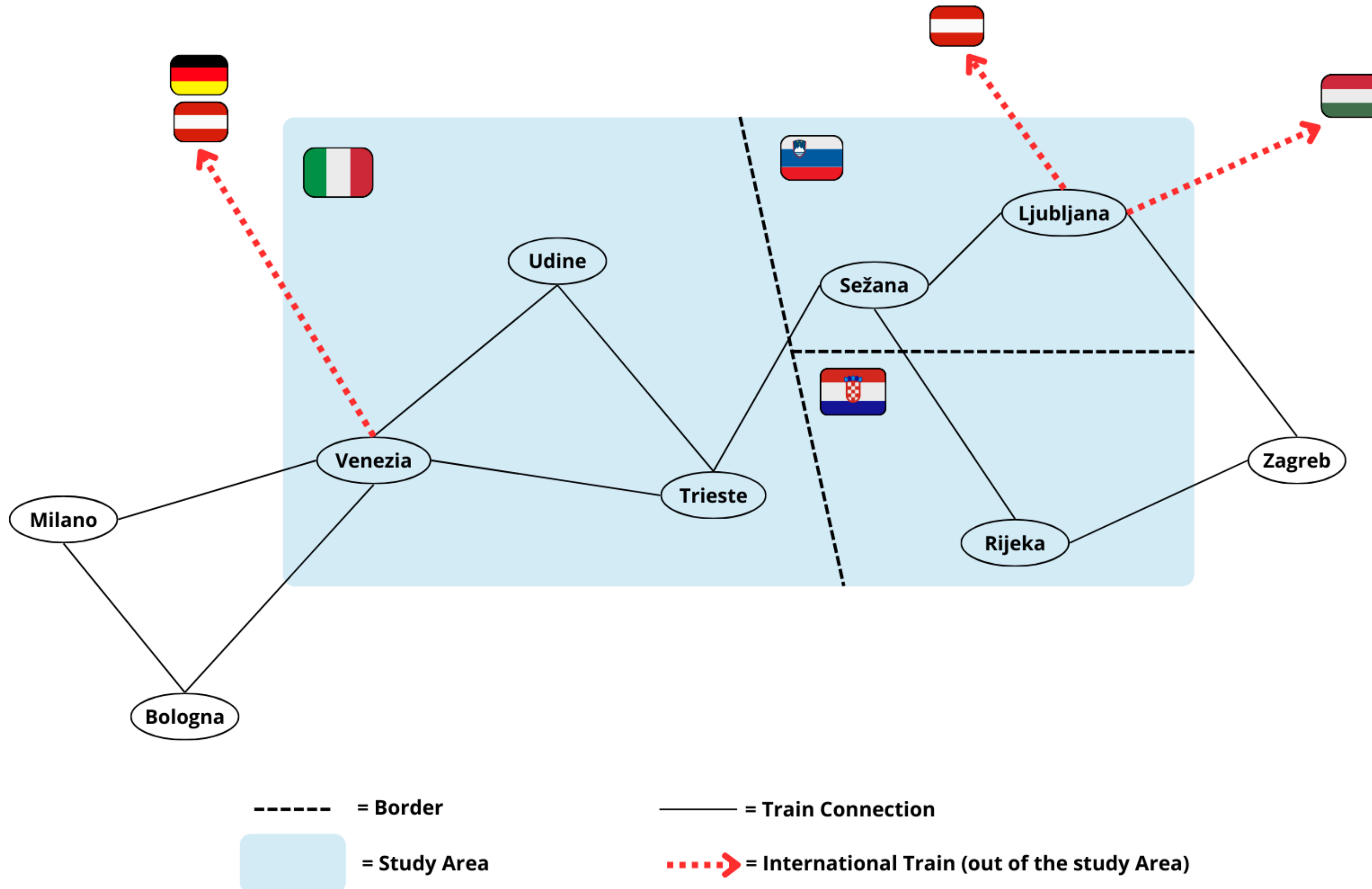
- Mainly ferry boats from/to Croatia, Greece...
- Since 2021, no more cruiseships are accepted in the port



