Territorial scope

Catalonia
7,7 Mhab
947 municipalities

Metropolitan Area of Barcelona
2,65 Mhab - 36 municipalities

Barcelona (Main city)
1,67 Mhab - 1 city

5,8 Mhab
346 municipalities
7.726 km²
ATM’s Organisation

A consortium

The President is Minister of the Vice Presidency and Digital policies and Territory of the Catalan government.

Board of Directors is the Rector body of the ATM. 18 full right members.

Executive Committee is the executive body of the ATM. 6 representation members:

Areas

<table>
<thead>
<tr>
<th>T-Mobilitat</th>
<th>Mobility</th>
<th>Integrated Fare System</th>
<th>Management</th>
<th>Financial Department</th>
<th>Communication</th>
<th>Systems &amp; Innovation</th>
<th>Legal Affairs &amp; Contracts</th>
</tr>
</thead>
</table>

Staff: 36 people

Budget 2018: 1.433 M€
ATM’s Main functions

Planning
- Planning of infrastructures: Infrastructure Master Plan
- Planning and management of metropolitan mobility: Mobility Master Plan

Management
- Delegated management of the Metropolitan Tram network
- Government financing of the public transport system
- Program contracts with public transport operators

Fare policy
- Fare integration and subsequent fare policy
- Promotion of integrated communication of the fare System
- New fare digital platform: T-mobility
Master Mobility Plan

planning mobility, keeping in mind all modes of transport, passengers and goods.
Megachanges in mobility

Environmental
pollution and climate emergency

Social
ageing, social media

New mobility modes
scooters, shared cars, ...
Megachanges in mobility

Digitalisation
through smartphones

Data
as a key element for managing trips

Technological transformation
automation and robotics
Master mobility plan (pdm)

• It seeks to respond to the “megachallenges” that BCN faces, keeping in mind all modes of transport, passengers and goods.
Master mobility plan (pdm)

• Meeting different Sustainable Development Goals:

- Affordable and accessible transport
- Active means of transport towards a healthy and safe mobility model
- Incorporating sustainable mobility in all areas of education
- Incorporating the gender perspective
- Decarbonisation. Avoid negative externalities in terms of health and the environment
- New logistic model. Mobility as an innovative industry and generator of economic activity
- Promotion of traffic-calmed spaces and efficient, sustainable modes of transport.
- Meeting changes in trends in commuter and consumer mobility flows
The PDM’20-25: The Plan Proposal

**EA00.** Governance, planning and digitalization of mobility
Regulatory aspects (planning, data management and digitalization of mobility)

**EA01.** Tools for healthy mobility
Reduce GHG emissions and pollutants

**EA02.** Accessible and secure mobility networks
Exchangers between transport modes and presence of electric and sustainable modes

**EA03.** Inclusive and quality public transport service
Increase the use of public transport and reduce the effects of climate change

**EA04.** Other forms of responsible and efficient mobility
Taxis, VTC, VMP, discretionary services...

**EA05.** New management of DUM and logistics
Use of sustainable modes, efficiency in existing systems and new technologies

**EA06.** Sustainable access in areas of economic activity and mobility dust
Modal transfer to sustainable modes

**EA07.** Energy transition and circular economy
Introduction of technology in vehicles and infrastructure

**EA08.** Tools for continuous improvement of mobility
Co-responsibility of the population, knowledge, education and communication

**EA09.** Mobility innovation
New energies, new mobility models and new vehicles
Barcelona’s ATM promotes digitalisation

The Mobility Master Plan incorporates innovation and digitalisation in all mobility modes

- T-Mobilitat Project
- P&R digital information
- Mobility digitalisation agenda
- Mobility observatory
- MaaS project & Strategy
Low Emissions zones

• Projects to support municipalities to design and implement Low Emission Zones:
  
  • Support instruments for municipalities with more than 20,000 inhabitants: digital platform to facilitate the implementation of LEZs.

It is expected that 43 municipalities will have working LEZs within the term of the Master Plan.
Crisis management

- Integrated response to periods of crisis or emergency
- Governance model and design of a protocol for future crises in the public transport system
- Contingency plans to adapt the public transport system to different crisis scenarios
Master Infrastructure Plan

planning infrastructures, keeping in mind public transport, environmental challenges and social inclusion.
Action programs

The proposed actions are divided into five action programs:

- Network expansion (Metro, Bus, and Tram)
- State Railway Network
- Exchangers. P&R
- Surface Public Transport. e-bus
- Modernization and improvement

The Plan defines two groups of actions: type A (expected to start the execution within this decade, good economic and social profitability with IRR>3%, and good environmental impact, with Life cycle>40) and type B (unscheduled actions with lower profitability, with IRR < 3% or Life cycle< 40)
Phase A. Scheduled actions

Investment 8.888,2 M€

<table>
<thead>
<tr>
<th>Length (km)</th>
<th>Trains (network expansion)</th>
<th>Stations</th>
<th>Demand (benefited passage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AX, XT i XE</td>
<td></td>
<td>66</td>
<td>64</td>
</tr>
<tr>
<td>Phase A</td>
<td>96,7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PdI emission reduction target expected:

- CO₂ Emissions: -9,3%
- NOx Emissions: -31,5%
- PM₁₀: -26,6%
Resilience to climate change

- Specific projects to ensure the resilience and adaptation of transport infrastructures to climate change:

<table>
<thead>
<tr>
<th>Risks</th>
<th>Effects</th>
<th>Solutions</th>
</tr>
</thead>
</table>

247 M€ approved in the master Infrastructures Plan
The TRAM network

To satisfy the need for a new medium-capacity transport mode, using an environmentally friendly and new transport system.

