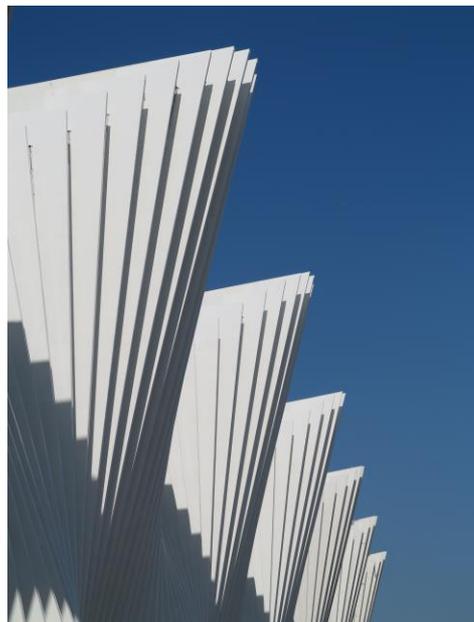


LINKING TERRITORIES: LONG TO SHORT DISTANCE CO-MODALITY

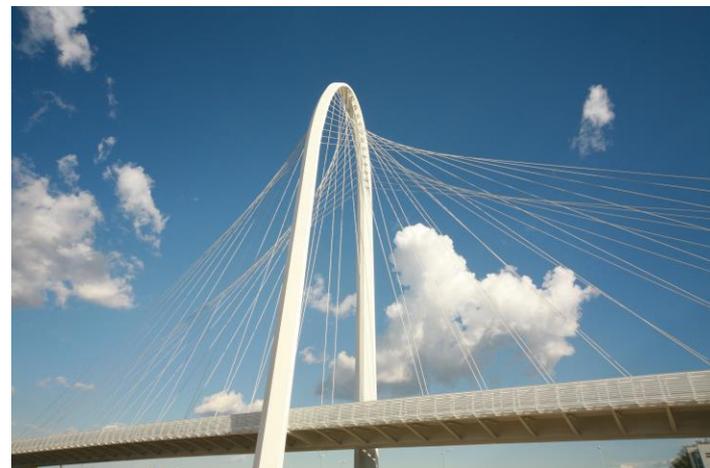
High speed mobility and urban planning in medium sized cities



Alessandro Meggiato
Municipality of Reggio Emilia
Mobility department manager

REGGIO EMILIA IS....

- Located in the Emilia-Romagna region, halfway between Milan and Bologna, in the heart of the Po Valley
- Busy vital town rich in history, art and culture, Reggio Emilia is a city on the edge and people friendly
- Homeland of “Tricolore”, the Italian national flag born in 1797 in the current City Hall
- Worldwide known for the “Reggio Approach”
- Among the first cities in Italy for its export and employment rates, as well as a city in continued economic growth, thanks to its many industries
- Culturally and socially vibrant due to the large number of organizations, services and the University



MOBILITY IN REGGIO EMILIA

Inhabitants (31/12/2014): 171.655

Motorization rate: 660 cars/1000 inh.

Km of cycling network: 204
(118,84m/100inh,
1st city in Italy)

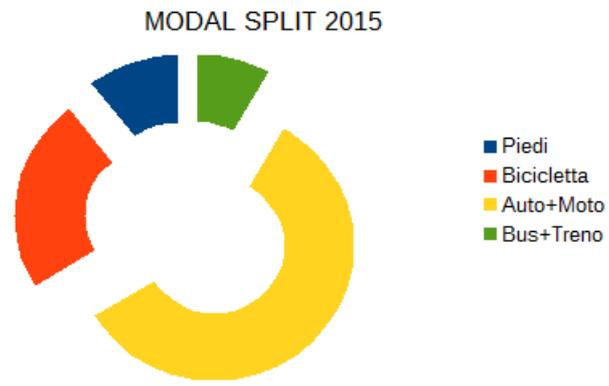
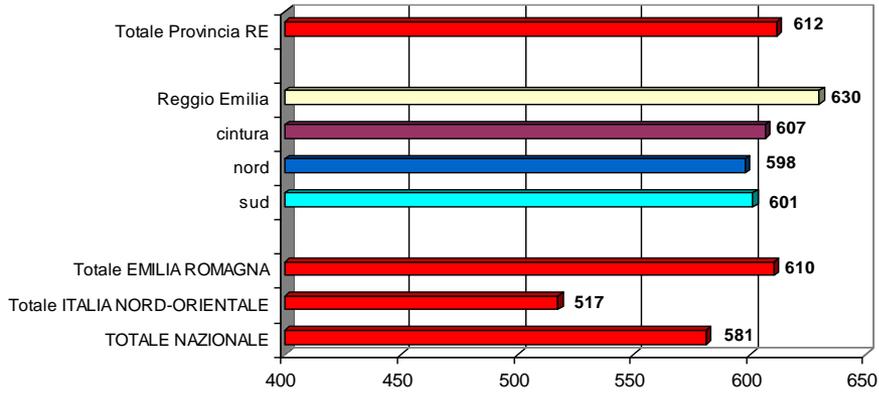
Number of Evs: 500 (one of the highest
vehicles/inh ratio in Europe)

2008: **PUM** and **BICIANPLAN**

2017: **SUMP**

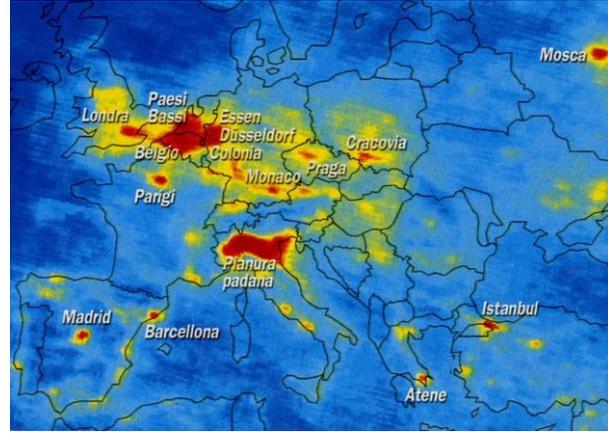
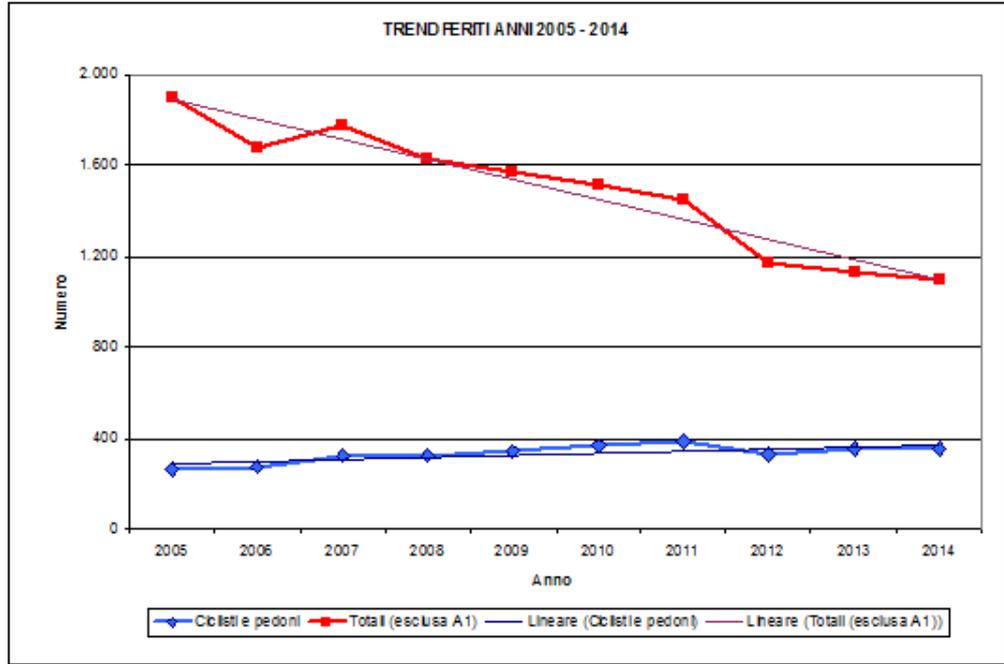
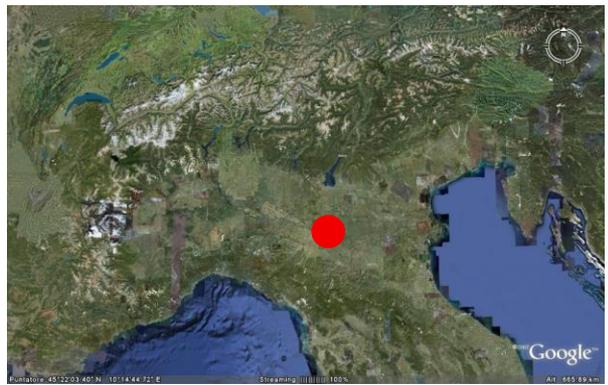
Modal split (2015):

