

Investments

During 2021, the ATM Group made investments of approximately 72.7 million euros, of which approximately 47.7 million euros were earmarked for fleet renewal, including extraordinary maintenance for the General Revision and Metro and Tram Revamping .

Under the framework agreement for the supply of Leonardo trains, deliveries and put into service of all 72 trains relating to the four application contracts have been completed. The last train was delivered in January 2021 and put into service in March.

During 2021, the authorization procedure for the publication in September of the tender for the signing of a framework agreement for the purchase of 46 new trains, of which 21 trains for the M1 metro line, was launched. It replaces the “revamping” trains and 25 trains for the M3 metro line. The purchase program for M3 metro trains is part of the line upgrading project, together with the new signaling facility. The renewal projects for M1 and M3 trains and M3 signaling installations will be fully publicly funded.

Under the “Full Electric” renewal plan, two application contracts have been concluded under the framework agreement for the supply of 250 electric buses: the first for 40 vehicles, which were delivered in 2020, the second for 100 vehicles, which were delivered in august 2021. In addition, in the second half of 2021, the process was started for the signing of a third application contract for 75 vehicles, which was concluded in January 2022. The framework agreement, in addition to the supply of the means, includes *full*-service maintenance and the replacement of the power supply batteries, which will replace those installed as original equipment at about half the life of the vehicle, expected period of performance degradation.

In December 2021, the ATM city bus fleet consisted of: 74% diesel, 13% hybrid, 13% electric. The aim is to have a total of 1.200 electric vehicles running, this will enable the creation of a “Zero Emission Zone” which will allow, on the one hand, a reduction in diesel fuel consumption of 30 million liters per year and, on the other hand, a reduction in CO2 emissions of around 75.000 tons per year.

For the “Full Electric” project, in addition to the supply of the vehicles, it will be necessary to adapt also the spaces for the shelter and the recharging of the vehicles. With regard to the vehicles described above, a 5-year framework agreement was signed for the installation of the columns in the warehouses of Sarca, Giambellino and San Donato depots and the installation of *the opportunity charges* at the main terminals of the car service. During 2021, the activities for the laying of the columns in the Sarca warehouse were completed, and the setting up of 10 *opportunity chargers* (6+2+2) at the bus terminals

of Zadar, Centrale and Lambrate respectively. In the second half of 2021 also the activities for the installation of the columns in Giambellino's warehouse began, the conclusion of which is expected for a first step by the spring of 2022 and a second step by the spring of 2023. As for the other *opportunity chargers* at the beginning of 2022, 2 chargers were added to Piazza IV Novembre, bringing the resort to 4 plants. *Lambrate chargers* (Via Viotti) are also being completed.

In view of the investments in the “*Full Electric*” plan and in the context of the pursuit of the “ecological mission”, ATM has signed a contract for the supply of electricity produced from renewable sources, certified Green Energy with guarantee of origin.

The Group's investment strategies in surface vehicles also include the use of hybrid vehicles as an intermediate step, both because the market is not yet able to meet the wide demand for electric buses, As a consequence of the fact that the COVID-19 pandemic has caused the reprogramming of production activities and numerous difficulties in supplying the raw materials of batteries, both in accordance with the regulations, which establish time limits on the use of older diesel vehicles. In any case, hybrid buses, compared to traditional vehicles, allow significant reductions in both fuel consumption and CO2 emissions.

In October 2021, the tender for a framework agreement for the purchase of 150 hybrid buses, including *full* service maintenance extended to the life of the vehicle, was also awarded. When the framework agreement was signed (November 2021), the first application contract for 129 buses was also signed, with deliveries planned by 2022. It should be noted that the tender for the purchase of such vehicles has been delayed because, in the final award phase in June 2020, the winning company was excluded for some non-conformity. The same company appealed first to the tar, which in July 2021 was in favor of ATM and then to the Council of State, which formally authorized ATM to proceed with the assignment to the second classified.

Taking up the issue of electricity mobility, the first application contract for 30 trams was also signed in the second half of 2020 for the supply of 80 25-meter-long two-way trams to be used on the urban and long-distance network (10 interurban and 20 urban), with deliveries from 2022 and start of service from 2023. At the end of 2021, once the co-financing was confirmed by the Ministry of Infrastructure and Sustainable Mobility (MIMS), two additional application contracts were signed for a further 30 urban trams, completing the replacement program for 50 urban trams. It should be noted that the acquisition of the 80 trams has been delayed due to appeals from one of the companies participating in the tender, first to the tar and then to the State Council. Appeals both rejected by judgments in favor of the work of the ATM invitation to tender.

