

Transforming Urban Public Space:
Addressing Climate Change, Accessibility
and Social Inclusion

18th October 2023

RETHINKING METROPOLITAN INFRASTRUCTURE

L'Avinguda del Vallès



Àrea de Polítiques Urbanístiques i Espais Naturals
COORDINACIÓ DE PLANEJAMENT URBANÍSTIC



AMB COMPETENCES



2010 – Creation of the Barcelona metropolitan public authority (AMB)

Law 31/2010 approved by the Catalan Government

Comptences

Territory

Urban planning, infrastructure and public space

Environment

Water, waste management, climate education, climate transition

Housing

Social housing, housing refurbishment

Transport and mobility

Mobility infrastructure, public transport, information, mobility studies

Economic and social development

Industrial states, economic promotion, services to the enterprises

International relations

European programs, cooperation

AREA FOR THE DEVELOPMENT OF URBAN PLANNING POLICIES

1. Information and regional studies

Maintaining the baseline information

2. Metropolitan Urban Master Plan (PDUM)

Drafting the PDUM

3. Urban planning

Cooperating with municipalities

4. Urban development discipline

Developing urban protection and discipline in agricultural & forestry areas

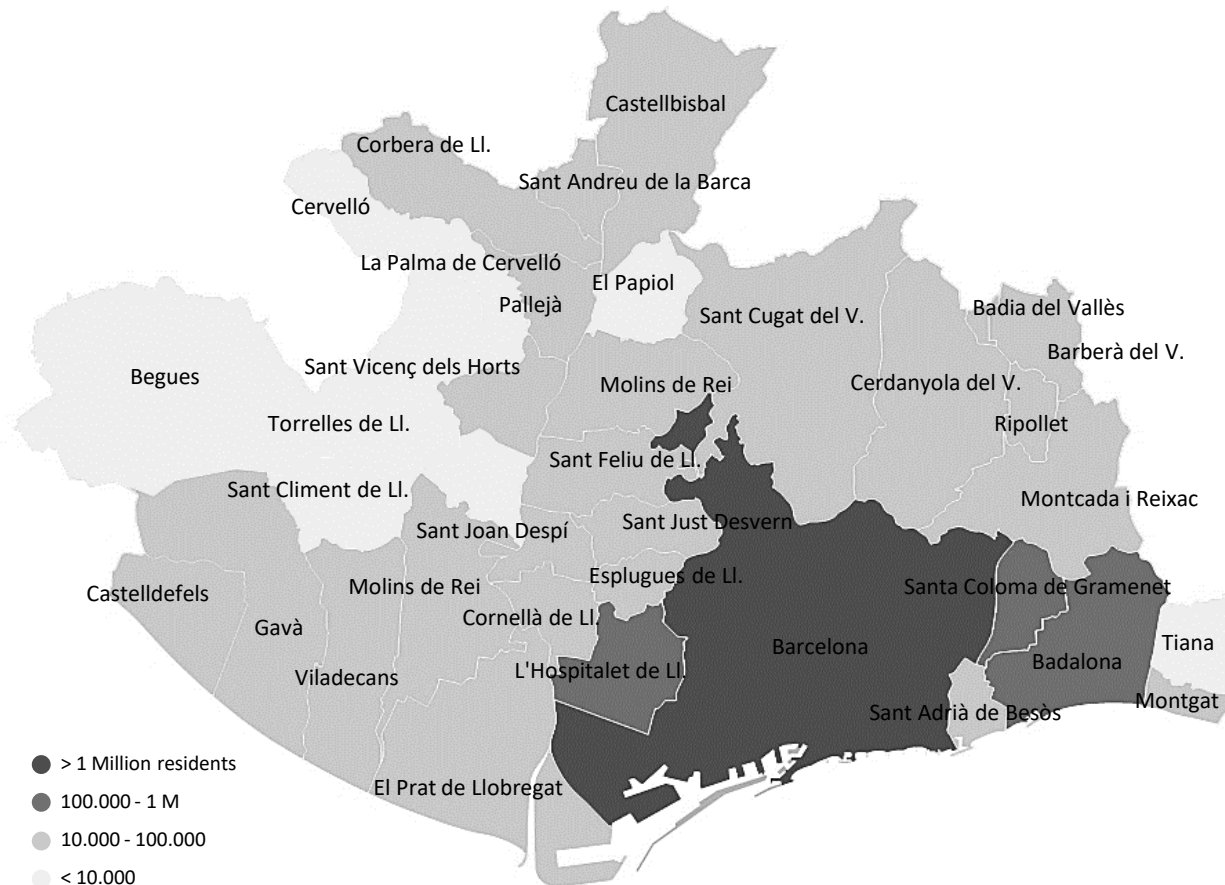
BARCELONA METROPOLITAN AREA

36
municipalities

636
km²

3.247.281
inhabitants

120.799 M€
GDP



METROPOLITAN REGION
20% Area
67% Population
75% GDP



CATALUNYA
2% Area
43% Population
52% GDP



EUROPE
0,01% Area
0,6% Population
0,8% GDP

SCENARIO 2050



	2020	2050	INCREASE
Population	2.059.872	2.542.682	500.000 dwelling
Population	5.226.382	5.925.247	700.000 population
Jobs	2.259.441	2.830.952	600.000 jobs

Metropolitan Land use

AMB Density

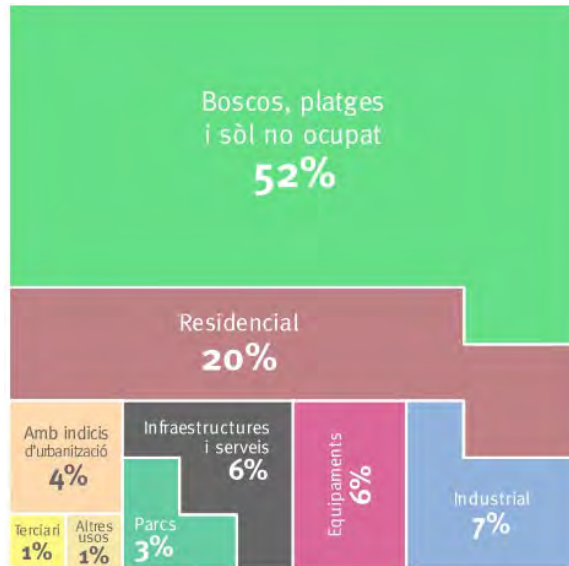
5.105hab/Km2

Total density

Barcelona city Density

15.992hab/Km2

Total density



Context

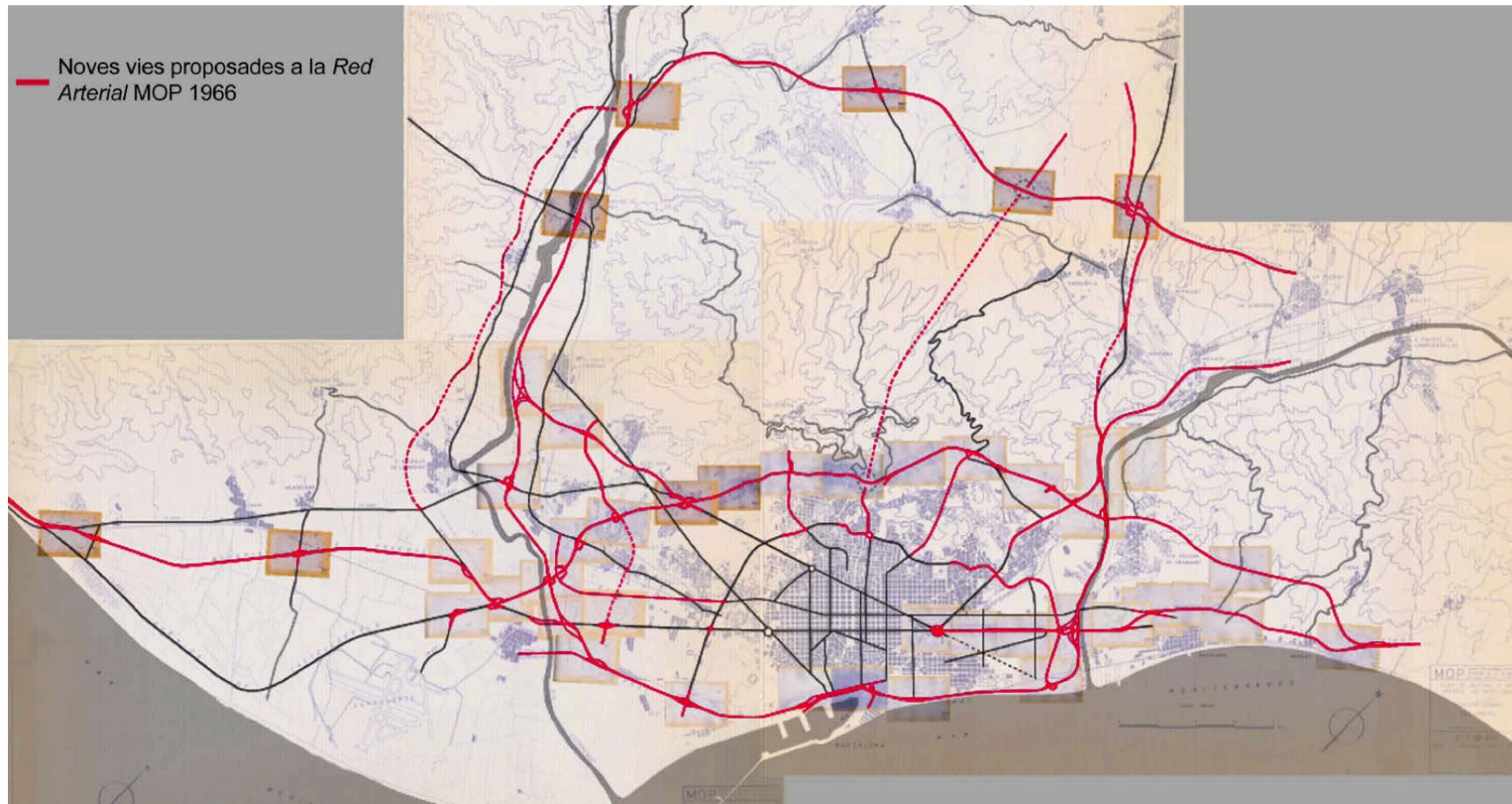


Image today!