	2006	2011	2015
Piedi	10,4%	10,4%	10,5%
Bicicletta	14,2%	16,4%	23,1%
Auto+moto	68,4%	69%	58,1%
Bus+treno	6,9%	4,2%	8,3%



MAIN CRITICALITIES

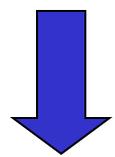
- **Air pollution** and **low urban quality** due to traffic
- **Congestion** and need of big investments to improve transport supply
- **High social cost** due to a big amount of **road fatalities** and accidents



THE HIGH SPEED RAILWAY STATION

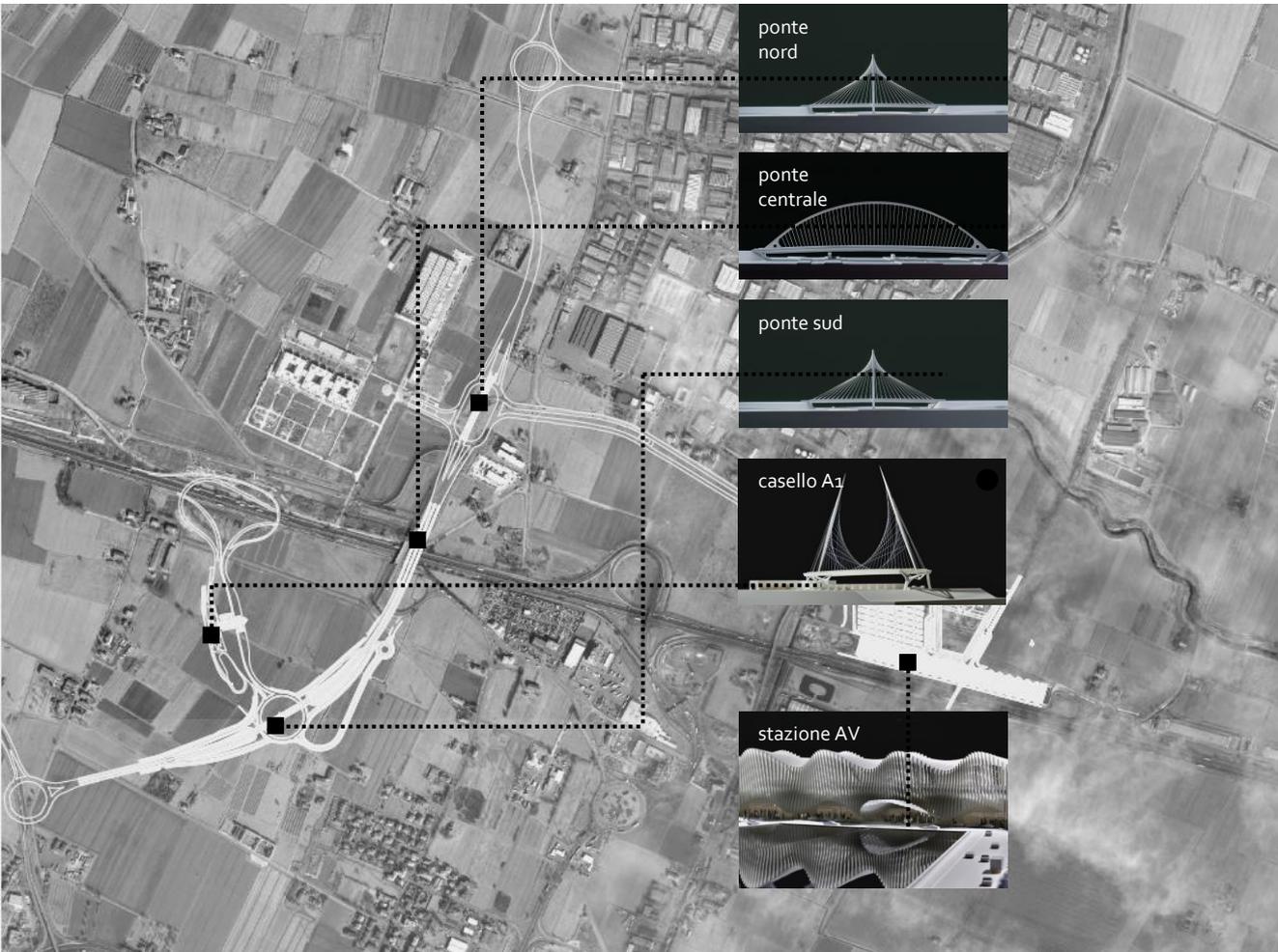
2013: OPENING OF THE HIGH SPEED RAILWAY MEDIOPADANA NODE

Reggio Emilia is located on the High Speed Line Milano-Bologna. The Reggio Emilia-Mediopadana HS Station is the only stop between Milan and Bologna. The HS station is called “Mediopadana” because of its vocation to not be a station for one city, but for all the neighbouring provinces



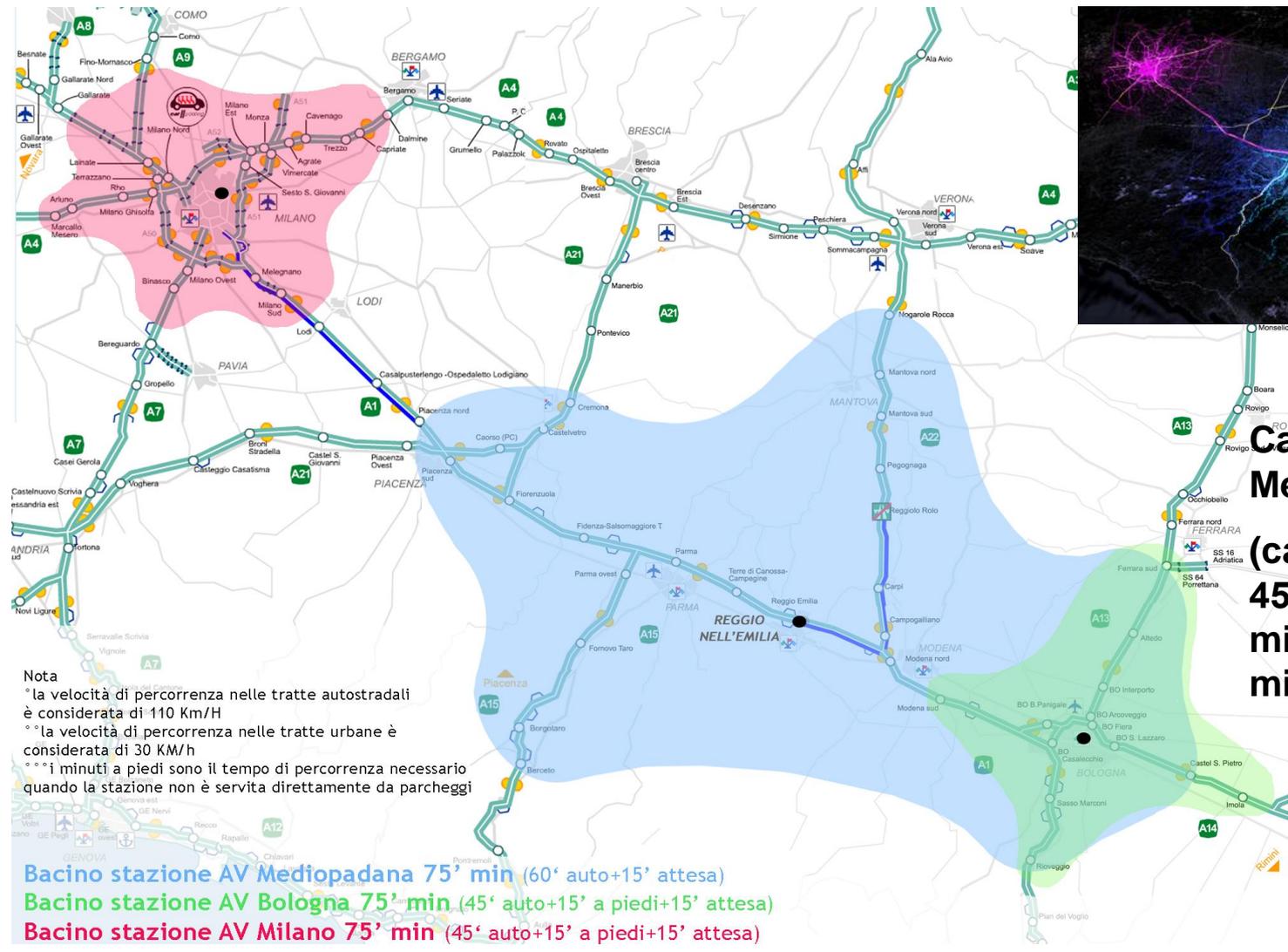
- **Great Opportunity**
- **Big challenges at local, regional and wider level**

