IMPERIA

The coast: local and supralocal tourist mobility

Pianificazione dei trasporti - AA 2024/2025

Gruppo 1
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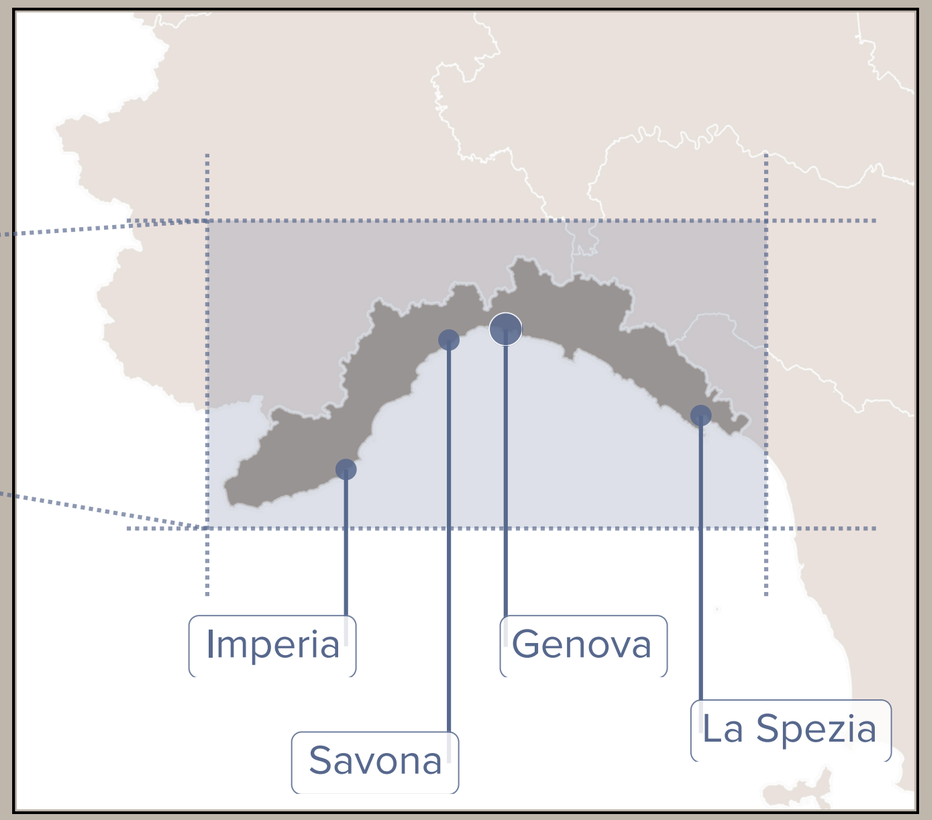
CONTEXT OF THE STUDY CASE

Liguria



Surface: 5.410 km^2

Provinces: Genova (cap.), Imperia, La Spezia, Savona

Morfology: mountain (65%); hill (35%)

Borders: Francia (ovest), Piemonte ed Emilia-Romagna (nord), Toscana (est), Mar Ligure (sud)

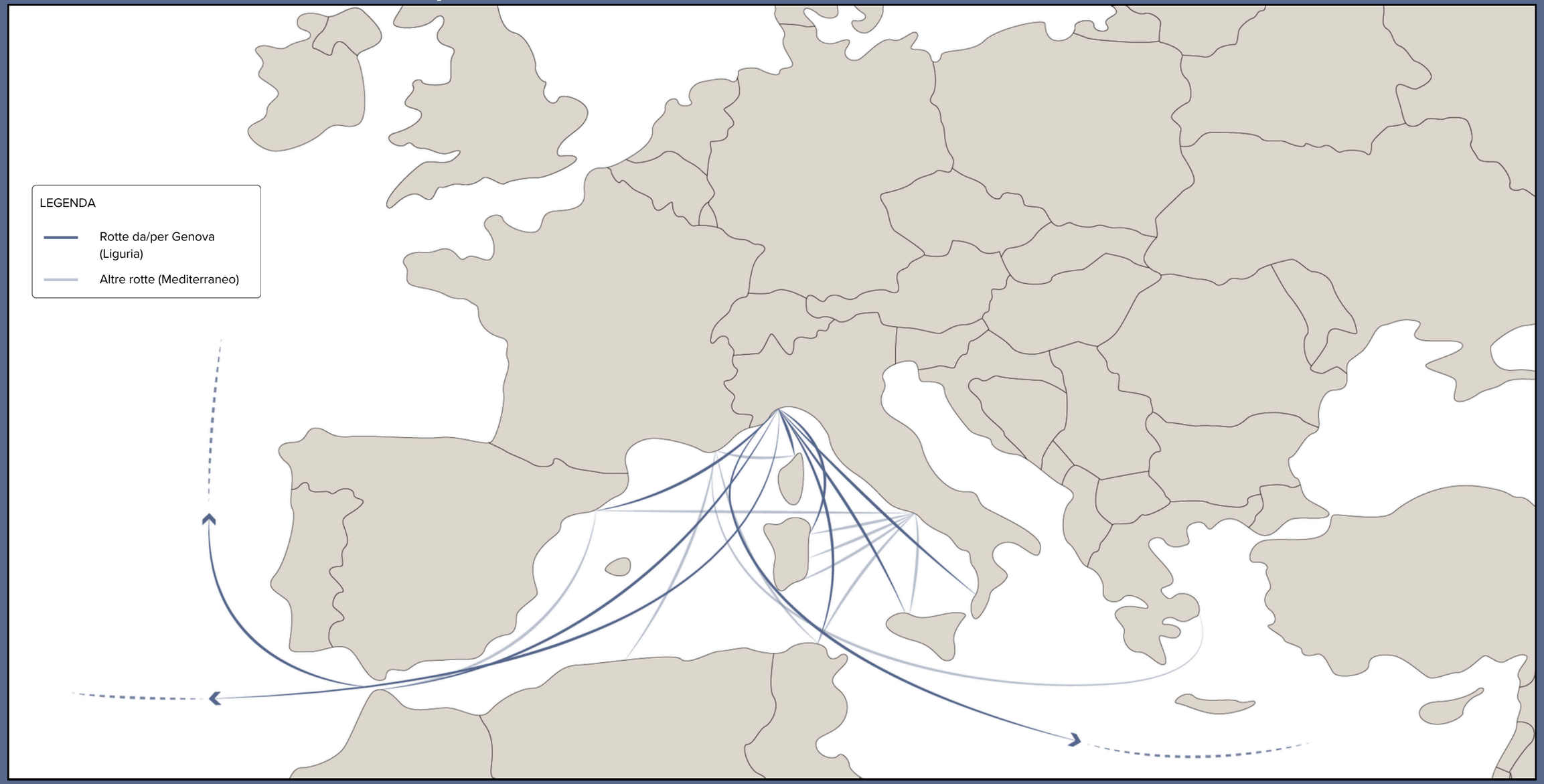
Context under review

The study area is located in the province of Imperia (IM) at the western end of Liguria, in an area section bordering France.

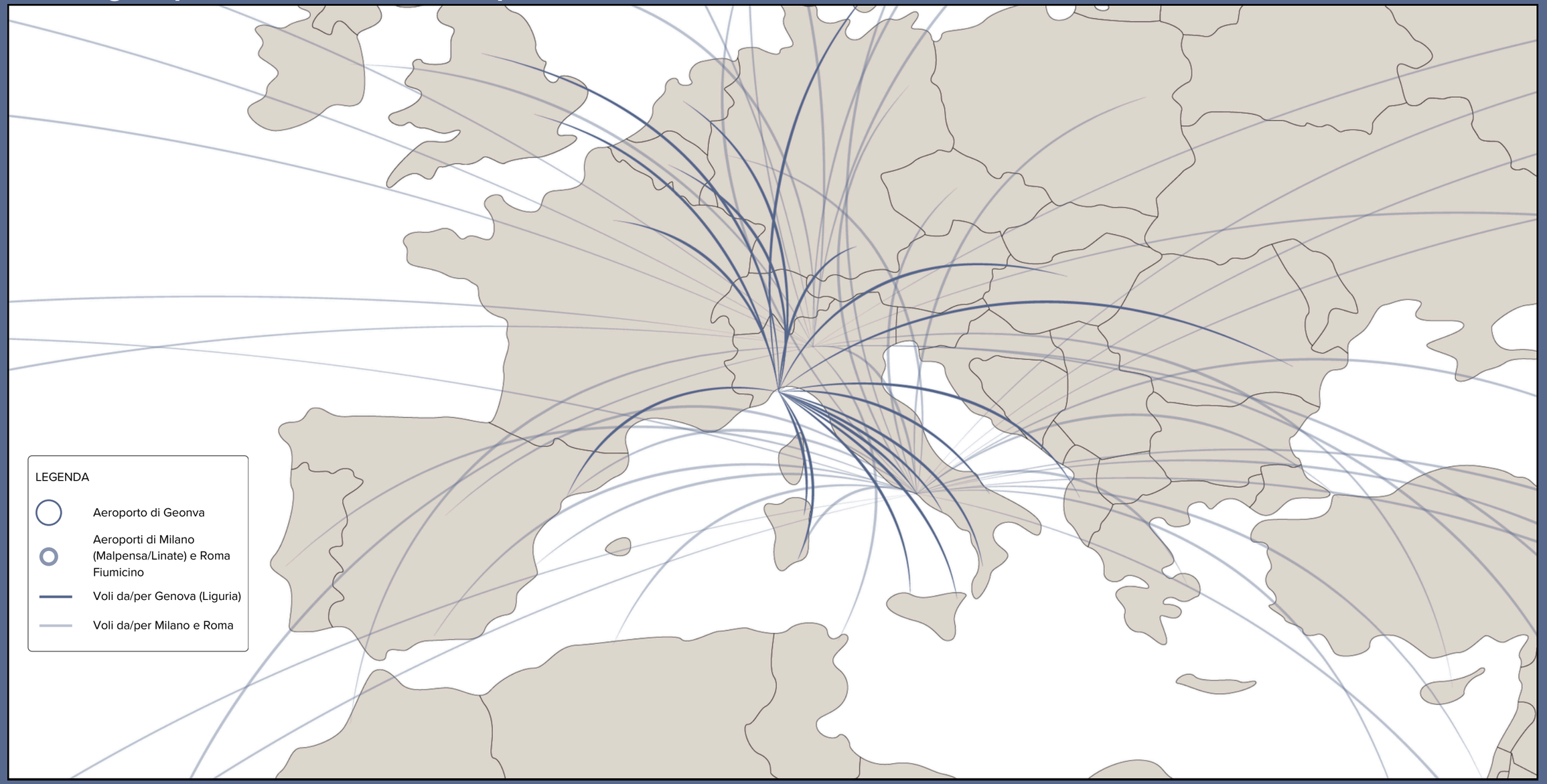
More precisely 22 districts were considered for the analysis of the urban context related to the transportation system and to the movement designated by tourist flows near the coast.

An area crossed by the A10 highway, State Road 20, and the railway line along the coast and inland.

