



Balance and flow: Cultivating Milan's transport 'chi'

Maria Berrini is CEO of AMAT srl, the Milano Municipal Agency for Mobility, Environment and Territory. She has contributed to the AMAT role development in realisation and innovation of planning and strategic services in support of the Milano Administration. **Giacomo Lozzi** spoke with her about the new Sustainable Urban Mobility Plan of Milan, its road charging scheme, the Smart City strategy and the leading role of the city in mobility sharing services

Giacomo Lozzi, *Thinking Cities* (TC): Milan is world-renowned as a beautiful city but what are the most pressing transport challenges? Its residents and regular visitors will also know that it is quite famous for its congestion!

Maria Berrini (MB): The modal imbalance of the flows between the city and the hinterland is one of the most important challenges. Congestion affects in particular the major axes of communication, despite the recent significant progress. In fact, while in the Municipality of Milan the use of public transport prevails (57%), commuters from the city's surroundings clearly prefer to use cars and motorbikes (62%).

Another big challenge is the high car ownership in the Municipality of Milan. The share is decreasing and is lower (about 51 cars per 100 inhabitants) compared to the Metropolitan area and the Region, though further efforts are necessary so that this number significantly decreases. Congested public space in a city so densely populated and frequented as Milan, deriving from both the residential traffic and the commuting from the hinterland, is no longer sustainable.

Finally, air pollution: the situation in Milan has steadily improved over the last 10 years, but the situation is still quite critical.

TC: Smart cities represent a hot topic at European level. The European Commission envisages to create a more holistic "Smart Cities and Communities agenda". The City of Milan and the Milan Chamber of Commerce signed a protocol to build a Milano Smart City strategy. Can you tell us more?

MB: Our vision is consistent with the European Commission's initiative: the idea of Smart City is linked to the idea of Smart Community. Inclusion is a key topic too. This means high attention to the sharing of decision-making processes, the involvement of citizens and public-private partnerships to engage the private system and the network of associations as resources to trigger innovation. Business and civil society can provide a boost that the local administration would not be able to produce alone.

TC: Which initiatives are related to the transport sector?

MB: The specific initiatives in the transport sector (smart mobility) are mainly related to the the road pricing scheme (Area C), and its supporting technologies (cameras, web payments, etc). Moreover, Milan is for example developing e-ticketing services (SMS, QR code) for public transport. The infomobility

The infomobility portal is growing and is very dynamic, providing the highest level of integration of transport modes for trip planning



New pedestrian area in front of Sforza Castle



BikeMi: Milan's bike sharing system

portal is growing and is very dynamic, providing the highest level of integration of transport modes for trip planning. Significant smart solutions in the field of sharing mobility have been implemented as well. Finally, Milan has submitted its candidature for a call in the framework of the EU programme Horizon 2020 Lighthouse. The project foresees the creation



One of the access gates to AREA C

of Smart districts for innovative solutions not only regarding mobility (e.g. car and bike sharing), but also energy and ICT. The interested area would be the district of Porta Romana-Vettabia, in the South of the city.

TC: At the time of writing EXPO Milano 2015: Feeding the Planet, Energy for Life is coming to an end. How did hosting the six-month long global exhibition affect the urban sustainable mobility policies in Milan, also with respect to the Smart City strategy?

MB: EXPO has accelerated an innovation process already in place in Milan, forcing the actors to engage more quickly and to invest in smart solutions. Many companies belonging to the telecommunications and energy sector have become sponsors of the event and have provided a fast and innovative infrastructure to the EXPO site. Moreover, the electric bike sharing was conceived to let visitors reach the site from the city center, but it is intended to permanently remain as a new service in the city of Milan.

TC: The Sustainable Urban Mobility Plan (SUMP) of Milan for 2015-2025 is currently under approval. Which are the most innovative solutions envisaged?

MB: The most innovative measure for Milan, which demonstrates the most interesting cost-benefit ratio, shall make surface public transport faster, especially tramways: the intervention foresees an investment on the traffic signals, in order to shorten the duration to cross the city by tram, on the vehicles, to make them more accessible, and on the protection of tram and bus lanes. While priority is given to improve public transport, the plan also envisages the creation of a cordon of cameras around the entire city, to establish a large low

emission zone (LEZ) with control purposes for the most polluting vehicles, which are already banned but difficult to prosecute. In the future, other policies could be implemented thanks to this cordon of cameras, including the creation of a new charging zone.

The SUMP envisages guidance on public transport, sharing mobility, cycling and walking networks, the realization of a low emission zone (LEZ), 30 km/h zones and urban logistics.

