



# TEST AREA n°5

Coastal area, Cyprus



## Special focus

The special focus of this ex-refinery site/storage terminal will be on the contamination of soil and groundwater. The investigation will be extended to include the outside perimeter, even if there is no indication from previous tests that the contamination reached beyond the site perimeter. The development of decontamination methods and risk management procedures taking into account existing development plans on the adjacent areas will also be explored.

## Ambition for the end of the project

While accepting that the major profits to be made from redevelopment of a prime site such as the oil refinery/storage terminal will offset the costs of remediation and rehabilitation prior to redevelopment, the aim of the partners working on this ITA must be to ensure a responsible and sustainable approach to the planning and execution of all phases of the remediation in relation to the future redevelopment versus the cost. The principles of the ISLANDR methodology must be rigorously applied in a minimum-risk based remediation strategy.

## Ambition beyond the project

There are thousands of potentially hydrocarbon contaminated sites across the EU. Consider e.g. all the petrol stations, oil terminals and oil refineries. The ISLANDR methodology applied and tested at the Larnaca ex-refinery/storage terminal site should become the benchmark approach for dealing with other sites with similar contamination. The creation of increased awareness among stakeholders will ensure the legacy of ISLANDR.

## Scale

Local scale, 15 ha, decommissioned oil refinery and demolished storage tanks. Soil and groundwater in specific areas of the site are contaminated.

## Type of contaminants

BTEX, MTBE, VOC, PAHs, PCBs, TPH, Phenols, Aliphatic hydrocarbons, Organo-lead compounds etc., and inorganic pollutants including As, Cd, Cl, Co, Cr, Cu, Hg, Ni, Pb, Sb, V, Zn, CN, NH<sub>3</sub>, SO<sub>x</sub>, Ammonium sulphate.

## Current status of test area

The Larnaca oil refinery formerly processed about 800,000 tonnes of crude oil annually but ceased operations in 2004 and of the storage terminal in 2021. Demolition of the refinery and storage tanks is complete, and some contaminated soil of the area has been excavated but contaminated parts remain. Previously contaminated soil, mostly sludge from tank cleaning operations, has been incinerated in the local cement works but this is not an option any more.

The Area Scheme of the coastal region of Larnaca, including the former refinery site, has been in force since August 2020. The Area Scheme sets out the strategic priorities for development of the region and defines the planning zones, the land use and the road network of the area. Public consultations during the preparation of the Area Scheme involved communal meetings, public hearings and the submission of proposals by local authorities and the general public. Before its publication, the Area Scheme was subjected to a Strategic Environmental Assessment, which included a further public consultation period.

Currently, methods for soil investigation, remediation and future development plans of neighbouring oil storage/marketing companies have already been approved and are being monitored by Local Authorities and the Environmental Department.