Main sea routes from Genova’s port



Main flights paths from Genova’s airport

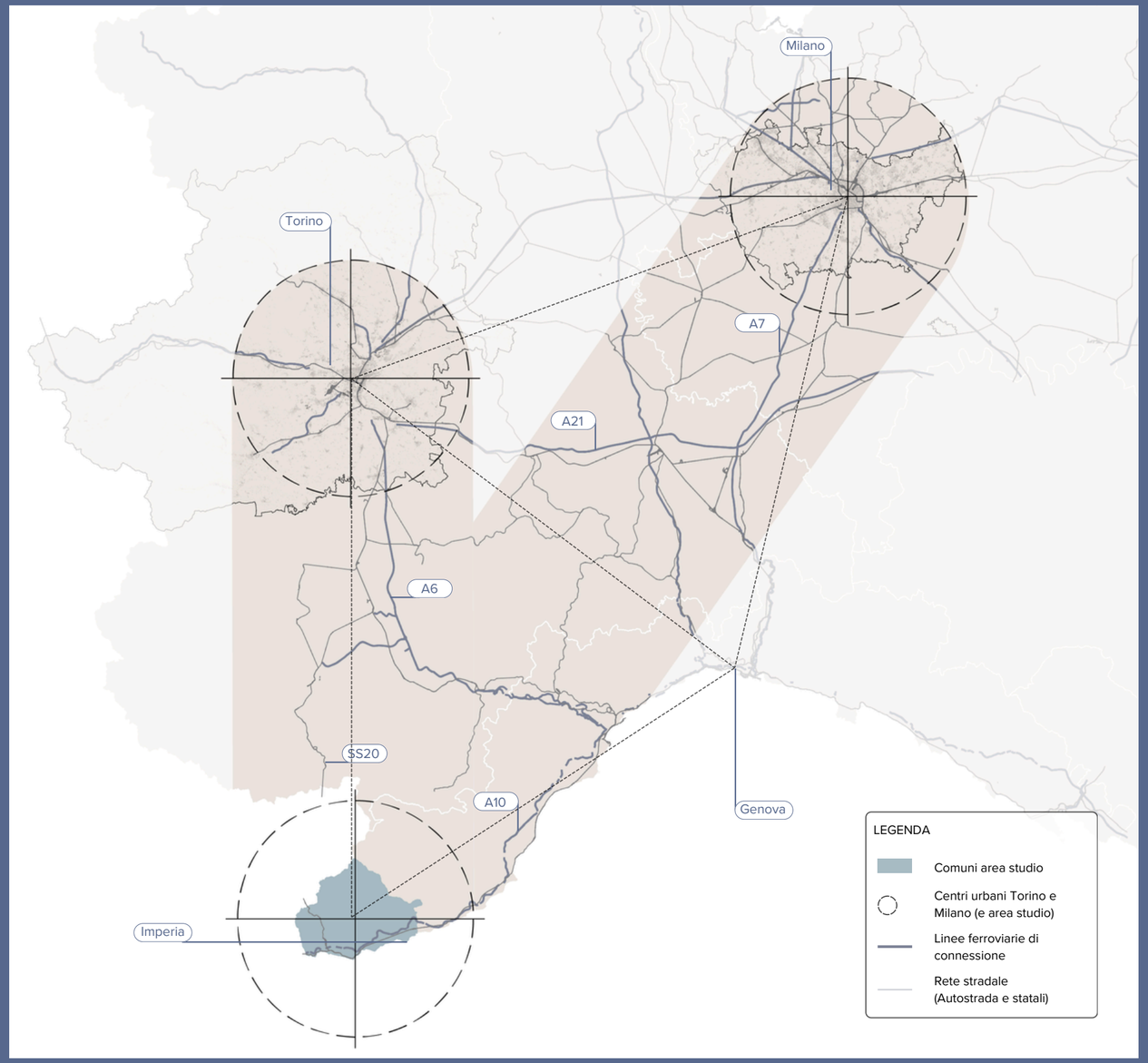


Context under review

This table shows the annual origins from the main Italian regions over the last 3 years.

Citizens from Lombardia and Piemonte, turned out to be the most numerous, even more than those from Liguria itself.

Provenienza	persone/anno 2021	2022	2023
Lombardia	205.625	139.954	**140.492**
Piemonte	162.998	188.454	**181.261**
Liguria	26.629	31.713	32.321
Emilia-Romagna	11.790	17.622	18.595



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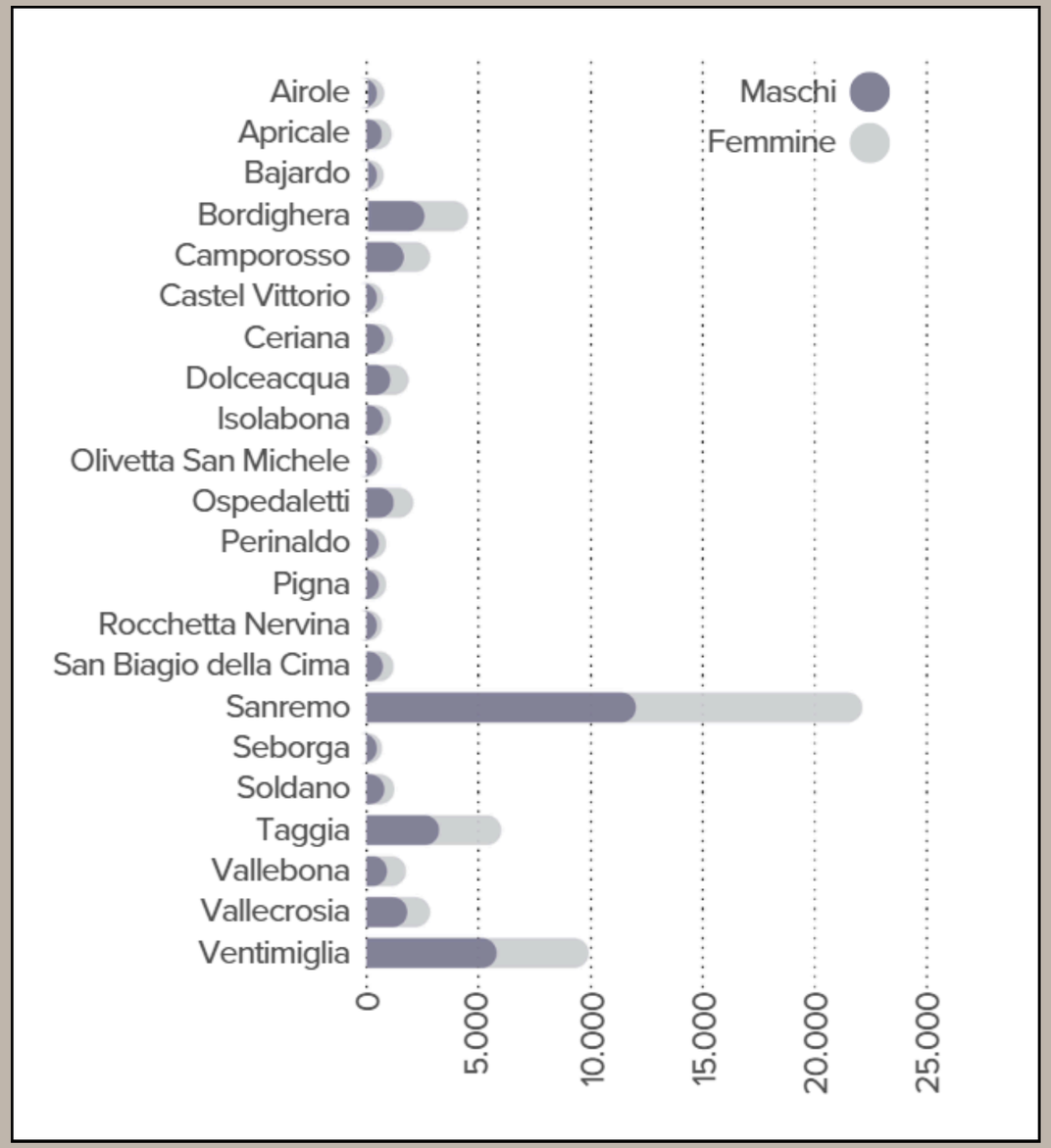
POPULATION AND TOURISM

Population in the 22 municipalities under analysis

Imperia’s province presents an uneven population distribution on its territory.

Some municipalities have a very high population density, such as Sanremo, with over 22.000 residents, followed by Ventimiglia and Bordighera. These represent the main urban areas.

On the other hand, municipalities like Olivetta San Michele and Ceriana have a much lower population density.

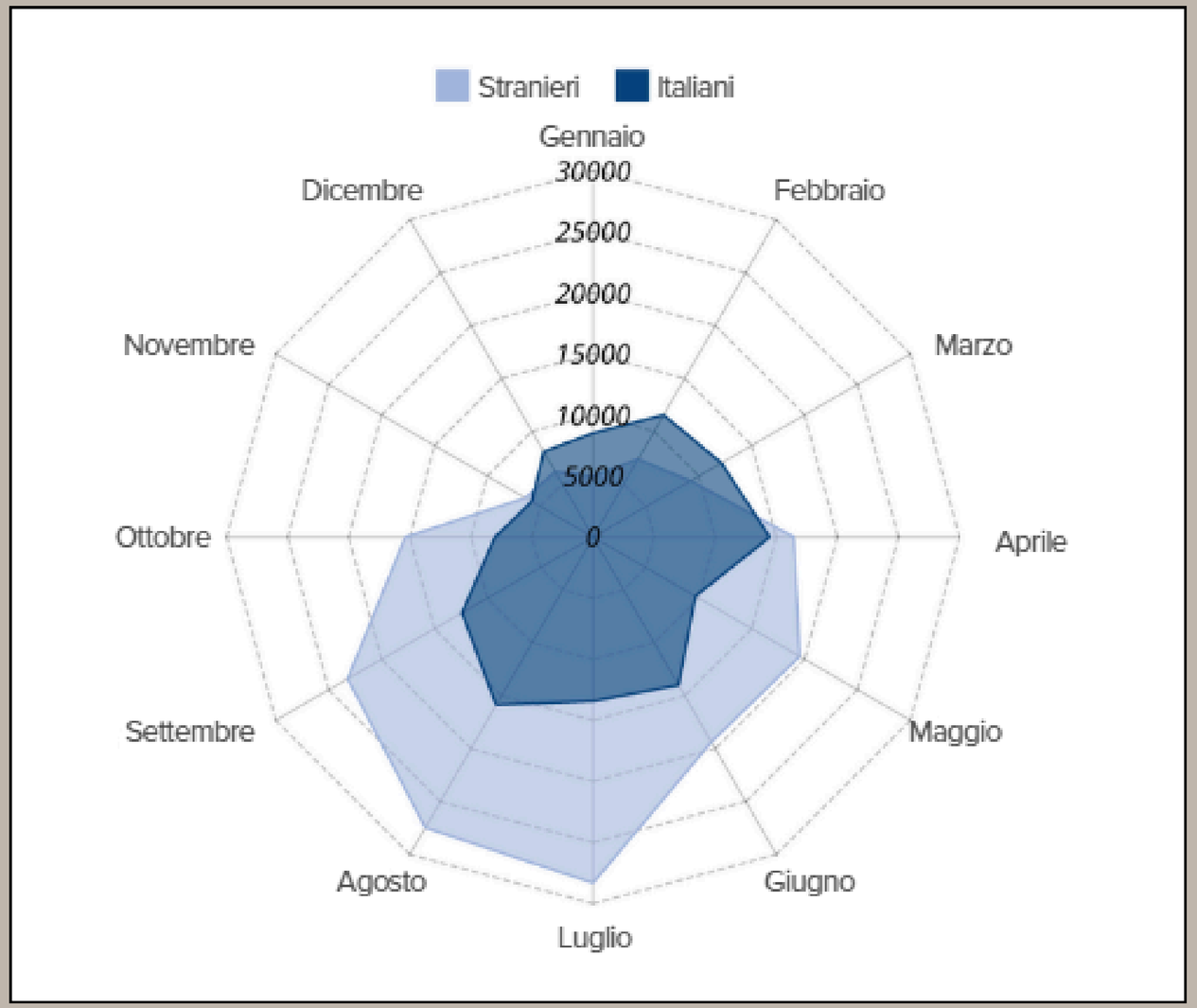


Tourist flows

Liguria is one of the most popular tourist destinations in Italy. Imperia, in particular, is benefiting from this positive trend, with an increase in tourist arrivals and with a growing attractiveness for visitors from: the North of Italy, France, Germany and Switzerland.

The distribution of Italian and foreign tourists throughout the year is not homogeneous. Seasonality, marked by a strong summer peak, in fact continues to influence tourist flows towards Liguria.

During peak months foreign tourists are nearly double the number of Italian tourists.



