14 LIFE BELOW WATER

- **User**: Fundación Biodiversidad at the Ministry for the Ecological Transition and the Demographic Challenge, Spain.
- **Challenge/Needs**: contribute to the conservation and sustainable use of ocean, seas and marine resources by detecting beach litter from the space. Develop a service to detect possible marine debris, able also to classify and quantify according to pixel-level litter fraction present.
- **Initiative**: BEWATS. Main difficulty was the lack of sufficient and suitable ground-truth data. Also variable sea-condition, waves, sun glint, wind can create diverse textures along the sea surface such that detection of small amount of litter (compared to the pixel size) becomes challenging.
- **Results**: A Sentinel-2 data and machine-learning –based system to detect remote marine litter detection; tested in several hotspot in Spain's NW coast. Flow trajectory model and Earth observation based results. The system was further tested in projects ATIN-BLUECO and PLESS
- **Service Provider**: GMV

References link

Target 14.1: By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land- based activities, including marine debris and nutrient pollution. Indicator 14.1.1: Coastal marine pollution

22/07/2018

27/04/2021

Metric	
Type of Plastic	*PET – water bottles*
Minimum plastic per pixel detected	20%

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