

ROM_05 “New LEV and ZEV bus fleet – network adaptation”

Description of the measure and main outcomes expected

The objectives of this measure are in line with the provisions of the SUMP that indicates, among the others, the need to re-balance the modal share in favour of PT in Rome. In addition, the pandemic emergency has contributed to move more people away from collective transport modes. The Rome bus fleet has an average age of 9 years, with most of the buses procured in 2002-2003. The local administration and ATAC have plans to lower the average age of the entire bus fleet to 5 years. Taking the opportunity to procure LEV and ZEV buses thanks to the RFF funds.

In compliance with the SUMP's goals supporting the need for investment in renewing the PT surface fleet with LEV and ZEV buses by 2030, ATAC, the main PT operator, has defined its need for new buses between 2023 and 2026: 1057. Rome has therefore implemented a major strategy to integrate LEV and ZEV buses into the PT surface fleet, while at the same time providing for a redesign of the PT's low-emission routes.

Indeed, the complex project of integrating ZEV vehicles within the current fleet requires careful route planning to enable the efficient operation of wide-area service. Also of paramount importance is the rescheduling of existing routes and depots, as well as the integration of new ones where necessary.

Targets of the measure are:

Designing and Adapting the PT network to fit the needs of the new and sustainable bus fleet

Reducing emissions of the PT fleet

Increasing the Customer satisfaction on the PT service

Ensure smooth operation of bus fleet during fleet renewal

Reducing emissions due to PT

Increasing the quality of the PT supply and of the customers' satisfaction

Following the introduction of 411 electric buses, 269 hybrid buses, 344 methane buses, 33 EURO 6 buses and the implementation of a new depot, this measure will deliver:

Identification of the need for the buses fleet renewal

Introducing ZEV and LEV buses (procurement procedures)

Design and adaptation and integration of the new buses (including LEV and ZEV) in the PT network

Participation process with the territorial representations for the design of the lines

Evaluation of the Customers' satisfaction, raising awareness on environmental issues

Report on the assessment of the new services.

Preparation of the measure

This measure is strongly connected to measures ROM_01, ROM_02 and ROM_09 since the disincentive to use private transport is only possible through an improvement of the public transport service, road transport and rapid mass transport (ROM_04).

Preparation for the measure requires first a new strategy for depots and routes.

In fact, the new electric buses have a different mileage range from the traditional ones in use today, and the routes will have to be adapted to their new technology, requiring compatibility between battery consumption time and location of depots in the city.

This requires:

electrification of existing depots

design of new routes.

Concerning the first point, Rome is currently implementing the realisation of electrification of the five depots to be used for the parking of the new electric buses, of which four implemented by ATAC S.p.A. (Portonaccio - area called "bis" - Tor Sapienza, Grottarossa, Trastevere) and one by Roma Capitale (Piazza Ragusa depot, 'Tuscolana').

Specifically, the Ragusa depot, will be electrified through a complex public-private partnership procedure, which brings together an architectural project of total restoration and electrification of a listed building in the center of the city and a project financing that provides for a fifteen-year fee with which the administration will manage the building and the energy supply.

A study of the new routes is currently underway.

Challenges & Mitigations

Part of the measure usufruits from NRRP funds in the amount of 208,500,000.00 euros for the purchase of electric buses and 84,071,037.00 euros for the construction of charging infrastructure.

This requires meeting the milestones dictated by the type of funding, which have been met in full, with a time target of June 2026. Therefore, buses will be purchased and registered by December 2025, while depots will be finished by the summer of the following year.

To meet the targets, it has been necessary to choose different partners to manage the tenders, thus being able to start several procedures at the same time and increasing the staff dedicated to the activities.

Next steps towards implementation

The next step calls for the need to find:

appropriate support and training of specialized personnel to manage the new charging systems installed in depots;

adequate support for the maintenance of the new vehicles;



identification of partners for electricity supply and contract management;
recirculation of the necessary funds for the procurement of the new energy source.