THE PROJECT



The station project has been developed by Calatrava as part of a complex architectural intervention composed also by three bridges and the tollbooth cover.

THE PROJECT



Catchment area of the Mediopadano hub
(calculated for 75 min: 45' min by car + 15 min by walking + 15 min waiting)

Nota
 ° la velocità di percorrenza nelle tratte autostradali è considerata di 110 Km/H
 ° la velocità di percorrenza nelle tratte urbane è considerata di 30 KM/h
 ° ° i minuti a piedi sono il tempo di percorrenza necessario quando la stazione non è servita direttamente da parcheggi

Bacino stazione AV Mediopadana 75' min (60' auto+15' attesa)
Bacino stazione AV Bologna 75' min (45' auto+15' a piedi+15' attesa)
Bacino stazione AV Milano 75' min (45' auto+15' a piedi+15' attesa)

CITY CHALLENGES

At a local level:

- To exploit the arrival of the HS service in order to boost the city renewal
- To make the city and the catchment area “feel” the station
- To exploit the arrival of HS line for improving the infrastructural and territorial system, seen as a whole, composed by main channels (HS, freeway) which need now to be better connected each others, and the secondary but more capillary channels (local infrastructures: roads and especially regional railways and bicycle paths).
- to maintain a coherence and a balance among new HS station, city centre and other city poles

At a regional level:

- To give the Mediopadana station the identity of a new barycentre
- to enhance its role as gate for reaching the main EU cities

At a wider level:

- To put Reggio Emilia and the Mediopadana into the map
- to establish new economic/cultural exchanges with other EU cities, by exploiting these new infrastructural speed connections

OPPORTUNITIES FOR CITY RENEWAL

The HS node will represent the driving force of the new development of the city, that will be economically, socially and territorially balanced.

The northern area of the city, where the HS station is located, will be the starting point of this development, strenghtening the key competences of the city towards a further expansion of the strenghts of the city and the quality of life of citizens.

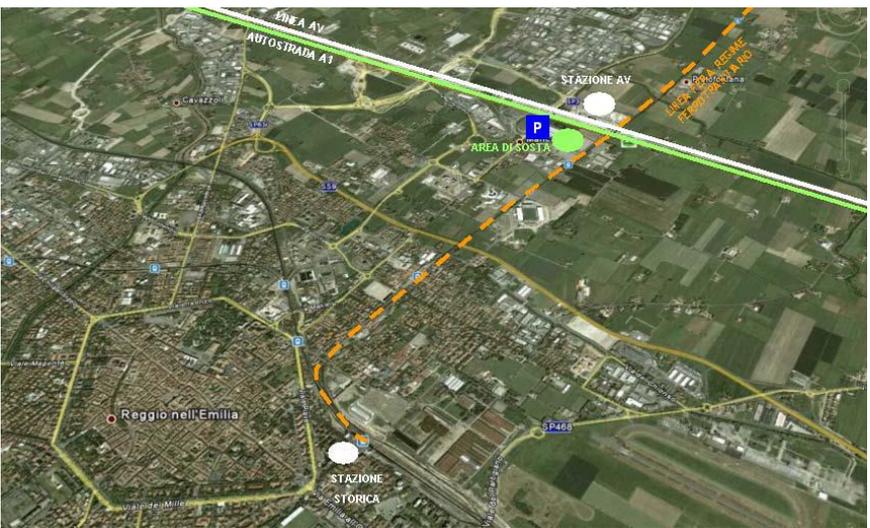
Reggio Emilia's key competences:

- infant school approach and education
- mechatronics
- sustainable and smart energy
- agricultural and food industry
- health services and research.

<https://www.youtube.com/watch?v=J9lo6Hd8WEs&feature=youtu.be>

ISSUES....

- being the HS station located outside the city centre, **links with the city** require to be improved
- not appropriate **links with the catchment area**
- understand what the **role of the new HS station** can be, in terms of identity, centrality, other uses together with infrastructural services
- a station of 500 m length: **how to use spaces inside**- growing interests in building the station surroundings (with an agricultural vocation)
- a **poor identity** of the city



... AND EXPECTED RESULTS

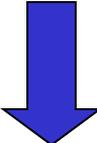
- **better connect** the new station to the city and to the catchment area, through an optimisation of rail and road connections
- **control the urban sprawl** through plans and tools concentrated on the Northern area and on the station surroundings
- to give the city a **renewed identity**
- to strengthen **new relations and new exchanges** within: 1. HS hub and city centre, 2. HS hub and catchment area, 3. Reggio Emilia and other EU main cities
- to **boost local economy, cultural activities, tourism**
- to make citizens and users **feel the presence and importance** of the HS station

THE MEDIOPADANO NODE: HUB AS A NODE-INTERFACE

⇒ Producing multipolar networks

New stations designed for high-speed trains or similar illustrate the idea of a “hub”.

But more than just a new centrality, it is also a **multi-modal facility** that contributes to **restructure an entire and complex multipolar network**, including the requirements of its hinterland.



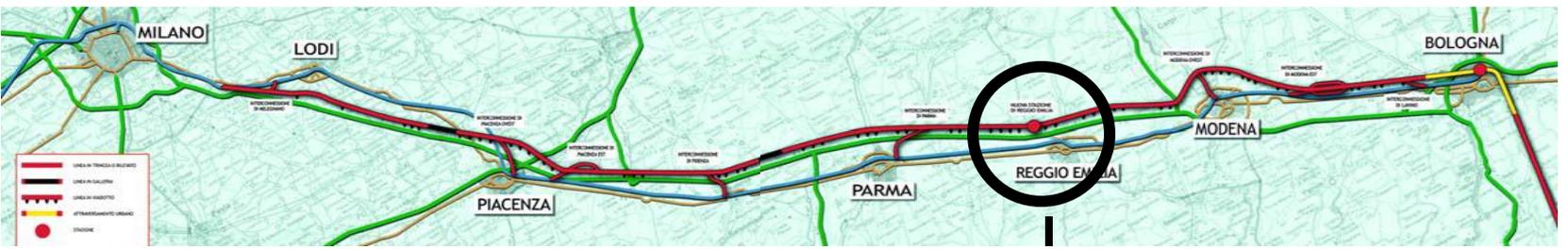
2 levels of intervention. Connection rail-rail + connection rail-road