EXISTING OFFER

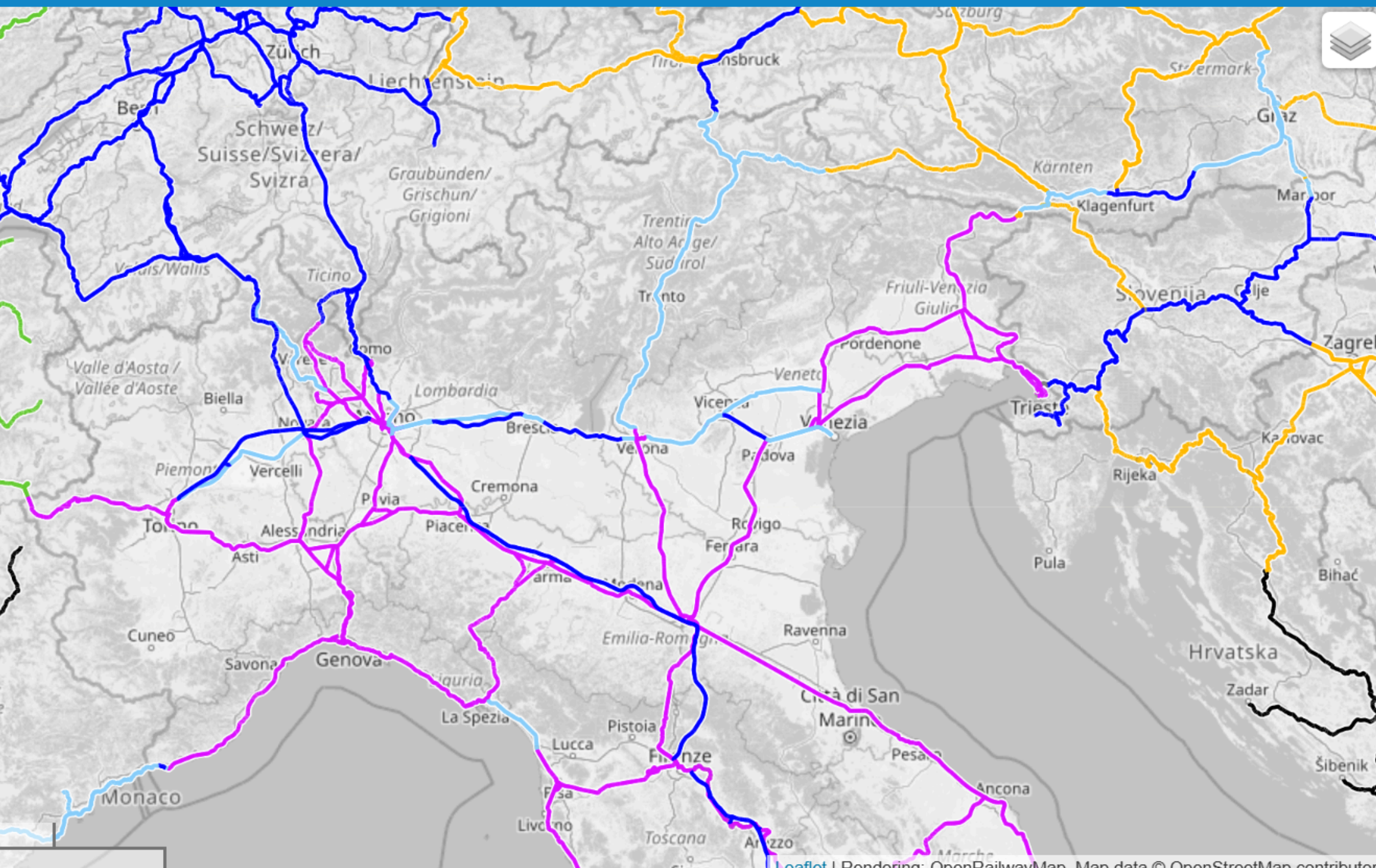


EXISTING OFFER



RAILWAY INFRASTRUCTURE

Blocking point between countries

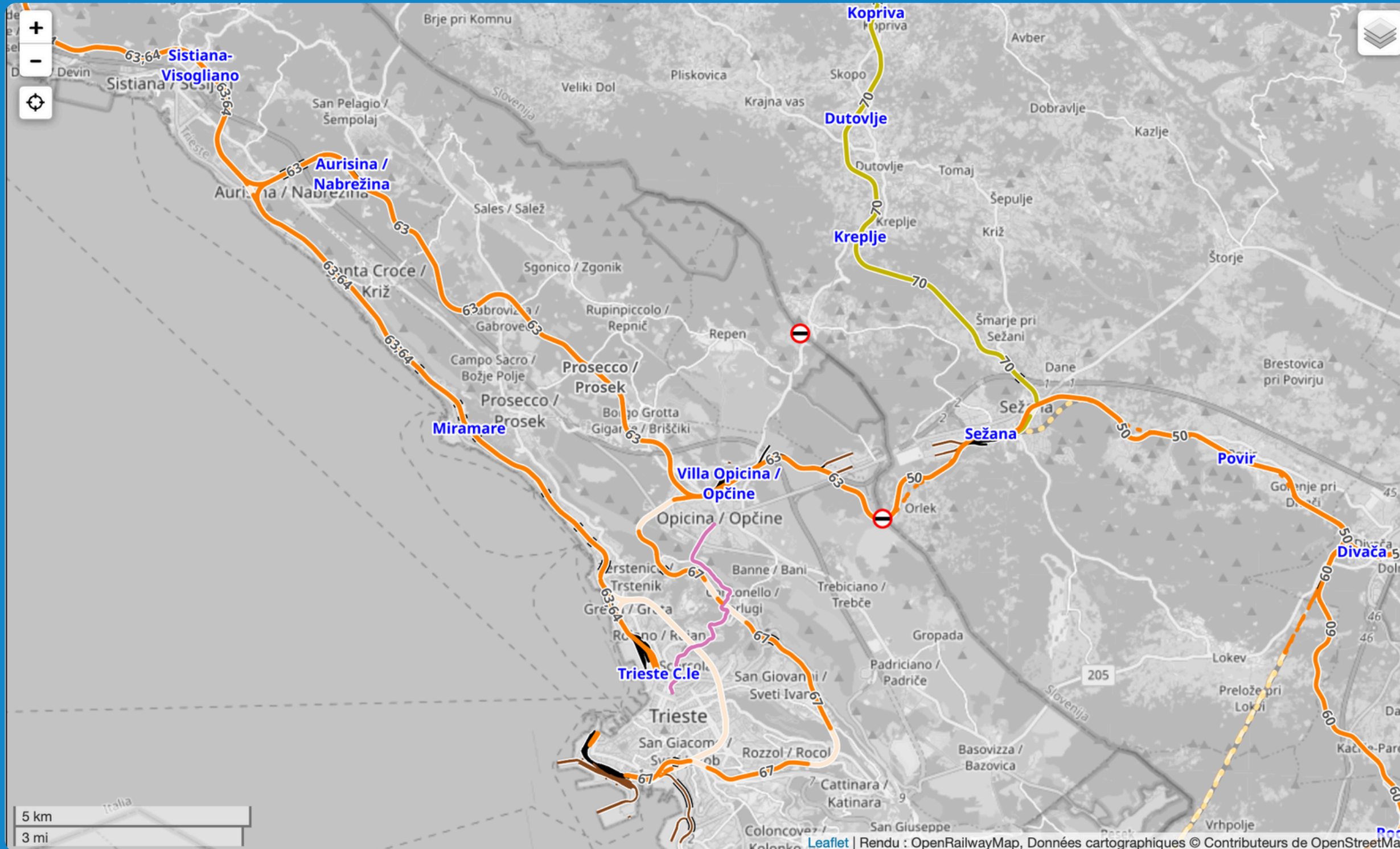


- 4 cross borders lines at the East and 4 in the West
- ETCS in Slovenia and SCMT in Italy... but 3kv in both countries !
- Ticketing issues in the section

	ETCS - European Train Control System
	ETCS under construction
	PZB - Punktförmige Zugbeeinflussung
	ATB - Automatische Trainbeeinflussung
	ZSI 127 - Trainguard ZSI 127
	ATC - Automatic train control
	LZB - Linienzugbeeinflussung
	KVB - Contrôle de Vitesse par Balises
	TVM - Transmission Voie-Machine
	SCMT - Sistema Controllo Marcia Treno

CROSS-BORDER ISSUES

Focus on the Trieste - Villa Opicina - Sežana train section



- Offer issues
- Ticketing issues

CROSS-BORDER ISSUES

The return of direct trains between Trieste and Rijeka happend in 2024 !