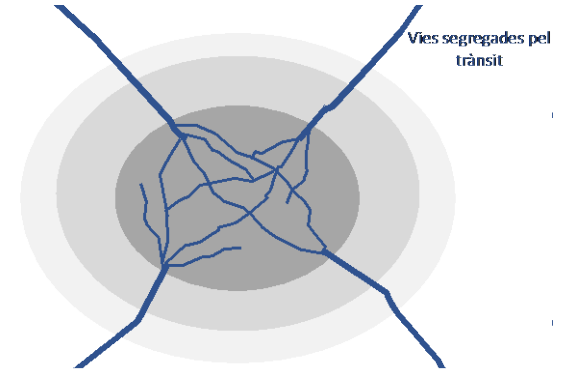
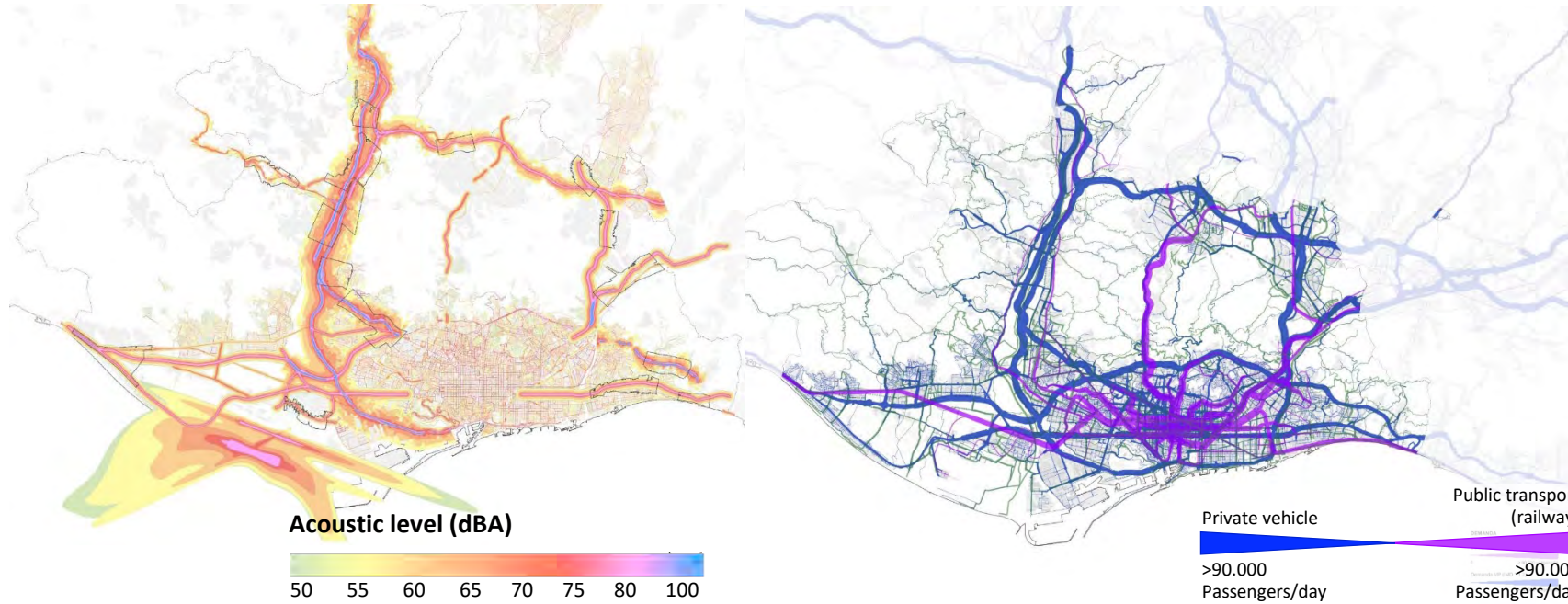


Source: Xarxa bàsica AMB; Via Michelin

Today



Main Externalities



21 % [\sim 650.000 pers.]
Population with acoustic levels over 70 dBA

58 %
Population with night acoustic levels over 55 dBA

50% ●
Movements in the metropolitan area in active mobility (walking – cycling)

20% ●
Movements in public transport

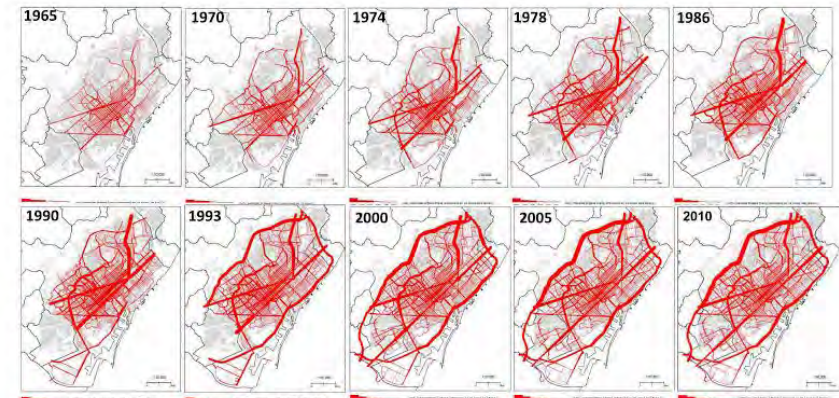
30% ●
Movements in private transport



Barcelona
51 % active mobility
29 % public transport
20 % private transport

First ring
51 % active mobility
20 % public transport
29 % private transport

Second ring
45 % active mobility
10 % public transport
45 % private transport

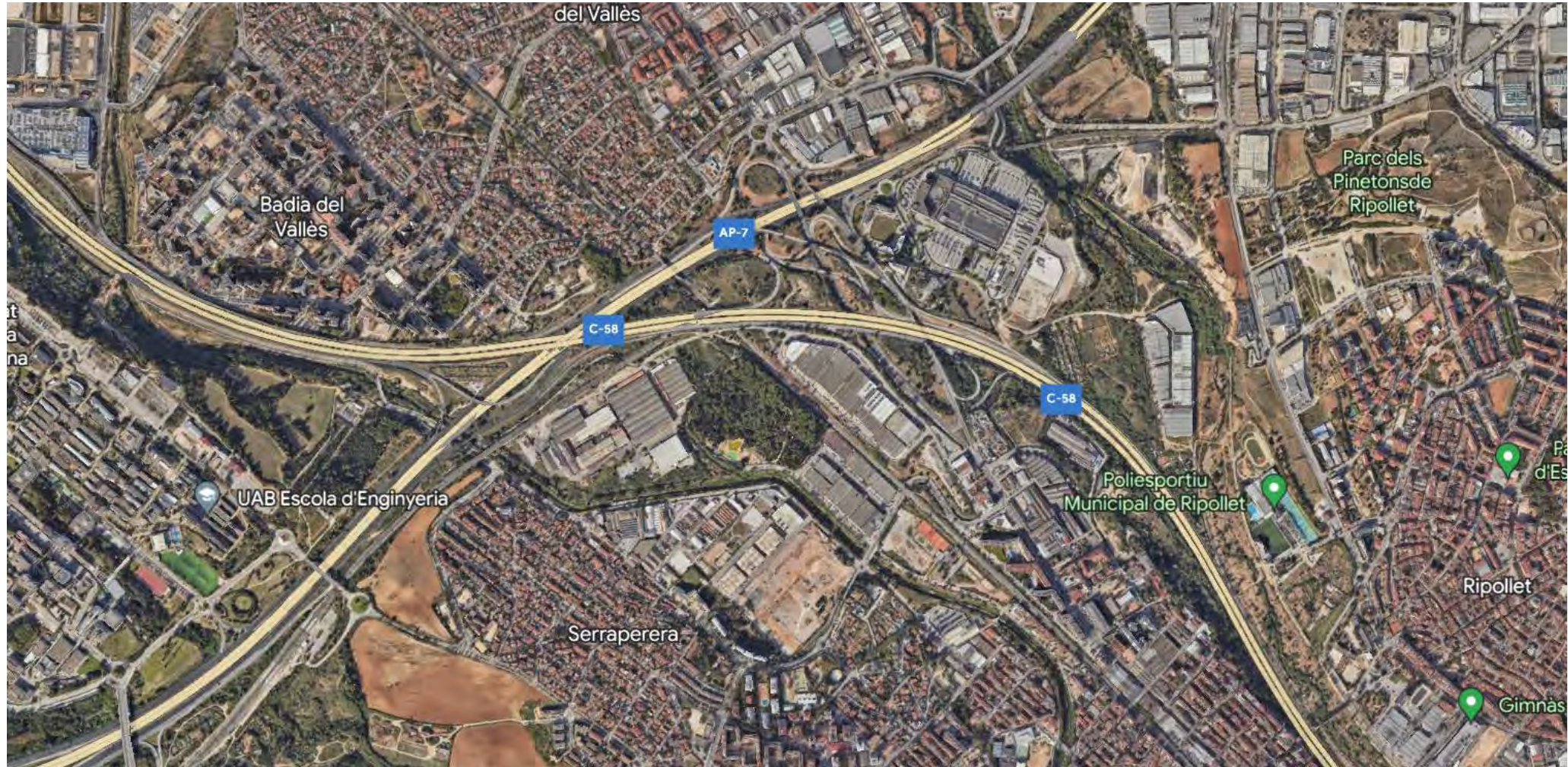


Evolució de volums de trànsit (aranyaja) viari de Barcelona. Font: Direcció de Serveis de Mobilitat. Ajuntament de Barcelona

Infraestructure and mobility: more supply, more demand

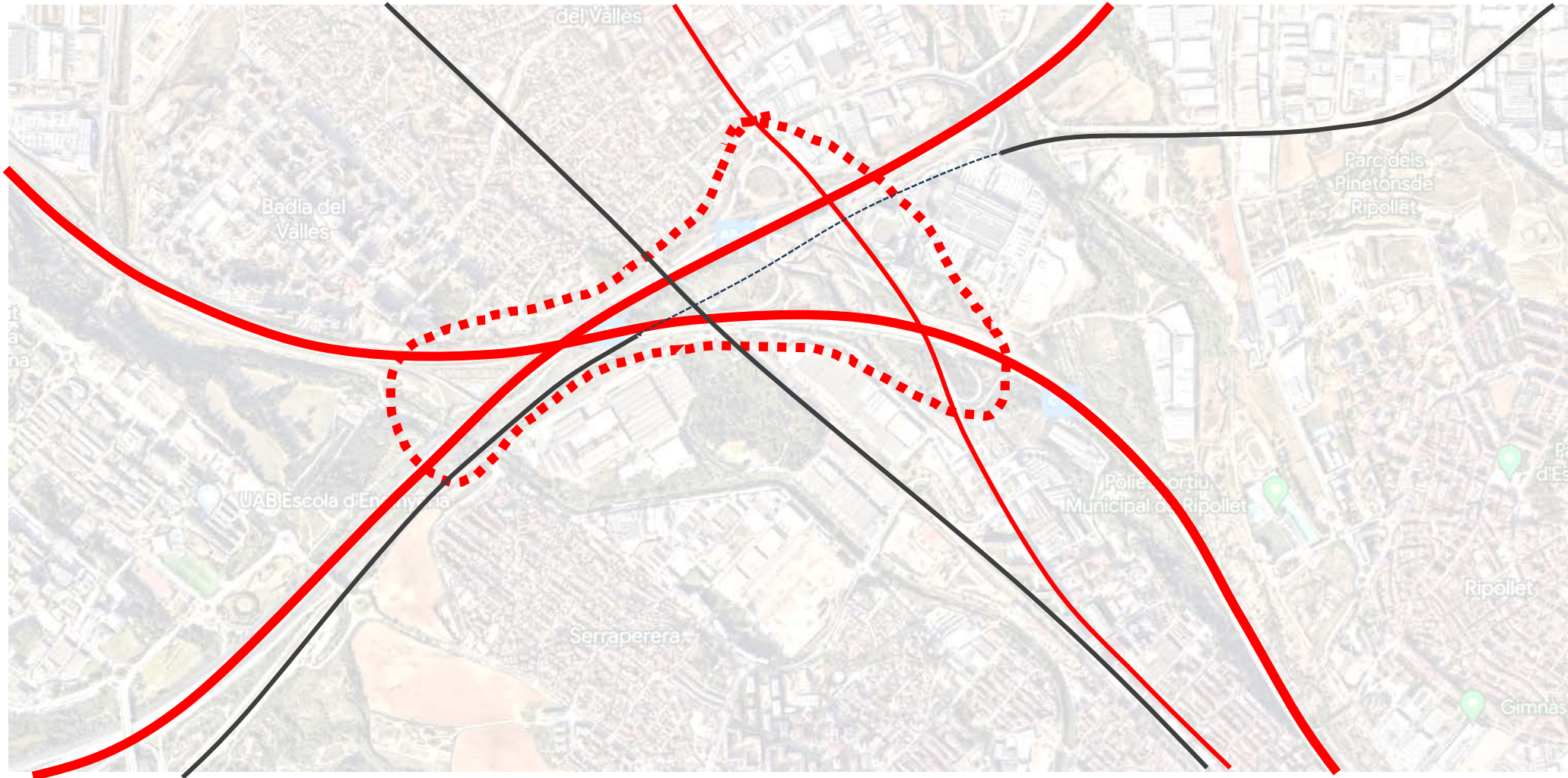
At metropolitan scale?

