



Webinar: 29/01/2025



UNIVERSITÀ DEGLI STUDI DI MILANO

Dipartimento di Scienze Agrarie e Ambientali



Public transport & intermodality for active tourism

Giulio Senes

Travelling Light Mainstreaming low-carbon mobility for tourism travel



The European Greenways Association (EGWA)



51 members from 19 countries + 4 honorary members.

3 Colleges:

- National Authorities
- Regional Authorities
- NGOs

The General Secretary and the operational headquarters are in Madrid. at the Spanish Railways Foundation.



The European Greenways Association (EGWA)

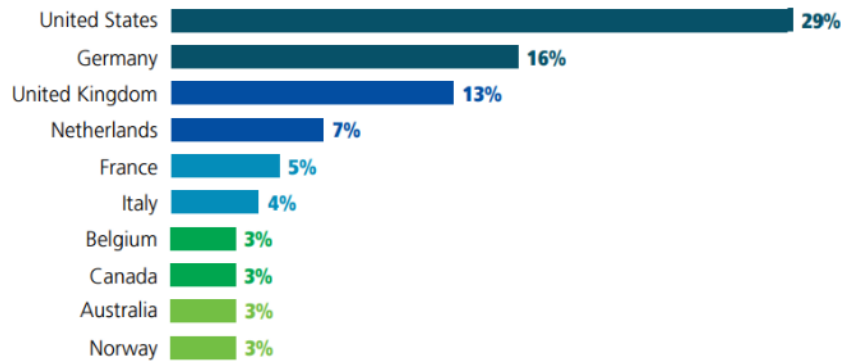


- European Greenways Award
- Conferences
- European Greenways Observatory
- European Greenways Day
- Good Practice Guides
- European Projects (REVER. Naviki. Greenways4Tour. Greenways Product. Greenways Outdoor. Greenways4ALL. Greenway Heritage. OurWay. SigWay)
- Information exchange. networking. cooperation. etc.

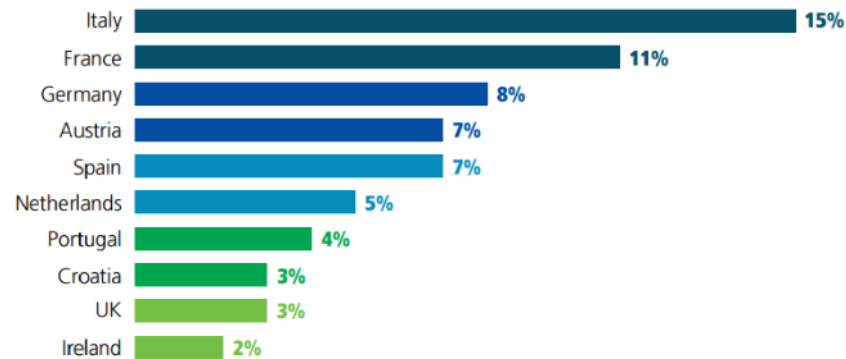


Active tourism - cycling

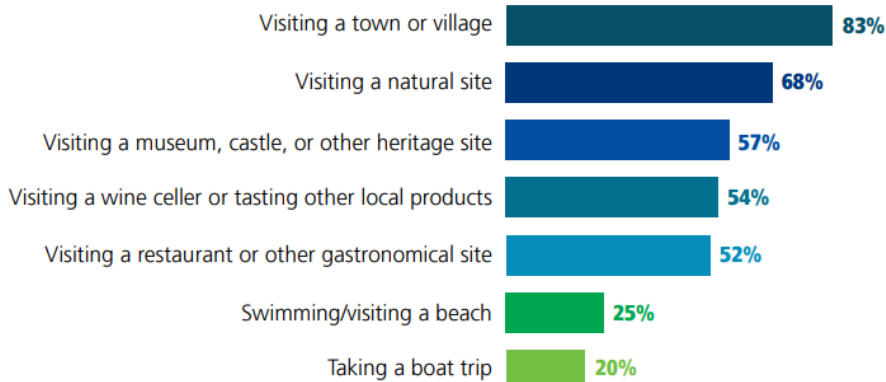
MOST POPULAR SOURCE COUNTRIES AMONG THE TOURS OF RESPONDENTS



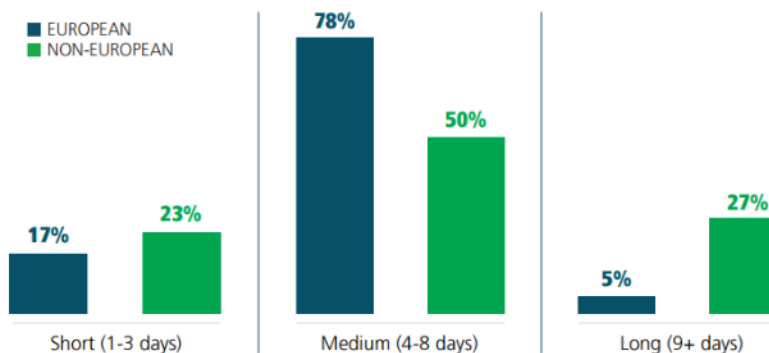
MOST POPULAR DESTINATION COUNTRIES AMONG THE TOURS OF RESPONDENTS



MOST POPULAR ACTIVITIES AMONGST CYCLING TOUR CLIENTS WHILE ON TOUR



LENGTH OF THE MOST POPULAR TOUR



State of the Cycling Tour Operators Industry (2024)

Authors
Agathe Daudibon
Heather Kelly





Active tourism - cycling

Giulio Senes

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EuroVelo Schematic Diagram (2023)

EuroVelo

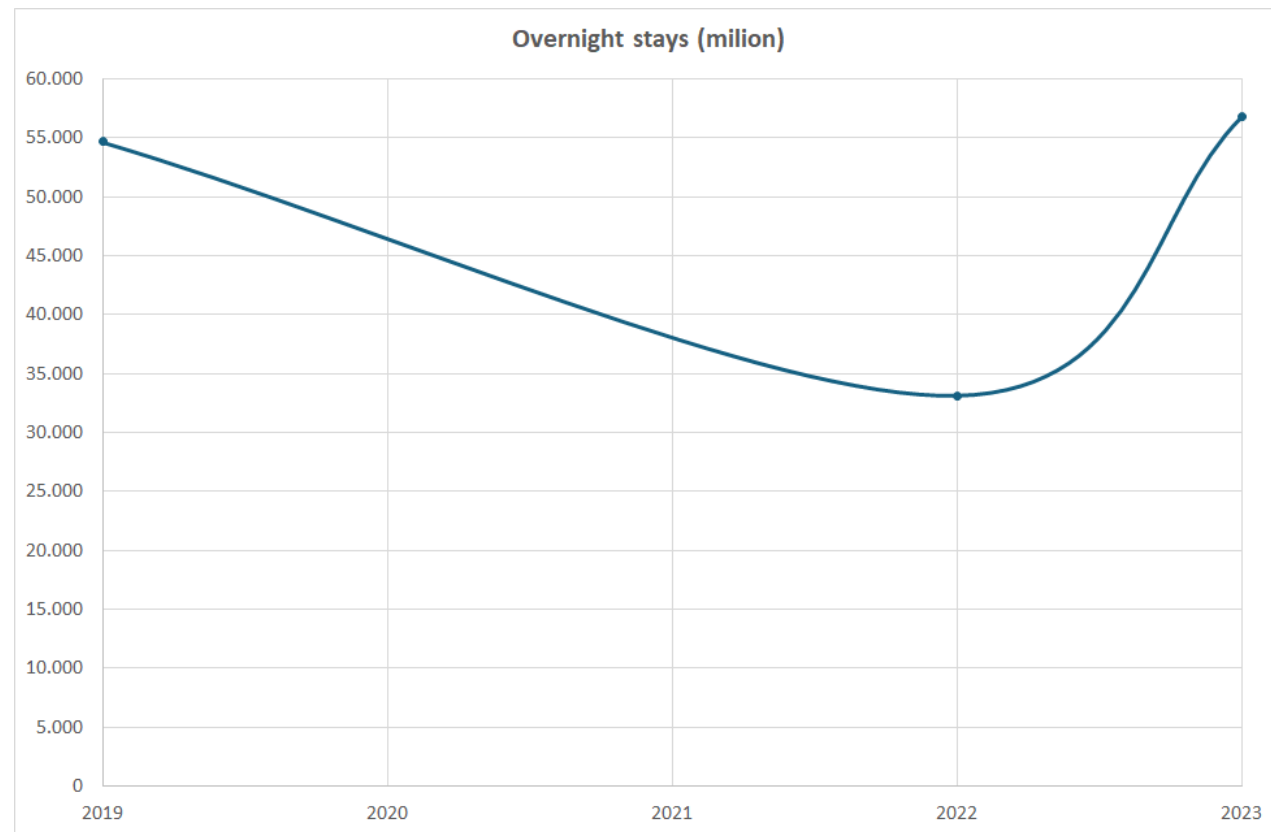
The EuroVelo initiative is the biggest cycle route network of its kind in the world. If fully developed, as a European transport and tourism network, it would see **60 million trips** made every year

EuroVelo usage evolution (2019-2022)¹

+11%
overall growth

+14% during weekends
+10% during weekdays

1. Average from January to October 2022 compared to the same period in 2019
2. Full week evolution from January to December 2022 compared to the same period in 2019



