

Italian Geological Maps – More than a colored picture Using geological maps to support better policies for society



PANEL 6C Taranto

Sea-bottom geology: a fundamental knowledge-requirement for



seaside towns

Taranto is considered one of the most polluted towns in Italy and western Europe. The pollution is mainly factoryrelated, being produced by various heavy industries close to the urban area. Many studies show that not only air and sea-water are polluted but also sediments are contaminated by heavy metals, isopropyl alcohol,



The industry area of Taranto – Picture from "La Stampa" http://weirinjersey.com/tag/taranto

polychlorinated biphenyl (PCB), among others (Lisco et al., 2015).

Since 1991, the Italian Ministry of Environment has declared Taranto a High Environmental Risk Area, but only with the recent designation of a Special Commissioner (2014) the geological knowledge of the area has been considered a fundamental requirement for developing the most appropriate remediation to pollution.



Some preliminary maps of the Mar Piccolo coastal area and its sea-bottom have been realized by Lisco et al. (2015).



Geological map of the Mar Piccolo area

The second Edition of the 1:100,000 Sheet 202 "Taranto" (1969) still represents the official geological Sa map of the area, but it is Ia inappropiate for pollutionremediation scopes because: ea i) the scale is too small; ii) the reported stratigraphy of r Quaternary deposits is poor; the iii) the sea-bottom geology lacks.

Seaside towns need geological base maps of land and sea like those realized for the new

1:50,000 Geological Map of Italy (see for example Sheet 128 "Venezia", 2007; below). This kind of maps represents the base for much more detailed geological studies, like those required in the polluted area of Taranto.

As regards the "San Cataldo Ring" and the other springs of the Mar Piccolo, their freshwater derives from the karstic groundwater fed from Murge and Bradanic Trough, not affected by the Taranto pollution.



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