A disconnected patchwork of bits of city

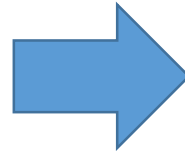
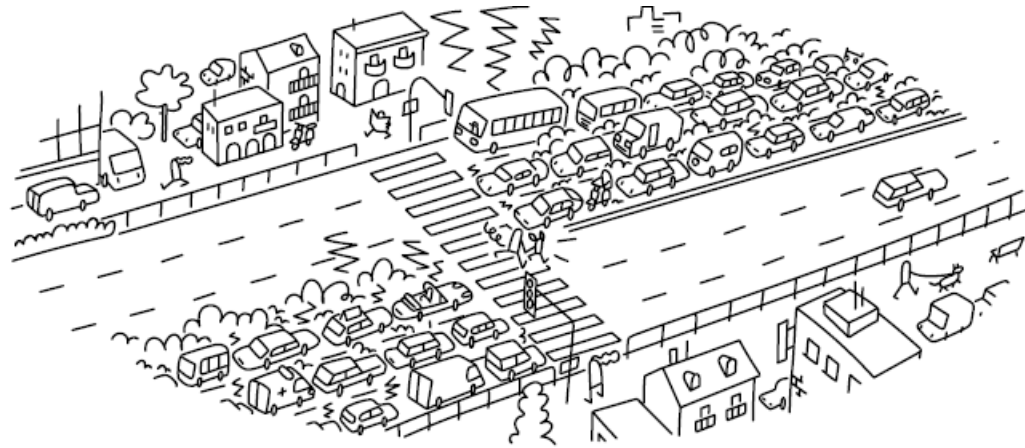


At metropolitan scale?

A disconnected patchwork of bits of city



**OUR VISION
TO A HUMAN SCALE METROPOLIS FOR ALL**



C-245 integration

Pilots

C-245. A transformation of 12Km road to a metropolitan avenue that links 5 municipalities



Before

After



Source: Street View, AMB

C-245 integration

Pilots

C-245. A transformation of 12Km road to a metropolitan avenue that links 5 municipalities



Before

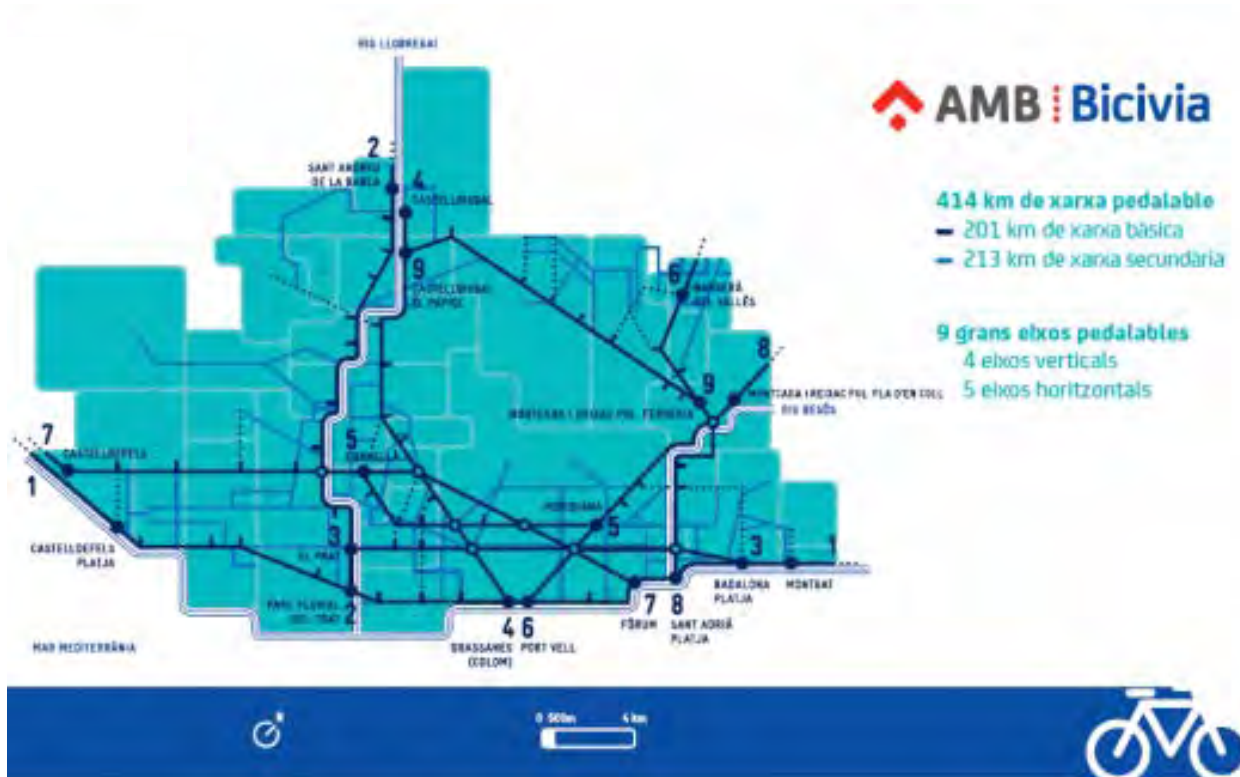


After



Metropolitan bike network

Create a coherent and continuous metropolitan bike infrastructure network



Mobility Exchange hubs

Facilitate the Exchange between diferent mobility modes

Bike sharing



Safe bike park at traint stations



Park & Rides



Metropolitan urban masterplan – Approved initially March 2023

Pla director urbanístic metropolità



Generalitat de Catalunya
Departament d'Urbanisme, Política i Ordenament del Territori

Març 2023

Document per a l'aprovació inicial

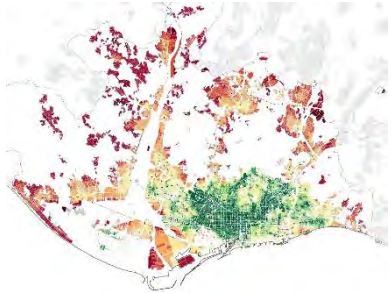
PDUUM

Mobility model PDUM 2050



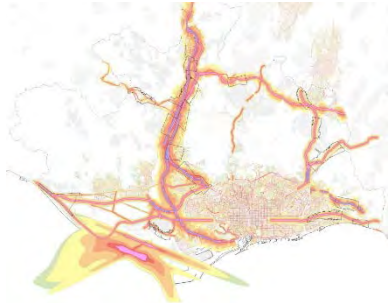
30% **20%** **50%**

Modla share 12.500.000
Of daily movements



+30%

population without a sufficient
Access to public transport



58%

Population with night noise
Levels above 55dBA



Territorial fragmentation

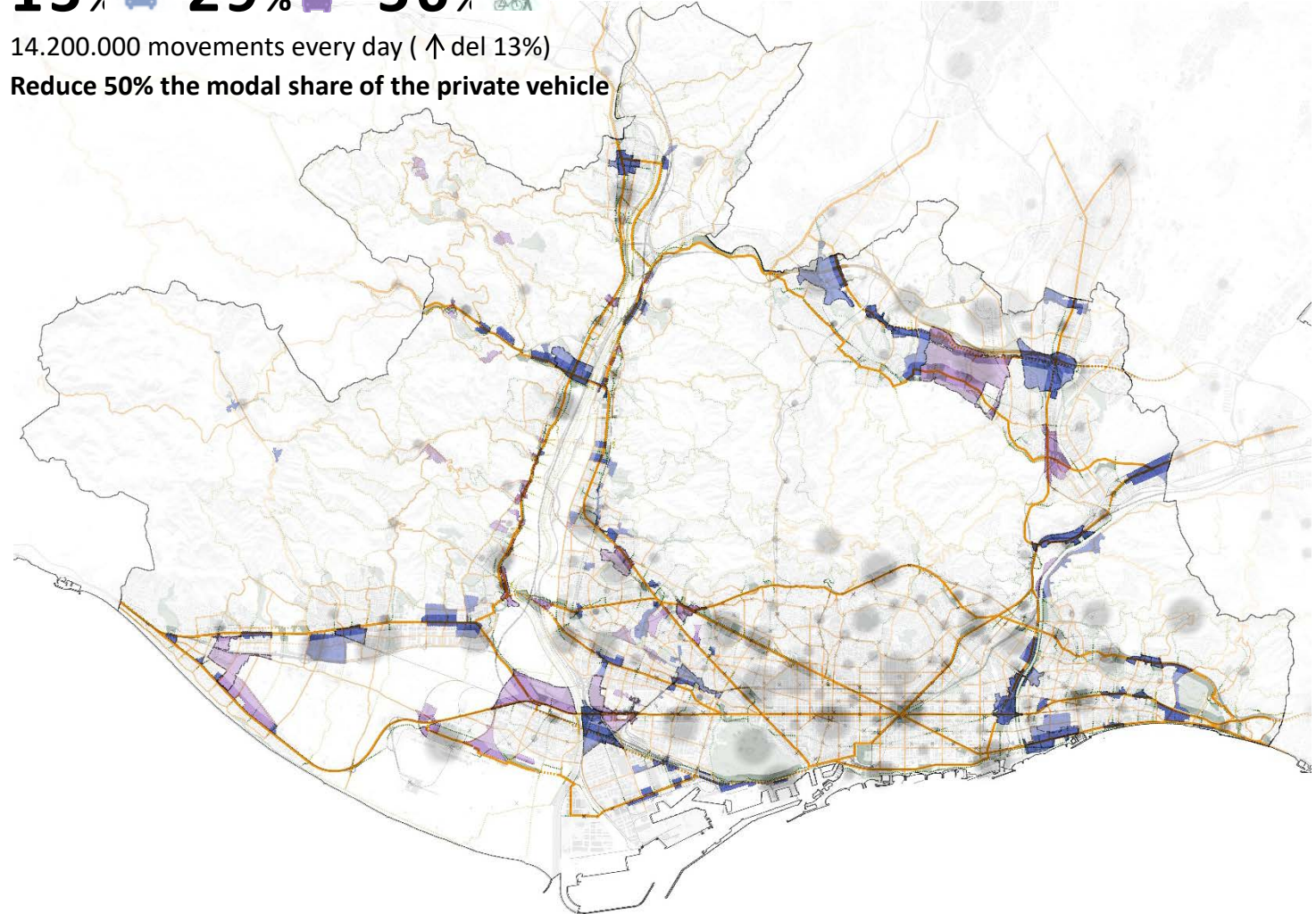
Challenges

1. Reinforce a compact urban model based on polarities and urban
2. Civil axis as the main structure of the metropolis
3. Increase substantially the quality of the metropolitan train infrastructure