ISNART
 UNIONCAMERE
 LEGAMBIENTE

Viaggiare con la bici
La via italiana al cicloturismo 2024

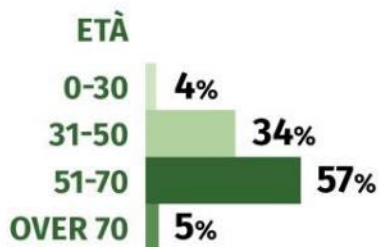
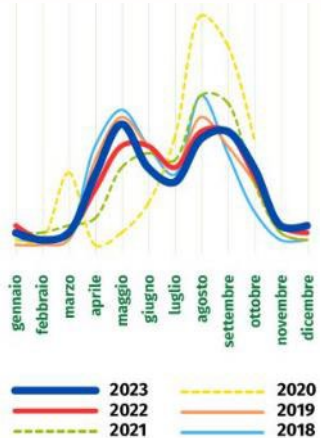
4° Rapporto sul Cicloturismo



Active tourism - walking

People along the historical/cultural routes

TERRE DI MEZZO EDITORE



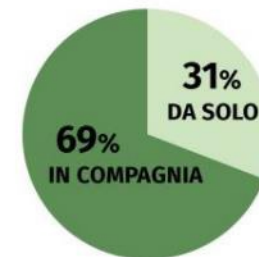
How many days along the route

TERRE DI MEZZO EDITORE



Il 41% sta in cammino per più di una settimana

DA SOLI O IN COMPAGNIA



DOVE SI DORME



NUMERO DI PERNOTTAMENTI



LE MOTIVAZIONI

- benessere mentale ed emotivo
- stare in mezzo alla natura
- conoscere i borghi e il territorio
- fare una nuova esperienza
- il benessere fisico e attività fisica
- interesse culturale

Il 32% fa un Cammino per motivi religiosi/spirituali.

Il 9% fa un Cammino per risparmiare.



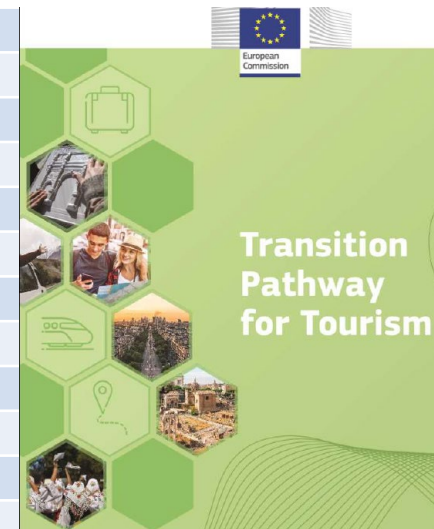
+20% in the last year





Transition Pathway for Tourism - Topics

REGULATION AND PUBLIC GOVERNANCE	Topic 1	Fair measures for short term rentals (STR)
	Topic 2	Regulatory support for multimodal travelling
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Active Mobility & Tourism ecosystems

In 2023 the 4 most visited Italian cities (Rome, Venice, Milan, and Florence) registered about 75.1 million overnight stays (17% of the national total).

Italy also attracts millions of visitors to smaller towns. Among the 50 most visited Italian locations in 2023:

- 10 have a resident population of less than 10.000 inhabitants.
- 22 have a population between 10.000 and 50.000 inhabitants.

These areas typically present low population density, an aging demographic, fragile economies, and insufficient services and infrastructures, but are rich of significant cultural and environmental that can represent resources to be valorized through **active tourism**.



VICE Model





Active Mobility & Tourism ecosystems

Giulio Senes



VICE Model

A sustainable development approach to these regions can be obtained:

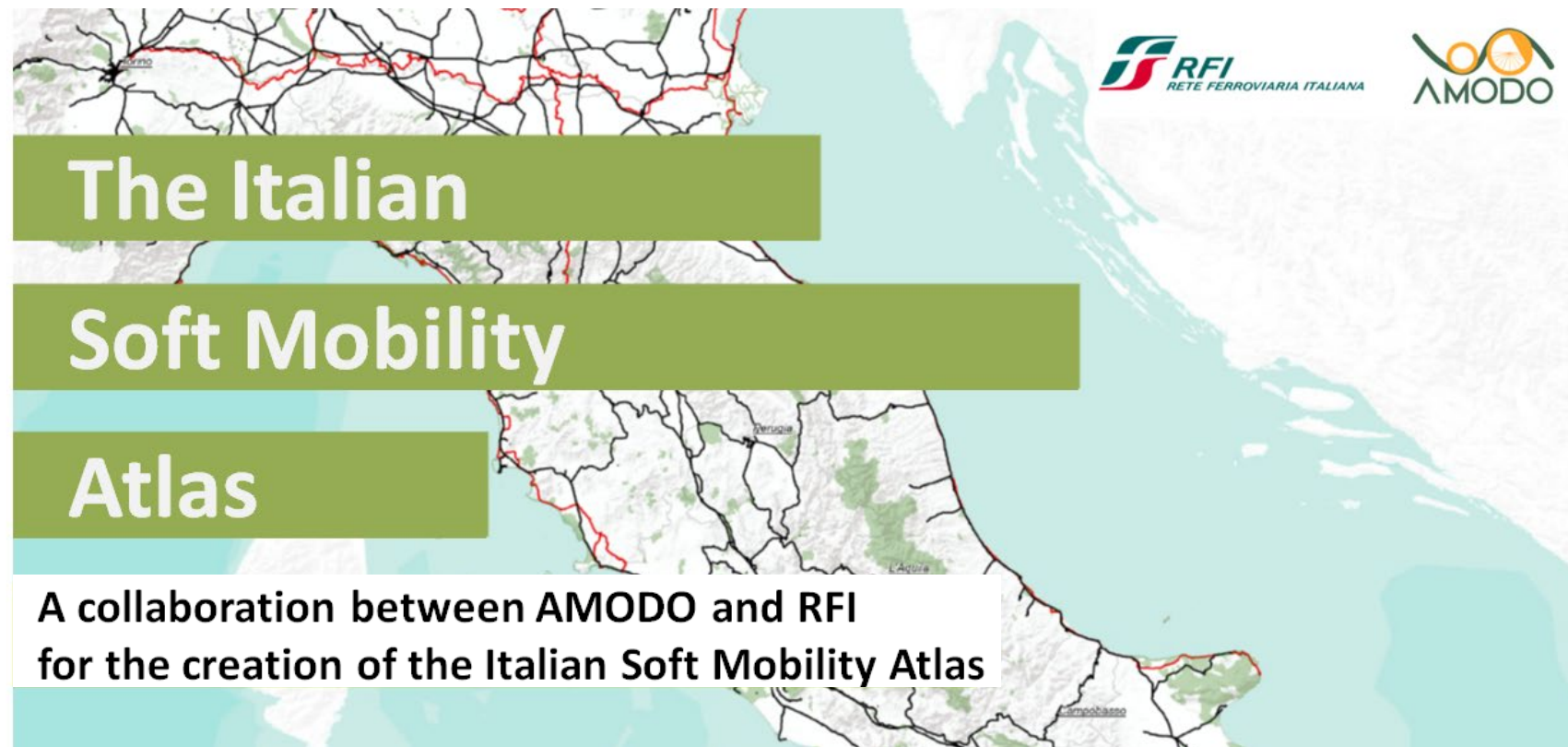
- promoting and developing dedicated **infrastructures**, such as greenways and cycling routes,
- and **integrating them with the railways network** that can be used both by tourists and local population.

One of the most impacting sector connected to the tourism industry is represented by transport, permanently included in the tourism ecosystem with different “shares” depending on the type: land transport 45%, water transport 22%, and air transport 91%.

CO2 emissions associated with tourist destinations have shown a steady increase in recent decades, with the transportation of tourists to, from, and within destinations being the primary contributor, accounting for approximately **75%** of the sector's total emissions.



The Italian Soft Mobility Atlas



Goals

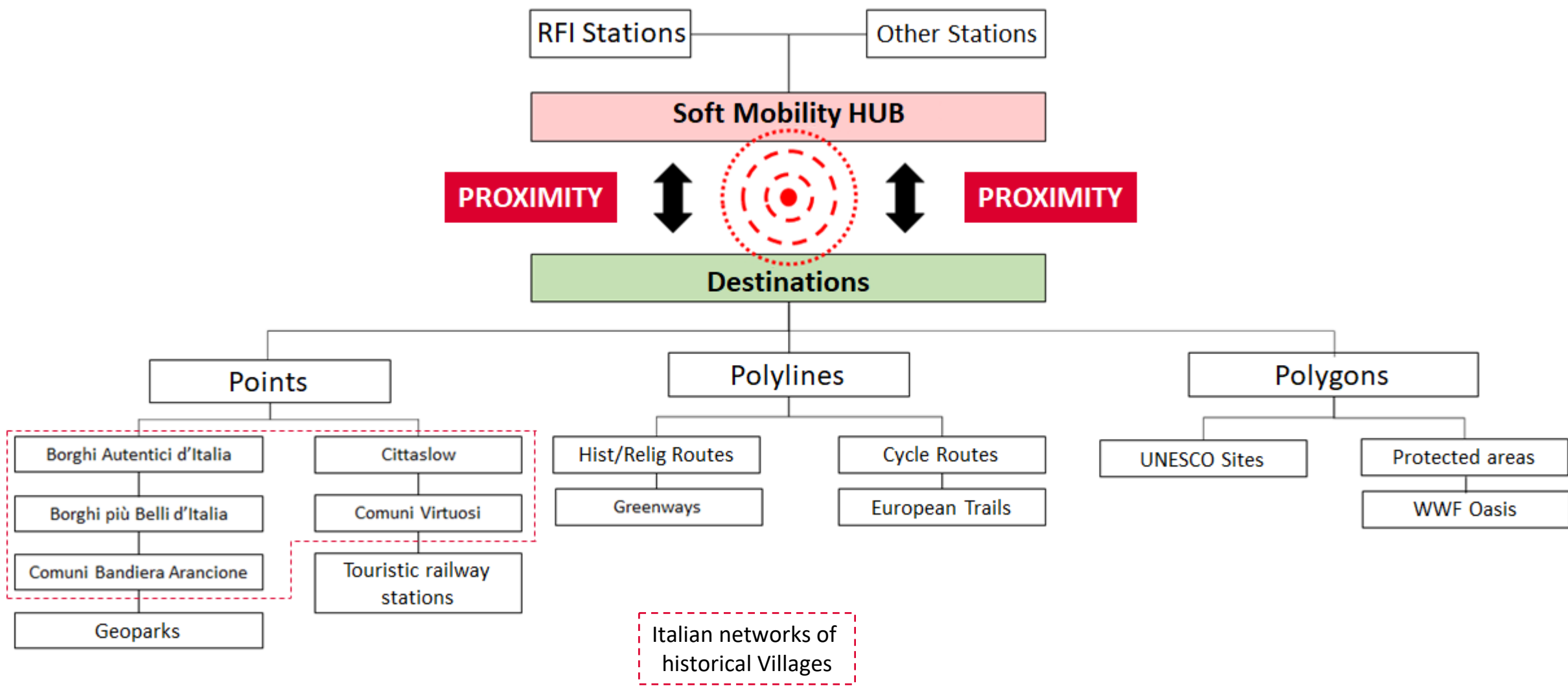
- To identify through spatial analysis techniques the possible **synergies** between the components of the system (**infrastructures and destinations**), as a tool for orienting and supporting tool for **Institutions** and **Local Authorities** for the development and promotion of an **Integrated Soft Mobility System** for tourism
- To identify the **railway stations** that can be developed as **Soft Mobility HUBs**