NEW SERVICES

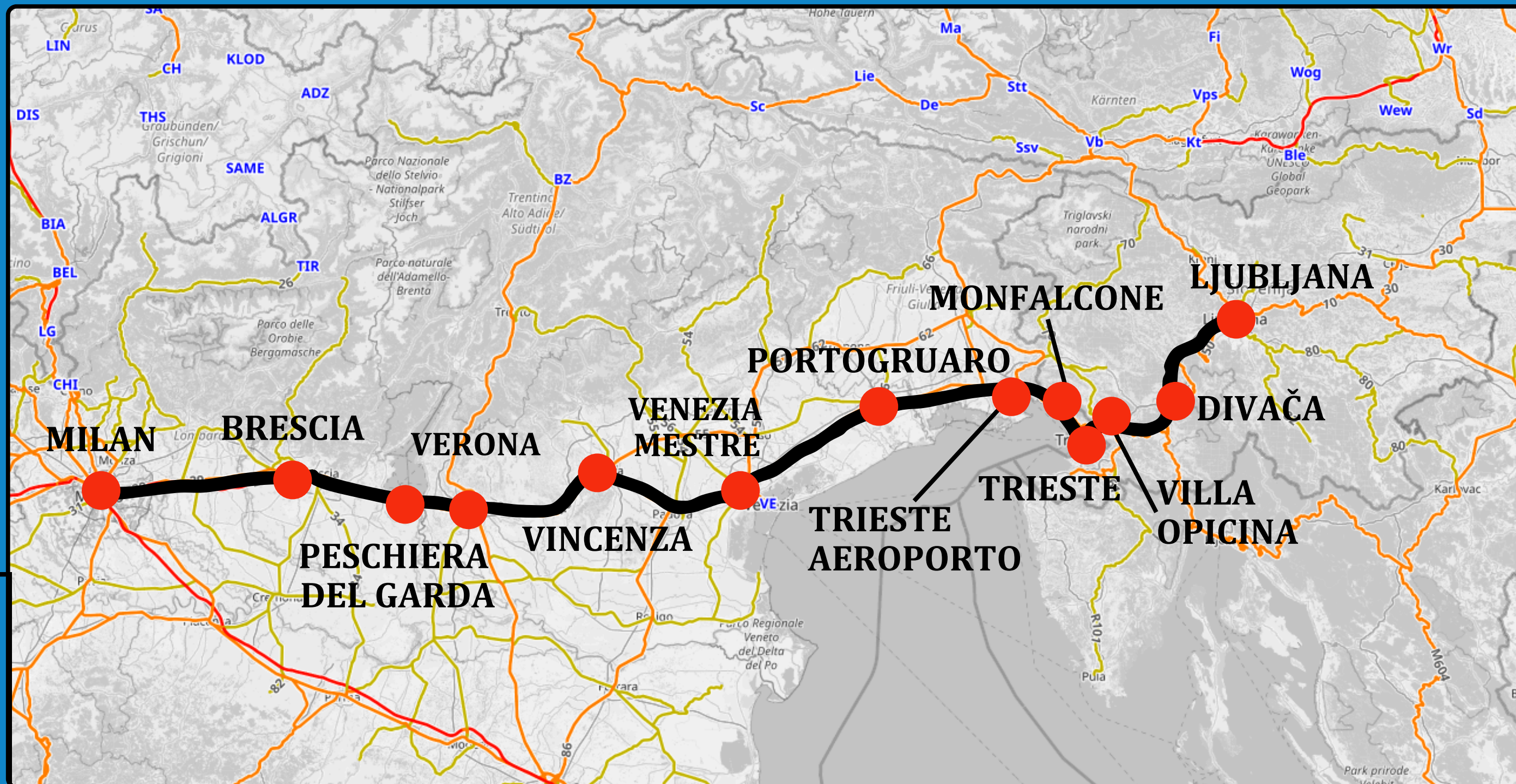
A NEW “HIGHSPEED” LINK BETWEEN MILAN AND LJUBLJANA

Trenitalia - Frecciarossa

- Milano 15:15 > 22:09 Ljubljana
- Ljubljana 06:55 > 13:45 Milano

~ 7h by train
~ 5h30 by car...

