

OIL & GAS IN THE MEDITERRANEAN: RISKS & OPPORTUNITIES

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Fivos Andritsos, European Commission, JRC

ABSTRACT

The lecture will outline future scenarios and elaborates on potential contributions for a sustainable exploitation and transport of oil & gas through the Mediterranean Sea.

The Mediterranean Sea is a vital maritime supply route, particularly in what concerns Europe's energy supply. Europe's dependence on seaborne trade for energy, food and other basic commodities will be further accentuated in the decades to come. The recent offshore drillings in east Mediterranean are precursor of wider oil & gas exploitation plans that will increase the risks and the environmental pressure in an area already stressed, environmentally and socially.

Mediterranean coasts are densely populated, resulting to a fierce competition for the coastal zone use and accentuating any environmental, safety and security issues. Ports and terminals are usually close to densely inhabited areas, often integral parts of coastal towns, their interaction with the regional social tissue and territory being a key parameter to whatever development plans. In such a context, new tools and methods are required for managing the new resources, their transport, distribution and the associated risks.

In the aftermath of the PRESTIGE disaster, an innovative system (DIFIS) for the prompt intervention on deep underwater oil pollution sources was conceived and, subsequently, validated and optimized through extensive engineering, laboratory experiments and simulations. It resulted in a light, modular and easy to deploy design that, suitably adapted, could also be used for the containment of deep offshore well blow-out accidents, providing a reference method for prompt intervention on deep water oil pollution sources. It could constitute an essential preparedness element particularly useful for the Mediterranean Sea for the prompt intervention directly on the ship wrecks or the offshore wellheads. The same system, suitably re-engineered and combined with novel CNG transport methods, could serve for exploiting stranded gas, offshore APG or even natural underwater methane sources. In fact, novel CNG maritime carriers with standardized modular subsystems will be needed due to the increased share of natural gas and the growing environmental pressure.