3 territorial levels. Local - urban - regional

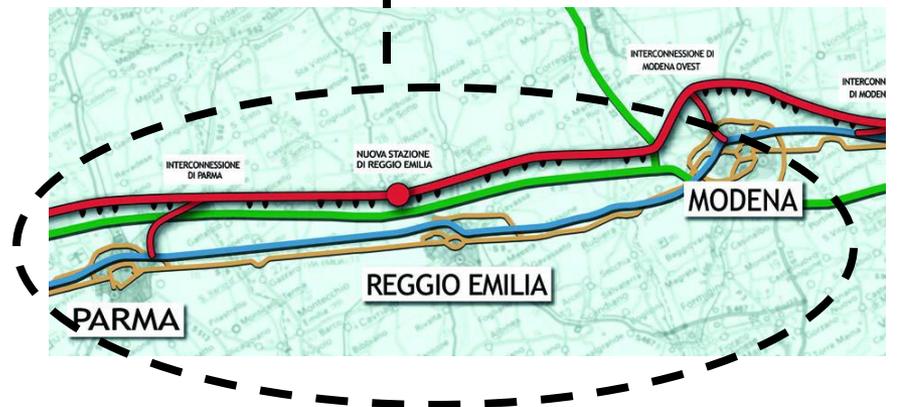
5 issues: being sustainable + recalling + bringing closer, connecting + attracting + producing value

2 levels of intervention

Located along the HS line Milan – Bologna (and Rome) and the A1 Freeway, the Mediopadana HS station has a **strategic role as new barycentre** of the polycentric system developed along and across the historical via Emilia (the so-called Area Mediopadana).



The challenge is to provide this station the best connections both for road and rail systems.



Preliminary ideas for Reggio:

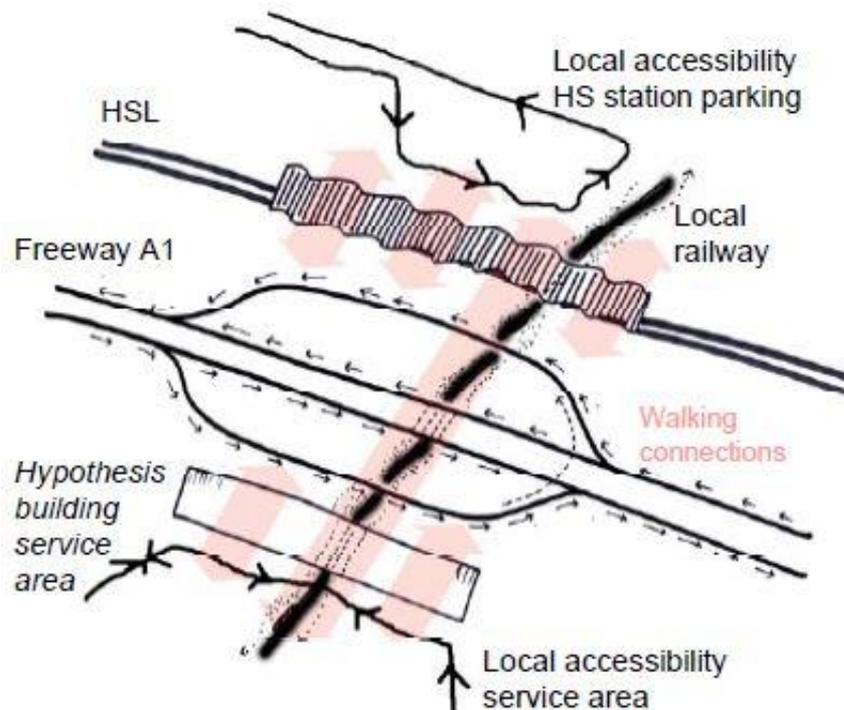
Through the **local railway transport system**, the HS station will be effectively linked to the city centre and the other excellences of the city.

The local railway system could be strengthened.

The HS station will be located next to the highway. The two infrastructures (highway and high speed line) could be put in synergy through a parking and interchange area next to the HS station. Here highway, HSL, local railway lines and local viability could be directly connected.

> The whole territory can benefit from the new connections

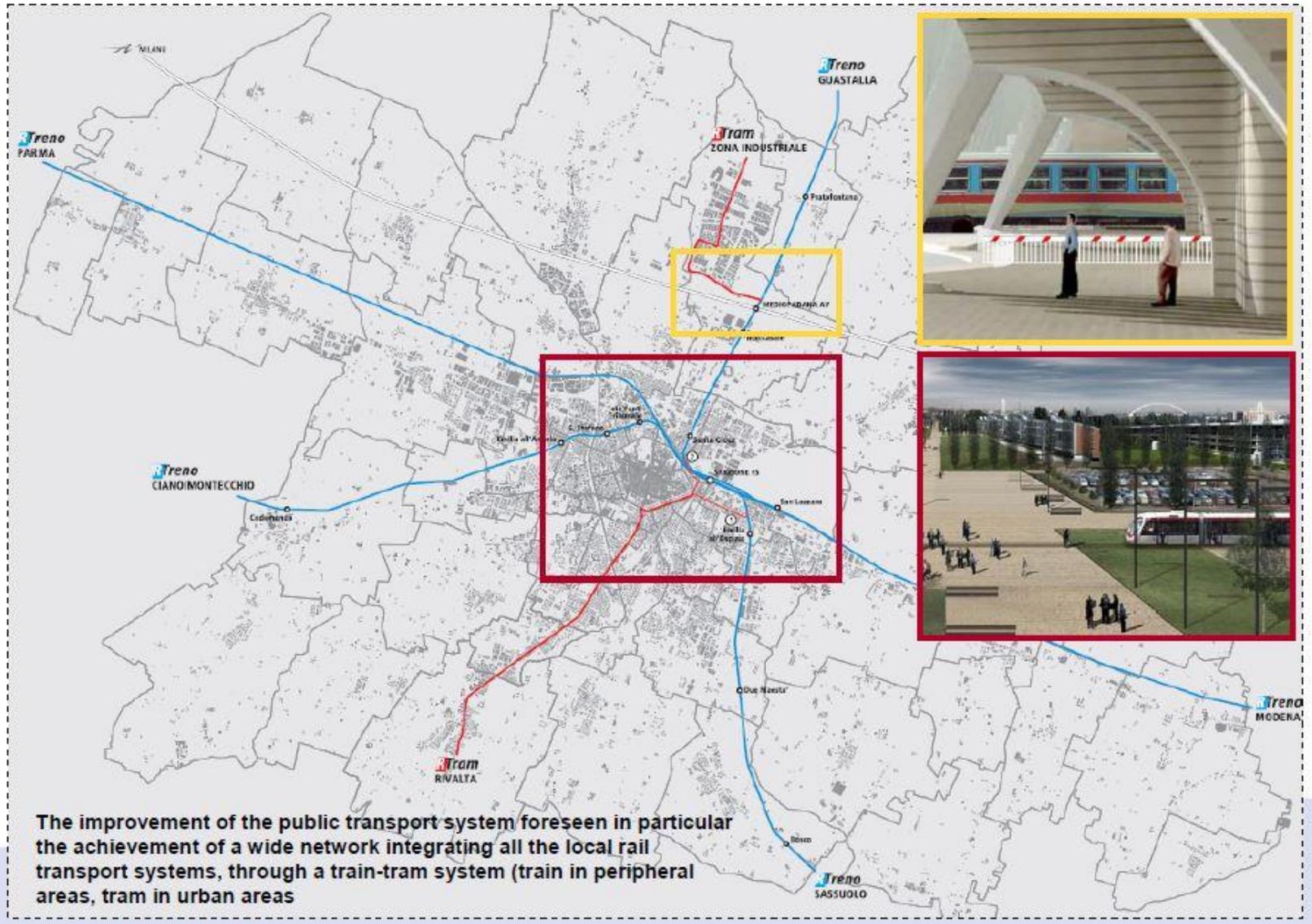
> More flow of people, good and ideas



The whole hub will be a system pushing towards the city and pushing the city itself towards the double infrastructural system of the freeway and the High Speed line.