In November 2021, under the framework agreement for the supply of 80 articulated trolleybuses of 18 meters, the second application contract was signed for the supply of a further 50 trolleybuses, which are expected to be delivered from the end of 2022. The subscription took place at the end of the administrative procedures for the allocation of funds by the Ministry of Transport to the Municipality of Milan.

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.

The new trams and new trolleybuses purchased will offer customers a better quality of service, in terms of comfort and accessibility; they will be updated to the most modern safety requirements, equipped with anti-collision system and technological systems to allow customers to connect to the network once

on board. They will also mitigate the noise emitted in the environment, and thanks to the system of recovery of energy during braking they will guarantee energy savings.

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 rental electric cars, to be used for the assistance of on-line vehicles, the control of the operation and for the maintenance of the metro and tramway systems, continues. There are 106 cars already running.

With regard to the operations on the installations, the project to upgrade the M2 metro line, co-financed by the State at 60%, has been highlighted, which has seen ATM take over from the Municipality of Milan for the financing of the remaining quota. The project concerns the renovation of the electric traction and power supply systems of the Cascina Gobba-Gessate section, whose work was completed in 2019 and of the Cascina Gobba-Cologno Nord section, whose activities started in 2020 continued throughout 2021 and will end in the spring of 2022.

ATM also carries out, on behalf of the Municipality of Milan, a series of interventions on the infrastructure of municipal property, among which the works related to the renewal of the M2 line, and more specifically:

- the complete reworking of the signaling system, the tender of which was awarded in the first half of 2020, was subsequently subject to technical, administrative and legal checks by a third party. These checks, which confirmed the correct management of the tender procedure, allowed the conclusion of the contract in September 2021 and the start of the design activities by the supplier in November 2021. The project aims to ensure safer and more efficient service management, to increase the frequency of trains and consequently to increase transport capacity. The work is fully financed by ministerial contributions and by the Municipality of Milan.
- the renovation of the armament. The works, started in the summer of 2021, are aimed at the renewal of some sections of line in which the armament has suffered a performance decay of mechanical components or has been realized with technical solutions that do not allow the expected increase of the driving speed from 70 km/h to 85 km/h. The work is almost entirely financed by ministerial contributions and by the Municipality of Milan.

Finally, ATM is continuing its work on the complete remaking of the M3 metro line, which will contribute to the modernization of the “yellow” line, together with the renewal of the train fleet, in the medium term. The intervention is entirely financed by the Ministry of Sustainable Infrastructure and Mobility (MIMS). In 2021, the tender was launched with the aim of reaching the award by April 2022.

Among the investments there is also the revolution of *ticketing* in local public transport, of which ATM is the leader. The digital transformation of public transport in Milan is now at a turning point in the *ticketing mode*. In fact, ATM takes another step forward in the contactless payment revolution. After two years of operation in the metro, the contactless payment system has been extended and installed also on the first bus lines 56, 70 and 73 and plans are made to extend this payment method also to the car parks.

Technological innovation

ATM is constantly engaged in the experimentation and use of new technologies applied to mobility services. In this context, it has developed distinctive skills in creating platforms for integrated mobility information management.

There are numerous projects carried out in 2021 for the purpose of technological innovation addressed to both internal and external customers; among others we highlight:

SAP SuccessFactors Platform

During 2021, the Information Systems Department, in conjunction with the Human Resources Department, launched the Competency Assessment, MBO, Compensation Policy campaigns through SAP SuccessFactors. The adoption of the new platform has enabled, thanks to the digitalization of the process, greater speed and efficiency in communication between the Human Resources and Line Resources Directorate.

Employee Portal functionality evolution

Transition of approximately 50% of enterprise domain users to Office365 with second factor security authentication. As of July 2021, all employees, thanks to the second authentication factor activated, no longer receive the paper coupon but only access it digitally via the Employee Portal. The aim is to extend this type of user to all staff.

Application “Attilio”

During 2021, the Information Services Department developed and made available to the operating Directorates a new application that digitally allows to propose an extraordinary shift to an agent and to trace the process of acceptance or refusal.

Key Account Reimbursement process

Since July 2021, ATM has launched a new refund procedure for “*Key Account*” customers, i.e. customers who are employees of public and/or private entities with which a commercial agreement is in place for the sale of ATM services. The new procedure provides for the independent management by the customer that provides in total autonomy the insertion of the reimbursement request in the ATM Web Site (Reserved Area). After the insertion of the request, the client can deactivate his contract, for which he has requested the reimbursement, by approaching his card to any of the “Totem” present in the stations of the metro lines. The claim is then handled by the ATM back-office for the financial aspects of reimbursement. The new process prevents the customer from physically visiting the counters and has made the reimbursement process more traceable and has reduced the time to process the reimbursement practices.

The process analysis is aimed at extending the “on-line” reimbursement mode to other sales channels as well.