The Italian Soft Mobility Atlas



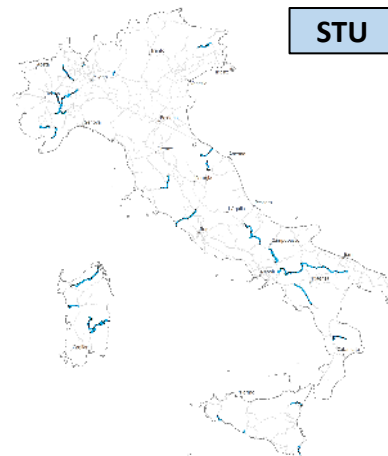
Creation of thematic maps from data analysis



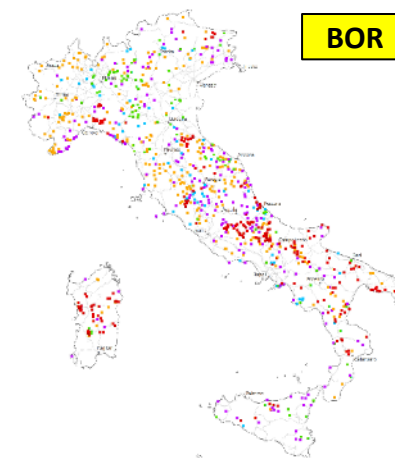
The Italian Soft Mobility Atlas



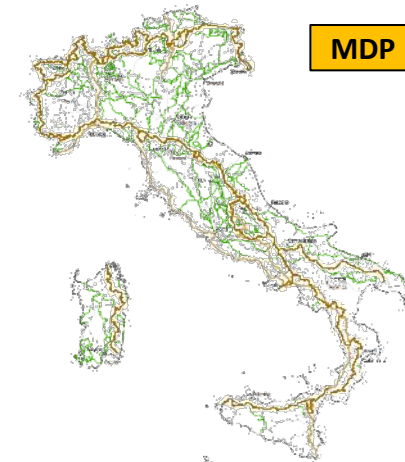
STA



STU



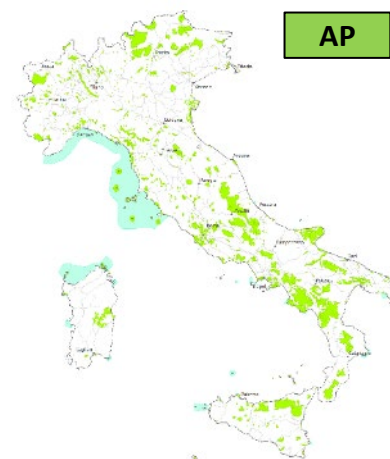
BOR



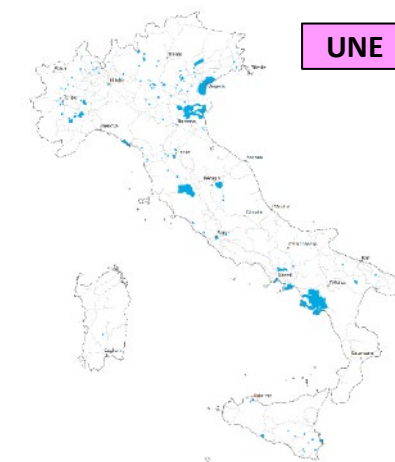
MDP

Data collected

STA	2962	Active railways stations
STU	383	Touristic railways Stations (1.618 Km)
BOR	945	Networks of historical villages
MDP	12.000	km of European Trails
	84	Historical/religious routes (24.000 km)
AP	1687	Protected areas (89.750 Km ²)
UNE	55	UNESCO sites (5.700 Km ²)
MDB	18.000	km of cycle routes and greenways



AP



UNE



MDB





The Italian Soft Mobility Atlas



Railway stations

2.962 stations (4.091 point of access)

- **2.040 RFI stations**
- **922 Regional lines stations**

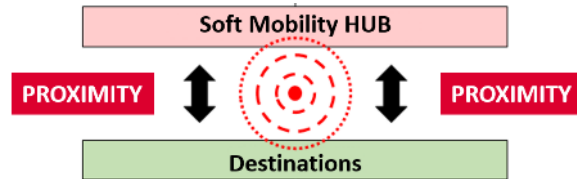




The Italian Soft Mobility Atlas



Calculation of proximity indices



Area of influence (AI) - Based on the **average reference speed** and the time considered optimal (**30 minutes max**) for accessing the resources starting from the station.

Considering soft mobility as a type of active mobility for people with any skills and abilities, two reference speeds were assumed:

- 4 km/h for pedestrians → AI = **2 km**;
- 8 km/h for cyclists → AI = **4 km**.

Proximity indices calculated based on the distance between each element and the railway stations.

$$I_x = 1 - \left(\frac{Distance}{AI + Tolerance} \right)$$

Topic/Index	Resources	Geometry	Area of Influence	Tolerance
Soft Mobility Walking	Historical/Religious Routes	Polyline	2 km	+1 km
	European Trails			
	Italian National Trail			
Soft Mobility Cycling (routes > 10 km)	Greenways	Polyline	4 km	+1 km
	Eurovelo			
	Italian Touristic National Cycle Network			
	Italian National Cycle Network (Bicitalia)			
Italian networks of historical Villages	Bandiere Arancioni	Polygon (500 m within the point)	2 km	+0.5 km
	Borghi Autentici d'Italia			
	Cittaslow			
	Borghi più belli d'Italia			
	Comuni Virtuosi			
UNESCO Sites	Siti Unesco con ingresso	Point	2 km	+0.5 km
	Siti Unesco ampi con ingresso	Polygon	2 km	
	Siti Unesco ampi senza ingresso	Polygon	0.5 km	
Protected areas	EUAP Protected areas	Polygon	0.5 km	+0.5 km
	SCI (Site of Community Importance) and SPA (Special Protection Areas)			
	WWF Oasis			
	Geoparks			
Touristic railways	Touristic railway stations	Point	0.5 km	+0.5 km



The Italian Soft Mobility Atlas



Stations and historical villages

2.962 stations

305 (10.3%) stations are close to a village

● **190 RFI stations**

○ **106 Other stations**





The Italian Soft Mobility Atlas



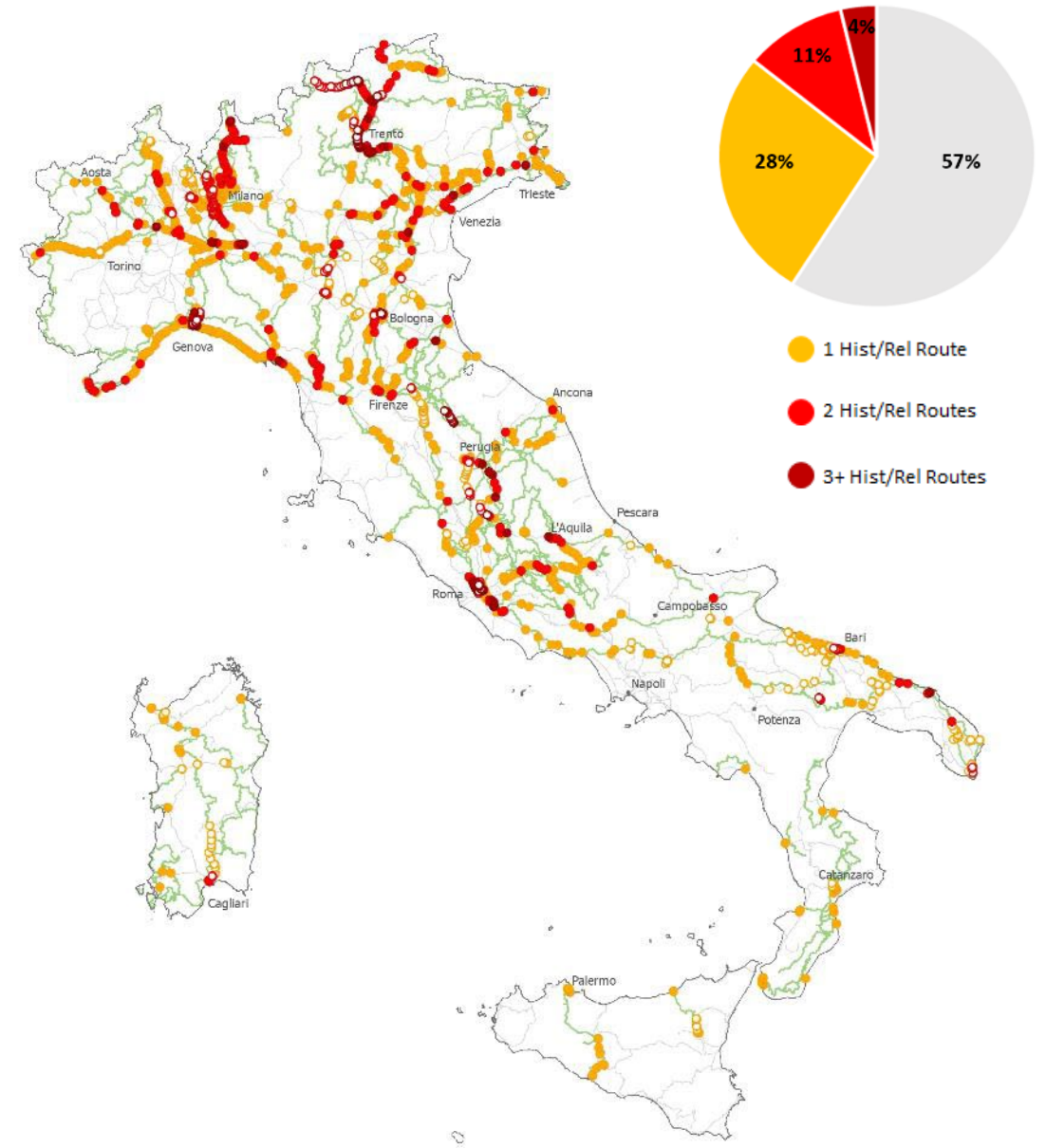
Stations and Historical/Religious Routes