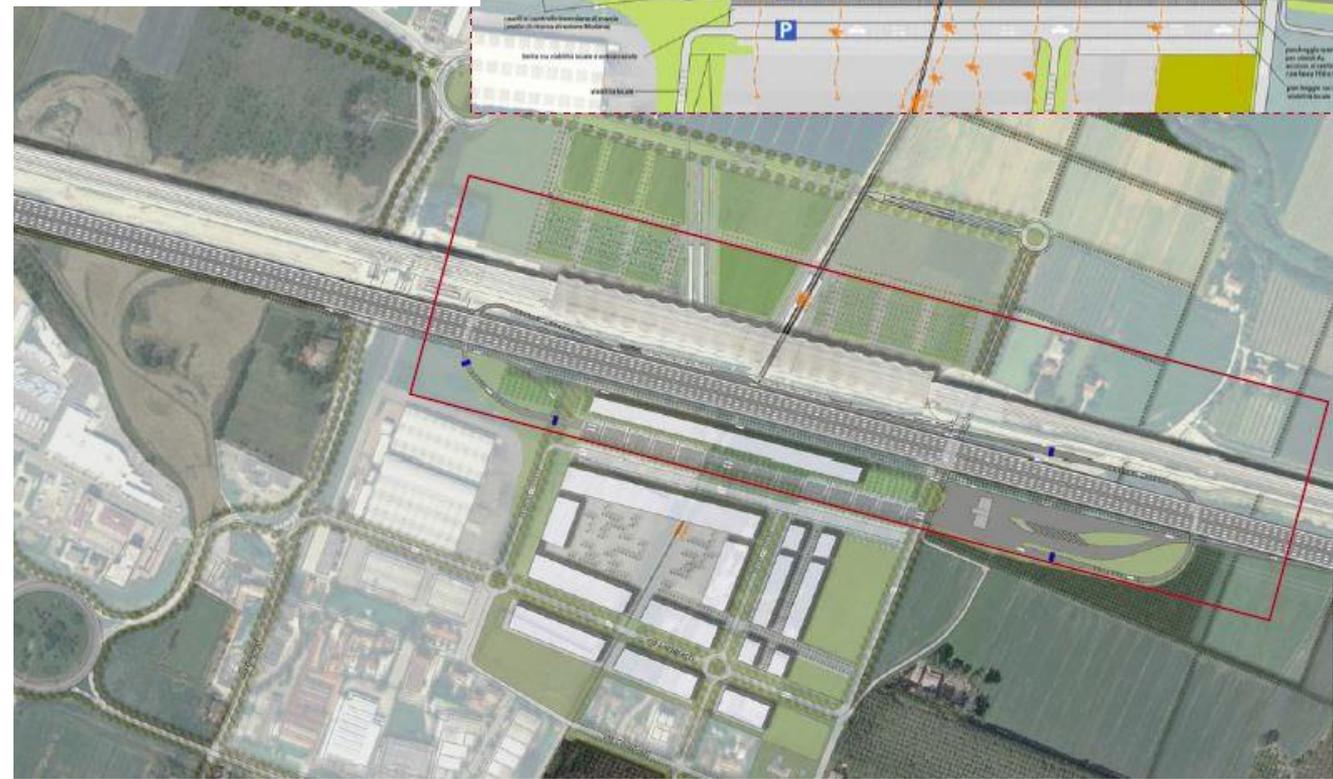
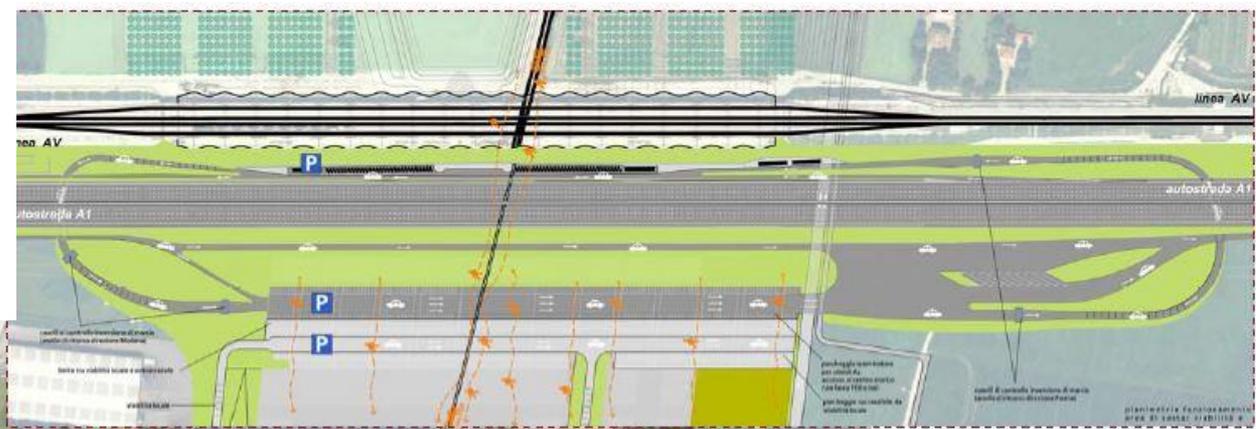
2 levels of intervention

1/ connection rail-rail (interchange node)



2 levels of intervention

2/ connection rail-road (intermodal node)



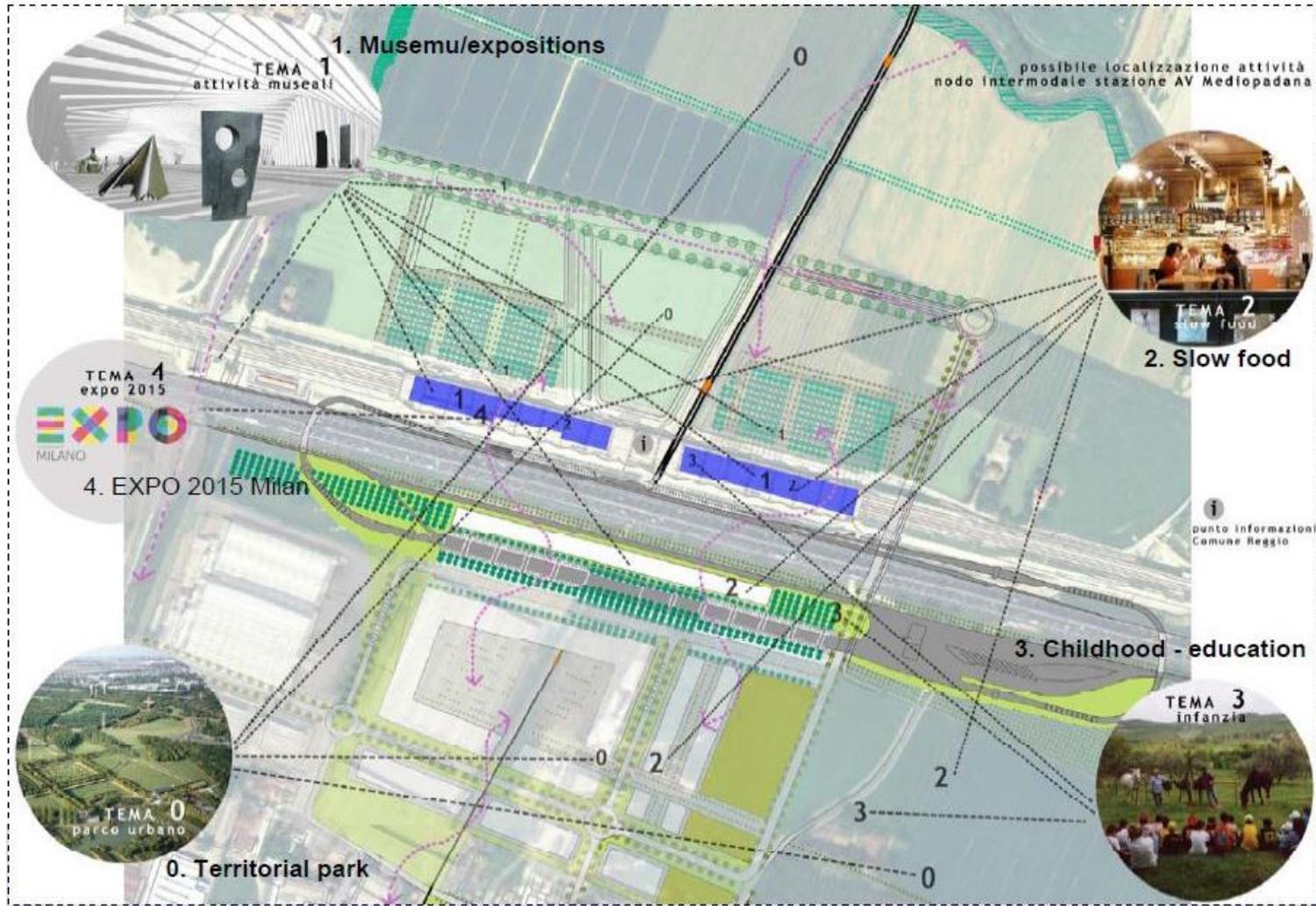
The project for the Mediopadana service area foreseen:

- road connections from the freeway and from the local roads
- direct and safe pedestrian connections among HS station, service area, surrounding spaces
- a new stop of the FER line,
- Parkings
- an overall reconfiguration of the whole area, now having an industrial vocation.

3 territorial levels

1/ Local

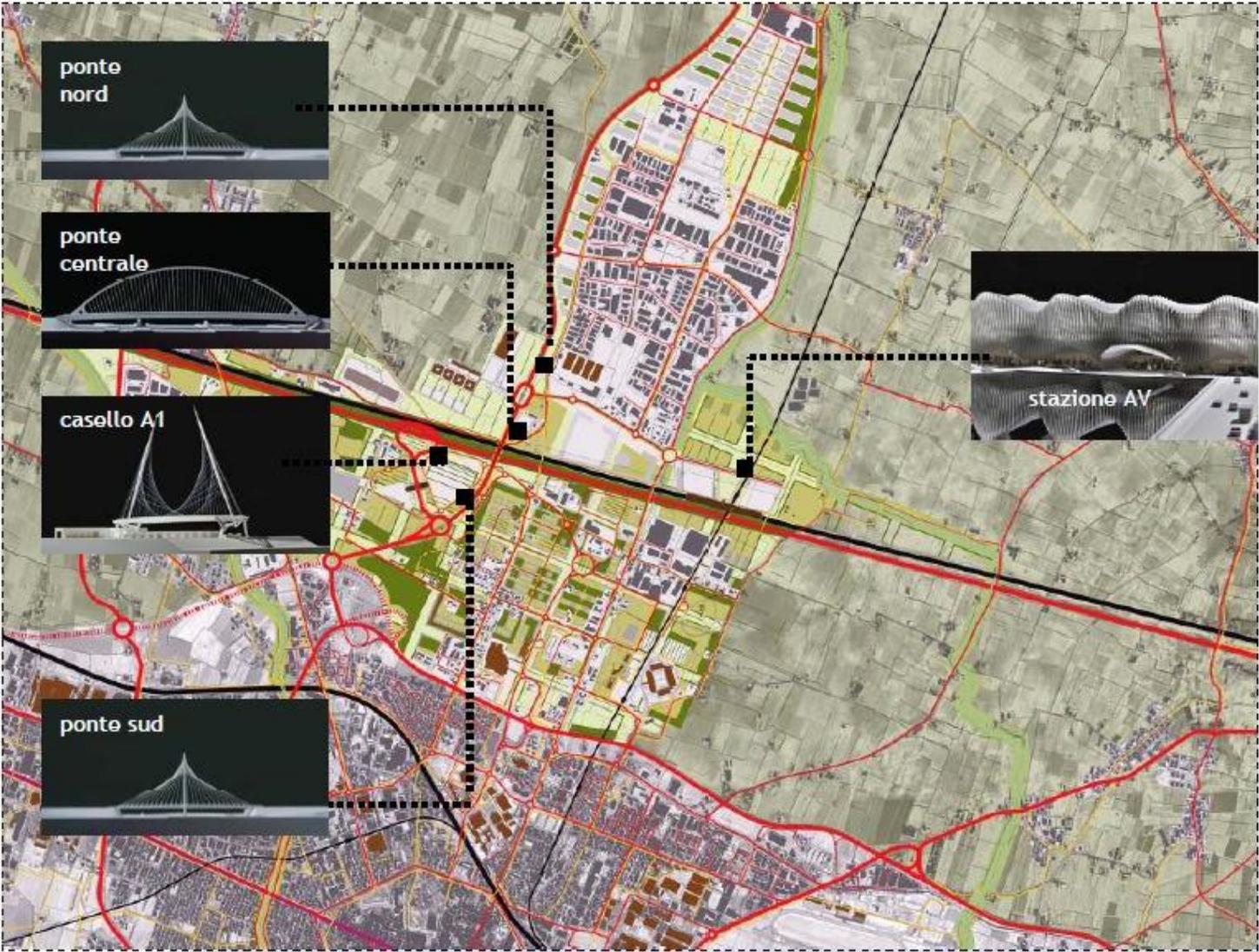
Different functions foreseen inside and in the surroundings of the Mediopadano node



3 territorial levels

2/ Urban

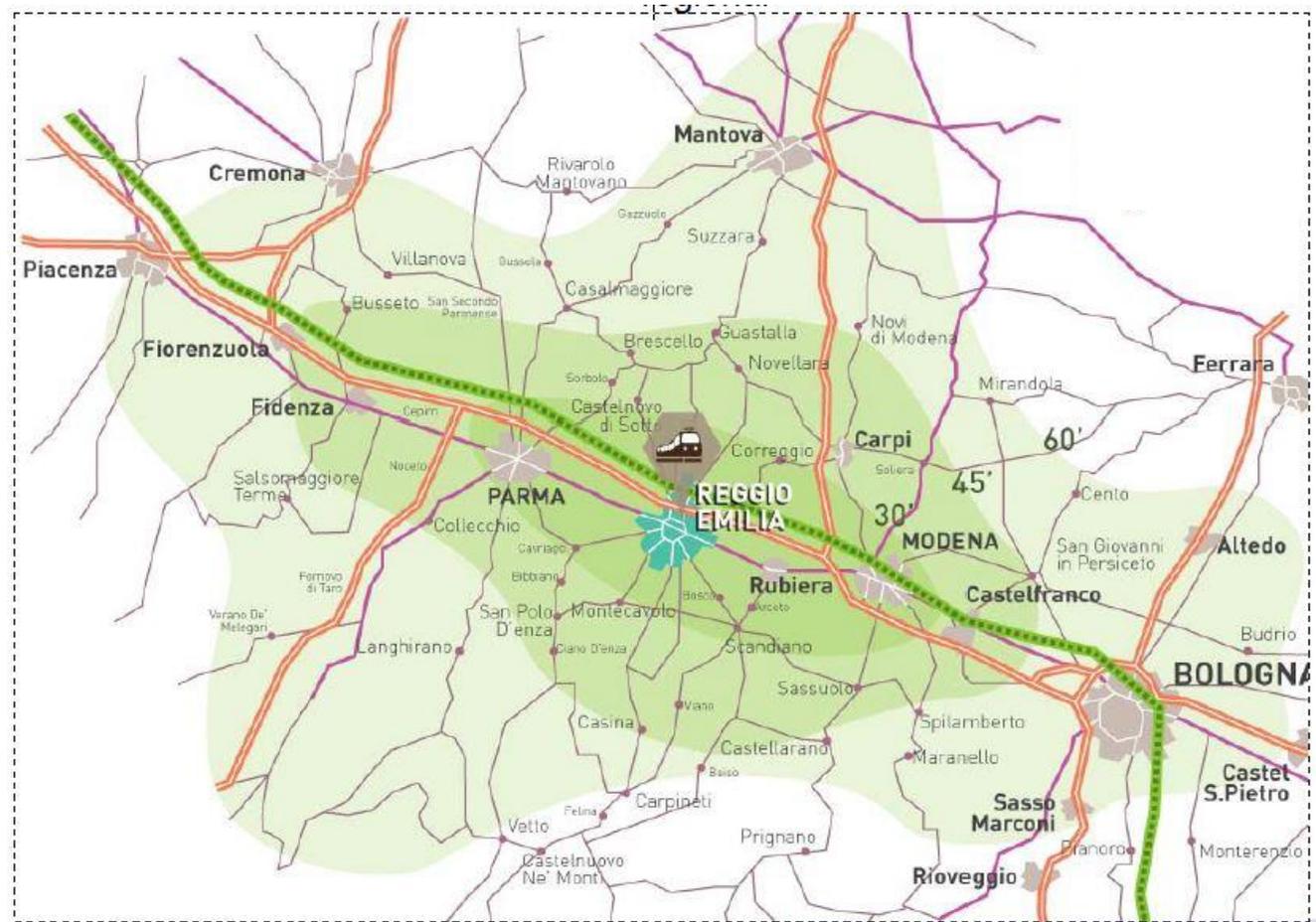
The RETE project, for the territorial insertion of the infrastructures linked to the new HS line