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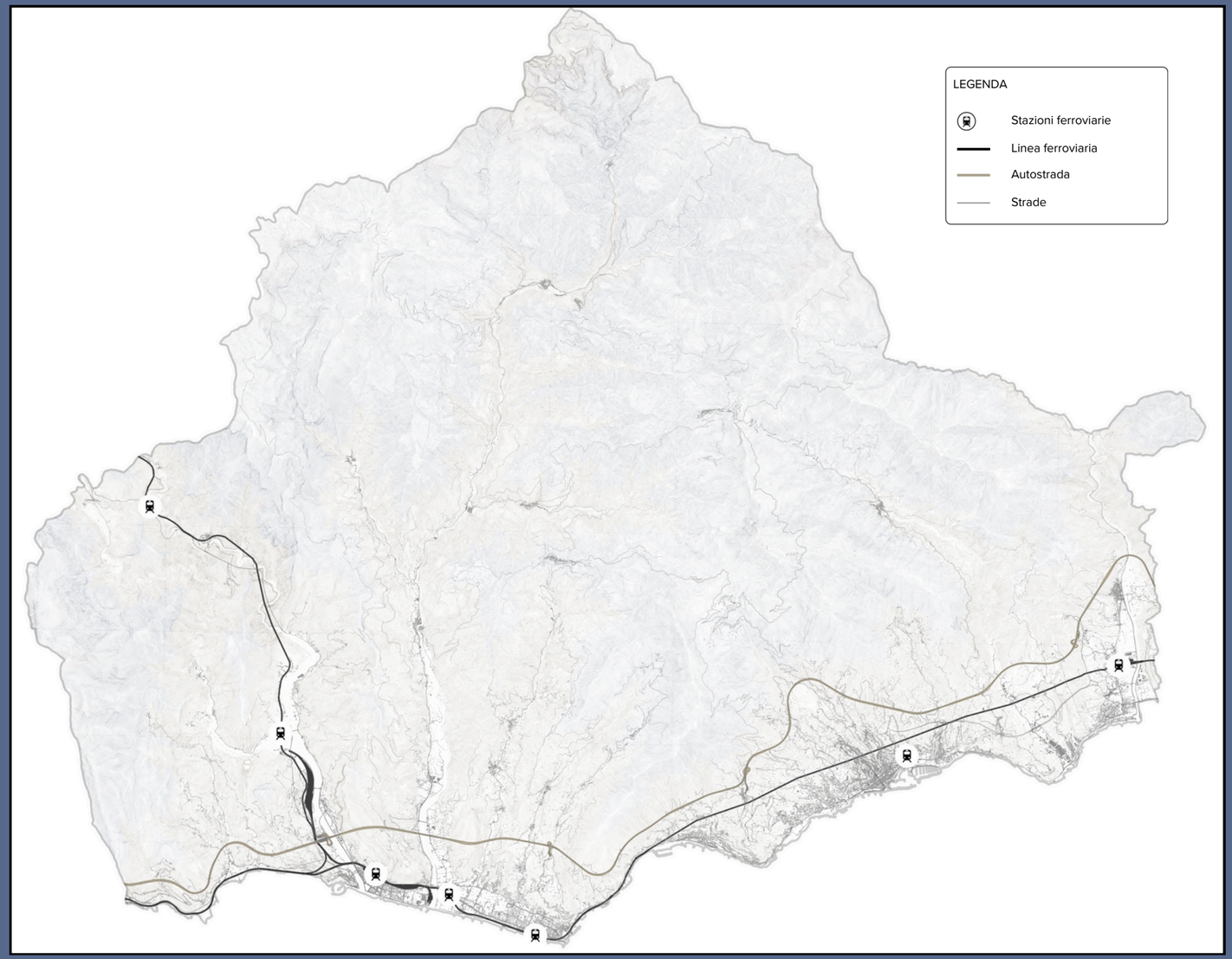
SUPPLY AT DIFFERENT SCALES

Supra-local scale

Our ‘supra-local’ scale, considers only the 22 municipalities of the province of Imperia shown at the beginning.
Speaking of the trasportations, the main infrastructures potentially usable by tourists in this area are:

- The A6 Highway
- The A10 Highway
- The railway network with its 7 stations



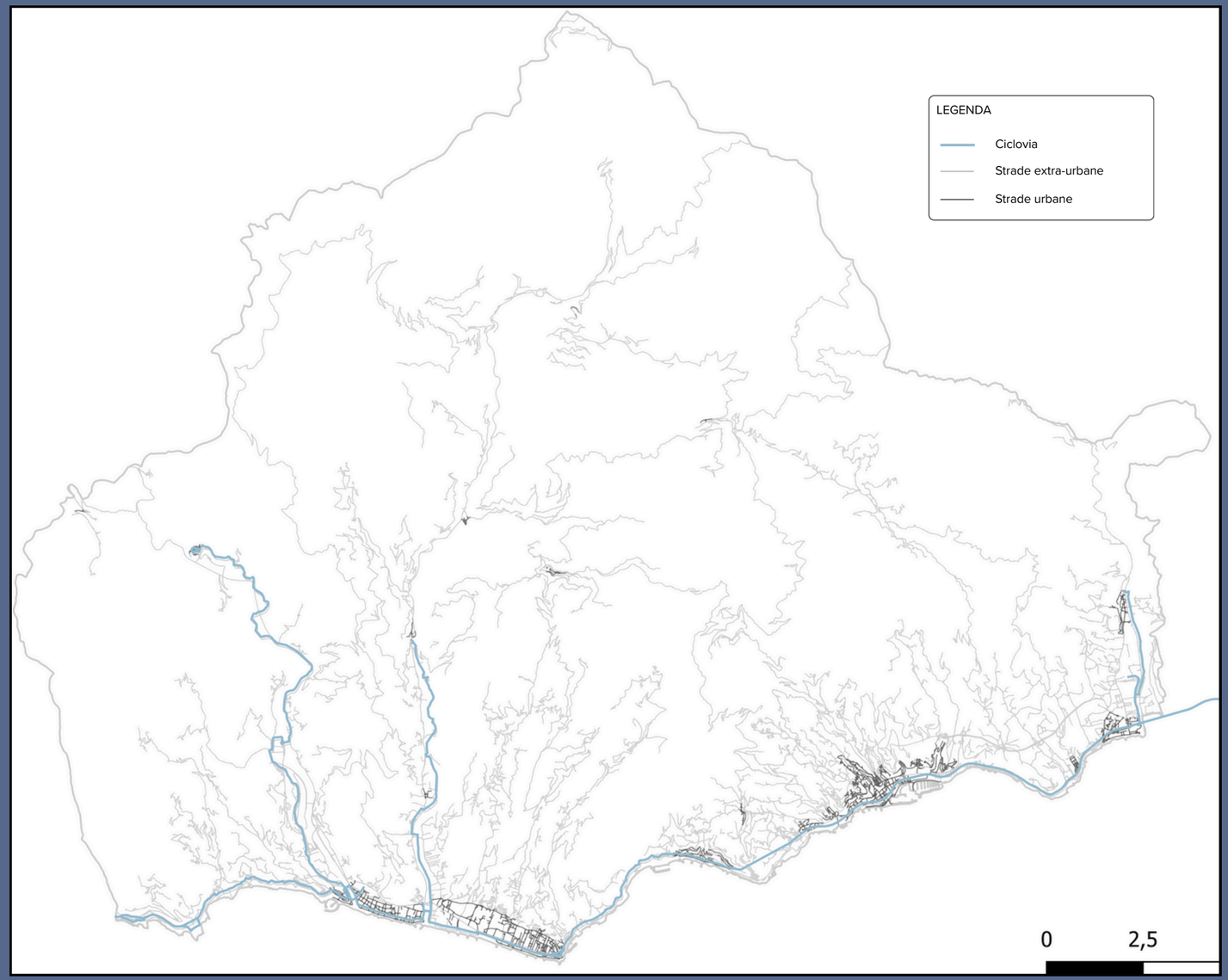
Supra-local scale

The cycle path connects the entire coastline and part of the inland areas.

This area is crossed by 2 main cycle routes:

- The ‘Clclovia Tirrenica’, from Ventimiglia to Sarzana, crossing all the Ligurian provinces

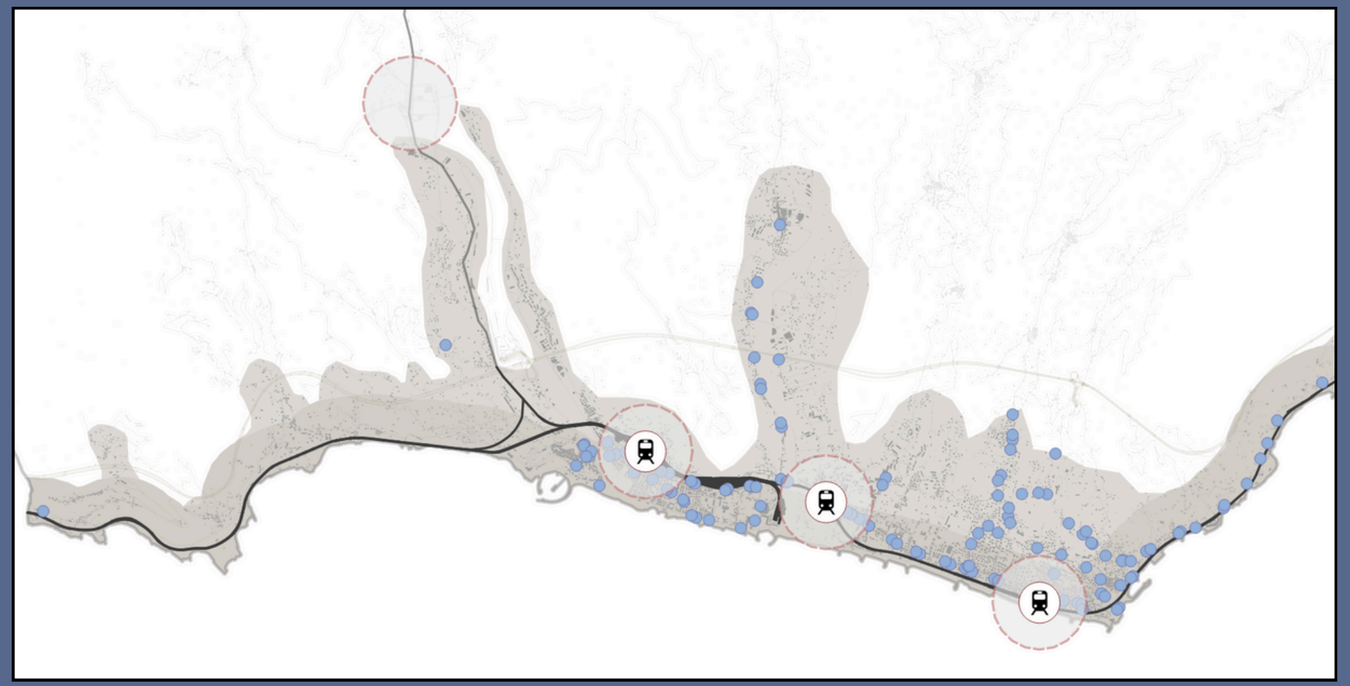
- The ‘Mediterranean Route’, from the French border to Ventimiglia and Piemonte (Cuneo), crossing only the province of Imperia

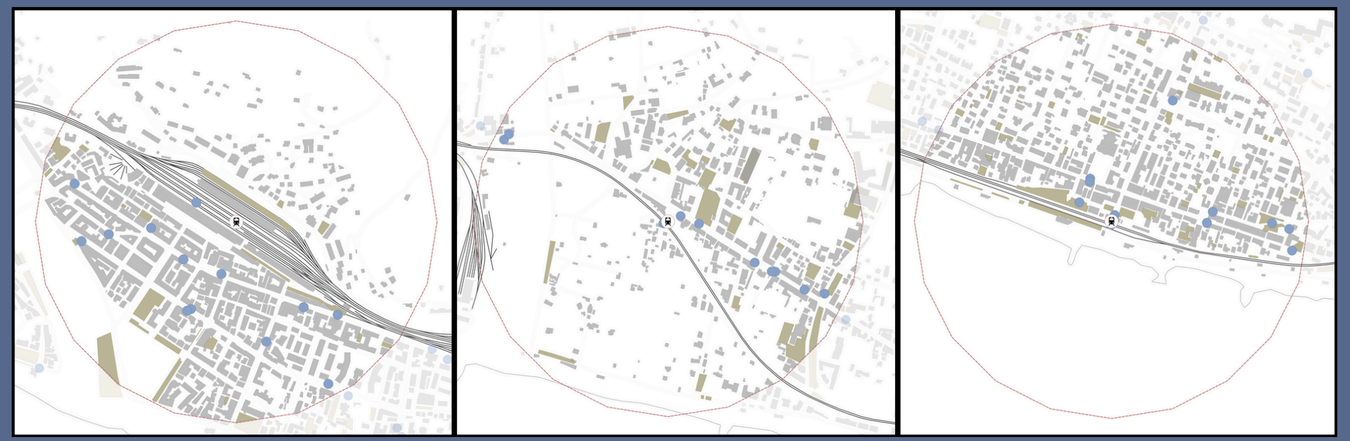


Local scale

The local scale has been identified through the intersection of a double buffer:

