

Modernization of the fleet

During 2021, the ATM Group allocated about 47.7 million euros to the renewal of the company's fleet. With regard to the M1 and M3 metro lines, in 2021 the authorization procedure was initiated for the publication in September of the tender for a framework agreement aimed at the purchase of 46 new trains.

These are 21 trains for the M1 line, replacing the “revamping” trains (for restyling in the past) and 25 trains for the M3 metro line that can be used, with minimal modifications and with the upgrade of the on-board signaling system, also on the M2 line.

The Group makes these investments in order to generate positive repercussions for the performance of transport services and *in terms of customer experience* - thanks to the improvement of the quality of the service and the relative levels of comfort and accessibility - but also to improve environmental performance and vehicle safety levels.

Fleet renewal for improving environmental performance

In order to renew and improve the performance of the public transport network, the fleet renewal plan, which provides for the replacement of older equipment by more modern and efficient means, will allow the ATM Group to reduce emissions into the atmosphere resulting from the fleet.

Following the Full Electric Plan, the epochal change in surface vehicles toward a zero-emission bus fleet started in 2018, ATM continued with the introduction of hybrid buses, given that the market is not yet able to meet the wide requirements of electric buses and that the regulations provide for time limits on the use of older vehicles. Hybrid buses allow significant reductions in both fuel consumption and CO₂ emissions. The race was awarded for a framework agreement of 150 hybrid buses, including full service maintenance extended to the life of the vehicle. When the framework agreement was signed, the first application contract for 129 buses was also signed with deliveries planned by 2022.

As part of the Full Electric renewal plan, the first 25 vehicles were purchased with two agreements, with deliveries completed at the beginning of 2019. At the same time, a framework agreement was signed for the supply of additional 250 buses, related to which three application agreements have been concluded: the first for 40 vehicles, the deliveries of which were completed in 2020, the second for 100 vehicles, the completion of which was completed in August 2021. On the basis of the evolution of the works for the adjustment of the deposits, the process for the signing of the third application agreement for 75 vehicles started in the second half of 2021 and was concluded in January 2022. At the conclusion of the framework agreement, 35 vehicles remain, to be requested according to the progression of the activity of laying the columns in the warehouses.

The framework agreement includes full-service maintenance, extended throughout the life of the vehicle, and replacement of traction batteries, which will replace those installed in the first system, which is expected to decline in performance at approximately half the life of the vehicle.

For the Full Electric project are also in progress the adjustments of the spaces for the shelter and the recharging of the vehicles. For this purpose, a 5-year framework agreement was signed for the installation of the columns in the warehouse of Sarca, Giambellino and San Donato and the installation of the opportunity charges at the main terminals of the car service.

In 2021, the activities for the laying of the columns in the Sarca warehouse were completed, and the preparation of 10 opportunity chargers (6+2+2) at the bus terminals of Zadar (6, whose work began in the second half of 2020), Central (2 installed and 2 more will follow in 2022) and Lambrate (4 to be installed in early 2022).

In the second half of 2021 were initiated the activities for the installation of the columns in Giambellino's warehouse, the conclusion of which is expected at a first step by the spring of 2022 and at a second step by the spring of 2023. With regard to the other opportunity chargers will be continued in 2022 with the setting up of two additional plants at the end of Lambrate (Via Viotti) and then two more plants will be added at the terminal of Piazza Napoli.

It is necessary and appropriate to point out that, within the “ecological mission”, the energy needed to recharge the electric buses is completely eco-friendly, considering that ATM has signed an agreement for the supply of electricity produced from renewable sources, certified as Green Energy with origin guarantee.

Regarding the fleet of buses of the subsidiary NET, the renewal plan of 44 buses of 12 and 18 meters has been completed, divided between the extra-urban service lot 3 and Monza urban service. These investments, incurred in view of the tender for the award of the service, have allowed a rejuvenation of the NET fleet, consenting the disposal of obsolete vehicles, still with Euro 3 engines.

In the second half of 2020, the framework agreement was signed on the provision of 80 25-meter-long two-way trams, with a low floor only in the access door area, for use on the urban and long-distance network. Together with the agreement, the first application contract was also signed for 30 trams (10 interurban and 20 urban), with deliveries starting from 2022 and service starting from 2023.

At the end of 2021, application contracts were signed for a further 30 urban trams, completing the replacement program for 50 urban trams co-financed by the Ministry of Infrastructure and Sustainable Mobility (MIMS).

Under the framework agreement for the supply of 80 articulated trolleybuses of 18 meters, deliveries of 30 vehicles were completed in the first half of 2020, all in service as referred to in the first application contract.

In February 2021, the request for the conclusion of the second application contract was launched, for the next 50 trolleybuses, signed in November 2021.

With these investments the average seniority of the ATM trolleybus fleet will fall to about 4 years, thus allowing the disposal of all the old 12 and 18 meter vehicles, particularly dated. It is recalled that the new trams and new trolleybuses will offer customers a better quality of service, in terms of comfort and accessibility; they will be updated to the most modern safety requirements, will be equipped with anti-collision system for trams, will guarantee the mitigation of the noise emitted in the environment, they will be equipped with technology systems to enable customers to network once on board and will save energy with the braking energy recovery system.

Finally, in the context of the renewal of the fleet of vehicles and in the perspective of sustainability, the project for the replacement of diesel service cars by electric rental cars, to be used for the assistance of the vehicles in line, the control of the operation and for the maintenance of the underground and tramway systems, continues. Currently, there are 107 cars already on-board and, additional 9 cars already ordered (to check when closing this file if order done) will be delivered in 2022.

In 2021, 71.3% of all ATM public transport routes were powered electrically, particularly in 31.12. 2021 the ATM facilities include 166 electric buses and 126 trolleybuses, as well as underground trains and trams.