Expected to start
in June 2025



FUTURE EVENTS

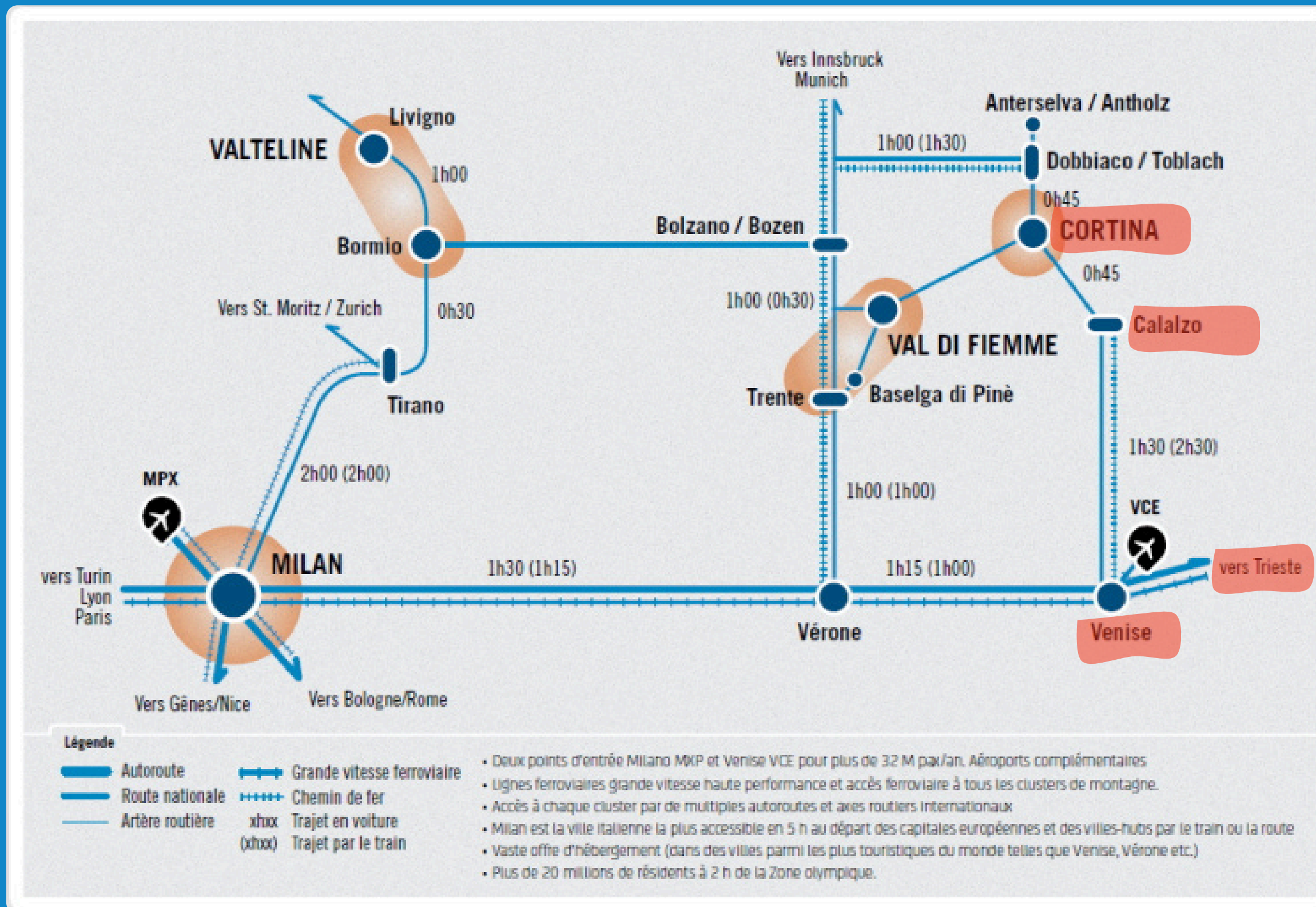
Olympics winter games in 2026 Milan Cortina

- 473 million euros
- FS Italiane Premium Partner
- Cortina/Milan at the heart of the concerns, today : 5h00 and 5h30 of travel – by road or by train –



FUTURE EVENTS

Winter Olympics games in 2026



3. FUTURE PROJECTS AND CHALLENGES

ENVIRONMENTAL & LOCAL ISSUES

PART OF EUROPEAN PROJECTS OF ENVIRONMENT PROTECTION...

"Only 6% of the Adriatic area is under strict protection, and this percentage must be multiplied by at least five or six if we are to achieve the objectives set by the biodiversity strategy by 2030."

said Tomislav Radoš, Vice President of the Croatian Chamber of Commerce (HGK) about the National Biodiversity Strategy 2030 of the UE in 2021