2 962 stations

1 268 stations (43%) are close to at least a Historical/Religious Routes

- 817 stations close to 1 Hist/Rel Route
- 332 stations close to 2 Hist/Rel Routes
- 119 stations close to 3+ Hist/Rel Routes

821 (28%) are less than 1 km from the route





The Italian Soft Mobility Atlas



Stations, greenways and cycle routes

2 962 stations

1 807 stations (61%) are within 5 km from a greenway or a cycle route

● 1 253 RFI stations ○ 554 other stations

Among these, 1 408 (48%) are within 2.5 km from a greenway or a cycle route

● 1 008 RFI stations ○ 400 other stations





The Italian Soft Mobility Atlas



Stations, villages, routes and paths, greenways and cycle routes, protected areas and Unesco sites

2 962 stations

124 stations (4%) are close to villages and soft mobility infrastructures

● 82 RFI stations ○ 42 other stations

47 of which are close to a protected area too

● 35 RFI stations ○ 12 other stations

3 of which are close to a UNESCO site too

● 3 RFI stations ○ 0 other stations



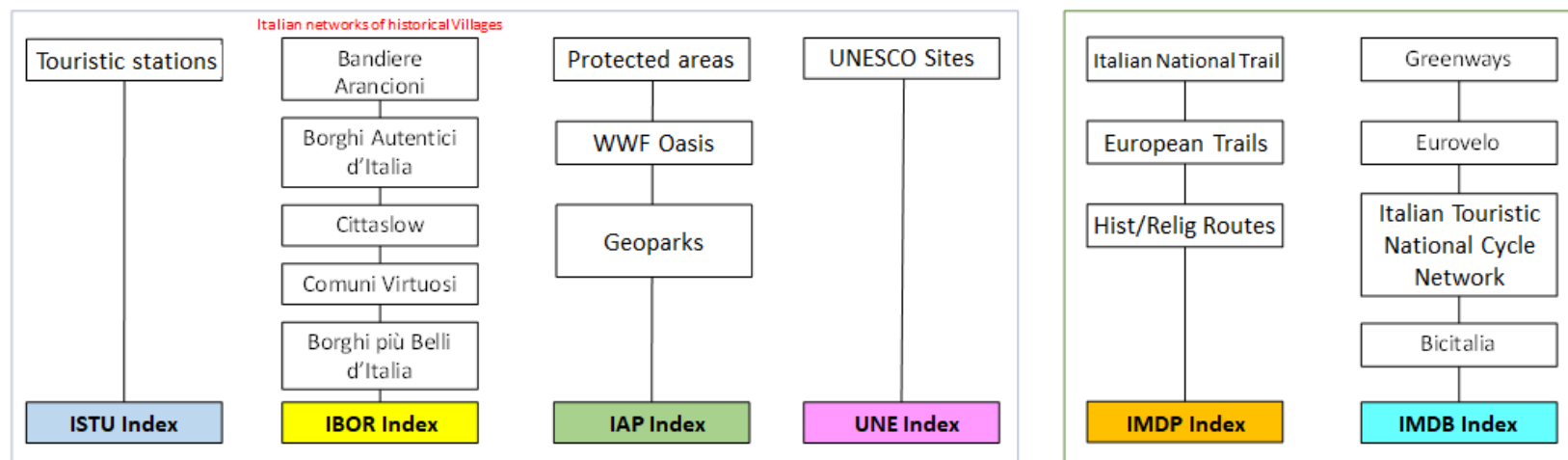


The Italian Soft Mobility Atlas



Proximity Indices

Classes	Proximity Indices														
	Hist/Cult Villages			Unesco Sites			Protected areas			Cycle mobility			Pedestrian mobility		
	N	Relative %	Absolute %	N	Relative %	Absolute %	N	Relative %	Absolute %	N	Relative %	Absolute %	N	Relative %	Absolute %
0.75-1.00	7	2.3%	0.2%	1	0.4%	0.0%	1	0.2%	0.0%	3	0.2%	0.1%	5	0.3%	0.2%
0.50-0.74	108	35.4%	3.6%	72	28.7%	2.4%	26	4.0%	0.9%	49	2.7%	1.7%	54	3.4%	1.8%
0.25-0.49	89	29.2%	3.0%	96	38.2%	3.2%	282	43.5%	9.5%	290	16.0%	9.8%	306	19.5%	10.3%
0.00-0.24	101	33.1%	3.4%	82	32.7%	2.8%	339	52.3%	11.4%	1465	81.1%	49.5%	1205	76.8%	40.7%
Subtotal	305	100%	10.3%	251	100%	8.5%	648	100%	21.9%	1807	100%	61.0%	1570	100%	53.0%
0.00	2657	-	89.7%	2711	-	91.5%	2314	-	78.1%	1155	-	39.0%	1392	-	47.0%
Total	2962	-	100%	2962	-	100%	2962	-	100%	2962	-	100%	2962	-	100%