- A 500 meters buffer from the coastline
- A buffer that includes the consolidated urban fabric





Ventimiglia

Vallecrosia

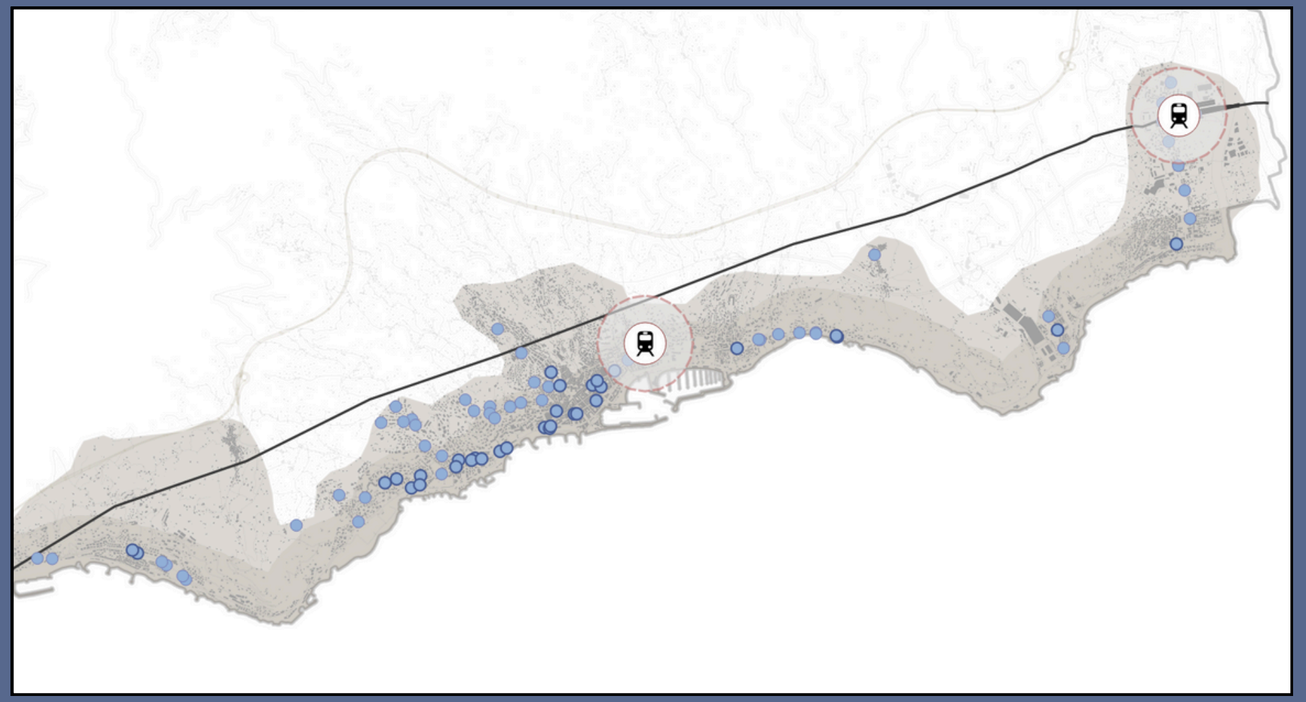
Bordighera

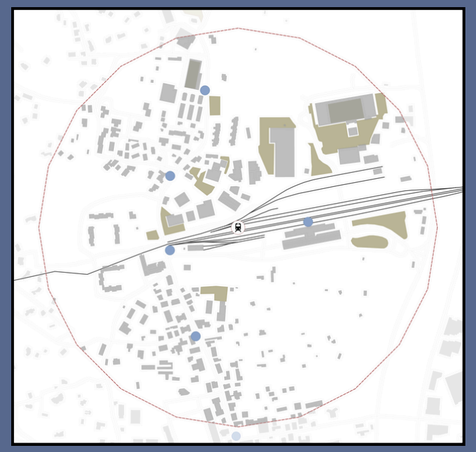
Local scale

After we established the perimeter of our interest, the supply was analysed in relation to the demand offered at the supra-local scale.

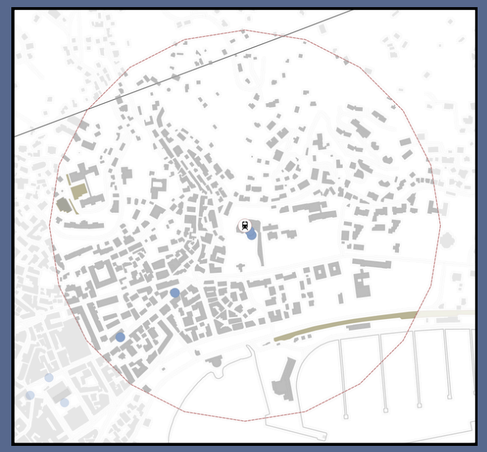
Starting from the previous highlighted railway stations, we mapped and analysed the different local public transport (bus) stops with a buffer area of 300 metres from the stations.

That allowed us to reflect about the local connectivity but also about the relationship between supra-local and local supply.





Taggia-Arma



Sanremo

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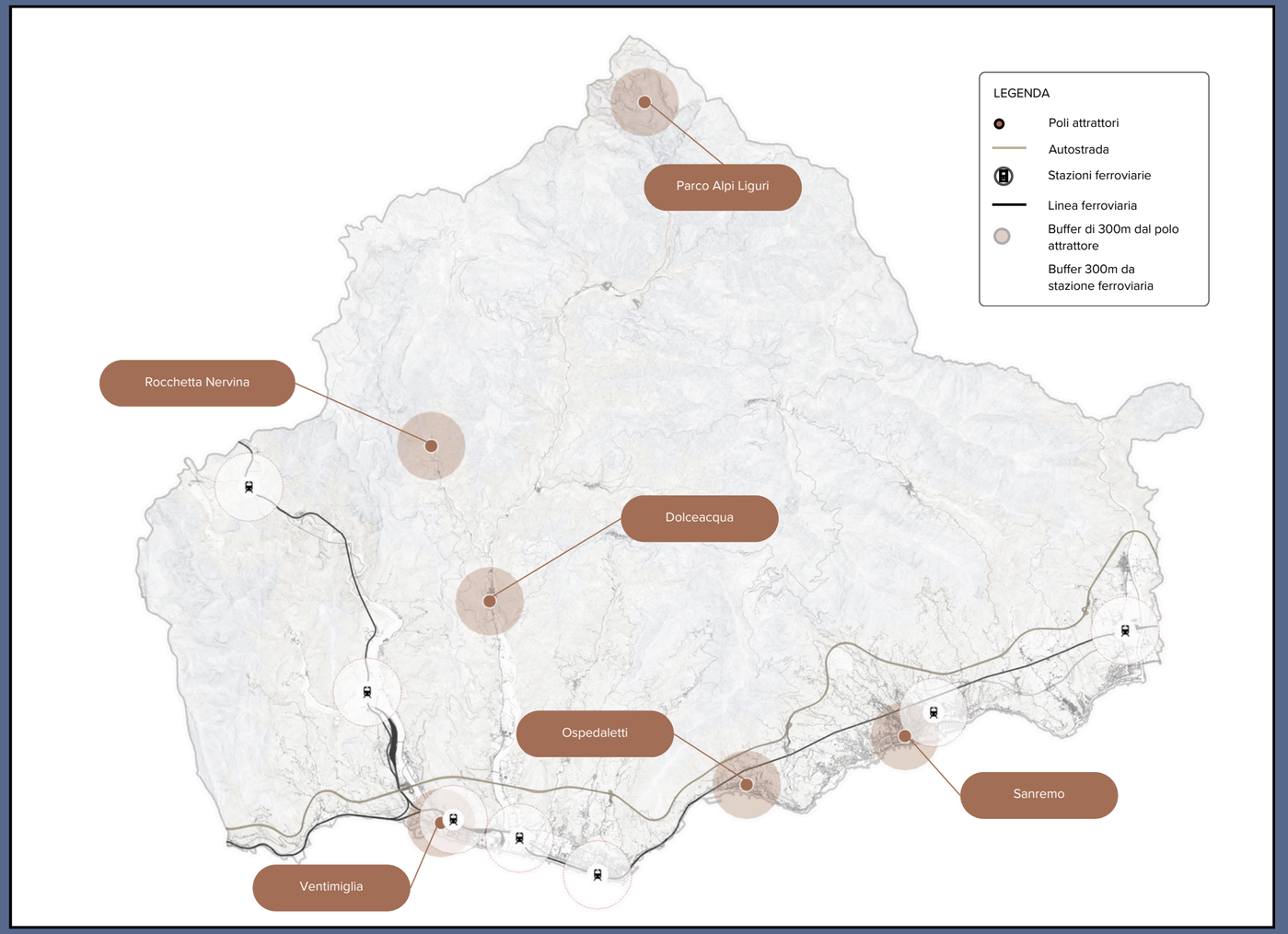
DEMAND AT DIFFERENT SCALES

Supra-local scale

Due to the lack of accurate data on tourist flows for this area, the approach we used to identify supralocal demand involved comparing different travel agency websites.

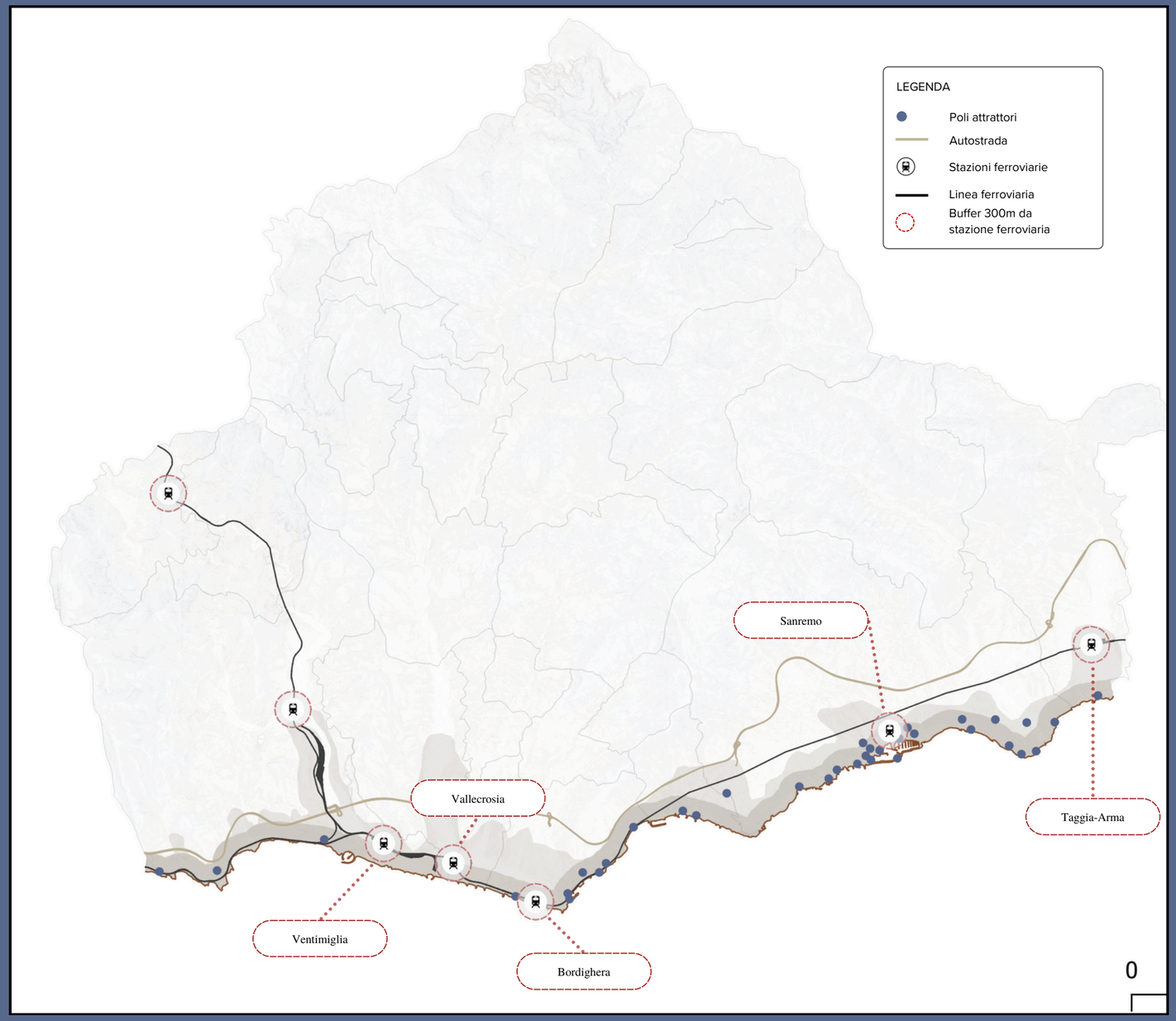
These websites respond to market demand but they also influence it by directing users to certain destinations over others.



