

## 2B-BLUE ENEA PILOT

### **Restoration of Native Oyster Beds (*Ostrea edulis*) in the Gulf of La Spezia**

The ENEA pilot consists in restoring Native Oyster Beds (*Ostrea edulis*) in the Gulf of La Spezia, in particular in Smart Bay S. Teresa area.

More specifically through:

- recruitment, growth, and physiological responses of *O. edulis* populations;
- monitoring the effects of marine heat waves on the metabolism of *O. edulis*;
- genetic identification of wild *Ostrea* spp. from the Gulf of La Spezia and Nora Lagoon (Sardinia);
- functional and molecular analysis of mantle and shell matrix components in *O. edulis*;
- designing, building and deploying artificial reef to favour habitat restoration and regeneration of marine environment.

Regarding the artificial reef, 3D artificial reefs compatible with marine environment were printed, two of that made by cement compatible and three made by shells and cement.

The technical part of this pilot is funded by an Italian PNRR, whereas 2B-BLUE is supporting the evaluation of the results and fostering the stakeholder engagement, providing feedback through Italian Transformation-Lab, in a coordinated co-design process.