Network 2

Trambaix and Trambesòs

New connection in works
The TRAM network

- Runs across: 9 municipalities
- Total length: 29.1 km
- Trams: 41
- Passengers: 29.1 M

New connection
- Length: 4 km
- Trams: 18
- Passengers: 29.0 M
Urban integration

• Infrastructures integrated in the urban space

  • Link-up of the two current networks along the Diagonal
  • New urban design where pedestrian, bicycles and PT take over the private car

Demand

2019
30 M

2027
60 M
Public transport system

**Metropolitan Transports of Barcelona (TMB, Public Operator):** Urban bus of Barcelona. It is the principal operator of the System. Administered by the AMB.

**Other transport operators** There are other 50 private operators (metropolitan, intercity or urban) that offer services in a concessional regime or other modalities, administered by the Generalitat of Catalonia, the Metropolitan Area of Barcelona or the City Councils.

**BUS OPERATORS**

- 746 lines
- 15,805 km network
Public transport system

RAILWAY OPERATORS

- **Metropolitan Railway of Barcelona** (TMB, Public Operator): Metro of Barcelona. Administered by the AMB.
- **Metropolitan Tram, (private operator, concessional system)**: Administered by ATM.
- **Rodalies of Catalonia** (Renfe, Public Operator): Commuter train network. Public company of the General State Administration, the ownership of the service was passed to the Generalitat of Catalonia in 2010.
Public transport system

RAILWAY NETWORK

23 railway lines
811 km
Public transport supply

<table>
<thead>
<tr>
<th></th>
<th>Routes</th>
<th>Network (km)</th>
<th>Trains km.10⁶</th>
<th>Trains / HP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban (Metro TMB)</td>
<td>8</td>
<td>123</td>
<td>92,9</td>
<td>146</td>
</tr>
<tr>
<td>Suburban (FGC+Renfe)</td>
<td>23</td>
<td>666</td>
<td>123,1</td>
<td>85</td>
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<tr>
<td>Tramway</td>
<td>6</td>
<td>29</td>
<td>2,4</td>
<td>23</td>
</tr>
<tr>
<td><strong>SUBTOTAL 2020</strong></td>
<td>37</td>
<td><strong>718</strong></td>
<td><strong>218,3</strong></td>
<td><strong>254</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Routes</th>
<th>Network (km)</th>
<th>Buses on service</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban TMB</td>
<td>101</td>
<td>830</td>
<td>903</td>
<td>8,5</td>
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<tr>
<td>Suburban (Metropolitan buses)</td>
<td>115</td>
<td>1.452</td>
<td>652</td>
<td>9,2</td>
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<tr>
<td>Suburban (Other buses)</td>
<td>417</td>
<td>12.278</td>
<td>686</td>
<td>6,8</td>
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<tr>
<td>Other services</td>
<td>147</td>
<td>1.045</td>
<td>275</td>
<td>9,6</td>
</tr>
<tr>
<td><strong>SUBTOTAL 2020</strong></td>
<td>780</td>
<td><strong>15.603</strong></td>
<td><strong>2.515</strong></td>
<td><strong>8,6</strong></td>
</tr>
</tbody>
</table>
Public transport

Supply (milions veh·km) vs. Demand
Demand

TRAIN: URBAN & SUBURBAN
(Metro: 64% | TRAM: 4,5% | Suburban: 31,5%)

BUS: URBAN & SUBURBAN
(TMB: 52%)

COVID
decarbonization

• Decarbonisation of public road transport

  • It is estimated that 645 urban and interurban bus lines could be electrified (annual consumption 217 million kw/h)
  • Agreement to decarbonise the entire public transport system by 2035
Gender policy

- Plan of measures against sexual harassment in public transport:

  - BENCHMARK
  - FIELDWORK
  - FOCUS GROUP
  - INTERNAL WORK

Increase the number of audits carried out on the mobility system from a gender perspective

5 LINES OF ACTION

18 MEASURES
The **integrated fare** enables passengers to pay for a single journey and make transfers on different means of transport. This translates to considerable savings for all users.
Ticketing and information digitalisation

Opportunities for innovation
- Fare integration and promotion of exchange with other modes:
- New marketing and sales systems (mobile, internet, etc.).
- Precise control of the time of use, km of service, etc., and characterisation of the needs of the users.
- Dynamic pricing: “Pay as you go”.
- Optimisation of access systems to the public transport network.
- New mobility data platform

The proposal
- Tariff adapted to use
- Mobility card adapted to the user
- Reduction of card types (trend towards a single card).
Unleashing transport transformation through digital and mobile
Mobility as a service

- Maas Project: A door-to-door trip with several modes and a single contract

- More mobility options and adapt to their needs
- Protection of user data
- Bring more people to the PTS
- Increase the coverage
- Reduce the cost per trip
- Increase the coverage
- Reduce the cost per trip
Financing the transport system

One of the primary duties of the ATM (Metropolitan Transport Authority) is to act as a financial hub for the entire metropolitan collective public transport system. This guarantees that there are sufficient economic resources to carry out an ongoing improvement programme in the public transport within the Metropolitan Region of Barcelona.
Financing the transport system

(* Based on ATM’s historical cost-coverage ratio criteria, which it doesn’t take into account Renfe and Urban’s bus (AMTU) fare revenue.)
From local to global: ATM’s involvement and active participation at EU level and beyond.

Building a common and interoperable ground for the future of mobility
Thanks!
Lluís alegre
At your service
lalegre@atm.cat