MILAN SUMP: Challenges, Strategies and ongoing actions

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Inhabitants Milan city: ~ 1.3M; Daily City Users: ~ 1M

Overall Mobility (trips per day): 5.279.000, of which 2.235.000 between Milano and its urban area, done 58% by car.

A more balanced modal split of trips Inside the City (30% by car), but a very high Car ownership: 55/100 inhab.
Milan is organizing the 2015 Universal EXPO

Key facts and Expo Milan 2015 targets:

✓ Six months event from May 1st to October 31st 2015;
✓ 24 million visitors (30% foreigners) expected;
✓ 144 countries participating with exhibitions and delegations;
✓ 1.1 million square meter exposition site:
✓ Over 2,000 related events

The Expo 2015 will be located on a 1.7 million sqm site north-west of Milan comprising part of the municipal territory of Pero and Rho.
Problems to face, Opportunities to catch:

- Traffic congestion in the City external accesses roads
- Air and noise pollution overcoming EU limit values
- Public spaces occupation for car parking

versus

- A new Planning season (SUMP)
- Innovative and successfully measures already in place
- Positive trend in mobility styles
A new Planning season: the SUMP - Sustainable Urban Mobility Plan.

The SUMP process follows a participatory approach: Citizens, stakeholders, public bodies and institutions, the civil society, a Scientific Committee are contributing to draft the future of sustainable mobility in the city. Milan’s SUMP focuses on 10 axes:

1. Sustainable Mobility at Metropolitan area scale;
2. Public Transport quality and efficiency;
3. Integrated Rail system and services;
4. Accessibility in new urban development areas;
5. Street Safety, Walking and Environmental Zones;
6. Cycling as a strategic way to move in the city;
7. Parking policies;
8. Smart Mobility;
9. Urban Freight Logistics;
10. City for all, City without Barriers.
Innovative and successful measures already in place or under study-development

- PUBLIC TRANSPORT: Underground development, but towards a model more oriented to Intermodality Hubs, Low costs Rapid Bus Services to serve Milan metropolitan area, preferentiation of Tram Lines in urban area.

- BIKE and CAR SHARING: a policy to promote more sustainable mobility styles and to reduce car’s ownership and public spaces occupation.

- PEDESTRIAN - CYCLING AREAS and 30km/h ZONES: to improve safety and city livability.

- PRICING POLICIES, ITS and ENFORCEMENT : AREA C SCHEME to reduce traffic in the city centre; SMART PARKING policies (and fees) to reduce public spaces congestion; SMART URBAN LOGISTIC.
M/Underground development (M4, M5, M1) to finalise running projects already funded

Extension of the protection for the main trolleybus circular lane.

Line T Project - Tram priority lines and + Bus Rapid Transit extension out of MI borders

Intermodality - Transport Hubs reorganisation, park&ride - 

Smart and for all PT - Infomobility - E-payment - Integrated fares
Public Transport: Present and next future

Metropolitan area

Urban area
In 2013, under the spur of the explosion of other systems of sharing (bike-sharing) and on the basis of a study by AMAT on the potential for development, the municipality of Milan launched a Public call/notice in order to spread the urban car sharing services. The Call was addressed at fulfilling the following main requirements:

- One way system
- “Fast” Reservation
- Fleet with at least 80 vehicles falling within the categories of electric, hybrid, natural gas, LPG, gasoline, EURO 5 and later, diesel approved under Directive 70/220/EEC and adequate levels of security by the European program EURONCAP
- 90% of the fleet with a length less than 4.50 m
- At least one vehicle out of 100 fitted for the transport of persons with reduced mobility

3 private operators answered to the call and started the service. Together with already existing services Milano registers now about 100,000 Carsharing subscribers for 2,260 vehicles. Carsharing use and benefits are under monitoring.
Milan Car sharing: operators and services

Free flow / one way / smartphone app (managed by Private operators):

✓ Car2go with 798 cars (SMARTx2) and about 60,000 subscribers;
✓ Enjoy with 644 cars (FIAT500) and 26,000 subscribers (no card needed);
✓ Twist with 80 (on going for 500) car (VW - UP) - just launched

Parking stations (start up with Public funds)

✓ Guidami with 158 cars and 5,542 subscribers;
✓ EQ Sharing with 120 electric quadricycles (15 station activated, 29 by 2014; e-recharging for private users too, Wi-Fi, Touchscreen. Smart light);
✓ e-Vai with 40 electric cars and 18,000 subscribers (with 8 station in Milan);
Milano among the 5 EU champion cities

197 stations (200 by end of June); 3.587 bicycles; 5.618 stalls available (ongoing plans for 213 stations and 3.650 bikes)

25.000 annual subscriptions (+46% 2013 on 2012)

1.910.868 trips/pick up in 2013

10.000 as day average
In 2015 – BikeMI + Electric Bikesharing

By EXPO 2015: 80 new stations and 1,000 full electric bicycles.

After Expo 2015, the stations will be relocated, in order to improve the current Bikemi Network.

The E-system will be integrated with the current BikeMI – Possibility to return traditional and electric bicycles at any BikeMi station - The first in the world of an integrated system of this size.
The 30 km/h speed limit zones are about 360,000 square meters.