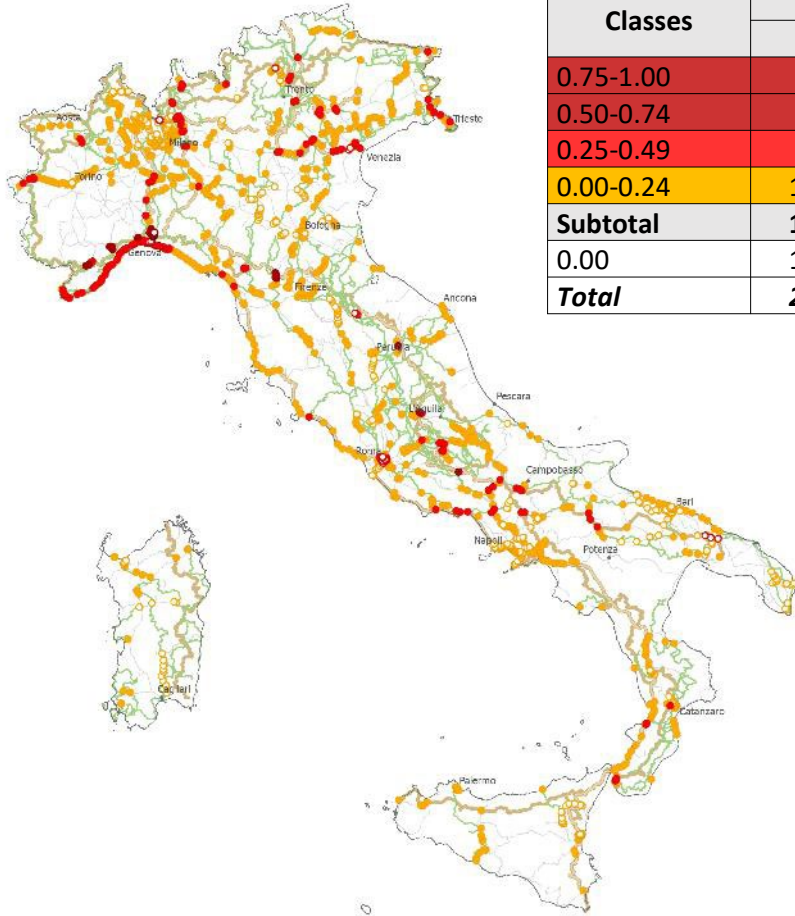


The Italian Soft Mobility Atlas

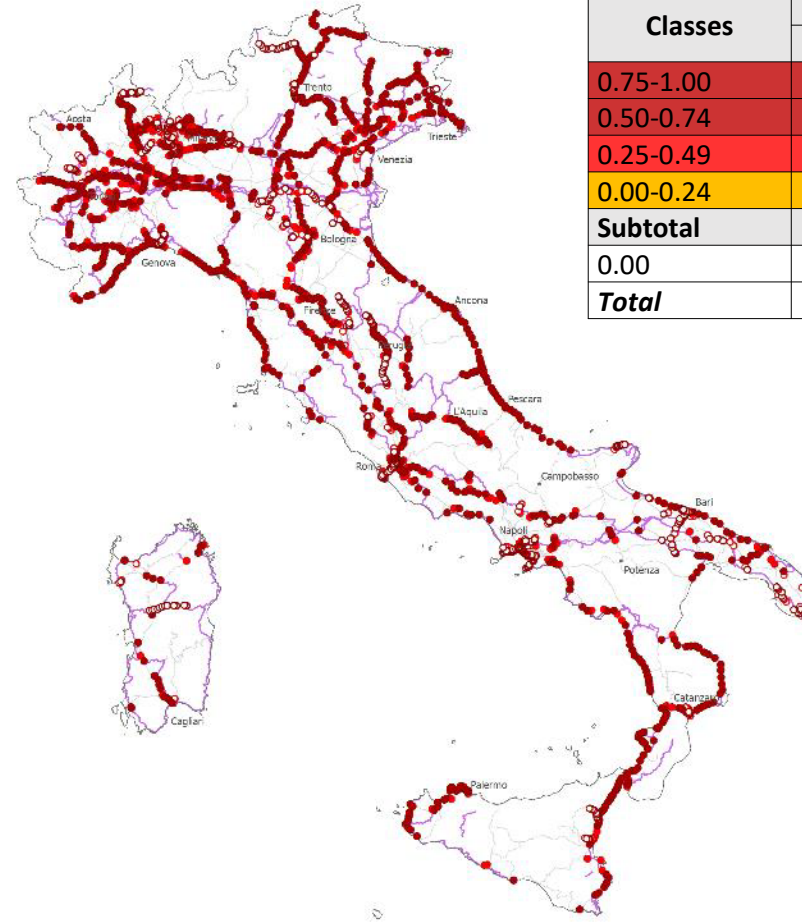


Proximity Indices

Giulio Senes



Classes	Pedestrian mobility		
	N	Rel. %	Abs. %
0.75-1.00	5	0.3%	0.2%
0.50-0.74	54	3.4%	1.8%
0.25-0.49	306	19.5%	10.3%
0.00-0.24	1205	76.8%	40.7%
Subtotal	1570	100%	53.0%
0.00	1392	-	47.0%
Total	2962	-	100%



Classes	Cycle mobility		
	N	Rel. %	Abs. %
0.75-1.00	3	0.2%	0.1%
0.50-0.74	49	2.7%	1.7%
0.25-0.49	290	16.0%	9.8%
0.00-0.24	1465	81.1%	49.5%
Subtotal	1807	100%	61.0%
0.00	1155	-	39.0%
Total	2962	-	100%

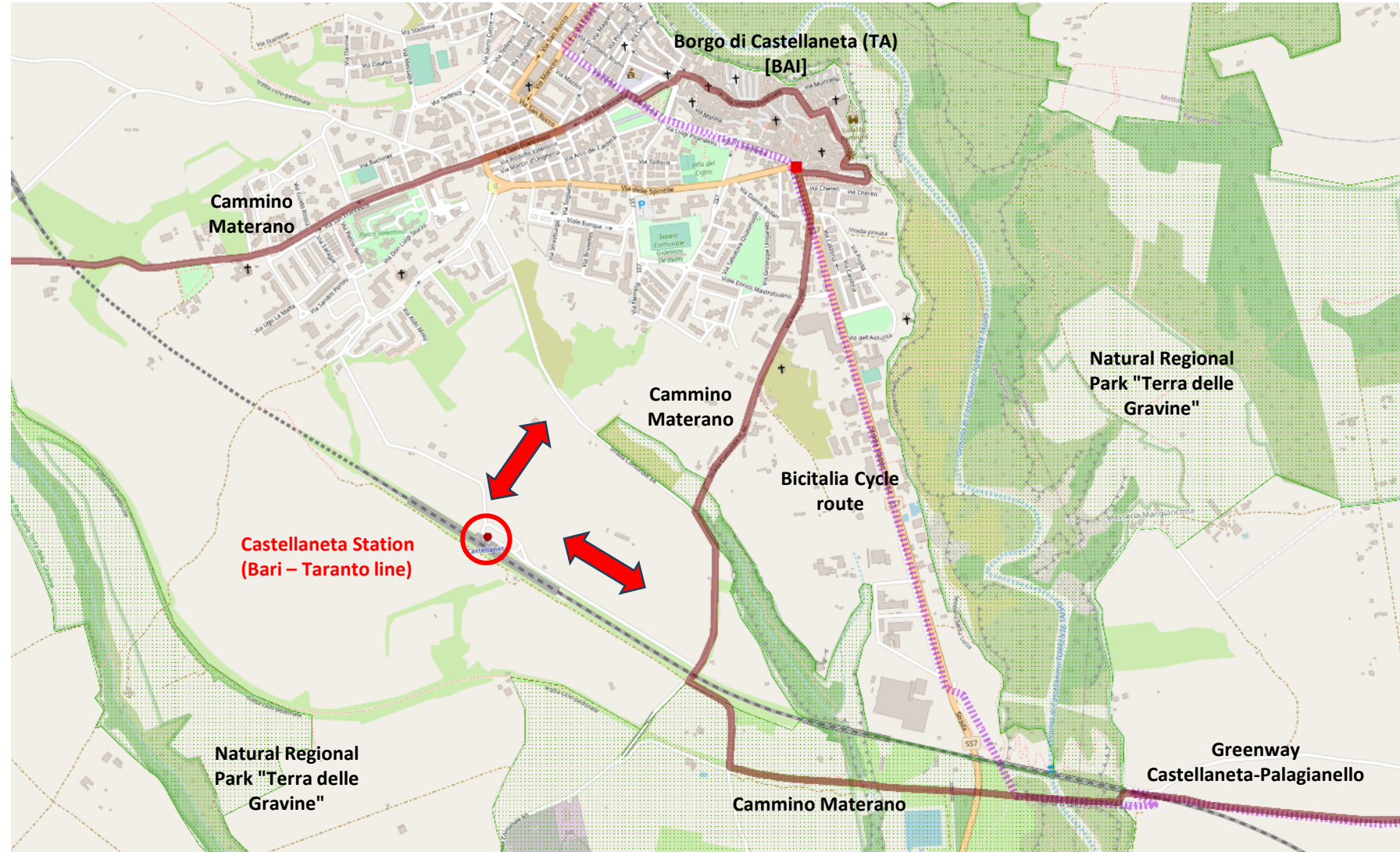




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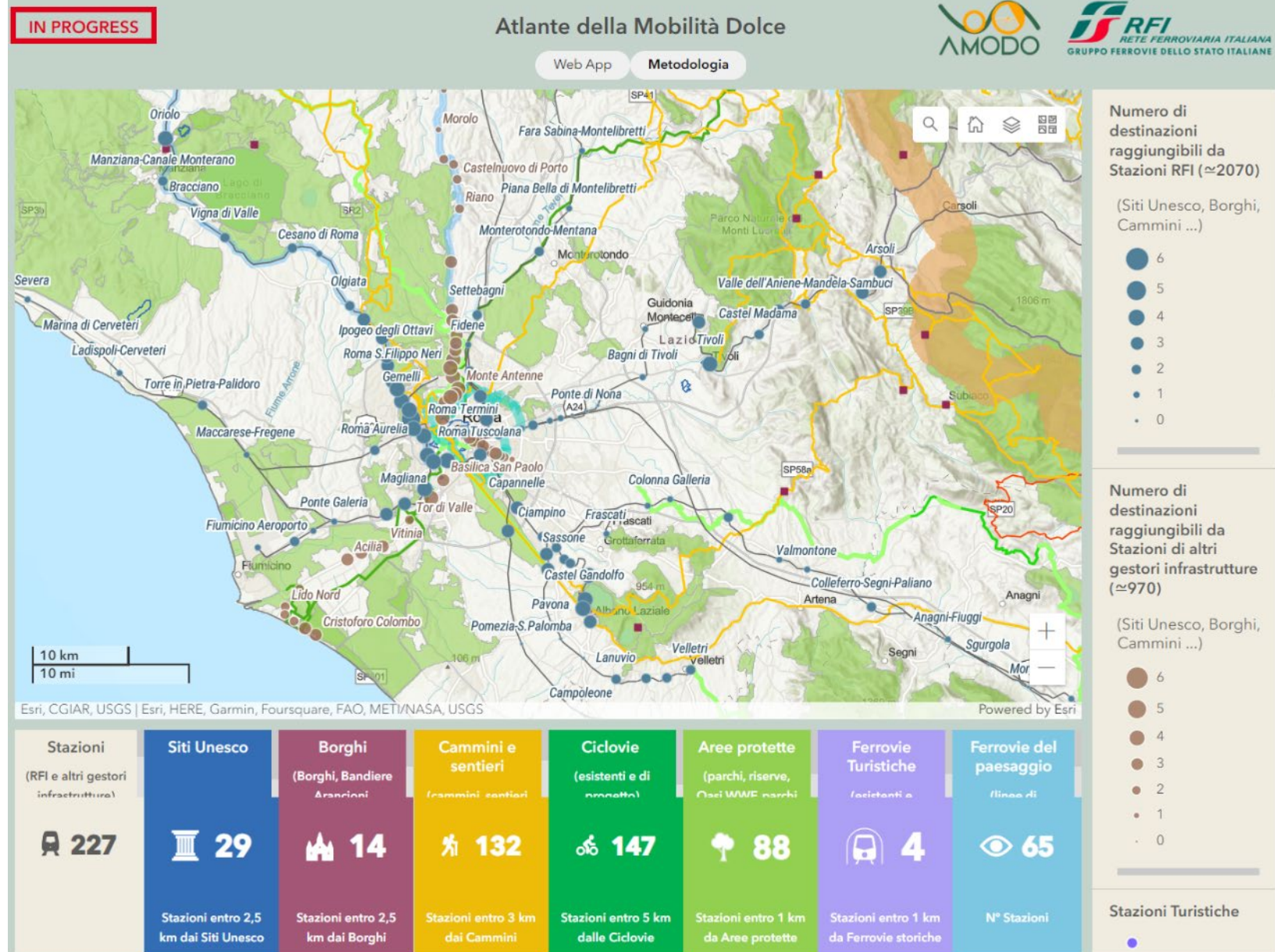
The "last mile"



The Italian Soft Mobility Atlas

Web-GIS

The **Web-GIS** is available on the AMODO (www.mobilitadolce.net) and RFI (www.rfi.it) internet sites.