PART OF REGIONAL PROJECTS

- Hydrogens Valley

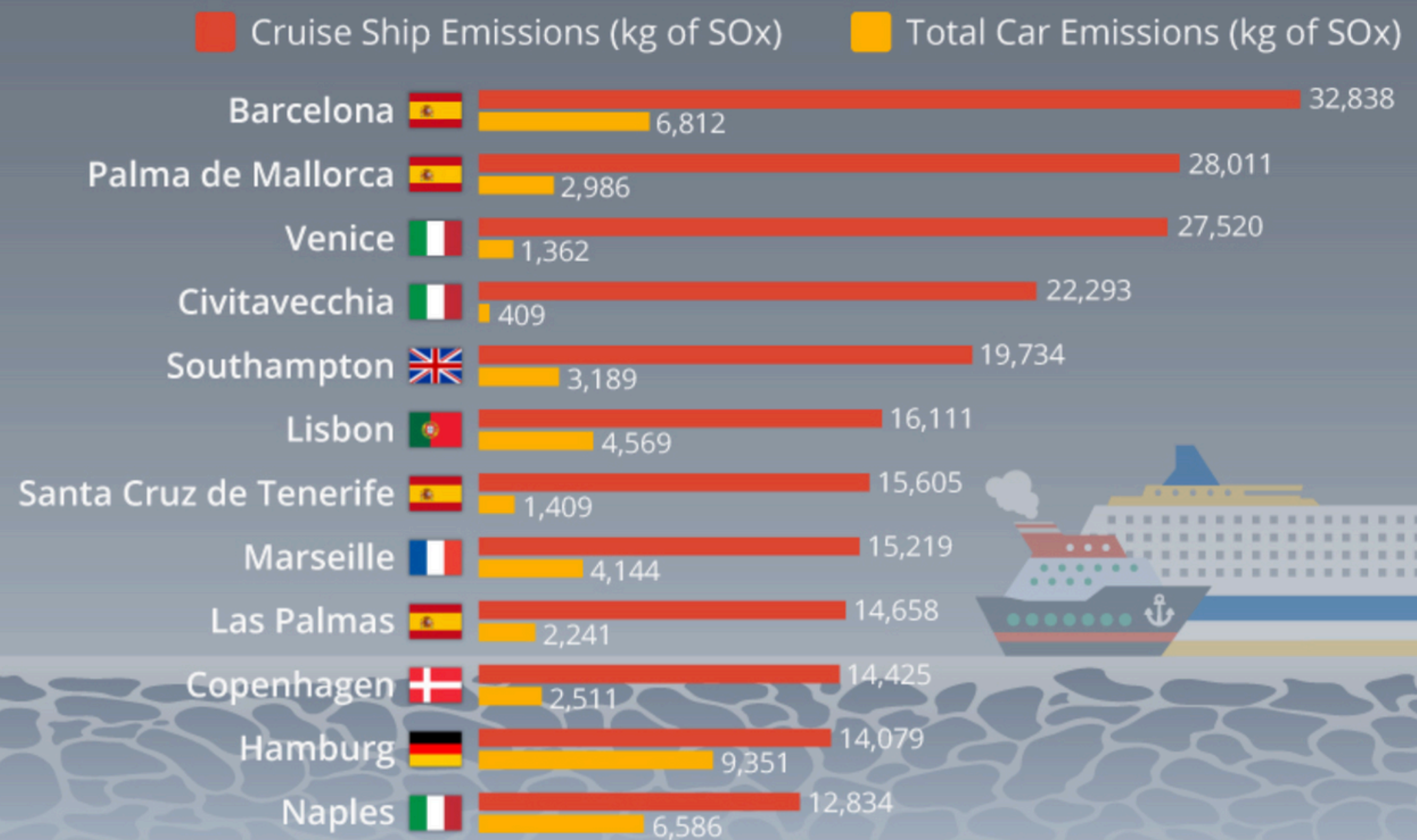


ENVIRONMENTAL & LOCAL ISSUES

CENTRAL ISSUE : CRUISE SHIP

How Cruise Ship Pollution Compares To Cars

SOx emissions from cruise ships and cars in European port cities in 2017 (kg)



SOx = sulphur oxide forms one of the two main pollutants from ship emissions.
The other is nitrogen oxides (NOx)

Source: Transport & Environment

ENVIRONMENTAL & LOCAL ISSUES

LOCAL INITIATIVE...

- Demonstration against the passage of cruise ship in Venice (2019)
- Environmental activists paint Venice's Grand Canal green (2023)



