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3. LIGAMEN - arbres de connaissances, SME, Marseille, FR

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6. National Marine Park of Zakynthos, GR, Sub-contractor



FR - CNRS - ANR convention nº 12-SEAS-0001-01 FR - LIGAMEN - ANR convention nº 12-SEAS-0001-02 FR - IFREMER - ANR convention nº 12-SEAS-0001-03 GR - GSRT - 12SEAS-12-C2 TR - Tübitak contract nº 112Y393

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Coralligenous based Indicators to evaluate and monitor the "Good Environmental Status" of the Mediterranean coastal waters \sim



www.cigesmed.eu

CIGESMED is a Seasera project (EUFP7ERA-NET) Towards Integrated Marine Research Strategy and Programmes supported by the E.C. under **Seasera's theme 3**: Development of indicators and science support and management tools for the determination of Good Environmental Status in the Mediterranean Sea.

CIGESMED is a 3 years project launched on GR: January 2013, 1st (GSRT) TR: February 2013, 1st (TÜBITAK) FR: March 2013, 1st (ANR)



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Coralligenous is one of the main shallow Mediterranean milieu generating structural complexity and biodiversity. It produces goods (shelters, food, raw material) and services in several domains (CO_2 sequestration). Pollutions, anchors and trawling may cause degradation, whilst traditional fishing as well as angling mainly affects target species. Diver frequentation is another cause of degradation. Coralligenous may also be susceptible to invasive alien species. These habitats which are of great ecological, socio-economic and patrimonial importance are also under the pressures linked to the global warming.

CIGESMED's **goal** is to understand the links between natural and anthropogenic pressures and ecosystem functioning to define and maintain the *Good Environmental Status* (GES) of the Mediterranean Sea.

An approach of complexity will permit to mutualize and visualize large data collections, and manage knowledge to study ecosystems. Indexes, specific to coralligenous, will be co-constructed and tested by scientists, marine natural parks and reserves, and through the implementation of a "citizen science" network. The use of trees of knowledge as tools to sort, organize and illustrate very large heterogeneous sets of data will constitute an original approach.

The **outcome** will be an integrative assessment of the GES within the *Marine Strategy Framework Directive*.

To make it possible, CIGESMED gathers scientists from France, Greece and Turkey, making it possible to access to sites and to work on the same issues in both the northwestern Mediterranean basin and the Aegean-Levantine one. Ten laboratories of marine ecology are involved.

The **Steering Committee** consisting of the representatives of the parties (WP leaders) and the coordinator will be responsible for all practical decision making, strategic planning and implementation.

A **Board of External Advisors** (scientists, stakeholders and policy-makers) will meet at an annual basis, and aim at providing advice on all aspects of the execution of the project to ensure CIGESMED to meet its objectives.



Work Packages (WP)



The objectives of CIGESMED are:

(1) to **fulfil the key gaps** in the current scientific knowledge of the **coralligenous habitats** that make it difficult to make recommendations for protecting them by developing **barcoding** to enhance reliable identification for conservation and protection purposes (engineer, invasive and cryptic species), and by studying **genetic structuring** and effective **dispersal potential** of keystone/engineer species

(2) to enhance the knowledge on coralligenous populations by deciding on **reference states** and setting up a network of Mediterranean experts (**long term series**),

(3) to test **indices and indicators**, specific to coralligenous and to **monitor** observatory networks, locally managed and coordinated, **standardizing protocols** that could be applied to the entire Mediterranean,

(4) to test **population genetic criteria** as tools to monitor the **GES** of the coastal Mediterranean Sea,

(5) to implement a "citizen science" network and

(6) to use **trees of knowledge** as **tools to sort, organize and illustrate** the large heterogeneous sets of produced data and as a **tools of dissemination** towards scientists, decision makers, environmental managers and general public.