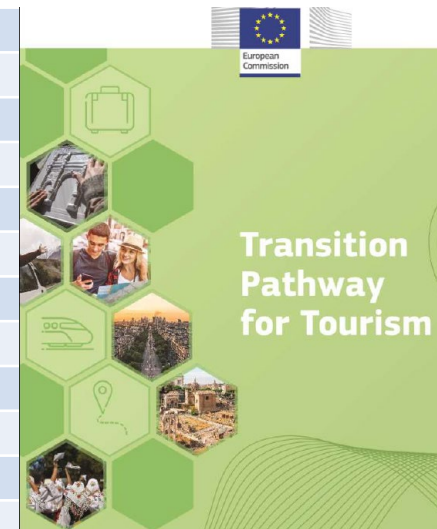
Transition Pathway for Tourism - Topics

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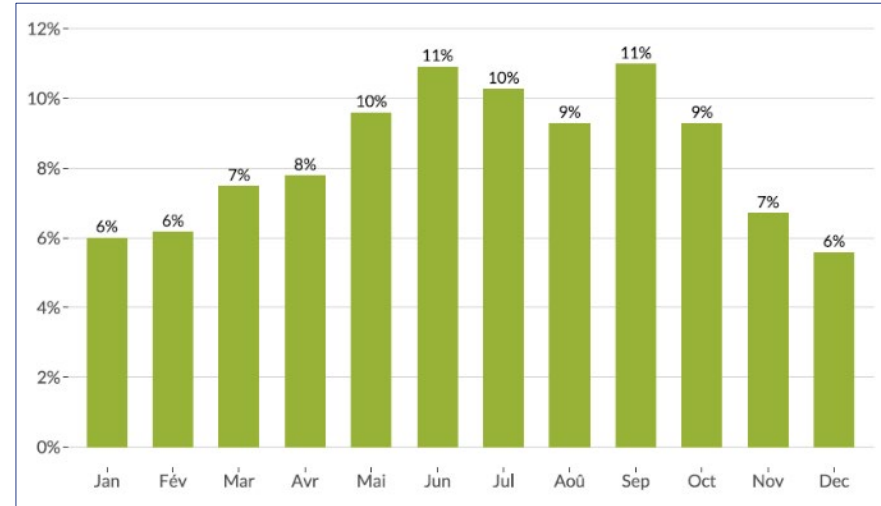
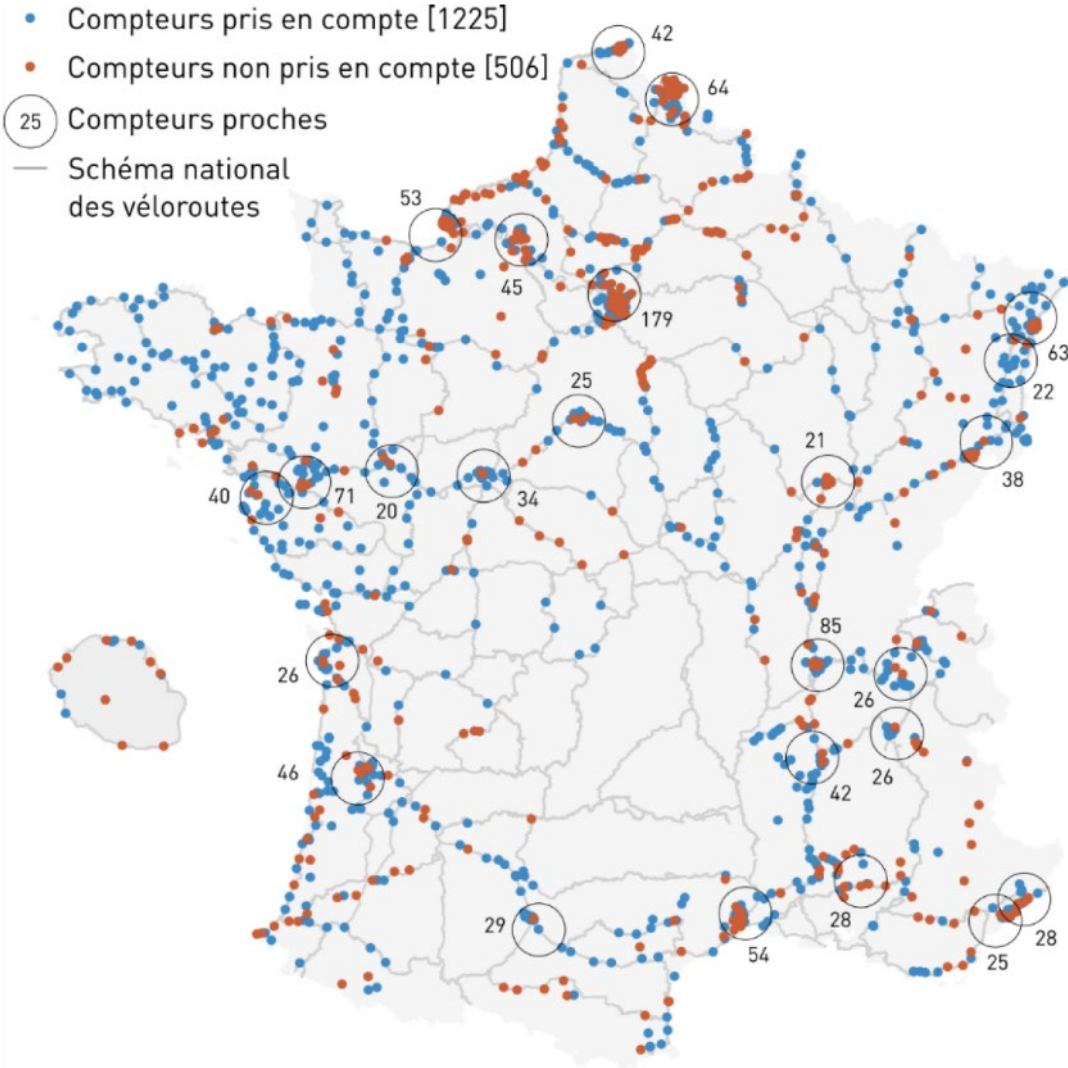




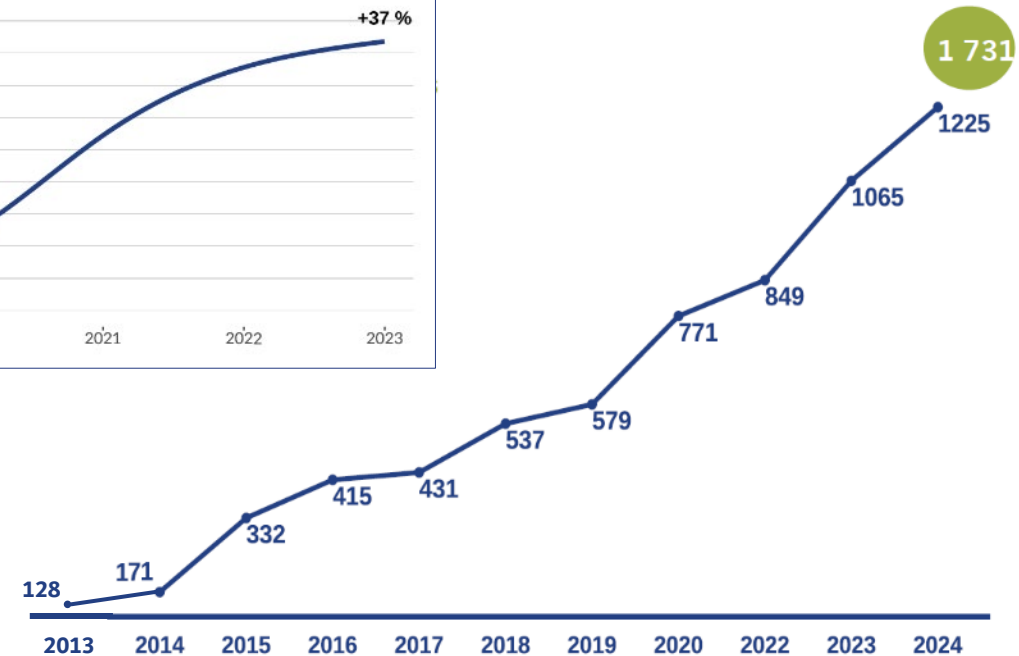
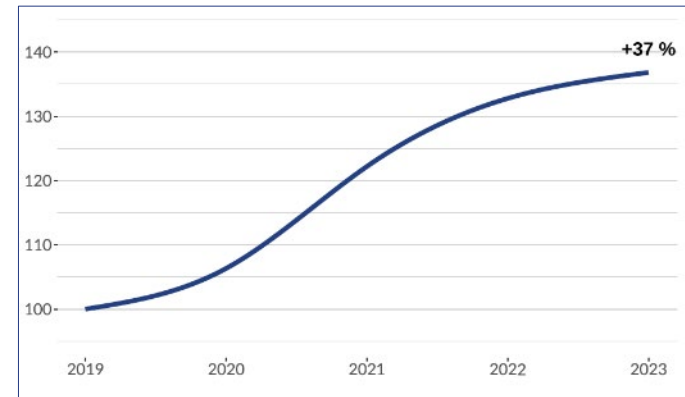
We need data to plan ... better