In addition, the plan provides a methodological innovation: it has given the city a long-term vision on mobility and shaped a clear instrument with well-defined objectives and actions. For the first time the plan was accompanied by a cost-benefit analysis, integrated by the strategic environmental assessment (VAS in Italy), in order to select the most cost-effective areas of intervention for the city.

TC: In January 2012 the city of Milan implemented AREA C, the first congestion charging scheme in Italy. It replaced the previous road charging scheme, ECOPASS (2008-2011). What are the main differences between the two schemes?

MB: The area subject to regulation is called Cerchia dei Bastioni, and it corresponds to 4.5 per cent (8.2 km²) of the whole territory of the Municipality of Milan. The area is very attractive because of the many activities and services located there: every day about 500,000 people travel into the area from elsewhere.

Ecopass was an anti-pollution scheme, designed to encourage the shift to cleaner vehicles, effect obtained thanks also to the national scrapping subsidy. Area C is a road pricing scheme, which, even taking into high consideration the environmental aspect, principally focuses on reducing congestion: every non electric or hybrid vehicle entering into Area C must pay a €5 fee per day.

TC: What are the main results of the two schemes, both in terms of mobility and air quality?

MB: One year after Ecopass was implemented, on average the number of cars entering the city centre decreased by 14.4 per cent, although, car traffic outside of the central area also decreased by 3.4 per cent. A corresponding reduction of PM10 (-23 per cent) and CO₂ (-15 per cent) inside the Cerchia area was also observed. After few years, Ecopass had lost its effectiveness because of the shift to cleaner vehicles, and did not substantially affect the reduction of the entries into the city center. Area C is conceived to address congestion, and has reduced

the number of vehicles by 29 per cent and accidents by 26 per cent, has allowed to recover 10 per cent of public spaces previously occupied by cars and to reduce PM10 emissions by 18 per cent. Obviously, PM10 concentrations cannot significantly decrease in such a small area. On the contrary, concentrations of close-proximity pollutants (black carbon) have dropped by 28 per cent during the winter and 56 per cent during the summer.

TC: Some 6,700 vehicles, 350,000 subscribers, 31m km covered: On the occasion of the last European Mobility Week, Milan was defined the capital of sharing mobility. Sharing schemes for cars, bikes (both traditional and electric) and even scooters are in place. Do you think these collaborative practices could provide a significant contribution in addressing the urban mobility challenges?

MB: Definitely yes. The main challenge is to convince residents that it is possible to easily move within the city without owning a car, not only thanks to an efficient public transport, but also to these new mobility sharing services. We still don't have data demonstrating a substantial behavior change. However, car registrations in Milan are still progressively diminishing, despite in the rest of the Lombardy Region and in Italy they started to increase again, so probably a correlation exists between the sharing schemes and this reduction. However, we are collecting data and interviewing car and bike sharing users in order to produce more realistic and affordable information and to better shape the services.

TC: Milan takes part in the European funded project FREVUE, realising a demonstrative system of clean city logistics applications, involving Electric Vehicles, to deliver e-commerce goods in the AREA C. How is it going?

MB: Milan decided to implement a demo on the delivery of pharmaceutical products: even if it represents a small supply chain in terms of weight and size of parcels, it requires several deliveries during the day, has special requirements in terms of treatment of the products and several pharmacies exist in the city center of Milan. The Municipality has involved a specialised operator, Eurodifarm, working together with DHL. Moreover, thanks to the project's resources, a Nissan electric van has been provided and equipped on *ad hoc* basis. We hope this demonstration will trigger virtuous practices on a wider scale in the future. Some logistics operators, in particular GLS and TNT, have already

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started offering distribution services through electric vehicles and cargo bikes.

TC: Milan is well connected across Europe. What is your motivation for being part of European networks? What type of support would you like to see from the European Union for local mobility issues?

MB: Milan is among others a member of Polis, which represents a very important networking support for the city of Milan: it provides a place for debate with other local authorities on the best practices at European level, it involves us in European projects and invite us in conferences and workshops providing inspiration for new ideas and solutions. Regarding the support from the European Union, we would be glad to see a higher attention by the Member States and the Committee of Regions on sustainable urban mobility issues, as often the European Commission is the sole body providing support. We would like to see more structural funds allocated for the mobility sector, and SUMP's should serve as a minimum requirement to obtain funding and a mean to decide how to use them, instead of depending on the decisions made at national and regional levels regarding the urban transport priorities. Finally, the EC should strengthen its control on the actors working in the sector, in order to avoid that a scandal such as the Volkswagen tampering will happen again. ♻️

Above left: a motorbike and a car belonging to the city sharing schemes

Above right: one of the new electric bikes added to the bike sharing scheme

FYI

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