Local scale

A similar approach was used on the local scale to identify even more specific poles of attraction by using data provided by Google Maps regarding the number of reviews (the most visited places are also the most reviewed).

This information allowed us to reflect on the demand in order to understand how many areas are potentially attractive, how they are distributed, and which of these, in system with the supply, enjoy an effective connection.

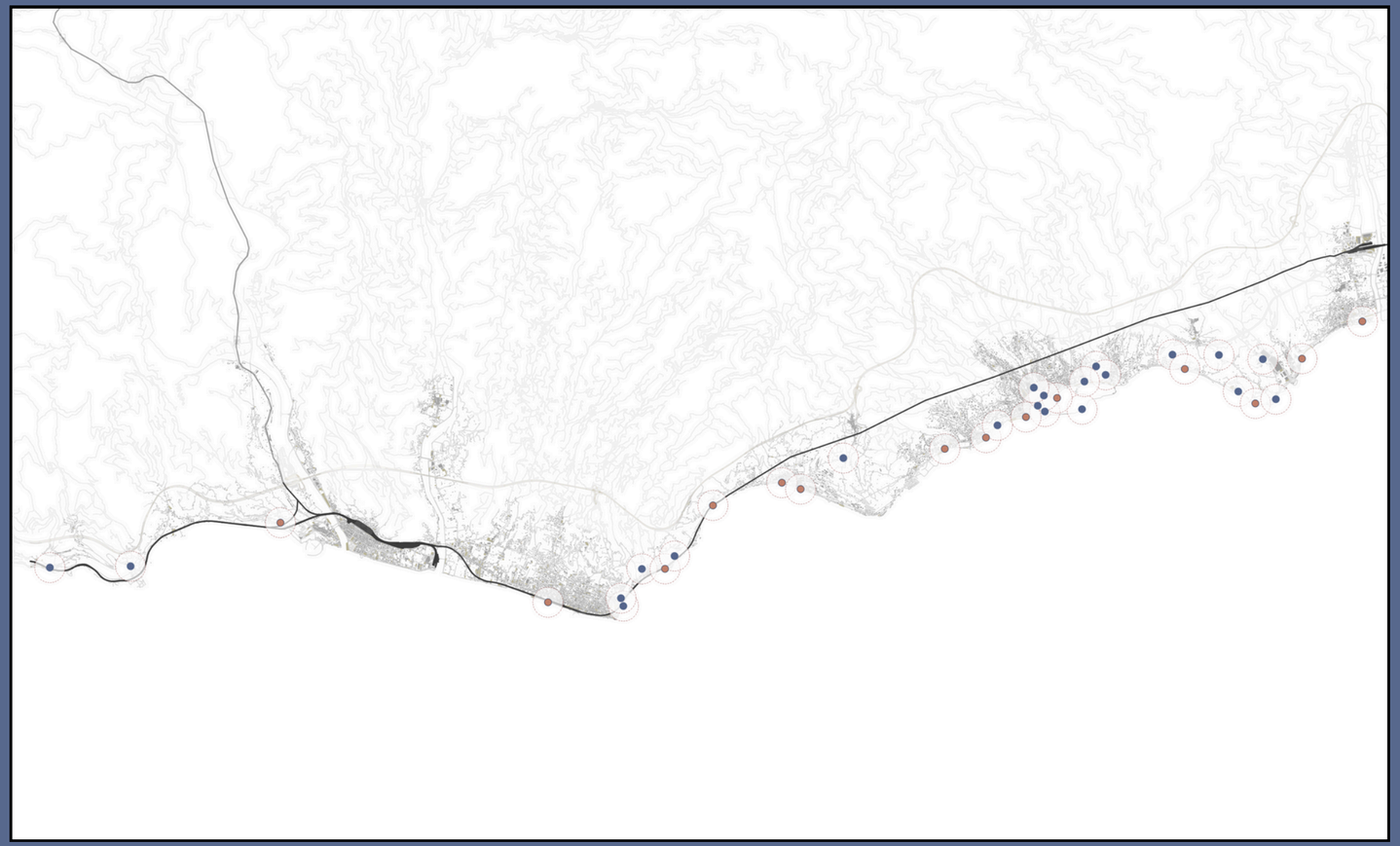


Local scale

Subsequently, the qualitative analysis enabled us to better define the type of poles of attraction.

Qualitative analysis of poles:

- In blue poles that are consistent over the year
- In brown poles that are strongly influenced by seasonality (beaches).

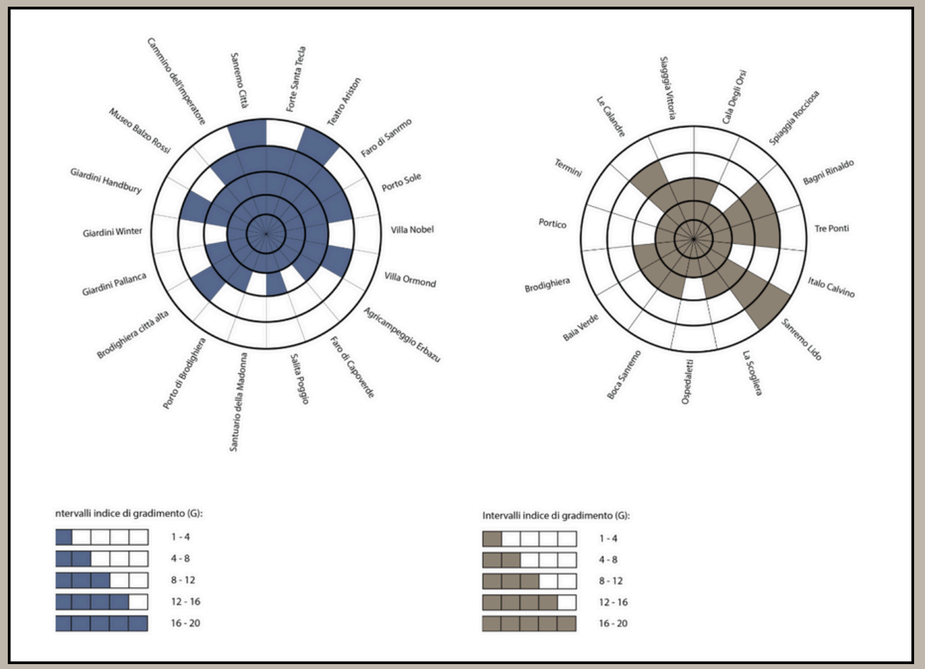


Estimation of future demand

Starting from data provided by Google Maps, we identified the poles popularity indixes by combining both the number of reviews and their ratings on a 1-5 scale.
Poles with higher indixes (the most appreciated) are the ones with a potential increasing future demand.
$G = P \times \log (N+1)$
Where P is the review rating and N is the number of reviews.

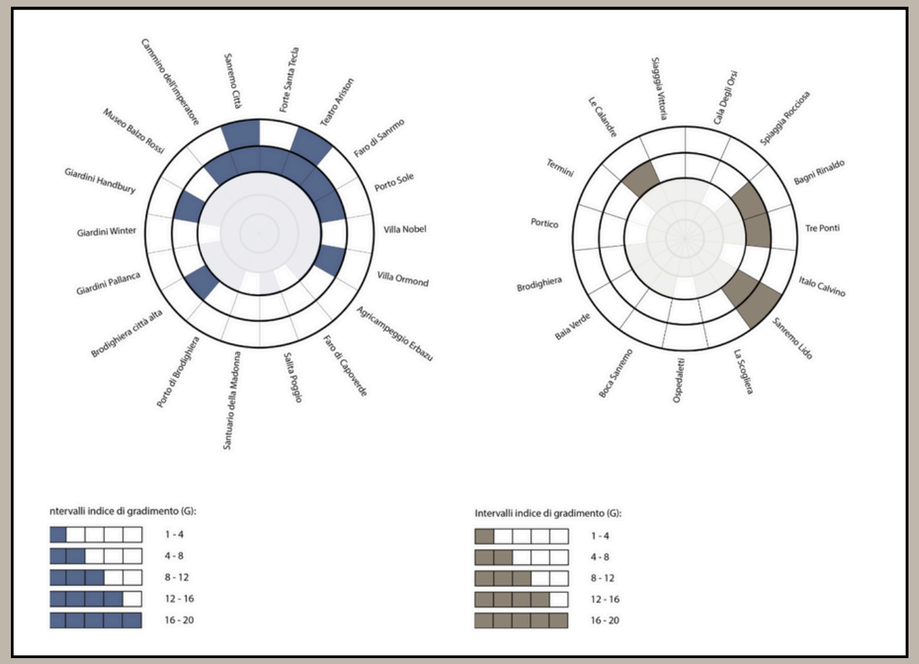
POLO E INDICE DI GRADIMENTO	NUMERO RECENSIONI	MEDIA PUNTI RECENSIONI
Museo Balzi Rossi (11,56)	488	4,3
Giardini Handbury (15,44)	3238	4,4
Giardini Winter (6,01)	24	4,3
Giardini Pallanca (12,05)	636	4,3
Brodighiera Città Alta (14,08)	992	4,7
Porto di Brodighiera (9,01)	100	4,5
Santuario della Madonna (6,34)	20	4,8
Cammino dell'Imperatore (15,41)	1624	4,8
Sanremo Città (16,20)	4000	4,5
Forte Santa Tecla (16,20)	964	4,3
Teatro Ariston (16,95)	8762	4,3
Faro di Sanremo (8,46)	75	4,5
Porto Sole (14,58)	2464	4,3
Villa Nobel (12,01)	536	4,4
Villa Ormond (13,92)	1244	4,5
Agricampeggio Erbazu (8,83)	91	4,5
Faro di Capoverde (5,77)	17	4,6