ENVIRONMENTAL & LOCAL ISSUES

WHAT CAN WE EXPECT

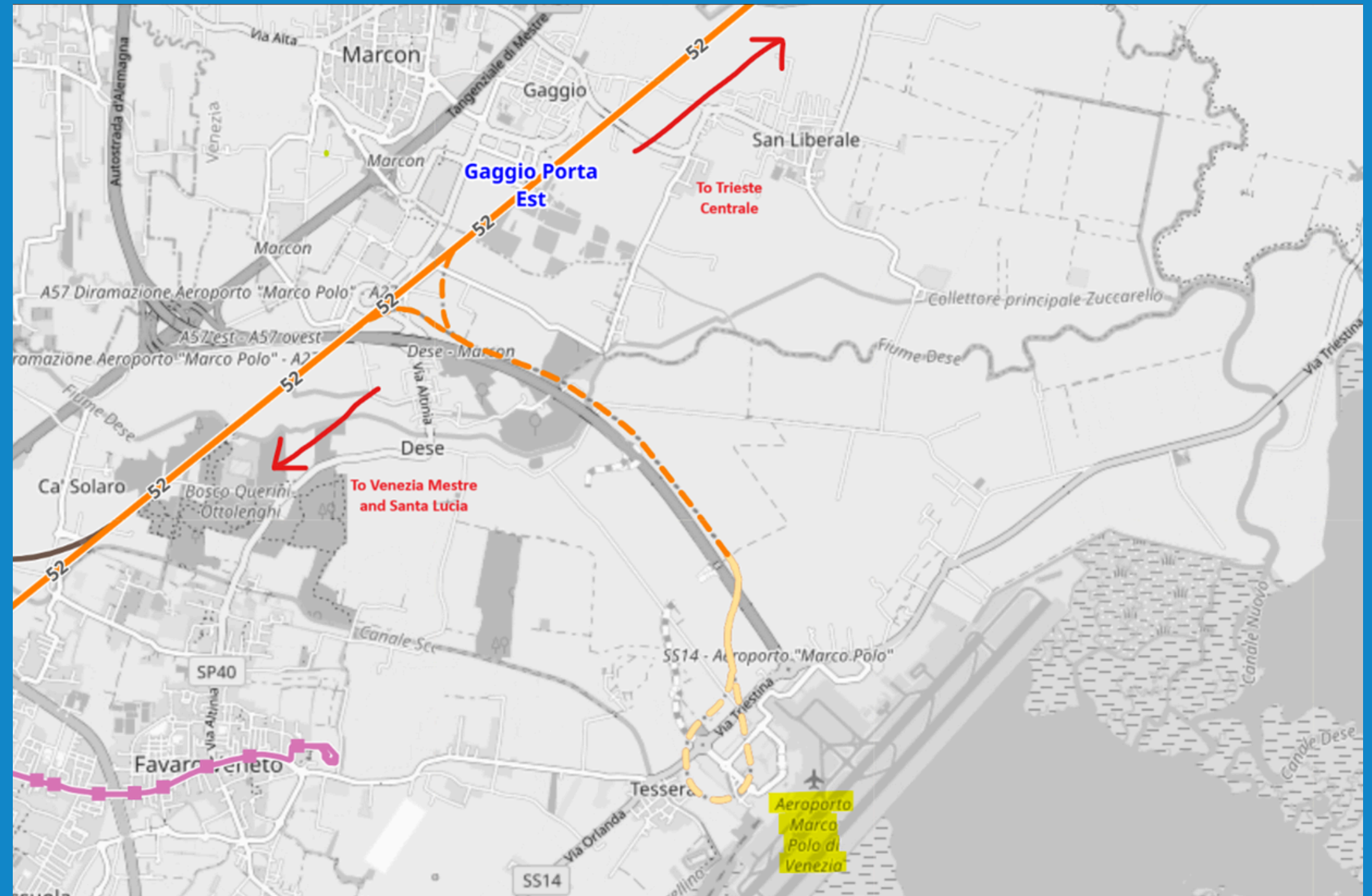
- *in 2025, more than 5.1 million passengers will be handled (boarding, disembarkation and transit). => +3.9% compared to 2024*
- *In 2015, the ports of Venice, Dubrovnik and Corfu handled 64% of the traffic, a figure now halved, which demonstrates an improvement in the distribution of flows between the Adriatic ports and new balances after the regulations concerning Venice. => restriction of August 1, 2021*

FUTURE PROJECTS

NEW TRAIN LINE TO CONNECT VENISE/TRIESTE AND VENEZIA MARCO POLO AIRPORT:

- A new railway line to offer direct connexions between the center of Venice / Trieste and the Airport.
- 644 millions €
- A mixed impact on the environnement

Expected to
open by the end
of 2025



FUTURE PROJECTS

AV-AC VENEZIA - TRIESTE : UPGRADE OF THE EXISTING LINE

- There used to be a HighSpeed line project between Venezia and Trieste.
- Current project : upgrade of the existing line. Up to 200km/h, 750m long freight trains.
- Cancellation of level-crossings.
- A few sections of new lines (variante)
- Increase of capacity (7 to 10tph).
- 1,8 Billion €