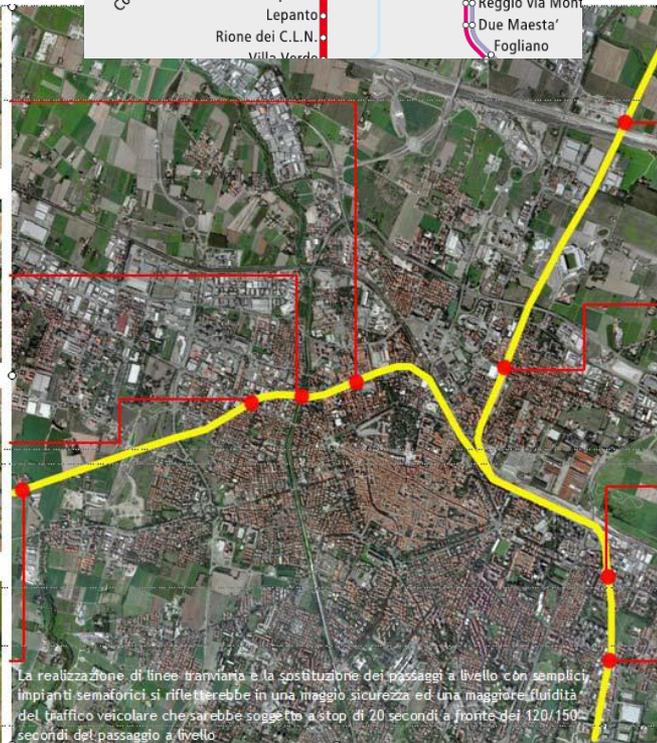
3 territorial levels

3/ Regional

The mediopadana Catchment area, gravitating on the Mediopadana HS station, located in the northern area of Reggio Emilia



The arrival of HSL as occasion for a **wide renewal of the local public transport system**. The renewal of the transport system as occasion for a **urban requalification**

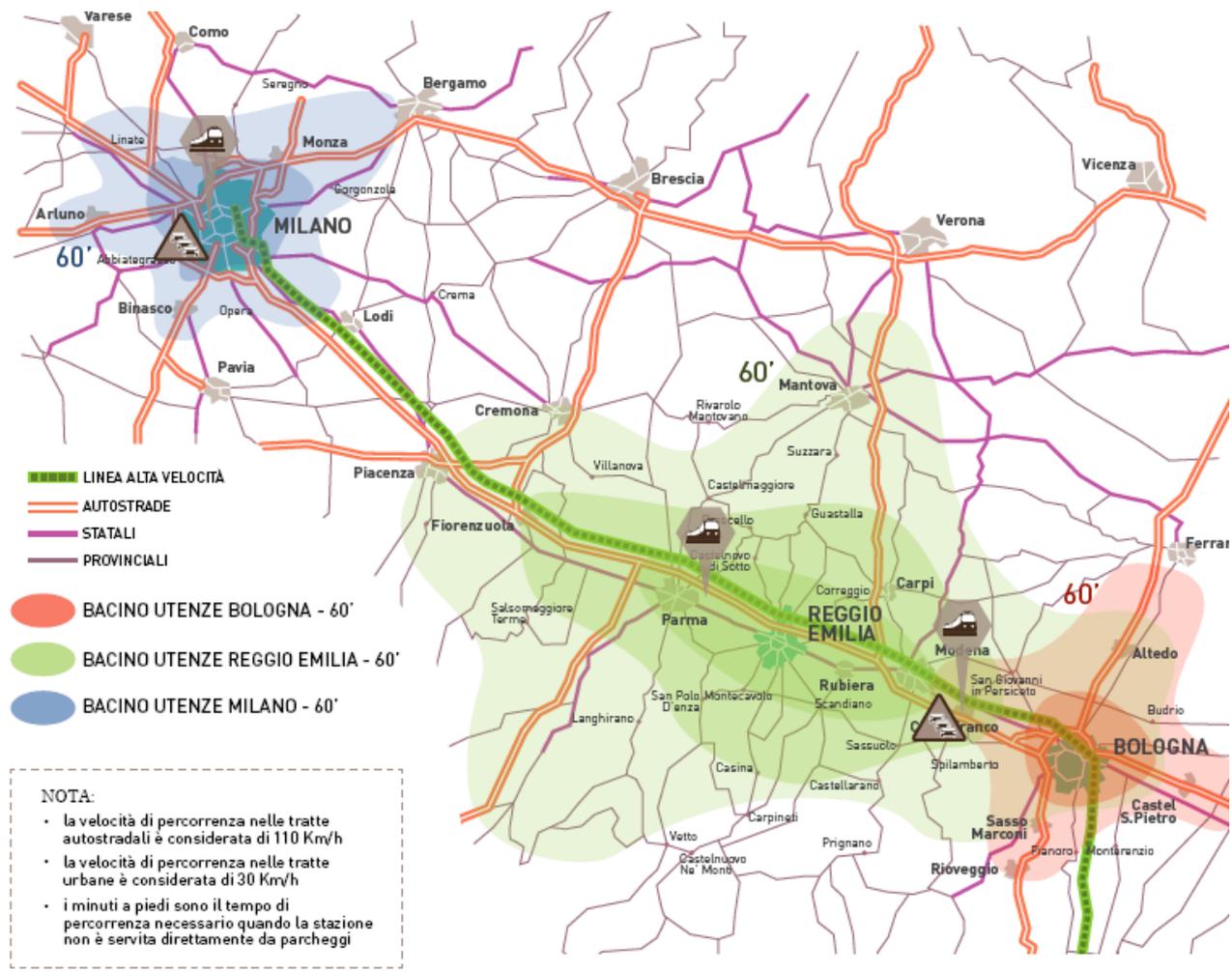


La realizzazione di linee tranviarie e la sostituzione dei passaggi a livello con semplici impianti semaforici si riflettebbe in una maggiore sicurezza ed una maggiore fluidità del traffico veicolare che sarebbe soggetto a stop di 20/30 secondi a fronte dei 120/150 secondi del passaggio a livello.