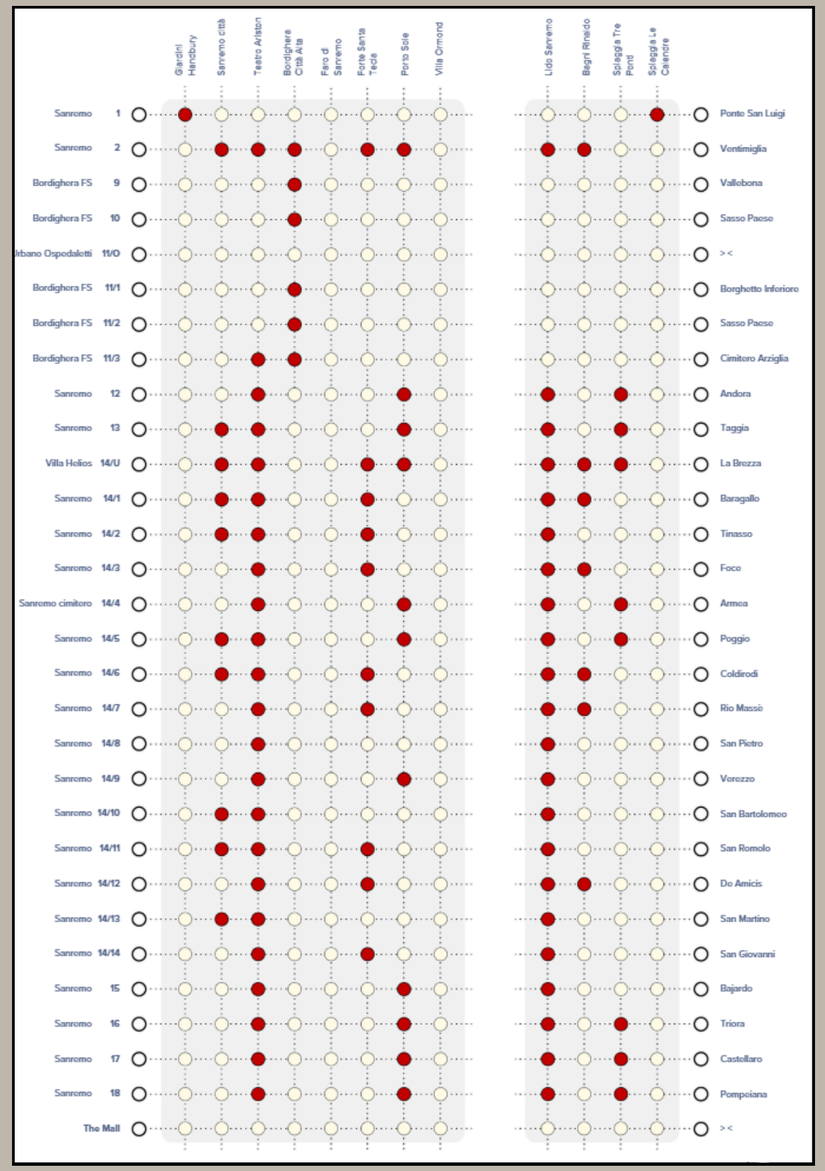
POLO E INDICE DI GRADIMENTO	NUMERO RECENSIONI	MEDIA PUNTI RECENSIONI
Le Calandre (12,19)	447	4,6
Le Termini (5,90)	21	4,4
Portico (4,56)	12	4,1
Brodighiera (10,80)	285	4,4
Baia Verde (9,52)	163	4,3
Boca Sanremo (8,79)	276	4,6
Ospedaletti (8,85)	102	4,4
La Scogliera (10,15)	229	4,3
Sanremo Beach (13,40)	950	4,5
Italo Calvino (7,87)	74	4,2
Bagni Rinaldo (9,75)	238	4,1
Tre Ponti (12,83)	1135	4,2
Spiaggia Rocciosa (4,68)	10	4,5
Cala degli Orsi (8,77)	109	4,3
Spiaggia Vittoria (11,58)	670	4,1



Estimation of future demand

In the design phase, we considered the outermost rings, filtered by the most demanded poles.
An additional selection was made by focusing on the poles with a growing demand and evaluating which already have a good supply.





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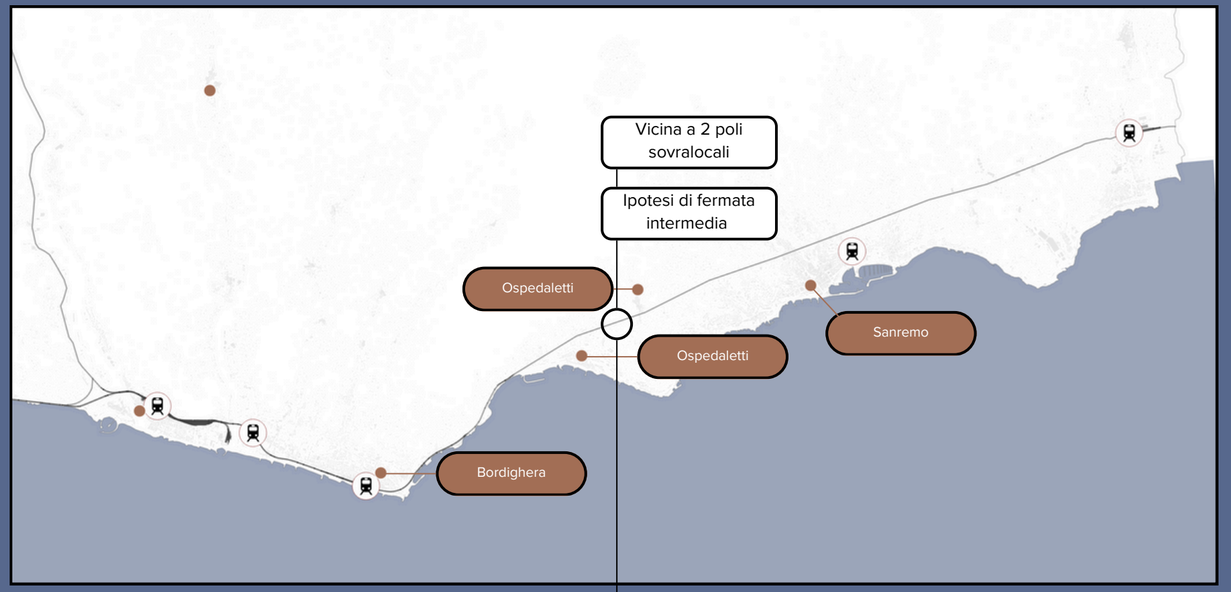
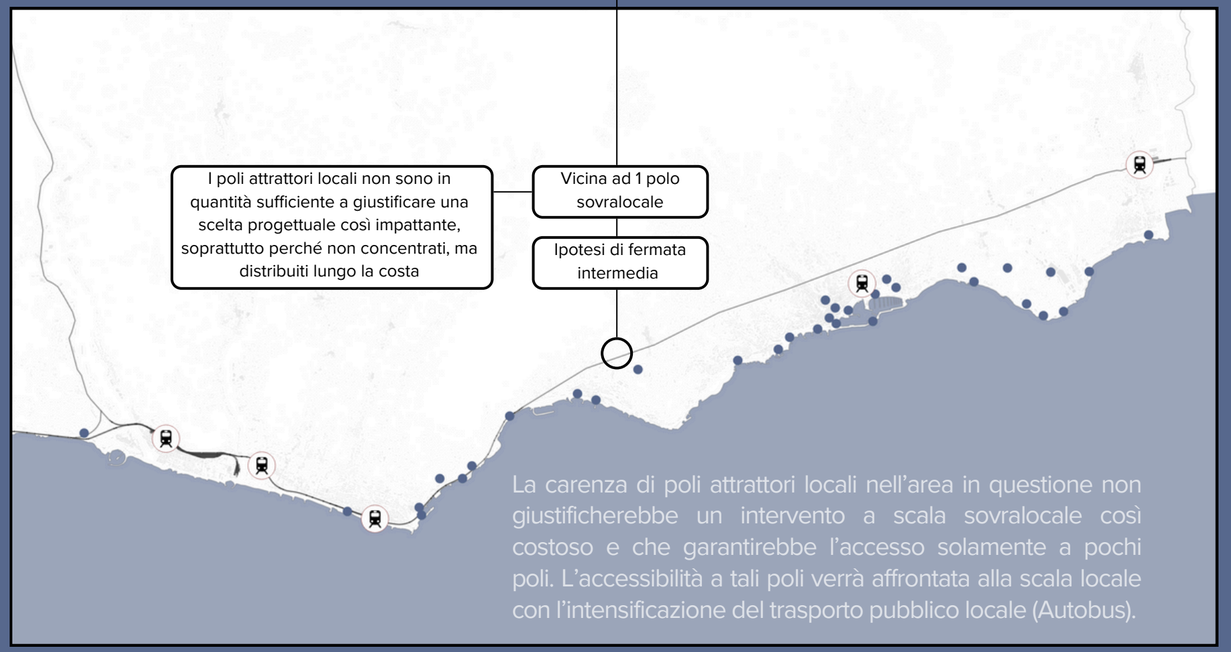
THE PROJECT

Supralocal scale

At the supralocal scale, we considered, at first, the hypothesis to create an intermediate railway (train stop) between Bordighera and Sanremo.

The lack of attracting poles in the area wouldn’t have justified such an expensive intervention cause it would have provided access only to a few poles.





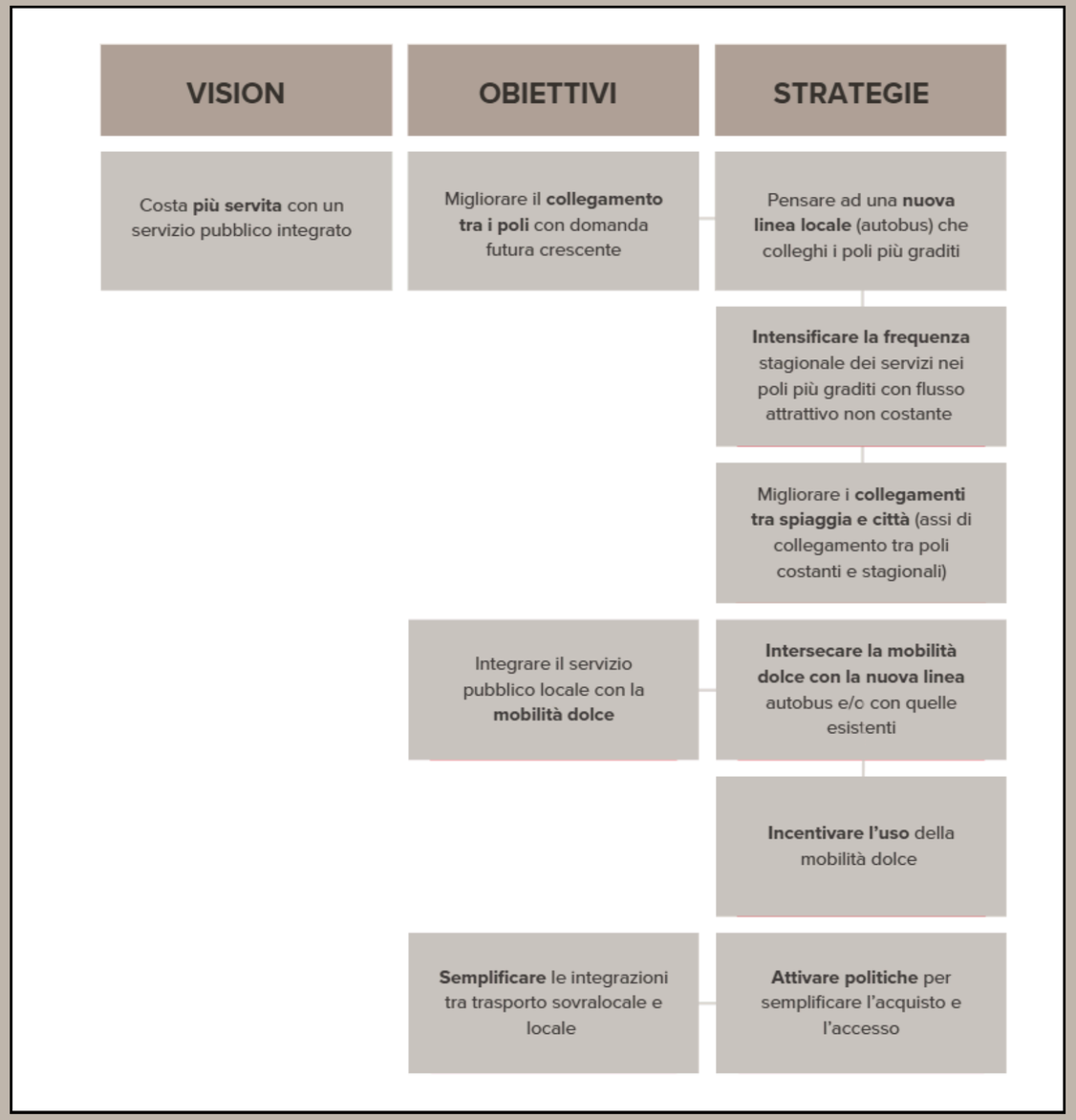
La carenza di poli attrattori locali nell’area in questione non giustificherebbe un intervento a scala sovralocale così costoso e che garantirebbe l’accesso solamente a pochi poli. L’accessibilità a tali poli verrà affrontata alla scala locale con l’intensificazione del trasporto pubblico locale (Autobus).

OSA table

The objectives and strategies have been developed at the local scale, with indirect positive effects at the supralocal scale.

The objectives include improving connections between different poles with growing demand and with limited supply and enhancing these connections with the existing cycle path.

