

Final pilot action report

Port of Venice

PP2, deliverable no. D.4.2.3

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Pilot action no. 1 : Purchase of two electric cars and one plug-in hybrid car

1. Ex-ante situation

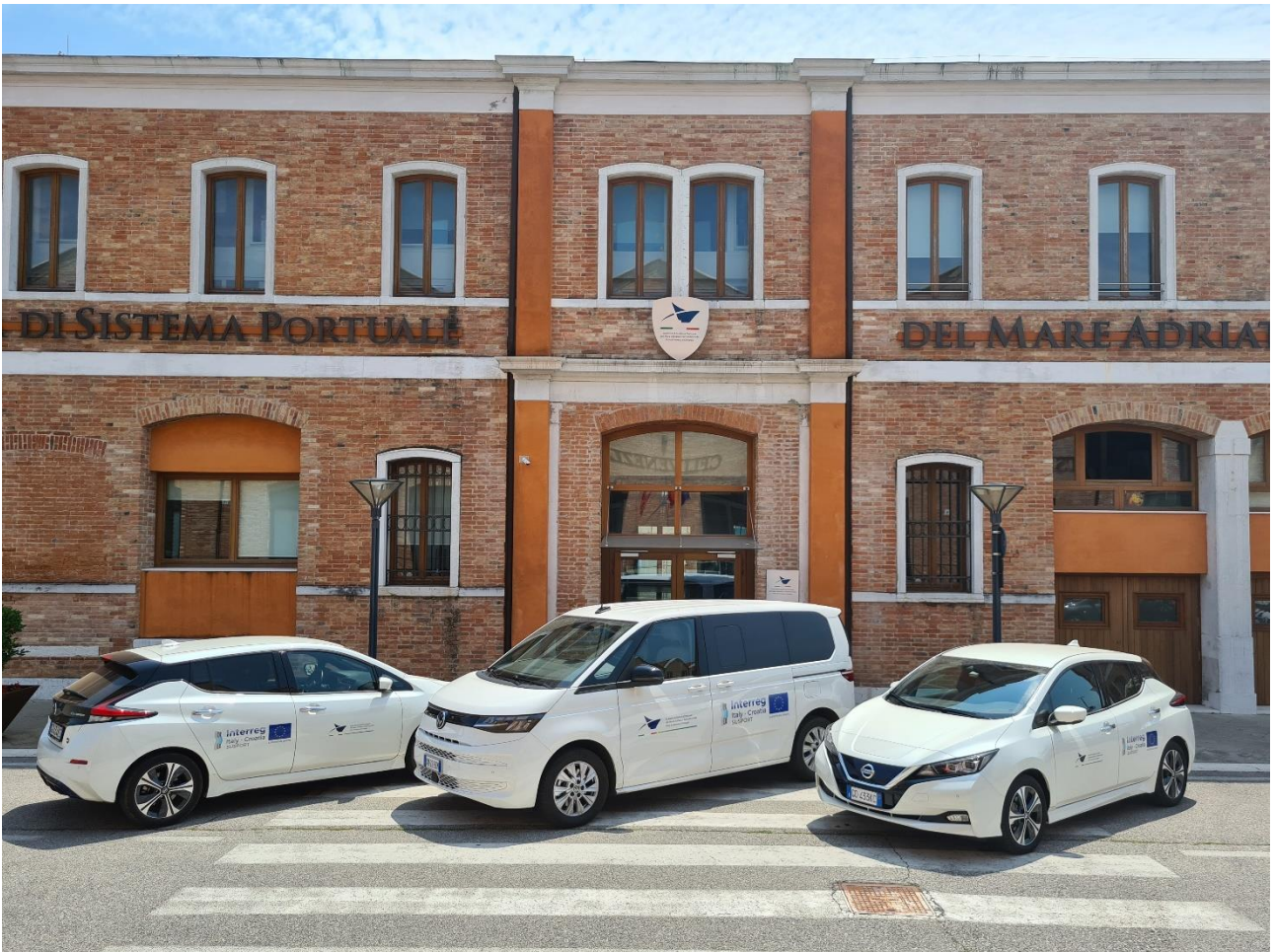
NASPA car fleet has old vehicles to support the operational and institutional activities of the ports of Venice and Chioggia, which are not contributing to reduce pollution and in particular CO2 emissions. In order to enhance the sustainability and energy efficiency through concrete actions aimed at saving CO2 emissions, NASPA had the opportunity to purchase more sustainable cars, in line with the results of the TNA (D3.2.4) that shows the need for PP2 to deploy resources for the energy transition.

