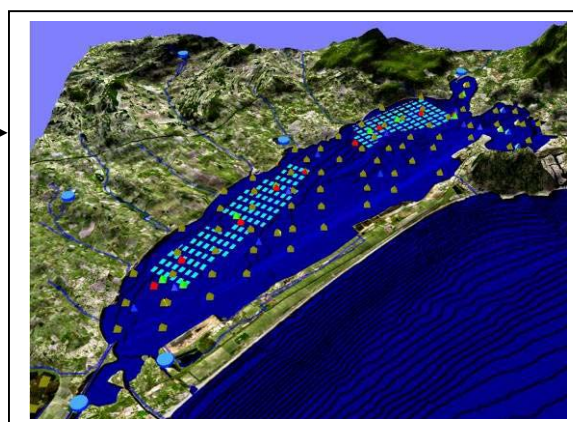
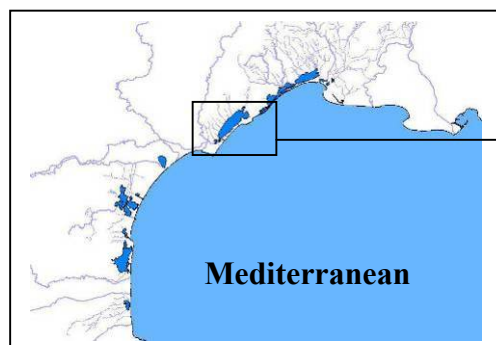


WP 7. 13 THAU LAGOON

1. Host Institution: Ifremer

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2. Name and location of Study site and picture

The Thau lagoon is situated in the Languedoc Roussillon region (South East of France), along The Mediterranean border

3. Characteristics

<i>Marine System</i>	The Thau lagoon has a surface of 75 km ² and an average depth of 4,5m (max : 10m.). It is under strong marine influence. The lagoon is connected north to the sea by the canal of Sète (90% of exchanges) and South by the Grau de Pisse Saumes. The volume of the lagoon is 280.000.000 m ³ . During a year a third of this volume is exported to the sea. As tide is very weak (10cm.), the wind is the main factor of water masses transport. Wind is often strong, particularly when blowing from the NW with a mean of 118.5 days per year above Beaufort force 5. The climate imposes a wide range of water temperatures and salinities with minima of 5° in january and salinity near 27 and maxima of 29° in august and salinity reaching 40
<i>Watershed</i>	Watershed has a surface of 280 km ² . Main hydrological regime of rivers is intermittent, only one, the Vene has a permanent output. Precipitation show large interannual variation (from 200 to 1.000 mm per year). The population on the watershed reaches 107.000 inhabitants (density of 380 inhab.km ²) with a very strong growing rate (75% on the last ten years).
<i>Human Activities</i>	Shellfish farming (more than 10% of the whole french production), fisheries (clams and fishes), urbanism, recreational activities (bathing, nautism), health activities (thermalism, thalassotherapy; 2 nd french site), agriculture (vineyards), marine industry (Sète harbour)
<i>Impact Responses</i>	Harmfull Algae bloom (PSP : Alexandrium and DSP : Dinophysis); bacteriological contaminations, anoxias, biodiversity changes, alien species (macroalgae), nutriment fluxes, trophic balance changes.

4. Policy

<i>Policy issues</i>	Much effort has been put into the setting up of a first integrated management programm (SMVM for Schema de Mise en Valeur de la Mer) which defines priorities of action about shellfish farming and offer a spatialised plan for the developpment of concurrential activities in the lagoon and on a part of the watershed. The main drawback of this SMVM (the first to be adopted in France) is its fixed frame which is difficult to make evolving as decision for evolution/modification has to be taken at the summit of the French state (Conseil d'Etat) Other efforts have been put in works on the watershed (Two Contrats d'Etang) as to optimise waste water processing in relation with the occurrence of bacteriological contamination of lagoon waters and shellfish.
<i>Policy changes</i>	On the basis of the implementation of the WFD (particularly considering bathing waters and shellfish waters quality) policy changes have been implemented as to take the place of the SMVM policy issue. Those changes apply to : i/ a third Contrat d'Etang (Contrat Qualité) directly dedicated to the water quality of the lagoon and environmental management procedures (ISO 14001), ii/ a SCOT (Schema de COherence Territorial) and iii/ a SAGE (Schema d'Amenagement et de Gestion des Eaux) including an integrated territorial approach between the lagoon and the watershed.

5. Stakeholders and Institutional Governance

<i>Major organisations</i>	Syndicat Mixte du Bassin de Thau. (SMBT) This organisation has been set up recently (2005) and results from the fusion of two territorial communities corresponding to the southern and northern part of the lagoon and its watershed. The SMBT is nowadays the unique organisation in charge of the implementation of integrated management of the lagoon and its watershed and in charge of the implementation of the three management tools which are the Contrat Qualité, the SCOT and the SAGE.
<i>Other leading organisations</i>	<ul style="list-style-type: none"> - Ceparlmar : an organisation depending from the Languedoc Roussillon regional council in charge of the relationships with the sea professionals - Conseil Général de l'Herault who has responsibilities on the infrastructures development on the territory

6. Partner Collaboration

<i>SPICOSA Partner Collaborations.</i>	<ul style="list-style-type: none"> - Partner : GEYSER (Mediation),
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7. Systems Studies

<i>Long time series</i>	Hydrological, hydrochemical, microbiological, phytoplankton, macroflora and macrofauna, river discharges, nutrients loads, meteorology, hydrodynamism, sediments, heavy metals, organic contaminants but also land use dynamics, economical statistics, administrative limits and rules evolution. Some of the data series start from the end of the second War (1947)
<i>Research Projects</i>	<ul style="list-style-type: none"> - PNEC (Programme National en Ecologie Côtière) chantier lagunes méditerranéennes started in the year 80 (understanding of the ecological mechanisms, management tools development and integration of socio economic studies) - Institutional monitoring networks : RNO (1975), REMI (1984), REPHY(1992) and regional RSL (Réseau de Suivi Lagunaire started 2000; see http://rsl.cepralmar.com/),
<i>and</i>	<ul style="list-style-type: none"> - Syscolag programme (see http://www.syscolag.org/) dedicated to the setting up of a shared knowledge data base including metadata service, and GIS implementation - Dynamic atlas of Thau lagoon developed in the framework of Githau/Syscolag (ICZM of Thau lagoon) and RSL projects (see http://www.ifremer.fr/lerlr/bases_connaissance/mono_thau/thau/index.htm and http://www.ifremer.fr/lerlr/surveillance/atlas/thau.htm) - DITTY european project (development of a Decision Support System for the management of southern mediterranean lagoons; see http://www.dittyproject.org/) - Implementation of Sustainable and ICZM indicators programme (launched with the socio-economist team of Montpellier University).
<i>Socio-economic study</i>	