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2023

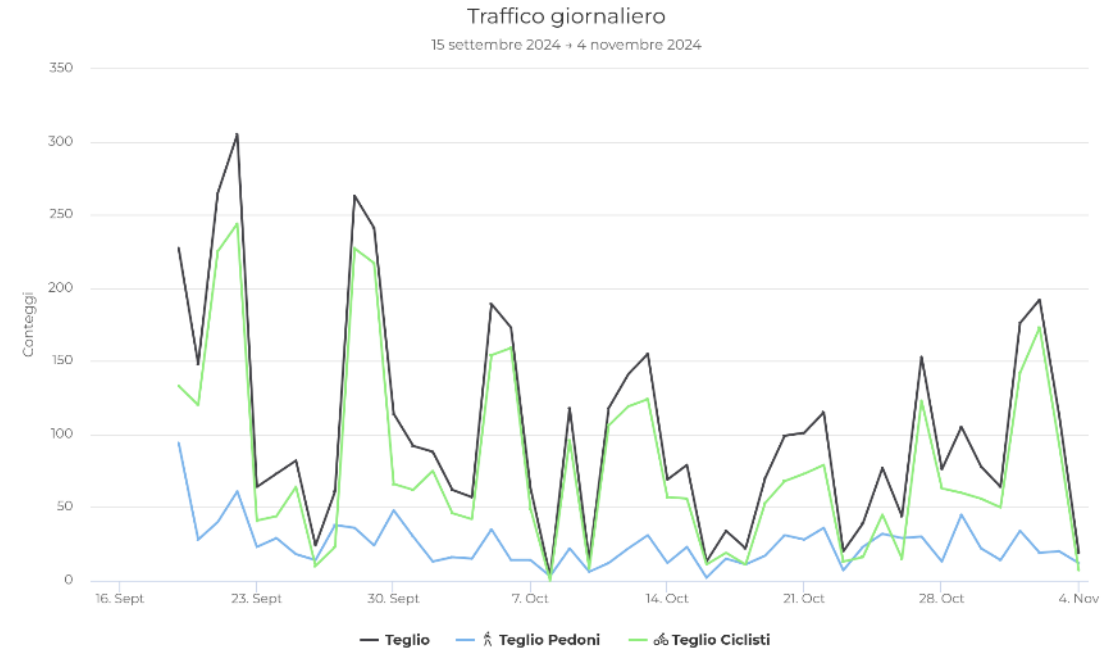
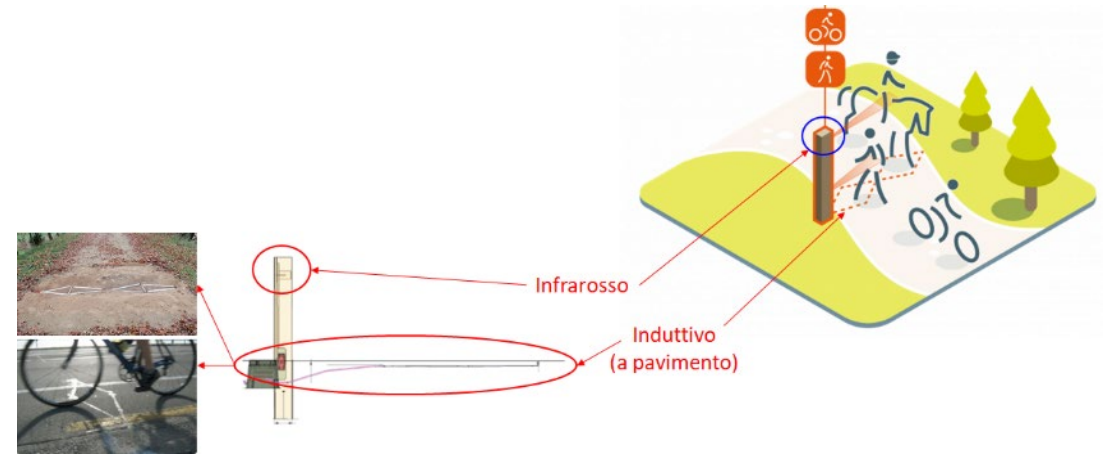


1731 automatic counters



We need data to plan ... better

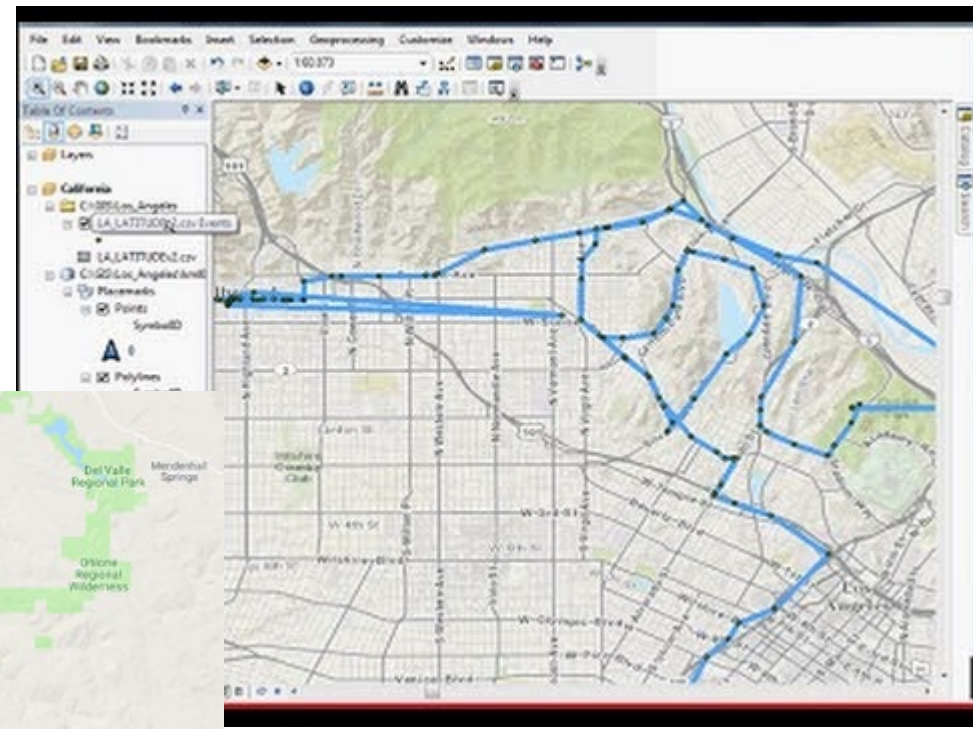
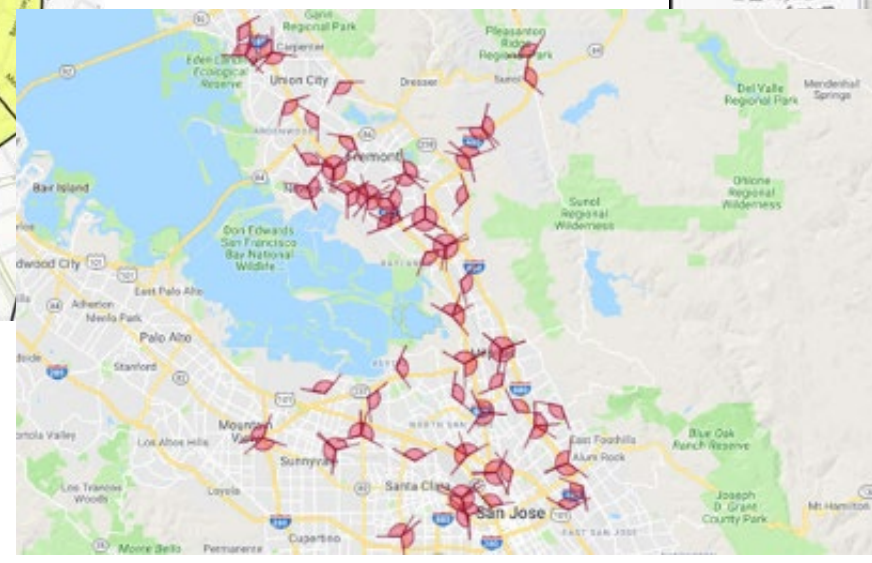
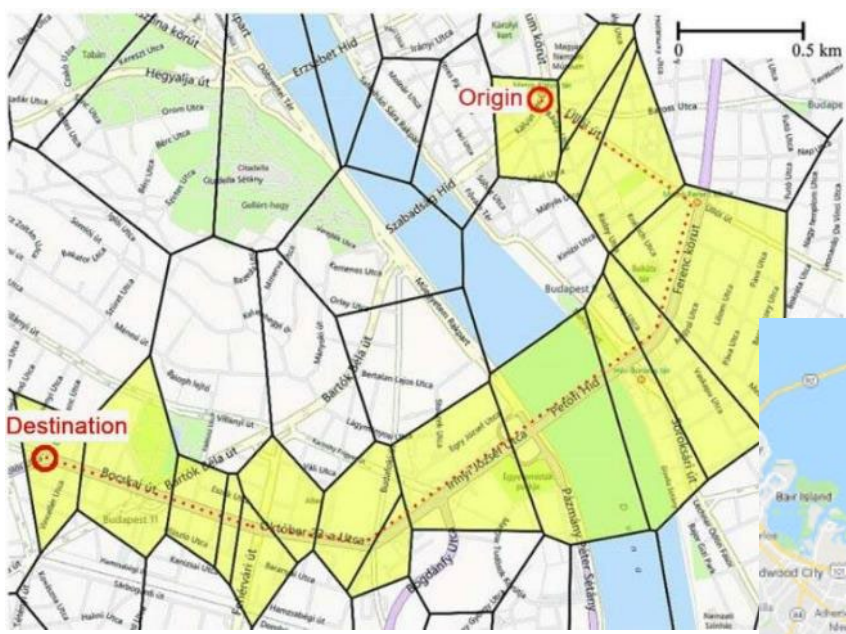
Automatic counters