15% **29%** **56%**

14.200.000 movements every day (↑ del 13%)

Reduce 50% the modal share of the private vehicle



GREEN CORRIDORS, GREEN AXES AND PARCS



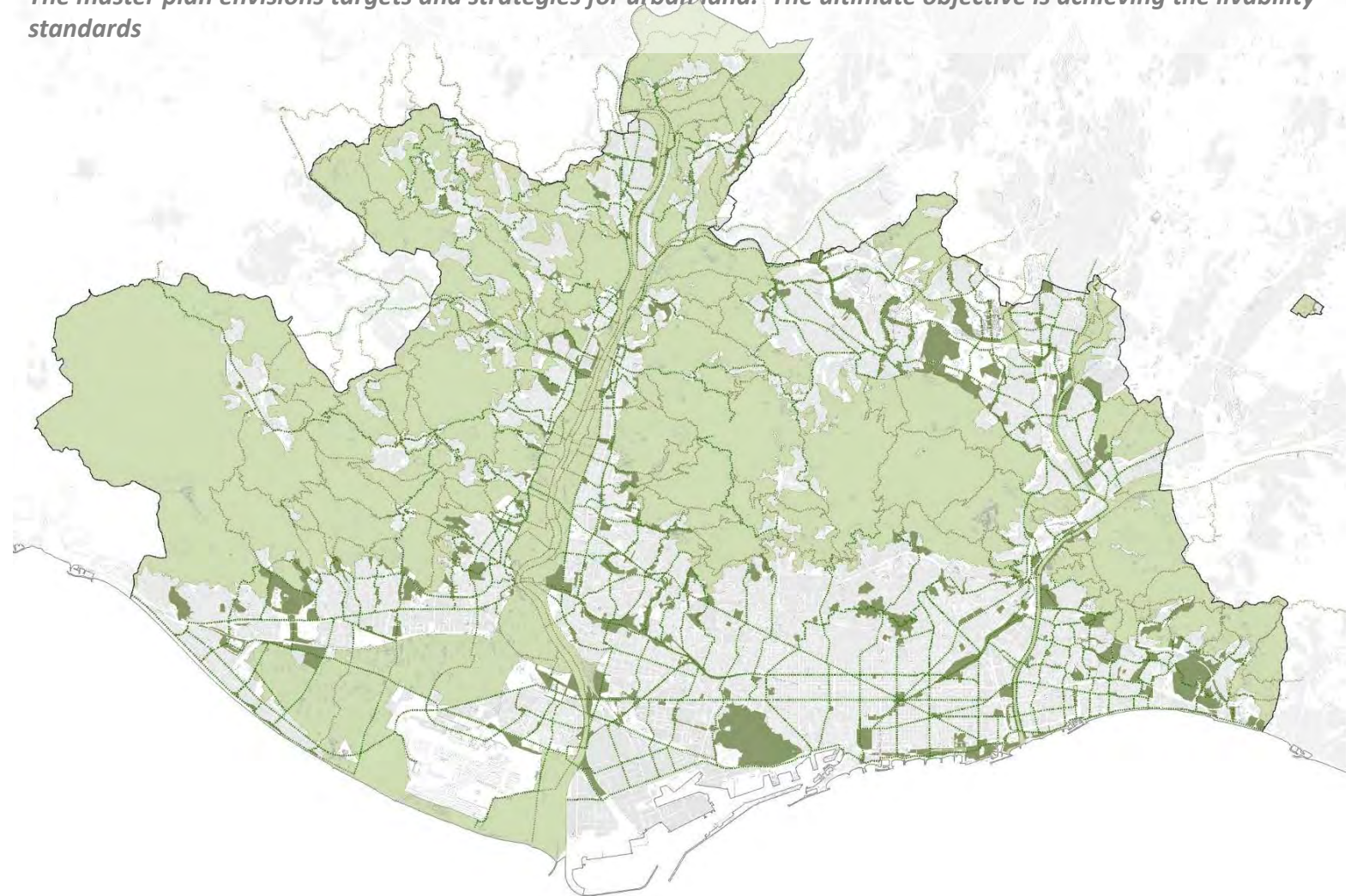
2.500 ha ●

Structural parks

778 km —

Green axes, 34% executed

The master plan envisions targets and strategies for urban land. The ultimate objective is achieving the livability standards

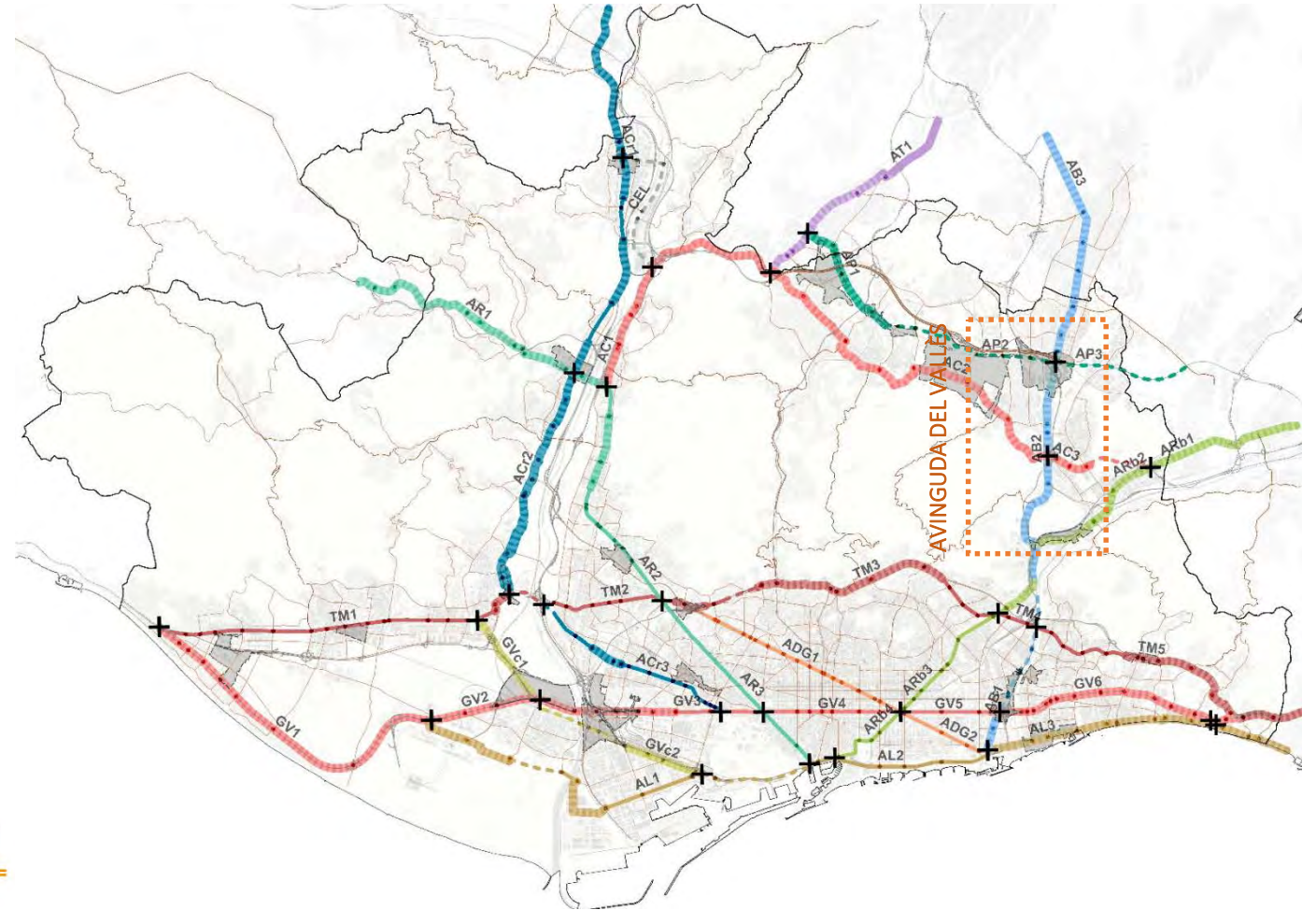


offer alternative network for **active mobility** and **nature continuity**

METROPOLITAN AVENUES



How to transform OLD ROADS & HIGHWAYS into streets to be the main public transport, active mobility and city life paths/ways



10 big traces

250 km

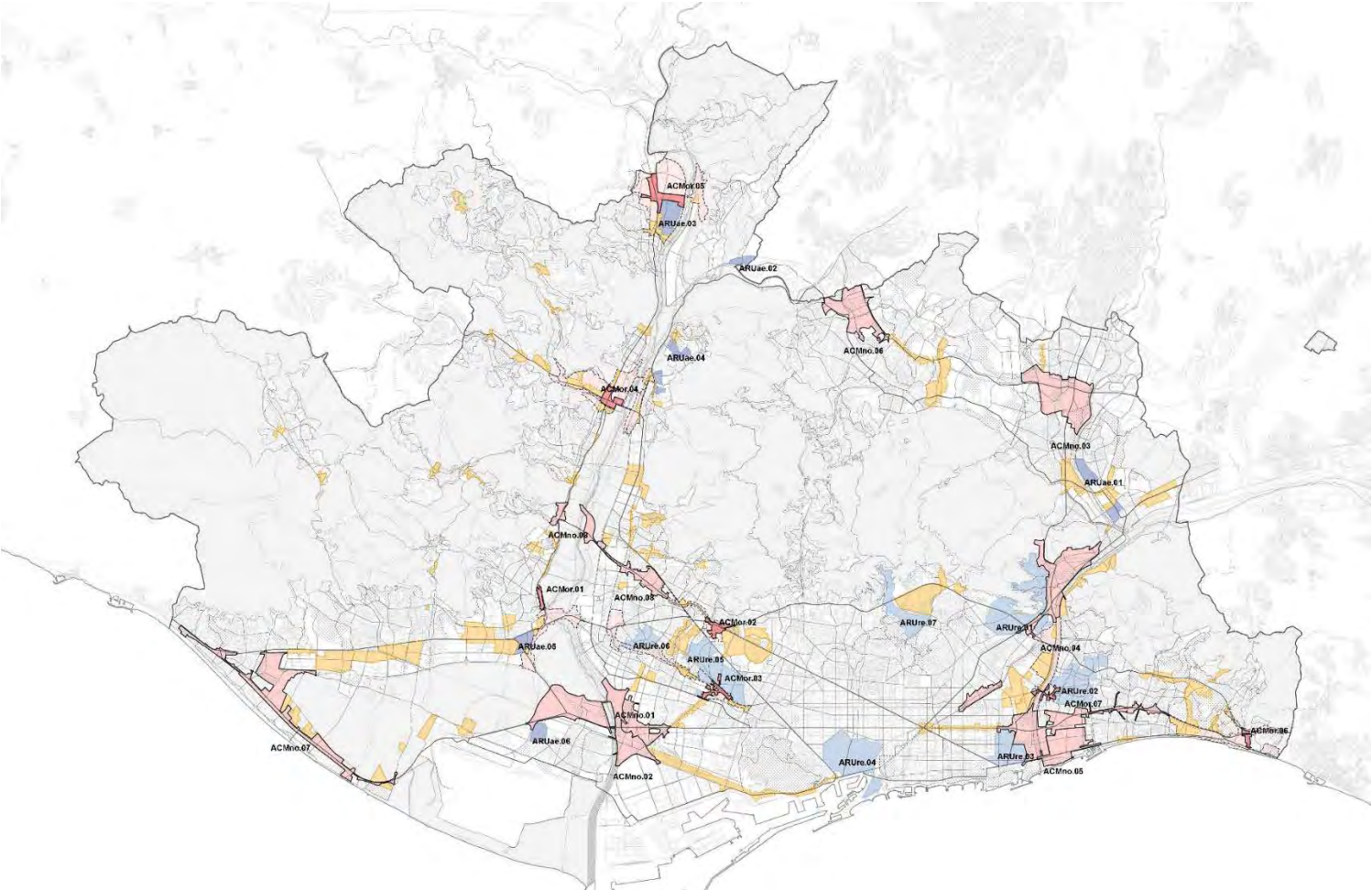
Tramification :