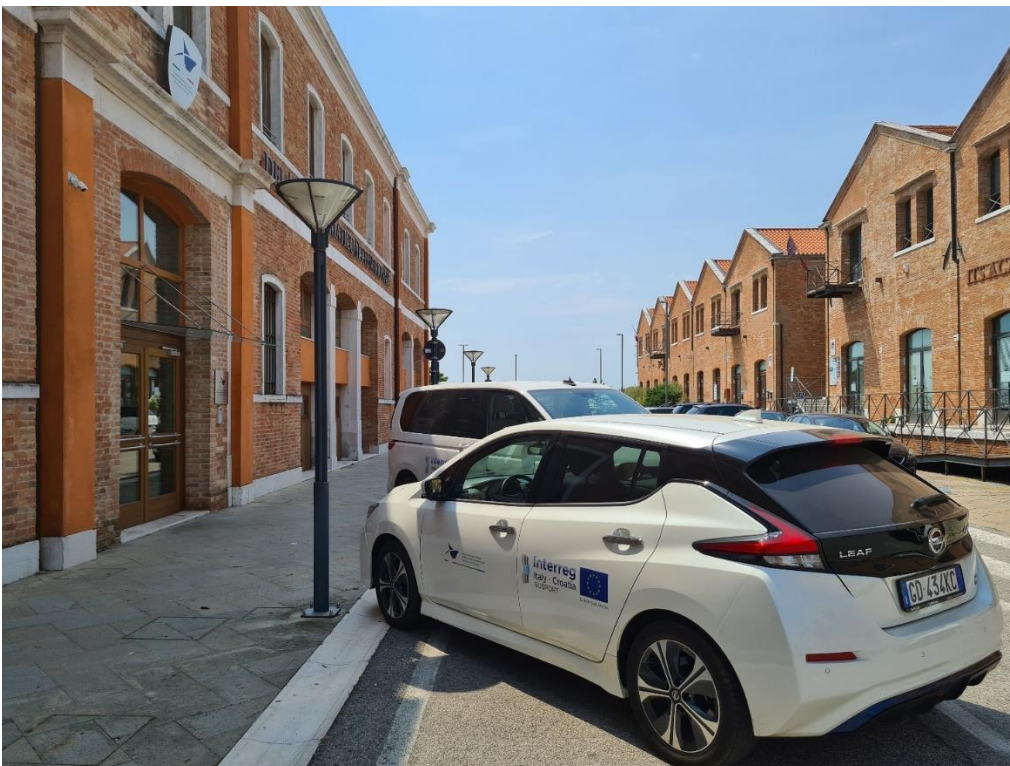
Therefore, NASPA has started the renewal of its fleet of vehicles with a more sustainable environmental impact. This confirms also the provisions of the Energy and Environmental Planning Document approved by the Authority and this operation represents one of the elements of its strategy to improve environmental sustainability and energy saving towards decarbonisation.

2. Pilot action description

In order to increase the sustainability of NASPA car fleet:

- In April 2021 two new cars "Nissan Leaf" were purchased to support the operational and institutional activities of the ports of Venice and Chioggia, full electric with zero emissions, from the point of view of environmental pollution.
- In 2023 a new plug-in hybrid car came into operation to support the operational and institutional activities of the Authority, after two full electric cars purchased in total respect of the environment. The Volkswagen Multivan plug-in hybrid is available to the employees of the Authority, allowing significant savings in terms of CO2, and to further accomplish the objective to enhance the sustainability and energy efficiency in port areas. In particular, in the new vehicle the combination of the electric motor and the thermal engine will allow a start in 100% electric mode and to travel in pure electric mode also for long journeys. This means that journeys with zero CO2 emissions will be possible also with the plug-in hybrid car and with this regard, more than a half of CO2 can be saved with respect to a car with conventional engine.







3. Conclusions

With the purchase of electric cars NASPA has started the gradual renewal of the vehicle fleet, with an increasingly zero environmental impact, allowing already significant savings in terms of CO2 and pollutants released into the air.

Indeed, NASPA dismissed old cars (purchased ten years ago) equipped with a conventional engine, contributing to decrease the carbon footprint of NASPA for visits to the port, meetings/services in the area of Venice including the port of Chioggia; but also outside the region, for the SUSPORT meetings and in general for other meetings in the Italy-Croatia Programme area. The benefit of this action will be first of all the reduction of air pollution.

This action allows to avoid emissions into the atmosphere of about 3 tons of CO2 every year.

Pilot action no. 2 : Replacement of existing lighting and installation of LEDs in the port public areas

1. Ex-ante situation

Within the SUSPORT Project, NASPA has implemented a new lighting system in the following public port areas:

- Rampa San Andrea
- Strada San Andrea
- il Viale Scomenzera
- Calle da varco 34/17 a gate 27
- zona di San Basilio compresa l'area di parcheggio
- zona pedonale del terminal San Basilio

Replacement of old lights and installation of new lighting has been implemented.

The existing lighting system in the area involved was not in line with sustainability parameters, in particular energy efficiency due to traditional lights, and therefore CO2 emissions containment. Some parts of the port areas didn't have lighting installation. Moreover, existing light bulbs was not in compliance with Regionl Law n. 17/2009.

Geographical location of the pilot action



In the analysis of port environmental sustainability and energy efficiency carried out within the Territorial Needs Assessment - TNA – it was estimated indirect emissions associated with the consumption of electricity, including lighting.

Among those opportunities that can be carried out immediately to avoid emissions, or in any case in significantly quick times, these are expressed in solutions that see NASPA as a possible direct implementing subject and which are represented, by way of example, also by the replacement of traditional lighting systems with LED lighting.

2. Pilot action description

NASPA has carried out the replacement of traditional lights and the installation of new ones with LED lights. This new lighting system with LED headlights in the public port areas of S. Andrea, S. Marta and S. Basilio, includes:

- n. 64 light poles
- n. 14 wall lamps in a building

for a total of n. 78 new LED lights.

The equipment of the new lighting system has included three main technical categories:

- support structures (es. poles)
- electrical installation
- light flux control system

Area: Sant'Andrea





Area: Santa Marta







Area: San Basilio





3. Conclusions

The pilot has achieved the expected results, with the implementation of a new existing led light system.

This action allows to avoid emissions into the atmosphere of about 125 tons of CO₂ every year.

Indeed, one of the main advantages of the public lighting with LED is to drastically reduce CO₂ emissions. LED light systems use much less energy than traditional sources, therefore contributing to reduce CO₂, in order to have more sustainable port areas.