

# Output O.4.2 - Installation of 19 e-charging stations (power of 22 kWh or more, with interoperable management system) for e-cars and/or e-boats

WP 4 Pilots: small technological investments, equipment installations and new services start-up

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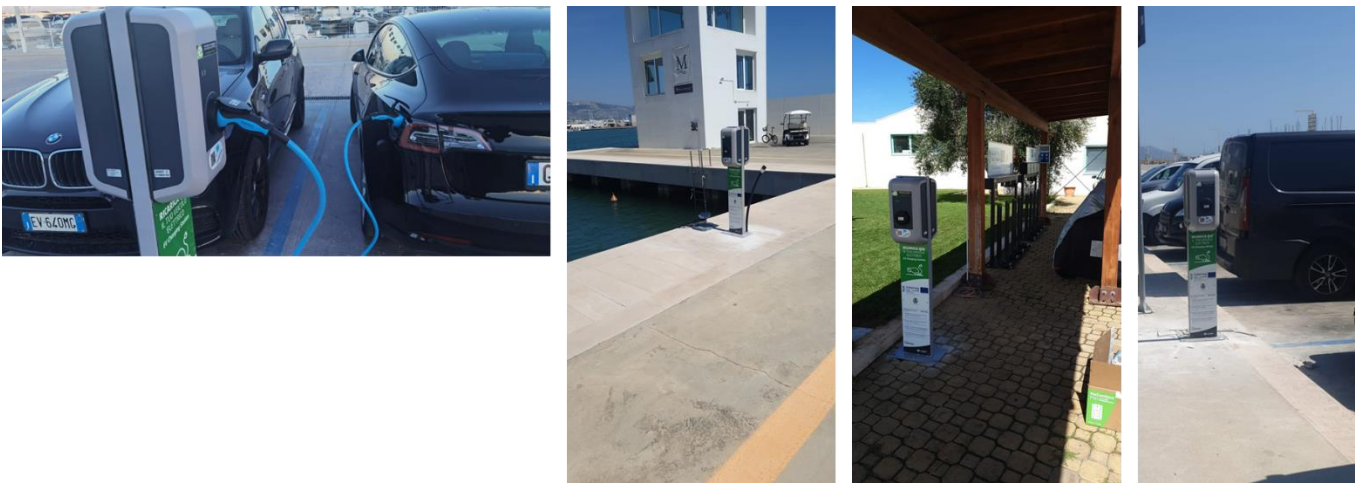
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## Introduction

This document presents an overview of the e-charging stations (ECS) installed in the three pilot sites located in Foggia area (Italy), Krk Island and Maslinica- Šolta (Croatia). In particular, the following pictures and pilots’ description prove the achievement of the output **O.4.2 Installation of 19 e-charging stations**. However, since Venezia Giulia pilot did not complete the installations within its pilot site, only 13 stations are reported.

## E-Charging stations in Foggia area – Italy



*Figure 1 – E-charging stations installed in Foggia province, Italy, by PP11 Province of Foggia.*

The Figure above (Figure 1) presents a sample of the **6 e-charging stations for e-vehicles and e-boats** installed by PP11 Province of Foggia in the **Gargano area**, in the marinas of Manfredonia, Mattinata, Vieste and Rodi Garganico.

Installations registered some delays, due to the COVID-19 pandemic period and the Ukrainian crisis, which led to a supply shortage of semiconductors. No particular difficulties were reported in the technical installation of the ECS, except for a small delay with the administrative authorizations. The DEEP-SEA project offered to the Gargano area a great opportunity to develop e-mobility services in four of the main touristic centers of Apulia Region.

## E-Charging stations in Krk Island - Croatia



Figure 2 - E-charging stations installed in Krk Island by PP12 Ponikve.



Figure 3 – E-charging station installed in the Municipality of Malinka-Dubasnica on Krk Island by PP06 Malinska.

Figure 2 shows the **e-charging station for e-boats** installed by PP12 Ponikve in Vrbnik, as well as the **charging station for e-vehicles and e-boats** in the municipality of Omišalj (Luka Njivice). As predicted by the SWOT analysis, COVID crisis had a negative impact both on implementation phase and monitoring results. The price of the materials has changed, especially steel prices increased on the market, causing some delays in pilot installations.

Krk has compatible network of ECS and bike renting facilities on multiple locations, but they are mostly available to users during summer season. DEEP-SEA project enabled the use of Electric Vehicles and Charging Stations all year round, and this led to an increasing interest for the e-mobility infrastructure. With the idea to reach zero CO2 emissions, a goal set by Krk Island energy strategy, it would be desirable to secure access to existing ECS and e-bicycle services on the island to residents in winter as well.



PP06 installed 2 ECS, i.e. **1 combined for e –cars and 1 mooring for e-boats** (Figure 3), and **1 ECS for e-cars**, in two different locations within the Municipality of Malinska-Dubasnica. One location is in front of the kindergarten in Malinska, where a charging station for electric cars with an output power of 2x22 kW was installed. The other ECS is just outside the kindergarten plot, on the intersection of two roads. Thanks to the DEEP-SEA project, the municipality is collaborating with various associations and companies such as ‘Eko Krk’, ‘KD Ponikve’ and ‘KD Dubašnica’ to ensure meeting goals of sustainability implementation in daily lives. As the owner of KD Dubašnica, the Municipality plans to hire KD Dubašnica and Ponikve to provide monitoring and servicing of new equipment and mobility solutions once installed to ensure minimal downtime in their usage.

### E-Charging stations in Maslinica- Šolta – Croatia



Figure 4 - E-charging station installed in Maslinica-Solta by PP10 Dvorac, within the Martinis Marchi marina.

PP10 Dvorac installed **1 ECS for e-vehicles and e-boats** in the Martinis Marchi marina, which is owned by PP10 itself.

PP10 mentioned that data collection for them was the most important part of the project, as it helped the partner in selecting adequate components to be implemented in their upcoming projects. Pros of the project were the e-boat and e-vehicle chargers that brought to Martinis Marchi marina new clients, for the marina, the hotel, and the whole Island. The E-boat charger was used the least but still brought them an additional winter berth.