- New construction **13 %**
- Transformation **54 %**
- Remodelation **33 %**



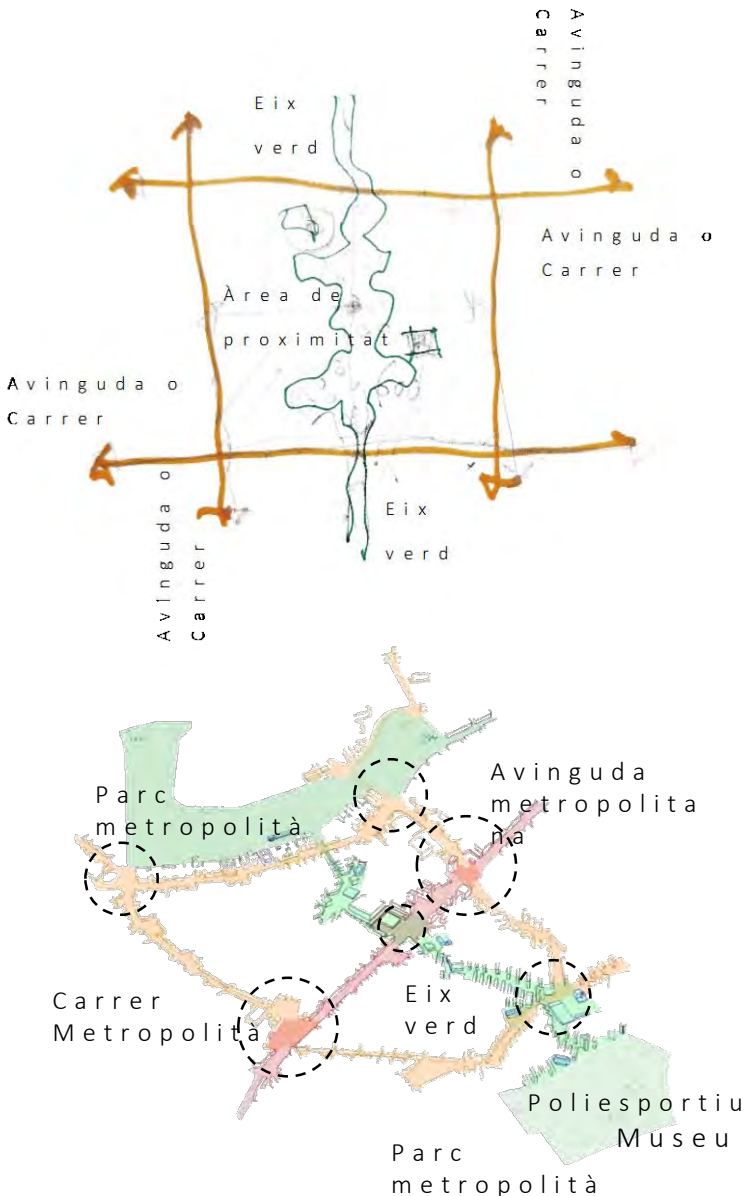
Urban structure for sustainable mobility linking centers and municipalities

BARCELONA METROPOLITAN MASTER PLAN
FOCUS ON POLYCENTRIC DEVELOPMENT



15
 Metropolitan centralities

**Metropolitan centralities
 and new developments**



How are the metropolitan avenues today?



10 big traces

250 km

Tramification :

--- New construction **13 %**

■ Transformation **54 %**

— Remodelation **33 %**



How to transform mobility infrastructure

Internal studies

Rethink how to transform and integrate the C-31 motorway to a metropolitan avenue



How to transform mobility infrastructure

Competitions

Nusos i cruïlles: International competition to transform and integrate highway junctions

CINC REPTES

1. Desambornament per àmbits i línies
2. Fragmentació de la connectivitat ecològica
3. Cants omerts i període de vèl agrícola
4. Un hàbitat d'entornament industrial
5. Infraestructures vialitzades per sostenibles

Àmbit 4 DELTA POLIS 2021

ESTRATÈGIES

- 1.1
- 1.2
- 1.3
- 2.1
- 2.2
- 2.3
- 3.1
- 3.2
- 3.3
- 4.1
- 4.2
- 4.3
- 5.1
- 5.2
- 5.3

ENCAIX METROPOLITÀ

DELTA POLIS

1. Tassejament i disseny de la zona Delta
2. Clivat productiu, clivat prelat
3. Consolidació de controlats laterals
4. Un transport públic urbà i d'alta capacitat
5. Mobilitat vialitzada i sostenible

Àmbit 4 DELTA POLIS 2021

E 13000

Metròpolis carrers per d'Avingu

Exposició Resultat del concurs d'idees Nusos i Cruïlles

Grans pols a distàncies descurtes

Espai Mercè Sala Metro Diagonal-FGC Provença

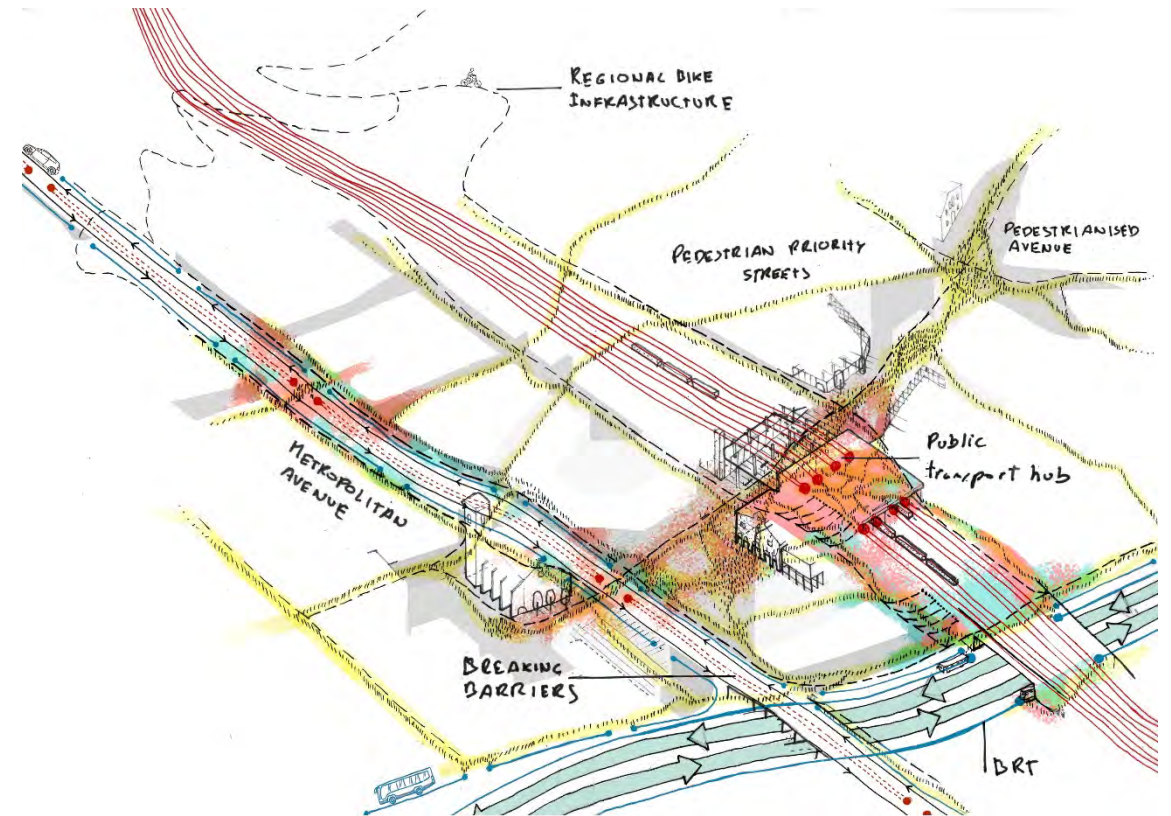
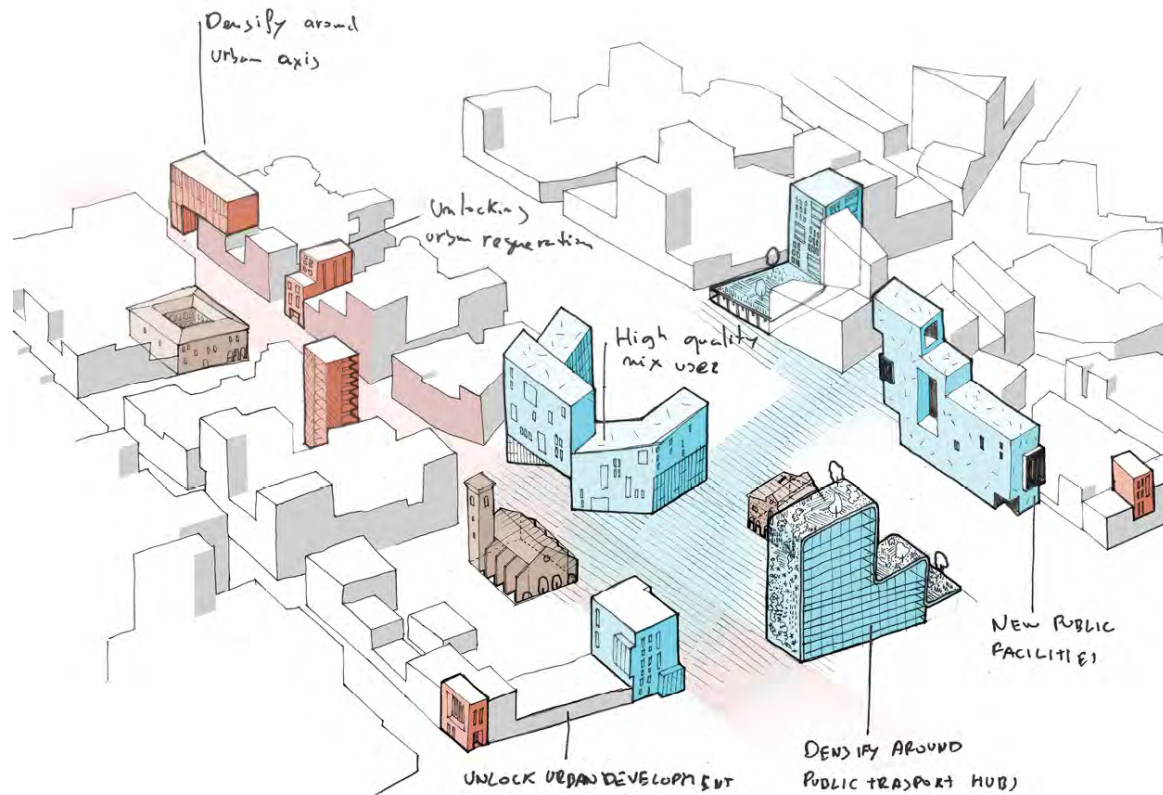
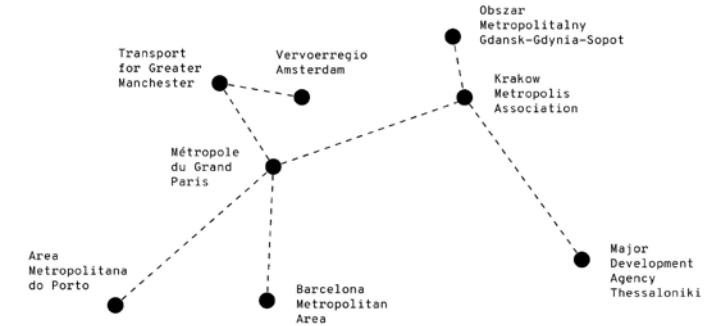
FUNDACIÓ TMB

