

TERNA: PROJECT INVOLVING THE EXPERIMENTAL TRANSPLANTING OF CYMODOCEA NODOSA IN THE FIUMETORTO LANDING SITE (PA) HAS BEEN LAUNCHED

Around 20,000 plants will be replaced in three areas covering 1200 m² in total

The activity falls within the scope of the environmental offsets associated with the construction of the “Tyrrhenian Link” dual submarine connection between Campania, Sicily and Sardinia

Rome, 02 August 2024 – Terna has begun the experimental transplanting of *Cymodocea nodosa* near the Fiumetorto landing side in the Termini Imerese municipality (PA). The activity is in preparation for the construction of the marine branch of the new Tyrrhenian Link power line that will connect Campania, Sicily and Sardinia,

and concerns a native aquatic plant from the Mediterranean Sea that plays an essential role in the marine ecosystem, so much so that it is now safeguarded by the European Union as it protects the coastline from erosion, preserves biodiversity and captures CO₂.

Every step of the repositioning project, which is purely experimental as it has never been tried before with this species, on such a large scale and in the open sea, was overseen by qualified expert Terna personnel in collaboration with CoNSIMa (Consorzio Nazionale Interuniversitario per le Scienze del Mare) and ECON s.r.l. (Sistemi avanzati per l’Ambiente), and shared with MASE (Direzione Generale Tutela della Biodiversità e del Mare) thanks to the support of ISPRA (Istituto Superiore per la Protezione e la Ricerca Ambientale).

To go into more detail, the transplanting involves the reinsertion of around 20,000 plants into the marine ecosystem on 1200 m² of seabed at a depth of 10 metres, employing experimental techniques in line with the highest standards of environmental sustainability, which will make it possible to achieve the best result possible. Activities involves two phases: an initial transplanting covering 800 m² and, two years later, a second transplanting on another 400 m² that will benefit from the experience gained through the reuse of the experimental factors that will have achieved the best results in previous years.

Technical underwater operators experts in the transplanting of phanerogams and guided by biologists with the same qualifications will employ two combinations of three experimental factors: the type of pegs used to secure phanerogams to the seabed (biodegradable plastic or galvanised steel), the length of the single phanerogam segments to be replanted (long or short) and their layout on the seabed (linear and parallel to the bathymetry or curved or ring-shaped).

Once transplanting activities have been completed, a five-year environmental monitoring plan will begin to detect the success of the operations over time through an appropriate sampling protocol.

This intervention, which will last six years in total, will lead to results of a significant

scientific and informative nature, and will contribute to the currently scarce literature on the matter, laying the foundations for new developments concerning the environmental restoration of marine phanerogams.

Plant repositioning operations in the Fiumetorto landing site fall within the wider project that will enable Terna to connect Sicily to Sardinia and the Italian peninsula via a double submarine cable - the Tyrrhenian Link. With a length of 970 kilometres and 1000 MW DC, it is a strategic infrastructure for the Italian electricity system in relation to the energy transition targets set by the National Energy and Climate Plan (INECP). The link will upgrade the electricity exchange capacity, facilitate the development of renewable energy sources and improve the reliability of the grid.