The Mediopadana station as new point of reference along HSL and freeway connecting north and south of Italy



3/ bringing closer, connecting



A comparison among the catchment areas of: Reggio Emilia, Bologna, Milano

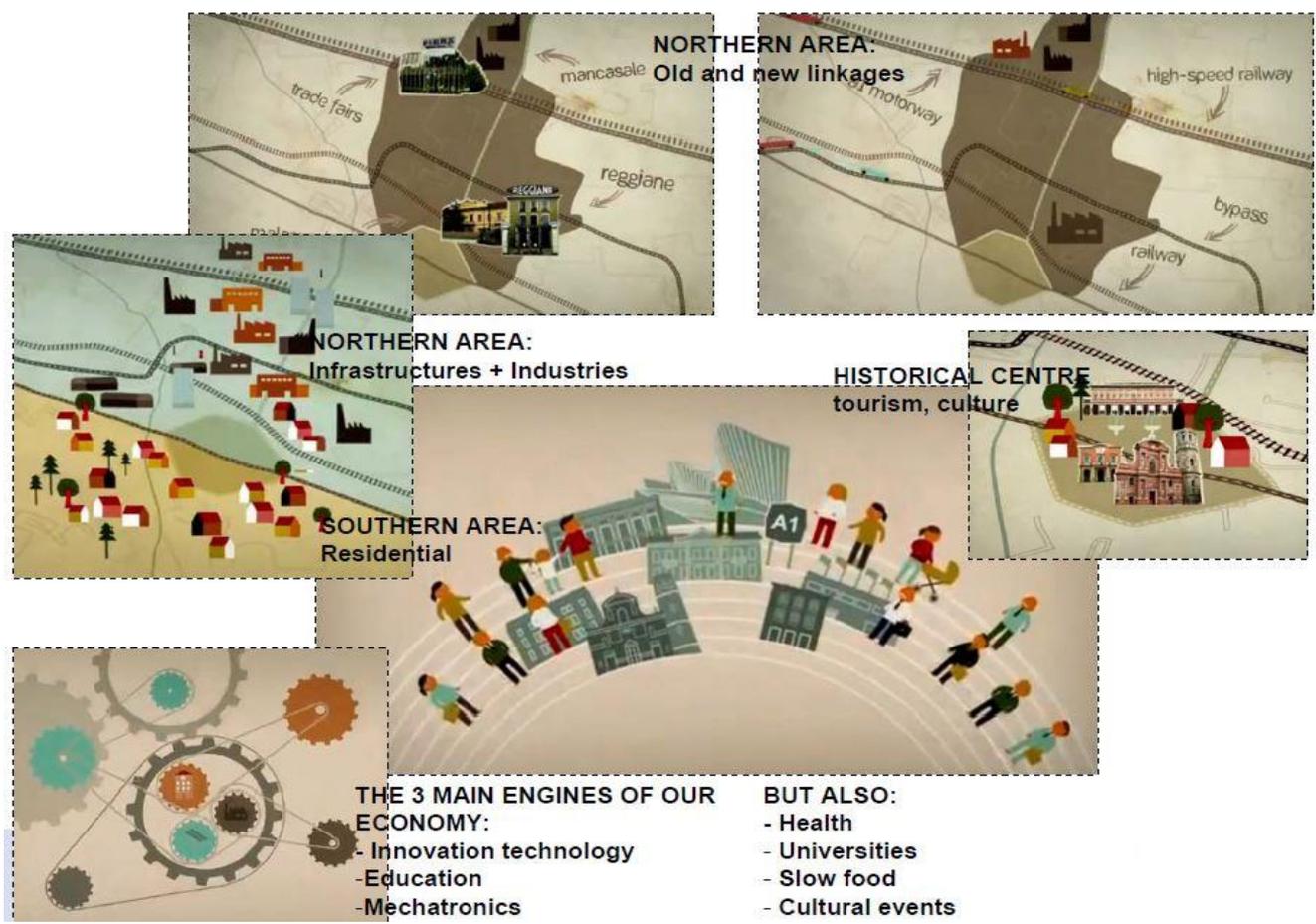
The fact of having a station outside the city centre allows Reggio Emilia to potentially have a much wider catchment area compared to that of other bigger cities.

BUT

For this we require to boost the whole local transport networks

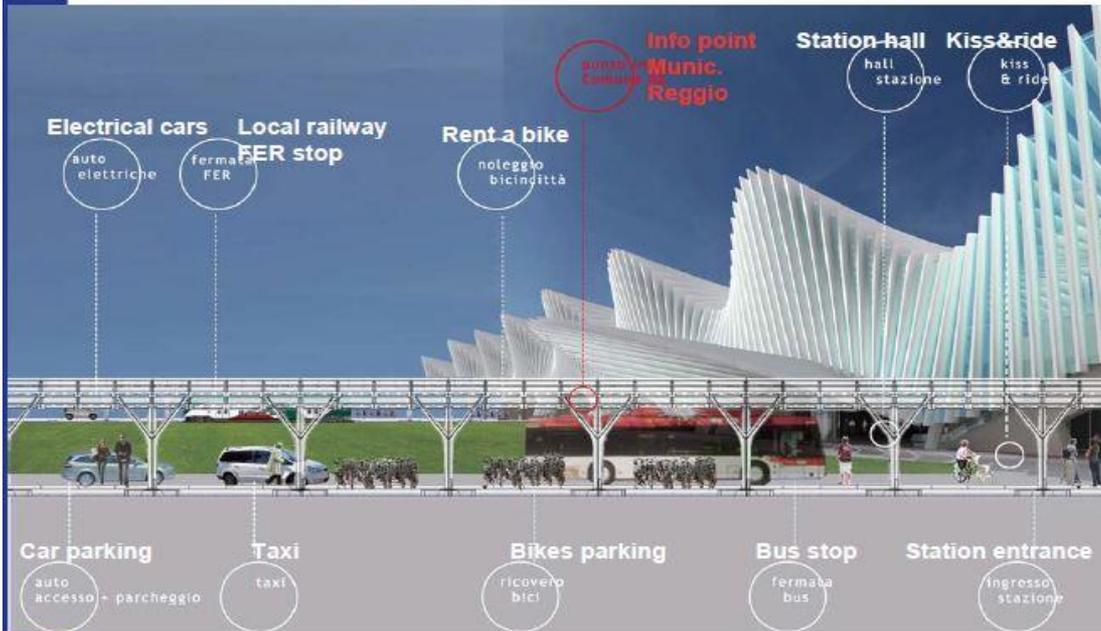
4/ Attracting

The activities already consolidated will take **new pushes** thanks to the arrival of the HSline, not only on terms of linkages, but also in terms of **city image**



5/ Producing value

Other transport facilities serving the Mediopadana station

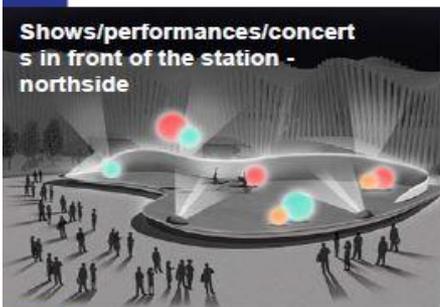


Other uses expected for the Mediopadana station and its surroundings

Sculptures expositions at platforms level



Museum at the hall level (under the viaduct)



Reggio Emilia- The mediopadano hub:

Conclusions

The strategies here described should act on the urban context characteristics, in terms of:

- . facilities (especially transport system, already existing; and new structures, to be conceived)
- . wide and diversified economical and cultural offer

These strategies should be useful for increasing Reggio capacity to be a catalysing magnet for people and activities.

The Hs station will work as a “pumping city”, a mover pumping uninterruptedly people through the transport system (van Winden): this also means, more relationships, more exchanges, more exchanged products and ideas.

The local transport system, if well increased, will help minor centres to come into contact with major centres, allowing more efficient exchanges

> Reggio Emilia is trying to exploit the arriving of HSL for opening itself to new linkages and relationships (...*union of pre-existing elements for new and useful combinations...*)

> Reggio Emilia has to extend benefits of the HSL to its whole territory, in order to regenerate the whole territory (in terms of attractiveness, competitiveness and innovation)

Reggio Emilia- The mediopadano hub: A first balance

The new Mediopadana station is in service since the beginning of June 2013.

Since then:

- the number of trains stopping at the Mediopadana hub and passengers has decisively increased

trains: 2013 – 2016: 16 – 42

passengers: 2,500 passengers/day

- the parking area in an expansion phase

- the public transport system, especially the local railway service, has been improved

Average frequency: 2013 – 2016: 24 – 12 MIN

28 new taxis

The project for the service area in front of the Mediopadana station is in a study phase. There is a great interest by all the subject involved.

The project for the improvement of the public transport system – especially the local railways, through the integration of all means of transport and the involvement of all subjects and stakeholders, is much more delicate and difficult.

Thank you for attention!

Alessandro Meggiato

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