AMB

HOW TO INTEGRATE MOBILITY INFRASTRUCTURE IN METROPOLITAN AREAS AND TRANSFORM TOWARDS HUMAN SCALE METROPOLISES?

Exchange International projects

URBACT RiConnect – 8 metropolises to Rethink, Transform and Integrate mobility infrastructure



Hypothesis RiConnect

Why don't we

- rethink
- reuse
- recycle
- regenerate

these obsolete mobility infrastructures to get a more

- dynamic,
- sustainable,
- equitable and
- attractive

metropolis where everyone can interact with everyone and move freely regardless of their age, social rank and where they live.

Sustainable
Metropolis

Quality
Public Space



Challenge

Repairing the present... on route to a positive future!

The growth of metropolitan areas throughout Europe has been driven by the availability of easy, quick and cheap mobility. Beginning with railways in the 19th century, since the mid-20th century this mobility was progressively relied on automobiles. It remains an long distance private mobility. Infrastructure investments focused on major roadways and the resulting changes in land-use patterns have had lasting consequences at different scales:

- At the territorial level, these include:**
- Sprawl and suburbanisation, and mono-functional areas.
 - Increased social segregation.
 - Mobility exclusion (due to gender, age, disability and socio-economic status).
- Local automatics include:**
- First roads of services that cut off neighbourhoods, disconnecting them from the metropolis.
 - Air and noise pollution that affect health and quality of life.
 - Low quality, neglected public spaces.



However, rethinking mobility infrastructures can also be part of the solutions to create more sustainable, equitable and attractive metropolises for all.

When we employ an integrated approach to rethinking, transforming and integrating existing mobility infrastructures, we can:

- Reconnect people, neighbourhoods, cities and urban spaces.
- Increase and expand mobility options.
- Create more appealing and inclusive public spaces and facilities.
- Unlock urban opportunities for equitable regeneration and new development.
- Create more ecologically resilient landscapes to mitigate climate change.

Seizing opportunities to solve urban challenges



Urban planning

Seizing the opportunity for dense and well connected urban neighbourhoods

How it's happening in KRAKÓW

The Skawina IAP site is a testbed for the upcoming Fast Apollonia Railway, a commuter train service that will link travel times from surrounding towns to a major city centre.

Given that this new service is likely to attract new citizens to the area, a **Transport Oriented Development** process to identify the area around the station to provide new housing and shopping spaces.

Accessibility is a key priority in the planning of metropolitan development. Urban regeneration and intensification should be prioritised around mobility nodes, creating new centralities to foster the development of a more balanced metropolis, and encouraging proximity and mixed uses.

Furthermore, the integration of mobility infrastructures, by reducing barriers on surrounding assessments, can free up land for redevelopment. New developments should integrate and connect existing neighbourhoods, and improve liveability around infrastructures.

Create new developments around public transport gates
The integration of mobility must attract new uses around public transport, promoting accessibility and the concept of the 15-minute metropolis.

Work for equitable growth
The right to remain of existing residents should be an overarching principle, along with affordability of new residential developments.



Allow mono-functional growth
Mixed-use areas help reduce the need for vehicular mobility.

Build isolated neighbourhoods
New areas must be well integrated and complement the pre-existing urban fabric.

Give back to streets and stations
Mobility infrastructure need not be a nuisance, but a vibrant opportunity for social and economic interchange.



Ensure private profit provides public benefits
Through land value capture, revenue from new developments should be allocated to improving the physical and social conditions of local communities.

Provide continuity and connect existing urban areas
The planning of new areas must integrate existing neighbourhoods and reduce the lack of connections and facilities while respecting their unique attributes.

Drafting the plan

A step-by-step process, from shared diagnosis to specific actions

This is the core task of the process, where all efforts translate into specific actions to rethink the infrastructure. Drafting must take into account the input of all stakeholders by finding common ground, balancing interests towards the common good, and supporting dialogue. The result must be a shared project in which all stakeholders feel recognised.

To achieve this, it is essential to follow the steps: lower on a successful action plan. The first step is a shared diagnosis to help detect specific needs. A common vision can bring stakeholders together, gaining the definition of goals and strategies. Ultimately, this will lead to specific actions that transform the physical and socio-economic reality of the site.



Share diagnosis

Sector-specific diagnosis leads to segregated solutions. To build an integrated approach and maximise potential, all stakeholders must work to a common diagnosis of the site and its needs.

Establish a common vision

A strong, common vision of the project's objectives is essential to effectively navigate the obstacles that plans will inevitably encounter during the drafting and implementation process.



Iterative process

Planning processes may need to go back and forth towards the best solutions.



Conflict mediation

Participation processes may trigger or require pre-existing conflicts.



Define goals and strategies

How do we make change happen? Specific goals and strategies will help to guide the process and organise efforts.

Next station: implementation!



Draft the actions

Define a set of actions that provide the roadmap to your vision. The roadmap should be specific and coherent, establish clear roles and responsibilities, and incorporate a calendar.

Look to the future

Make it happen

Build consensus to gain momentum
A large part of implementation involves rallying all the stakeholders: applying pressure leads to change and the speeding up of processes.

Evaluate to improve
As the project gets underway, it is important to check to ensure that goals are being met, and make modifications where necessary to deliver the vision.

Make it collective

All stakeholders are key elements of the project
While only some of the stakeholders will implement the actions, all stakeholders need be involved with contributing to changing the social environment.

A stronger community as a legacy
The process should lead to enduring social connections, making the community stronger and better equipped to address future challenges.

Make it shine

Communicate the process and results
Keeping stakeholders and the wider public informed to help them see the resulting improvements, and let them know about problems that arise during the process.

Share it onward, and help others to transform
Communicating results shared will help inspire other cities and lead to new projects.

We can make the future better! Let's do it together and for everyone

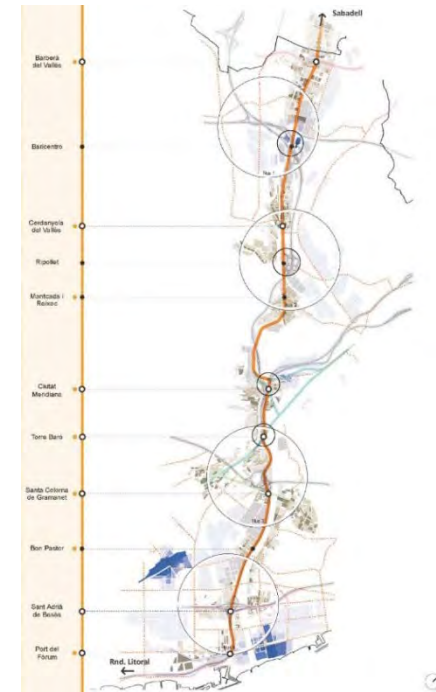
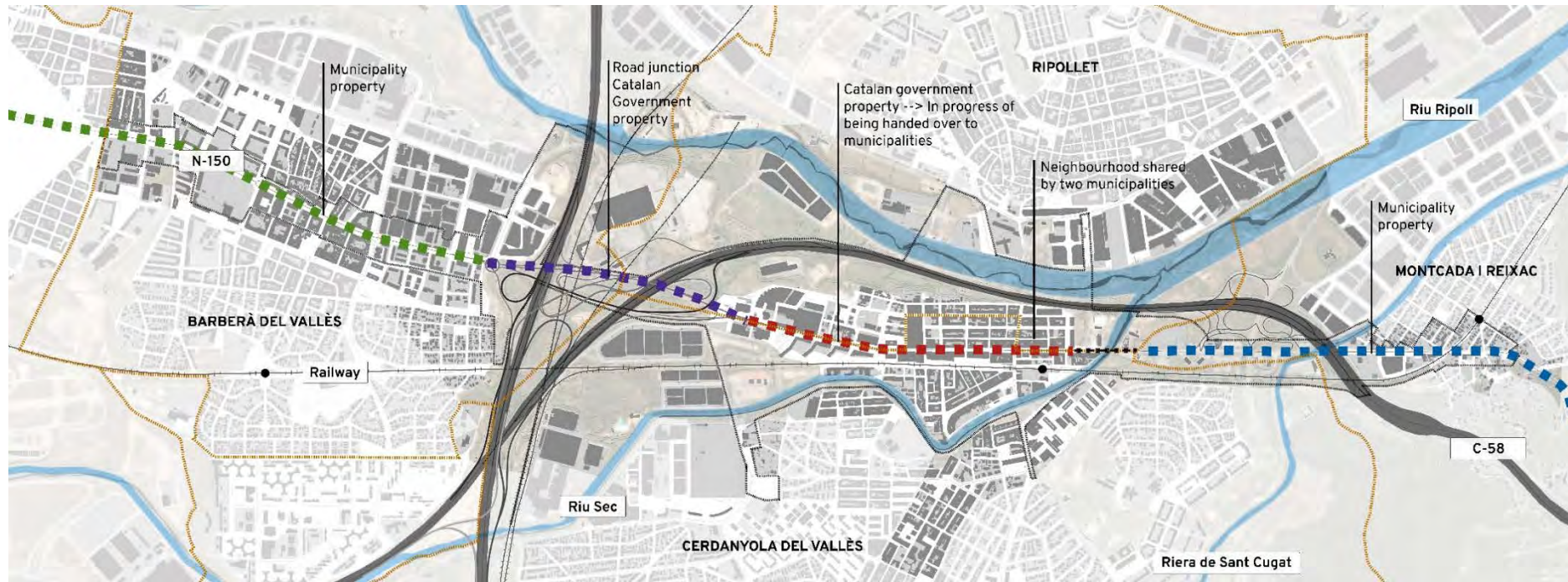
Once the project has been finalized, the implementation is planned, funding is identified and communication to underway, what comes next? It is time to turn the plan into reality, through both soft and hard actions, creating a better built environment and improved socio-economic conditions for citizens.