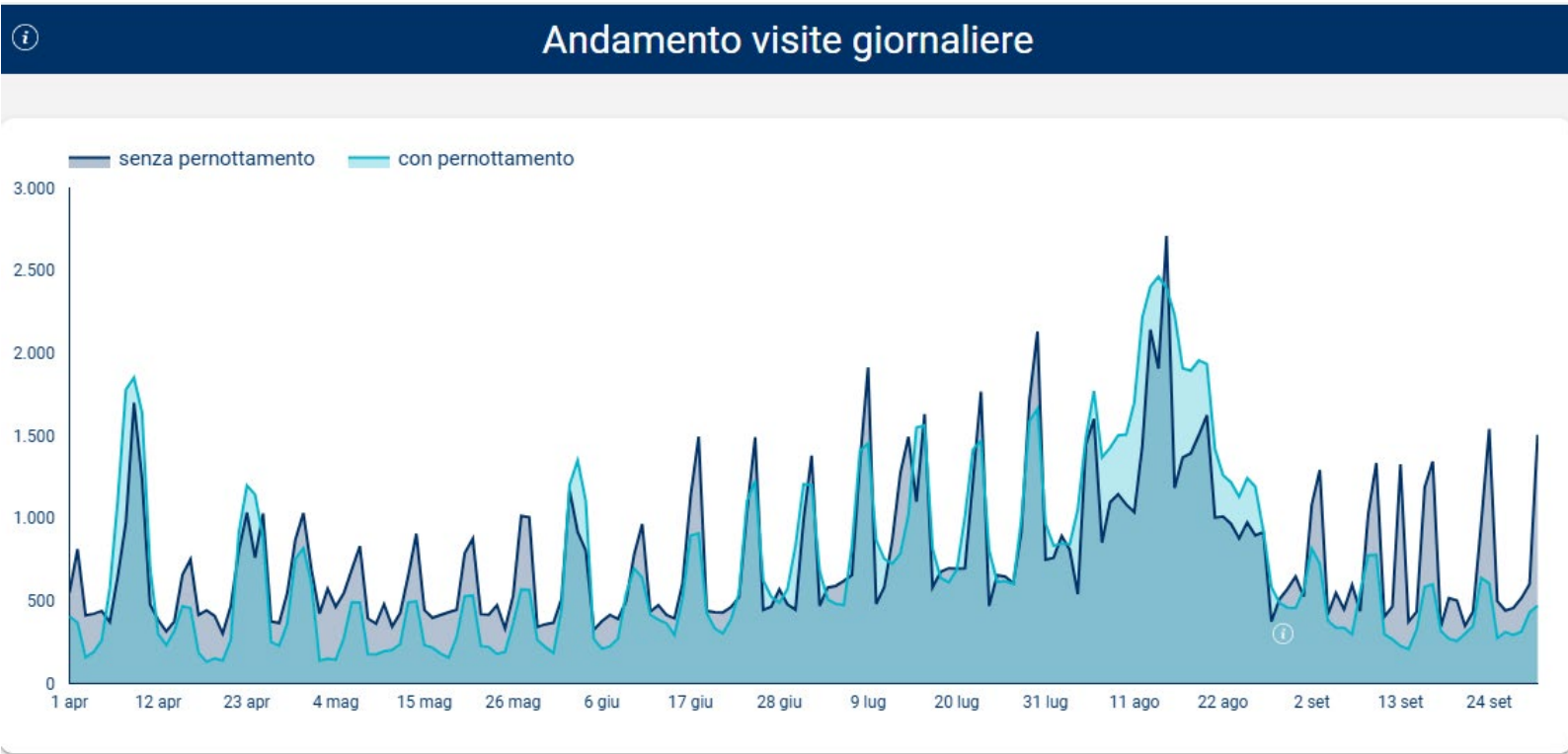
We need data to plan ... better

Big Data (Mobile Phone Cell)



We need data to plan ... better

Big Data (Mobile Phone Cell)



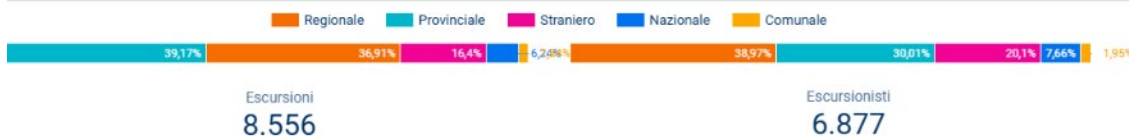
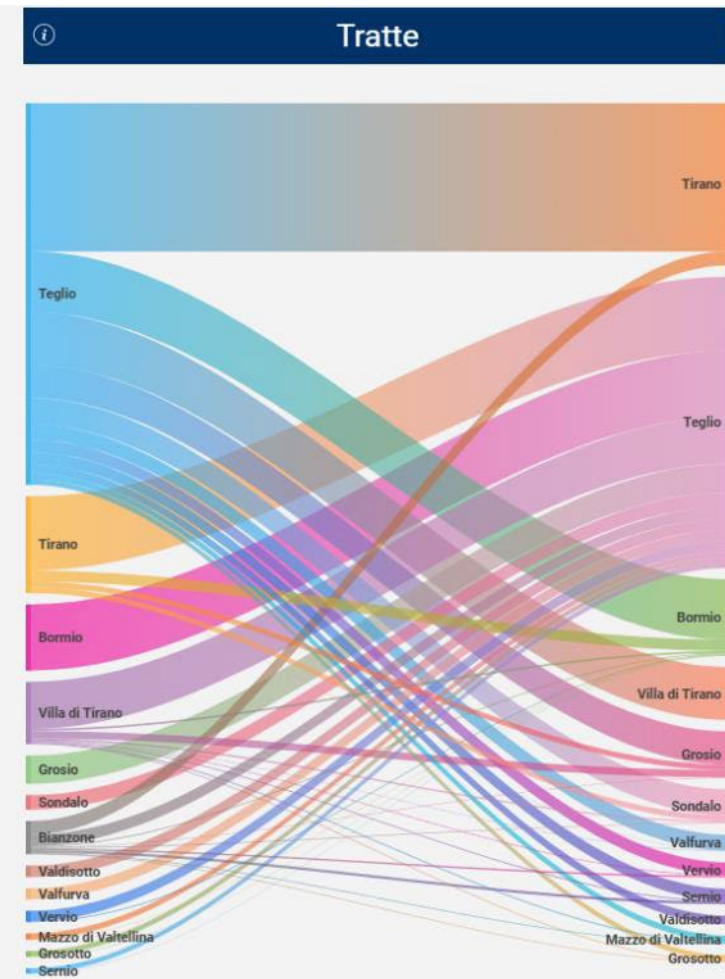
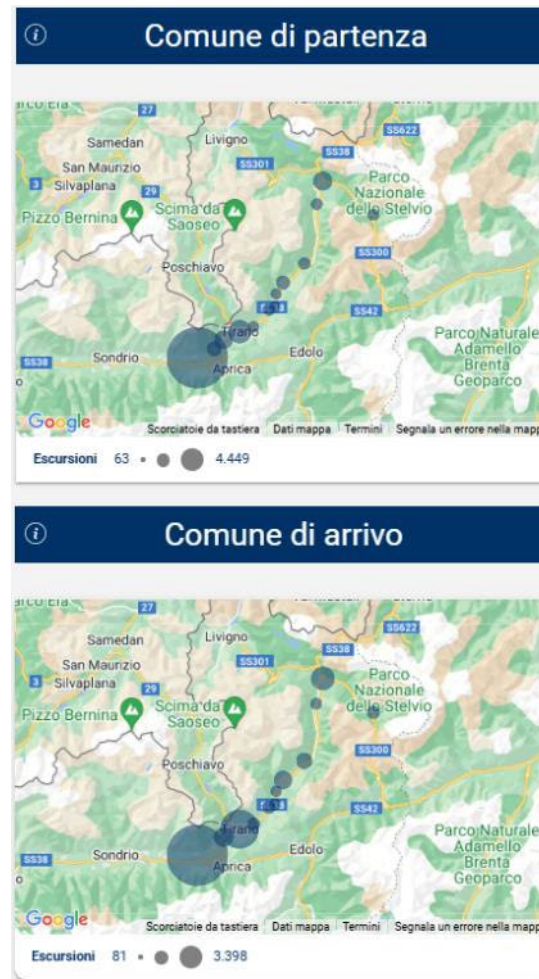
We need data to plan ... better

Big Data (Mobile Phone Cell)

ESCURSIONISTA

Il visitatore che:

- ha trascorso almeno 30 minuti all'interno di ciascun Comune attraversato durante il percorso.
- è stato rilevato in almeno 3 Comuni inclusi nel percorso.
- durante l'intero tragitto, ha mantenuto una velocità media inferiore a 20 km/h.
- non ha trascorso più di due notti consecutive all'interno dello stesso Comune



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dell'Unione europea
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DiSAA



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eprintech

We need data to plan ... better

Multimodal ticketing

It is very easy to find and book journey tickets online.

However, this is not easy if the door-to-door trip requires **multimodal transport**, combining air, train, local transport and ... **active mobility**.





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Public transport & intermodality for active tourism

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Travelling Light Mainstreaming low-carbon mobility for tourism travel