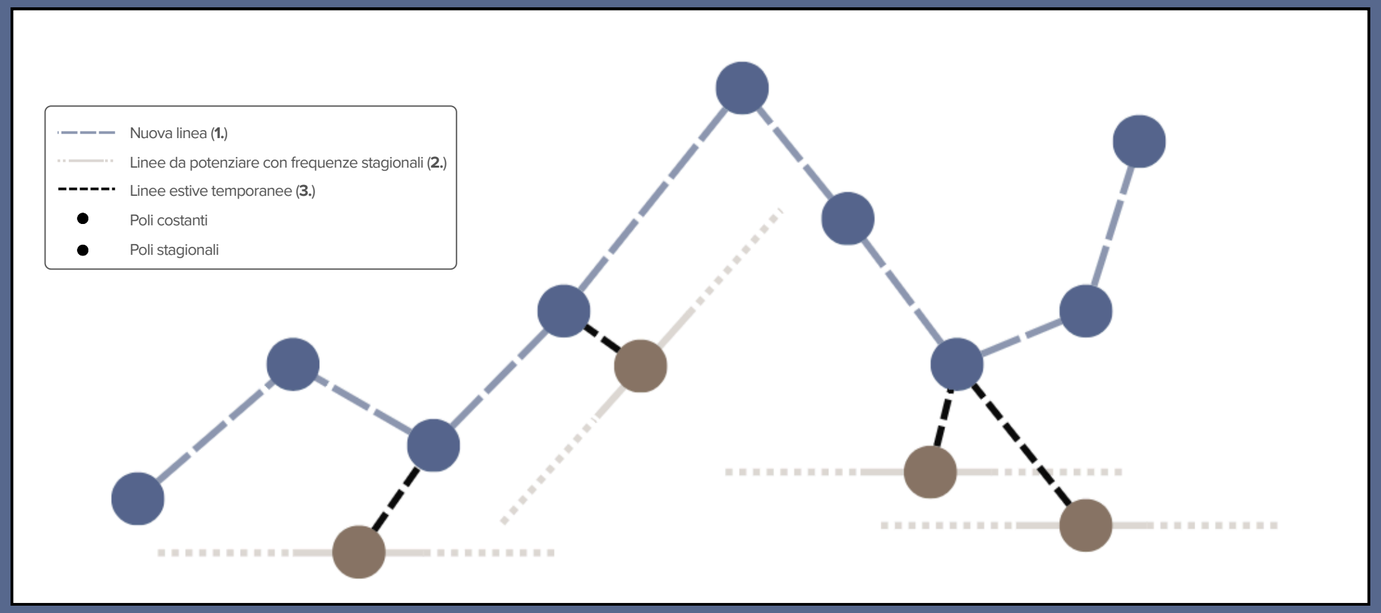
An additional economic objective is the integration of different transportation services (single fare system) at the different level.

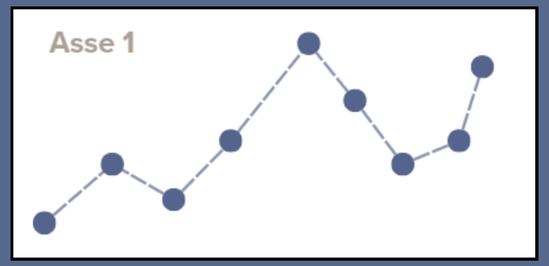


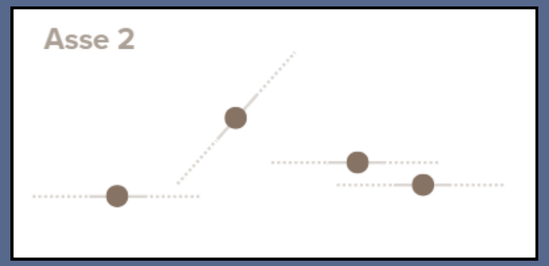
Strategies

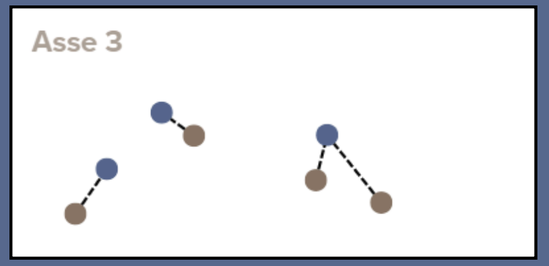
The strategic axes are divided into two macro directions:

- Think about a new public transport line that takes into account the less attractive poles with poor services.
- Intensify the seasonal frequencies of non-constant poles







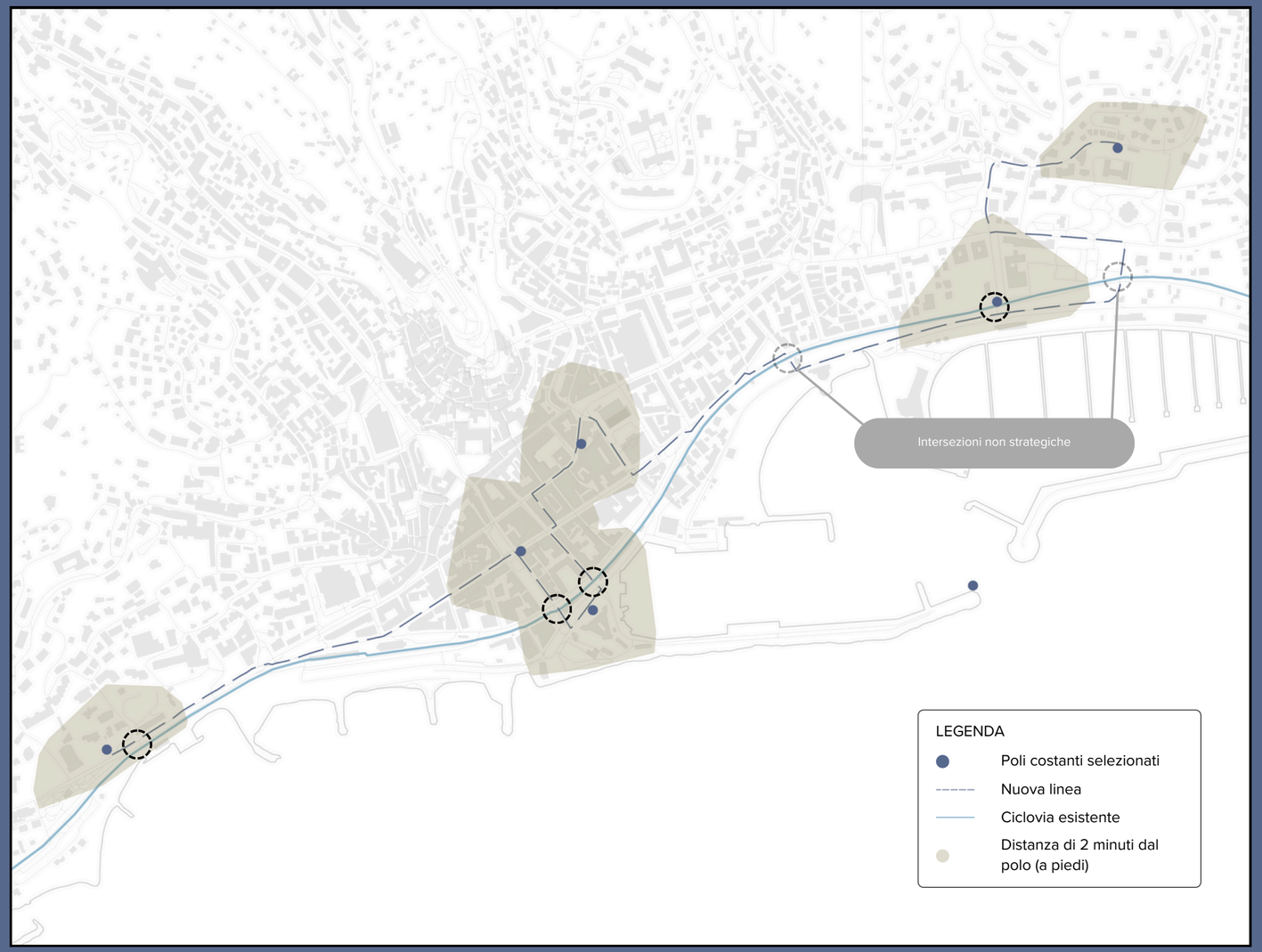


Strategies (Axis 1)

The route and new stops have been identified and the priority for the placement was determined by two factors:

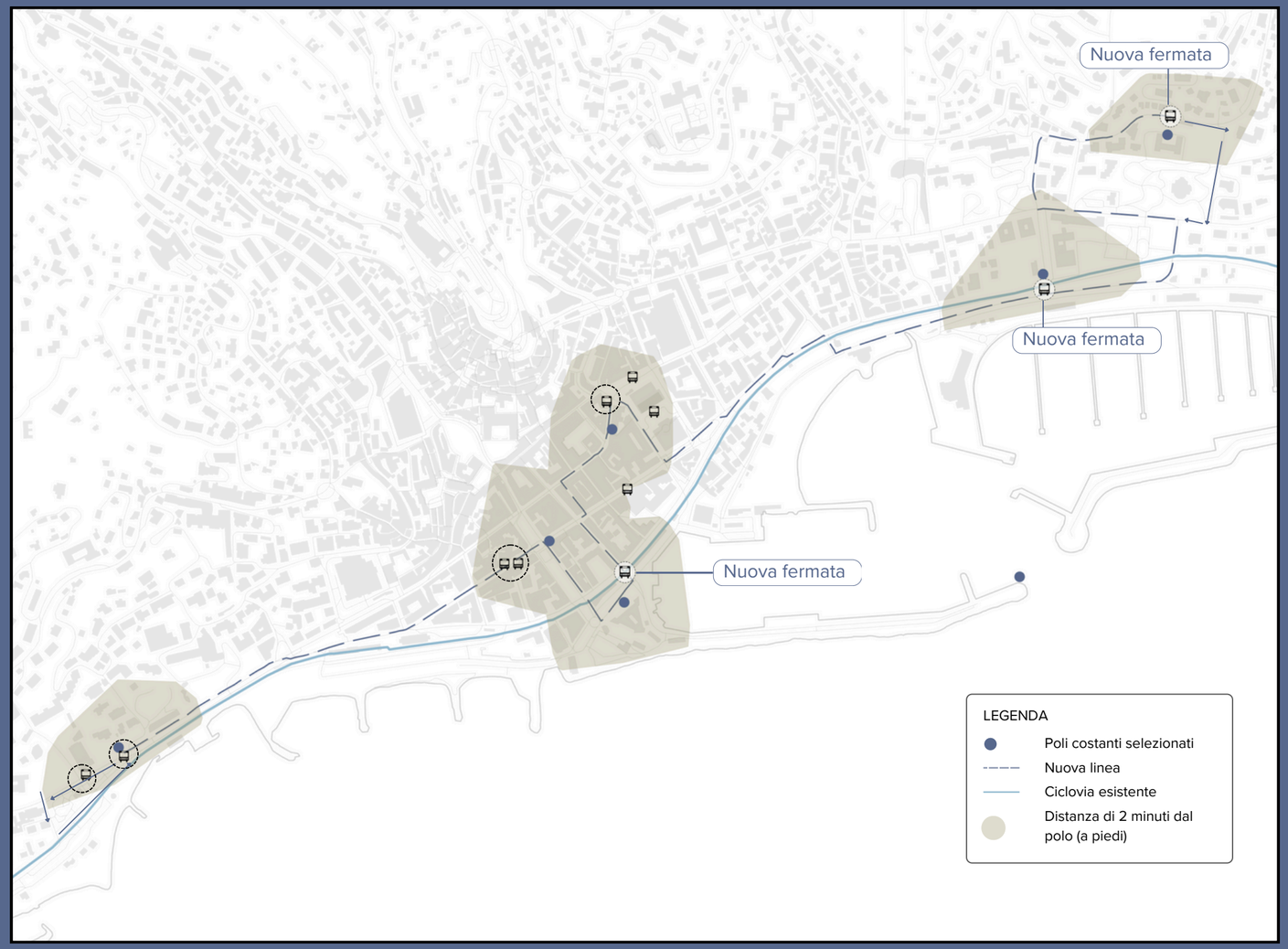
- An intersection with the existing cycle path in order to create integrated stops with an e-bike service
- A 2-minute walking radius from various poles

The dashed circles indicate strategically selected locations.