All our partners have reached the end of the planning phase, and it is now time to put the plans into action. We are eager to see our planned changes become reality in each metropolis, and share our successes with our stakeholders and the broader public!

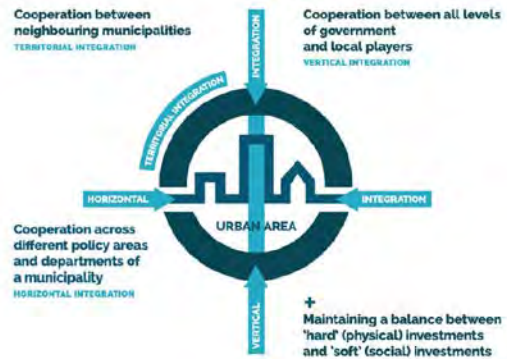
Avinguda del Vallès



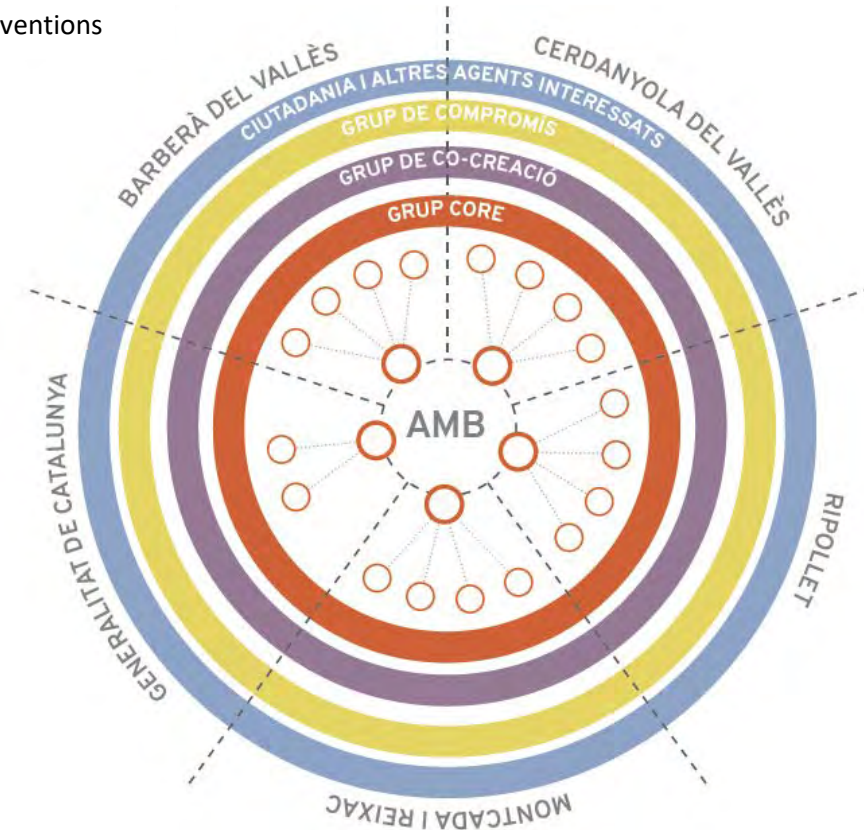
Site and complexity



Urbact Local Group



- Horizontal integration
- Vertical Integration
- Territorial Integration
- Balance between “hard” and “socials” interventions



- GRUP CORE**
 - Tècnics AMB
 - Tècnics administracions
- Perfils tècnics**
 - Urbanisme
 - Participació
 - Comunicació
 - Mobilitat
 - Medi ambient
- GRUP CO-CREACIÓ**
 - Tècnics AMB
 - Tècnics administracions
 - Associacions de veïns
 - Associacions de comerç
 - Associacions mobilitat
 - Altres entitats i associacions
- GRUP COMPROMÍS**
 - Directors d'àrea
 - Representants polítics
- CIUTADANIA**
 - Ciutadania en general
 - Altres agents interessats

Avinguda del Vallès

Co-creation process

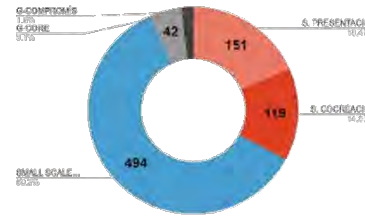
23 Core group meetings

8 Co-Creation group meetings

2 Commitment group meetings

2 Open meetings (citizens)

 **More than 2000 people**

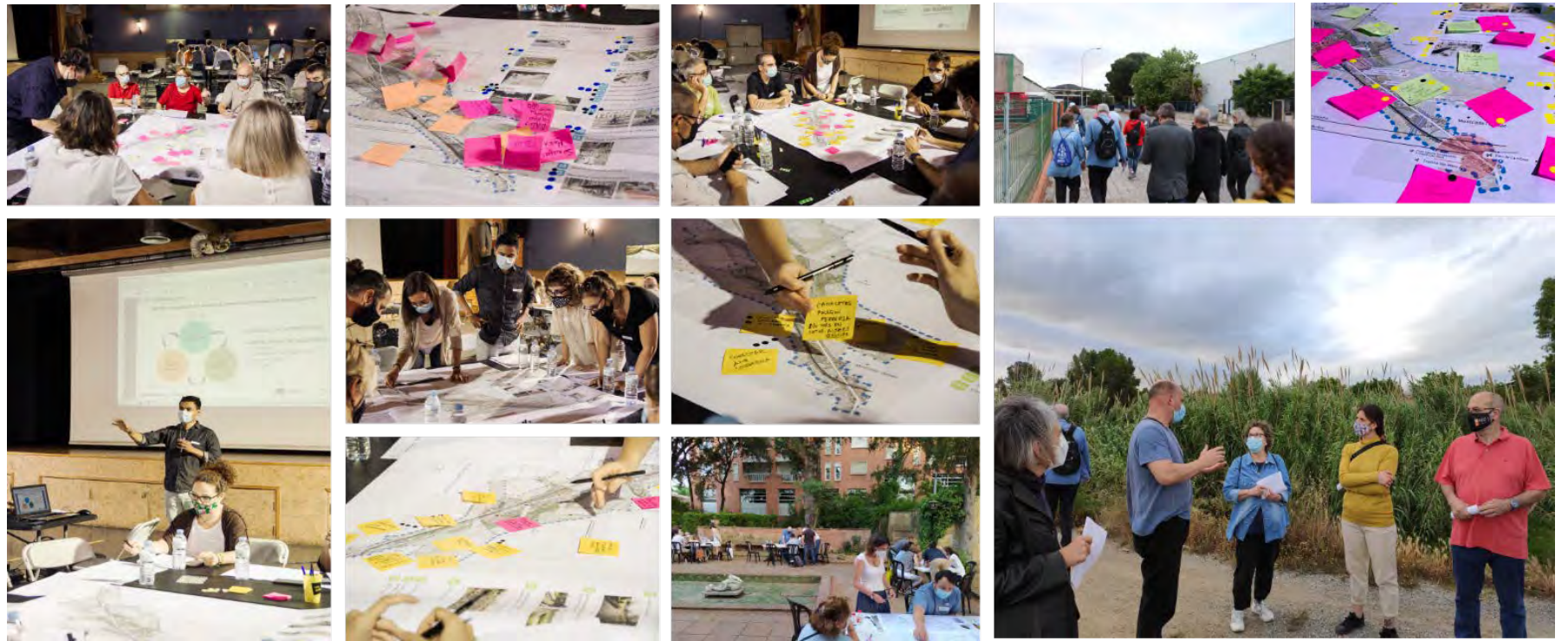
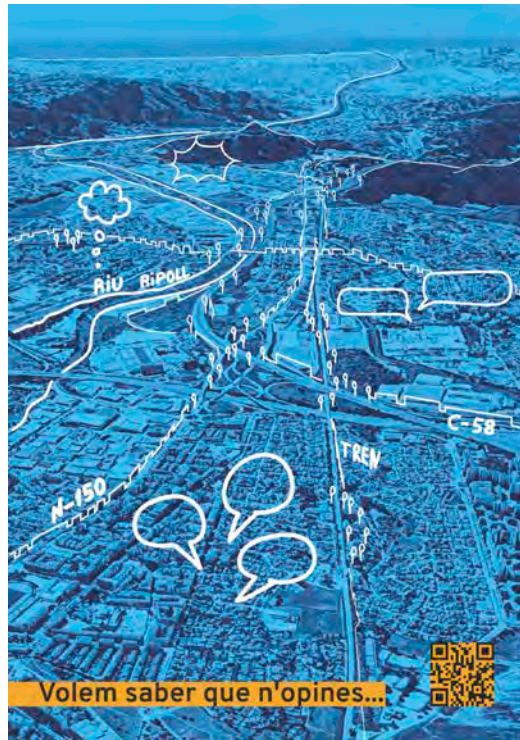


+ 1 ONLINE SURVEY **1168 ANSWERS!**

19 ENTITIES AND ASSOCIATIONS

1 SMALL SCALE ACTION - 1 FINAL EVENT

+821 PEOPLE IN ALL THE PARTICIPATION SPACES



Shared diagnosis

QUANTITATIVE ANALYSIS

QUALITATIVE ANALYSIS

51,4%

Want fewer cars on the N-150.

95,1%

Believe that action should be taken on and around the N-150

55,2%

Wants bike lanes and public transportation on the N-150.

66,6%

Wants more space for pedestrians on the N-150.