According to the SUMP the 30 km/h speed limit zones will be almost doubled.

Pedestrian areas are currently 428,000 square meters + 15,000 of the ongoing project for the Piazza Castello pedestrian area.
Milan – 30 km/h speed limit zones and pedestrian areas
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Piazzetta Liberty

Piazza Beccaria

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Piazza Beccaria
Milan – 30 km/h speed limit zones and pedestrian areas

Piazza Castello: 15,000 sqm of a new pedestrian area
“Area C” is a road pricing measure launched by the Municipality of Milan in order to improve life conditions of those who live, work, study and visit the city. “Area C” is the restricted traffic zone in the center of Milan. The access points, monitored by cameras, are 43, including 7 for exclusive use of public transport.

The access to the historical center of Milan is limited on Monday, Tuesday, Wednesday and Friday from 7.30 to 19.30, and Thursday from 7.30 to 18.
The area subject to the congestion charge is called Cerchia dei Bastioni, a Limited Traffic Zone (LTZ) = 8.2 km², 4.5% of the whole territory of the Municipality of Milan.

Residents living in the Cerchia dei Bastioni = 77,950 (42,300 families), with a residential density of 9.480 inhabitants/km², similar to the average density of the rest of the city.

Due to the large presence of commercial activities and public services and recreational activities, there are 295,704 employees, amounting to almost 37% of the total employees of the Municipality of Milan.

The area has an outstanding attractiveness because of the activities and services settled in, that determine during the central daylight hours an average of 39,000 persons/km², with a peak of almost 140,000 person/km² within the historic center between Duomo and San Babila.
AREA C: The aims

Decreasing vehicular access to the Area C therefore:

- Decreasing traffic congestion
- Improving public transport speed
- Decreasing the occupation of on-street parking
- Reducing road accidents
- Reducing pollutant emissions caused by traffic
- Reducing health risks related to air pollution
- Increasing the share of sustainable modes of travel
- Improving urban center quality and attractiveness
- Raising funds for sustainable mobility services and infrastructures
The system uses a Automatic Number Plate Recognition (ANPR) on images taken by cameras.

The fares are:

• All vehicles: 5 €
• Except: Mopeds, motorcycles, electric cars, vehicles for disabled people, vehicles for public utility services, vehicles for public transport services, taxi, hybrid*, methane powered*, lpg* and biofuel* cars are exempted from the charge. (*until 2017)
• BANNED: the access in “Area C” is forbidden to “Euro 0” petrol vehicles, to “Euro 0, 1, 2, 3, diesel vehicles and vehicles with a length of more than 7.5 meters.
• Residents: the first 40 accesses (every year) are free. 41st access onward: 2 € )
AREA C: Mobility results

Daily vehicles entrance in Area C: 92.175

Reduction - 36.723 (first 24 months compared with 2011 Ecopass, the previous pollution charge Scheme):

- Less Traffic: - 28 %
- Less Road accidents: - 23.8% (-26.3 % with injured; out of Area C: 10 - 11 % - 2012 compared with 2011)

- Increase of public transport speed during peak hours: +6.9% for buses and +4.1% for tram

- Decrease in parking occupation -10% (+10% public spaces available)
AREA C: Environmental results

Less pollutant vehicles: - 49% (-2,400 pollutant vehicles entering every day the Area C)

More cleaner vehicles + 6,1 % (from 9,6% to 16,6% of the total vehicles)

Less emissions of pollutants:
- Total PM10 -18%; Exhaust PM10 -10%;
- Ammonia -42%; Nitrogen Oxides -18%;
- Carbon Dioxide -35%

Less Black Carbon (BC):
-52% (Sept) and -32% (Oct) of BC concentration inside Area C compared to the outside Area C stations.
Area C compared to Ecopass, the previous pollution scheme
AREA C: Increase of public transport speed

Hourly average increase commercial speed of Local Public Transport inside Area C compared with 2011
In 2012 all the incomes from Area C have been reinvested in 2013 projects for sustainable mobility:

- 10 million € for the strengthening of public transport in order to improve its frequency
- 3 million € for the development of 2nd phase of bike-sharing system
- 7.3 million € is the cost of IT management access control the software management and authorizations of payment channels

In 2013 the incomes were 29 million, reinvested in Public Transport and Sustainable mobility

Now on: Maintenance costs area decreasing to 6 million; Incomes stabilised around 23 million
Smart technologies - New services - Electric Vehicles

Technological devices which are able to control and apply sanctions for infringement (in line with the regulations)

Pick-up Pack stations for e-commerce goods.

Electric vehicles to deliver in the Area C
Low Emission Zone

Urban Freight Logistic. Control and tracking of access for heavy vehicles and for the transport of dangerous goods - Towards Milano Low Emission Zone

The City of Milan is developing an infrastructure of electronic gates (96) around and next to the municipal boundary.

The systems (camera and on board units) will be set for the control and management of the most heavy vehicles and the ones used for the transport of dangerous goods. In a second phase it will be targeted to manage also tourist buses and other kind of big vehicles and to disincentive the most polluting vehicles, inspired by experiences such as Greater London LEZ. The definition of the rules will be discussed with main stakeholders and agreed with regional and national authorities.
Thank you for your attention