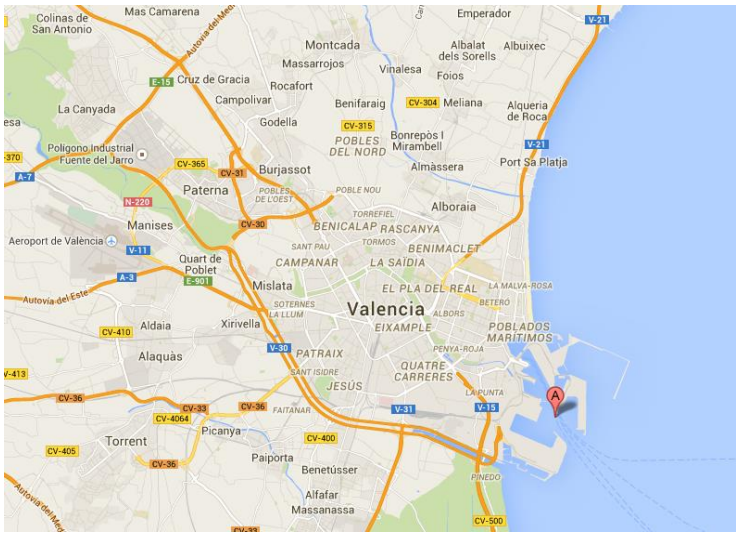
PORT OF VALENCIA
Valencia, Spain
Port extension works

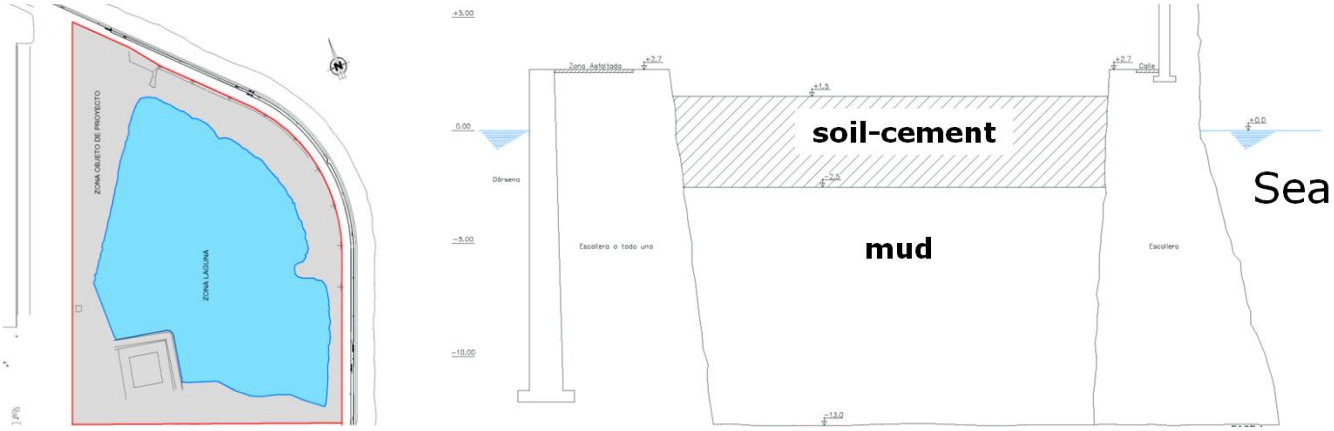
Key words:
stabilisation of sediments, development of the port fields

General information	New storage area for shipping containers was constructed in the port. A basin with embankment walls made of blasted rock was constructed for deposing soft dredged sediments. The upper part of the sediments was stabilized (5 m) and this constituted a load-bearing foundation for the container storage field.
Advantages of stabilization	It was possible to use dredged sediments as construction material in the port extension project and avoid other handling of these masses.
Project timetable	2005-2006
Volumes and dimensions	The overall area of stabilization: about 5 ha. Stabilization depth: about 5 m.
Geology and stabilized material	The material stabilized in the basin consisted mainly of clay and mud. It was hard at the surface and deeper down – soft and plastic. The material was dredged in other parts of the Valencia port. The depth of the basins for dredged sediments was 6 - 12 m.
Target strength of the stabilized material	According to the field test results, the achieved shear strength was about 75 kPa. There were big differences in the shear strength results.
Binder(s)	In the actual stabilization process: cement > 90 kg/m^3, in trial stabilization 70-110 kg/m^3
Laboratory and field tests	Laboratory stabilization tests in advance. Quality surveillance tests: CPTU soundings, DPT soundings, tube and core samples, test pits and compression tests (1-axial) of the structure samples during trial stabilization stage.
Other	-
Long-term follow-up and lessons learned	-
Sources	Niutanen V. (2006). *Information about the Spanish Valencia harbour mass stabilization.* On-going project of Geocisa – Sedesa 2005-2006. Ramboll Finland R&D.(Unpublished information)
Stabilization contractor	Biomaa



Mass stabilization in progress in the Port of Valencia.

Mass stabilization area on the left and dredged sediments before stabilization on the right.



Basins for dredged sediments on the left and cross section of the basin on the right. Mass stabilized layer on the top of the basin.