72,3%

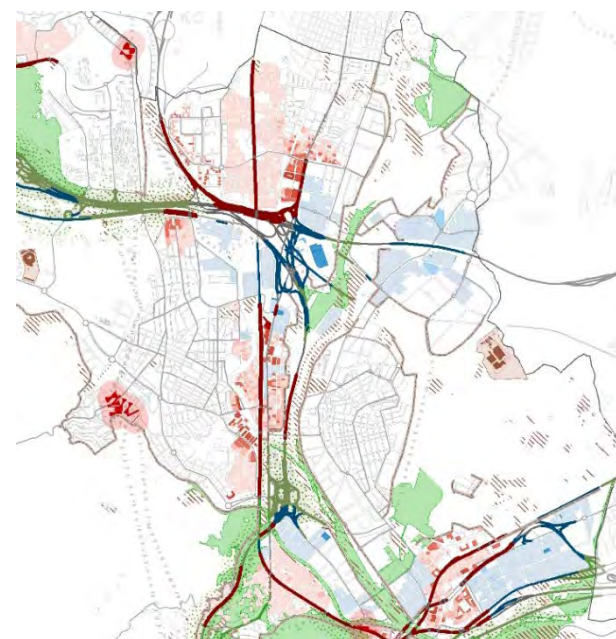
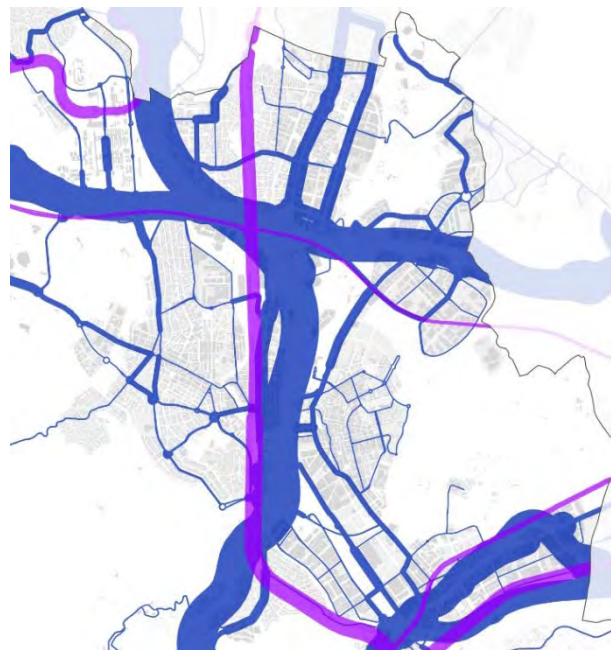
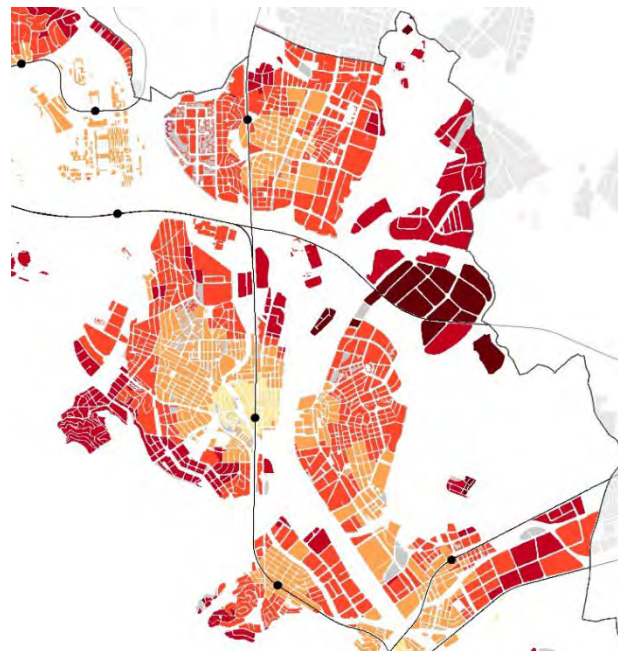
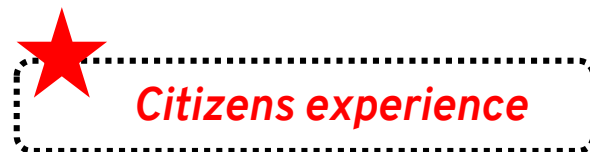
Identifies pollution as a harmful effect on the N-150.

80,9%

Consider road collapse as a problem on the N-150.

66,3%

Imagine the N-150 with more pedestrian space.



Urban strategy



The avenue as a common thread



- 2** AVENUE
Element for structuring the territory
 - The space
 - The filling

- 6** CENTRALITIES
Areas for activity, mobility and neighbouring relationships
 - Metropolitan**
 - Baricentro
 - Hospital del Vallès
 - Local**
 - Barberà del vallès
 - Cerdanyola del Vallès
 - Neighbourhood**
 - Cerdanyola del Vallès: Uralita
 - Cerdanyola del Vallès: Terranostra neighbourhood

- 15** TRANSVERSAL CORRIDORS
Reconnecting municipalities, neighbourhoods and open spaces
 - Territorial
 - Local / neighbourhood

- 3** GREEN CORRIDORS
Areas for enjoying nature, improving the health and the environment and preserving the biodiversity.
 - Ripoll river
 - Sec river
 - Sant Cugat stream

Integrated actions

- A1** Redevelopment of the Avenue
- A2** Connecting Barberà with Cerdanyola and Ripollet
- A3** Promotion of sustainable mobility
- A4** Environmental health programme
- A5** Defining the area around the Avenue
- A6** Preserving and making heritage visible
- A7** Promoting local trade and economic activity
- A8** Programming spaces of opportunity in the area



The space and the filling



Implementation



A1 REDEVELOPMENT OF THE AVINGUDA DEL VALLÈS

BRIEF DESCRIPTION

The redevelopment of the avenue aims to improve the urban quality of the road in order to make it a more pleasant space for citizens.

To that end, the action sets out the following criteria: widening the space for pedestrians, introducing greenery along the corridor, removing existing architectural barriers, rethinking the space for private vehicles (sides and parking spaces), increasing the number of pedestrian crossings, and widening the bridges over the rivers.

STAKEHOLDERS INVOLVED

Barcelona Metropolitan Area (AMB)
 Barberà del Vallès Municipal Council (BRV)
 Cerdanyola del Vallès Municipal Council (CDV)
 Ripollet Municipal Council (RPL)
 Montcada i Reixac Municipal Council (MIR)
 Generalitat de Catalunya
 Catalan Water Agency (ACA)

FUNDING

The majority of the funds will have to be regional, Spanish and/or European. The municipal councils may provide funding for small-scale and local activities. The tranche-by-tranche approach is perfect for EU programmes. The municipal and AMB budgets complement this.

PROJECT AVENUE - THE SPACE

AUTHORITY RESPONSIBLE FOR THE ACTION AMB, upon request by the four municipal councils

ACTION TIME FRAME

Short - long term

OBJECTIVES ADDRESSED

Reconnect the territory Improve urban quality
 Incorporate landscape and ecology Co-management

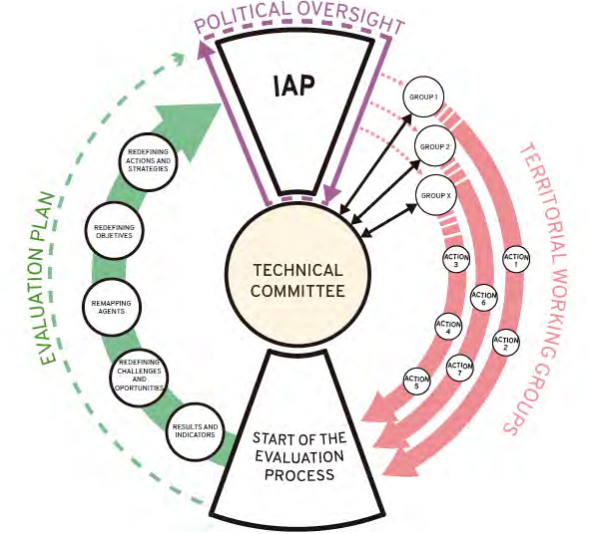
RISKS / COMMENTS

The biggest risk to the pacified avenue is the sporadic traffic created by the Baricentro junction. As long as the N-150 road is part of the traffic between motorways, the Baricentro section will not be transferred and cannot be pacified. It is also difficult to obtain funding for the action, so it is better to implement it in tranches, with a long-term overall perspective. The continuation of the pacification towards Sabadell and Terrassa must be taken into account.

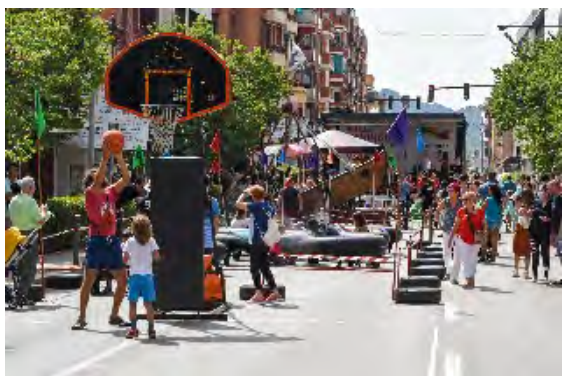


LIST OF ACTIVITIES

ID	ACTIVITIES	DURATION	ANTICIPATED RESULTS	RELATED ACTIVITIES	COMMENTS/RISKS	AUTHORITY RESPONSIBLE/ PARTIES INVOLVED
A1.1	Transfer ownership of the urban sections of the avenue (offer by the Generalitat de Catalunya, acceptance by Cerdanyola del Vallès and Ripollet). Not subject to cost.	■■■	Ownership of the avenue in the urban sections of the municipalities in the area	A1.2	There is a section of the avenue at the Baricentro junction that has not yet been transferred. It will not be transferred until the N-150 road traffic between motorways ceases.	CDV Municipal Council, RPL Municipal Council and the Generalitat de Catalunya
A1.2	Implement the Environmental Sustainability Plan (tactical urban planning) to expand the space for pedestrians and bicycles (Cerdanyola del Vallès and Ripollet). Section 6.2, 1,491 m long. Study carried out - approximate cost of the intervention according to the study: €580,000.	■■■	Activating action. Implementation of one cycle lane in each direction, and expansion of pedestrian space.	A1.1 + A1.3	Action in the tendering phase. Care must be taken to ensure that the tactical town planning has some landscape and environmental sensitivity.	AMB with the cooperation and agreement of the municipal councils affected (RPL + CDV)
A1.3	Implement a tactical urban planning project to create space for pedestrians and bicycles on the interurban section between Montcada i Reixac and Ripollet. Length: 1,182 m. Study carried out - approximate cost of the intervention according to study: €325,000.	■■■	Activating action. Implementation of one cycle lane in each direction, and creation of pavements	A1.2	Study completed, pending budget availability. Care must be taken with the link between the C-58 motorway junction and the N-150 road, prioritising the side without the infrastructure junction. Landscape sensitivity	AMB amb cooperació i consens dels ajuntaments afectats (RPL + CDV)
A1.4	Create pocket parks on land adjacent to the avenue.	■■■	Activating action. Create leisure areas, introduce vegetation, permeabilisation of the ground, addition of children's playgrounds	A4 A1.5	Production of a plan of spaces that can be occupied, prioritisation, implementation by municipal councils, execution of the parks.	Joint strategy by the four municipal councils and implementation by municipalities.
A1.5	Implement the Environmental Sustainability Plan (pocket parks, tactical action) at the junction of Sant Oleguer street with the N-150 road (Barberà del Vallès). Approximate cost of the intervention according to the study: €373,750.	■■■	Activating action. Redevelop a space of 1,498 m2 (rectangular, 14 m by 107 m) to make it into a pedestrian space which is pacified, vehicle-free and usable as an urban climate shelter.	A4 A1.4	Preliminary project. Executive project. Site management. This action is being tendered with four other separate actions, but the objective of all of them is to become a climate shelter.	AMB with the cooperation and agreement of the BRV municipal council
A1.6	Carry out a study for the comprehensive redevelopment of the Avinguda del Vallès (which will be carried out in sections, and include the entire route except for the Baricentro junction).	■■■	Study/project. Create a collective imaginary and make change visible, intervention criteria	A1.7+A1.8 A2.9 A5.2+A5.3+A5.4+A5.5+A5.6	Make a joint commissioning application from the four municipal councils to the AMB.	AMB with the cooperation and agreement of the municipal councils affected (BRV + CDV + RPL + MIR).



Avinguda del Vallès



Avinguda del Vallès



Avinguda del Vallès

The show must go on

A1 - Redevelopment of the Avinguda del Vallès

Kick off - WalkShop



Avinguda del Vallès

The show must go on

A1 - Redevelopment of the Avinguda del Vallès

4 teams working simultaneously: with week meetings and in contact with municipalitis

Meetings with other departments (públic transport, bicicle, waste management and Planning)

Collaboration with the university



THANKS FOR YOUR ATTENTION!

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COORDINACIÓ DE PLANEJAMENT URBANÍSTIC