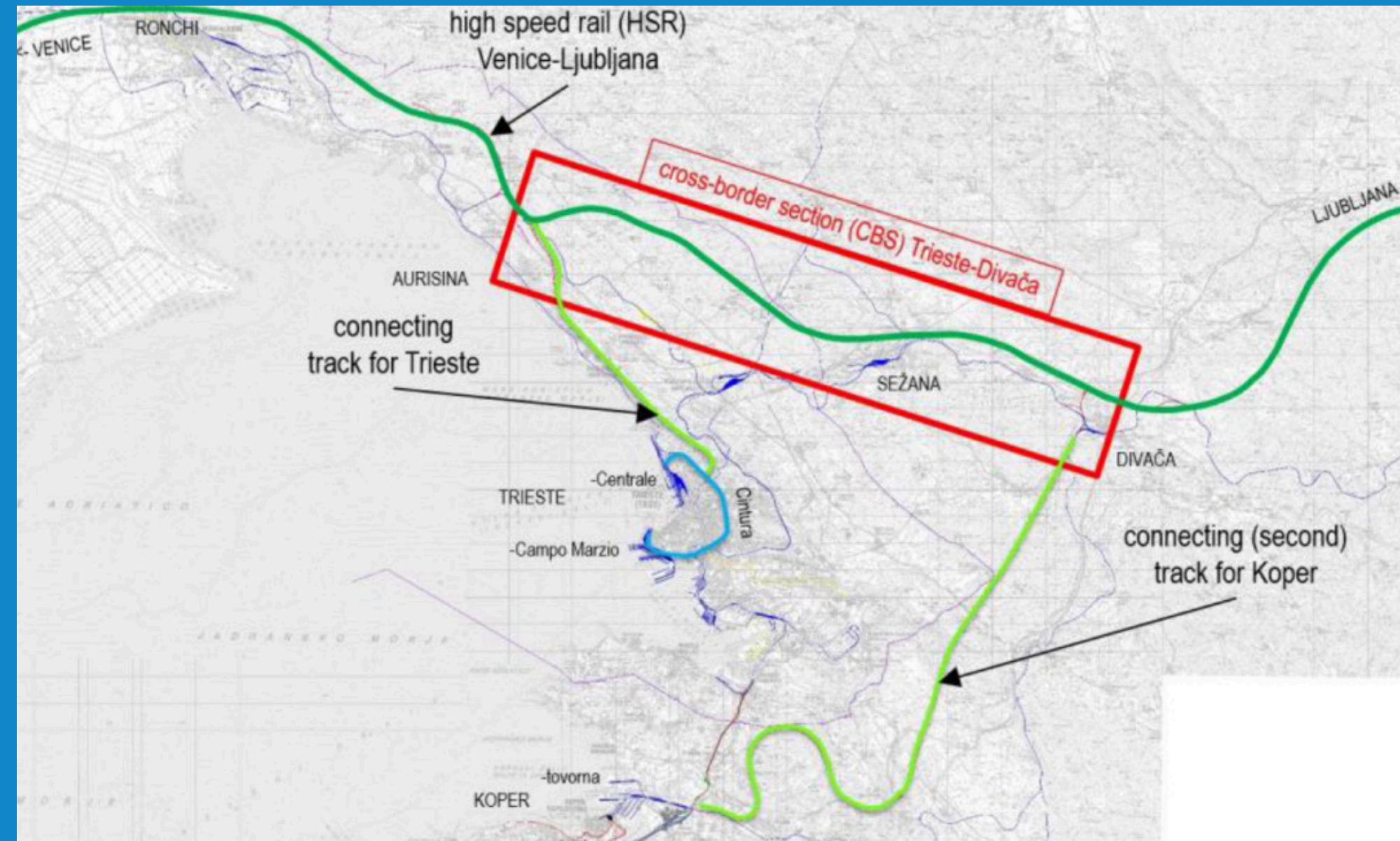
Track works
expected to end
in 2026



FUTURE PROJECTS

A NEW CROSS BORDER LINE ?

- A new high-speed connection between Venice, Ljubljana, Zagreb and Budapest ?
- It's the aim of the RTE-T project, but we could not find any informations about a concrete project.
- Only the Divaca - Koper line and Ronchi - Aurisina is currently under works.



Only planned...
Should open
some day ?

FUTURE PROJECTS

NEW INFRASTRUCTURES :

- Doubling of the Rijeka-Divača or Trieste-Divača line
- Modernization of the Upper Adriatic motorway network (750 millions €) :
A4 Venice-Trieste, A28 Portogruaro-Conegliano, A23 Palmanova-Udine,
A57 Mestre, A34 Villesse-Gorizia

Thank you for your attention !



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Transport

logistique, mobilités
et aménagement

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