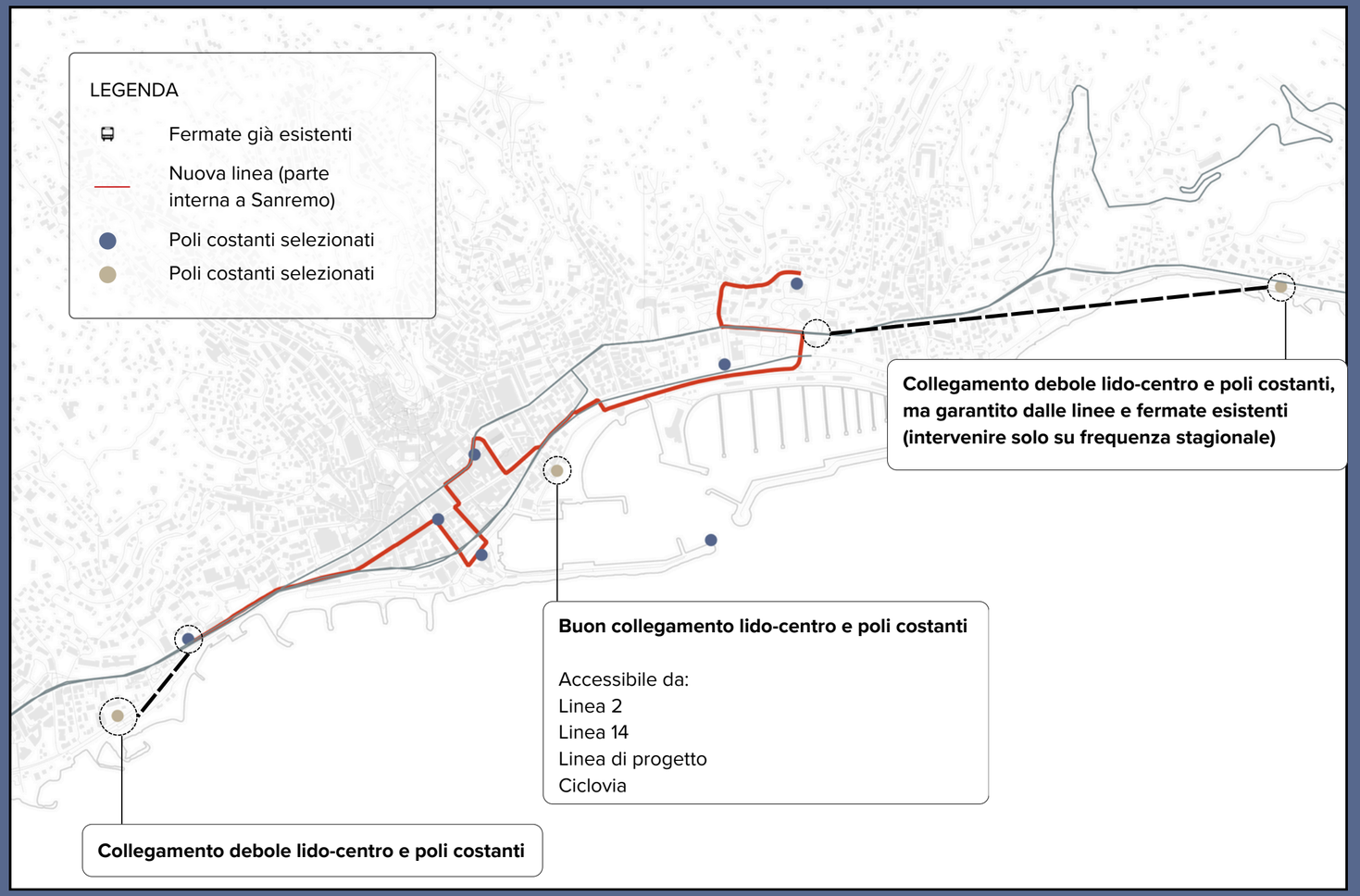
Strategies (Axis 1)

In addition to identify new possible stops, we checked the possibility of using existing stops.



Strategies (Axis 2-3)

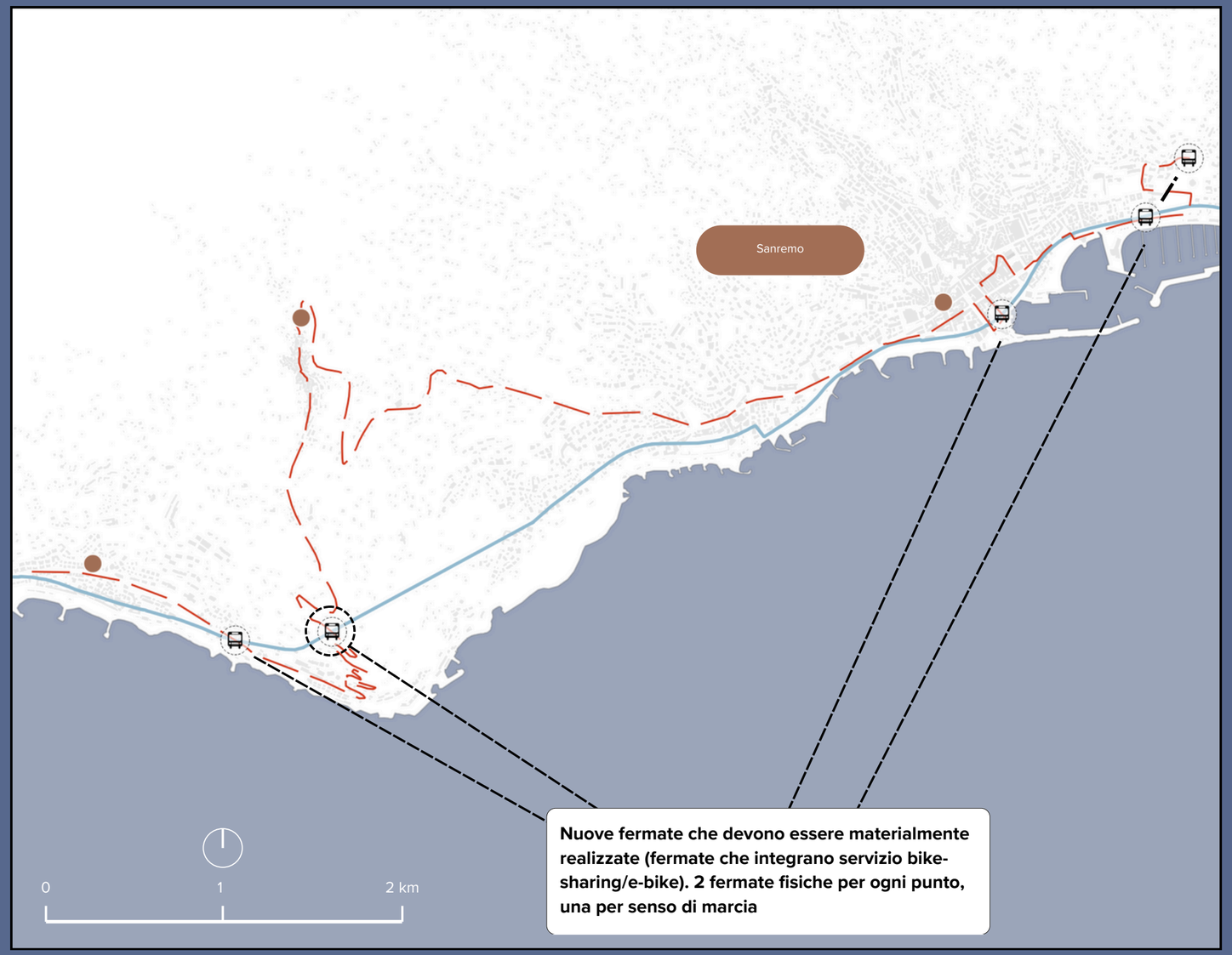
A second objective would be to adjust the frequency of lines serving seasonal poles and to ensure beach accessibility from stops near major poles.



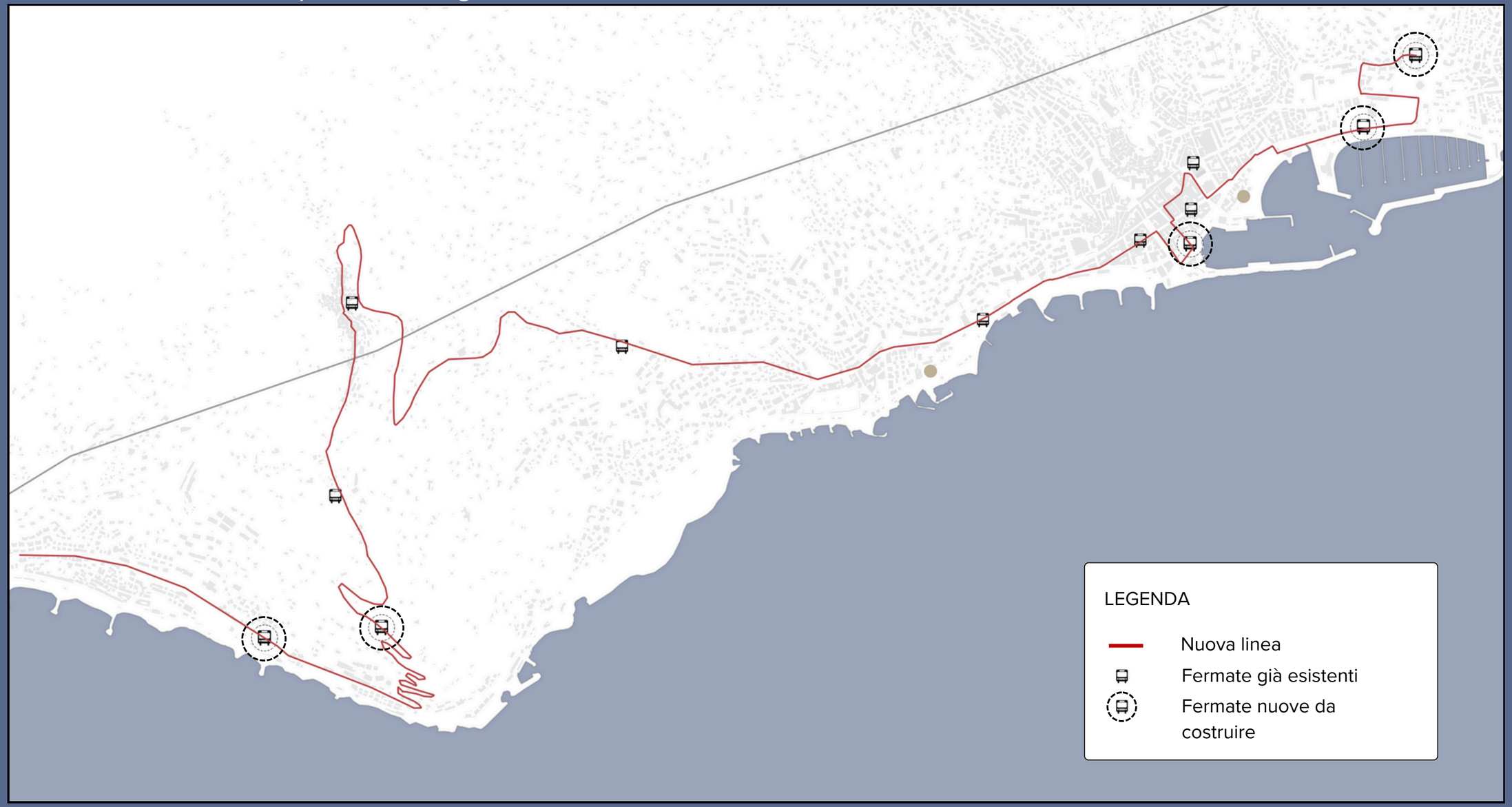
Strategies (Axis 2-3)

The physical interventions along the new line include only new stops (integrated with an e-bike service) but they don’t require any significant infrastructure work like new roads.

Based on this, cost-benefit calculations have been calculated.



The new line - 12 stops: 7 existing and 5 to be constructed



Project costs

Frequency: 20 minutes
Buses needed: 6
New buses cost: €1,200,000

Cost-benefits analysis = POSITIVE:

- Benefit-to-cost ratio equals to 8.63

(considerably greater than 1, the project is possible).

- Benefits are significantly greater than costs

ELEMENTO	QUANTITÀ	COSTO
Nuovi autobus	6	1.200.000 €
Nuove fermate	10	100.000 €
Biciclette	100	89.900 €
TOTALE		**1.389.900 €**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