

Acronym of the project	OTMed
Titre du projet	Objectif Terre – Bassin Méditerranéen
Project title	Destination Earth – Mediterranean Basin
Project manager (chercheur, enseignant chercheur...)	Name : Joël GUIOT Institution : Université Paul Cézanne Aix-Marseille III Laboratory : CEREGE Unit number : UMR 6635
Aide demandée/ Requested funding	9 285 411 € / 7000 0000 € attribués TVA non récupérable incluse
Champ(s) scientifique(s) du projet/Scientific field(s) of the project	<input type="checkbox"/> Sciences de la Matière et de l'Energie <input checked="" type="checkbox"/> Sciences du Système Terre-Univers-Environnement <input type="checkbox"/> Sciences de la Vie et de la Santé <input type="checkbox"/> Sciences du Numérique et Mathématiques <input checked="" type="checkbox"/> Sciences Sociales <input type="checkbox"/> Humanités

Ce projet, ou un projet proche, a-t-il été soumis pour LABEX2010 ?	<input type="checkbox"/> Non	<input checked="" type="checkbox"/> Oui Acronyme du projet : OBJECTIFTER Coordinateur du projet : B. Hamelin						
Ce projet est-il la suite, pour tout ou partie, d'un ou plusieurs projets soumis à LABEX2010 ?	<input checked="" type="checkbox"/> Non	<input type="checkbox"/> Oui <table border="1"> <tr> <th>Acronymes des projets</th> <th>Coordinateurs</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	Acronymes des projets	Coordinateurs				
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Ce projet est-il partie prenante d'un projet d'Idex ?	<input type="checkbox"/> Non	<input checked="" type="checkbox"/> Oui Acronyme de l'Idex : A*MIDEX
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Institution leading the project (project leader – see definition in the call for proposals)

Nom de l'établissement / Institution name	Statut / Status
Université Paul Cézanne Aix-Marseille III	EPSCP

Institution managing the fundings, to be completed if different from the project leader

Nom de l'établissement / Institution name	Statut / Status

Partner's affiliation (see definition in the call for proposals)

Laboratoire(s)/ Laboratory	Numéro(s) d'unité/ Unit number	Tutelle(s)/Research organization reference
Centre Européen de Recherche et d'Enseignement en Géosciences de	UMR 6635	Université Paul Cézanne, Université de Provence, CNRS, IRD, Collège de France

l'Environnement (CEREGE)		
Ecosystèmes Continentaux et risques Environnementaux (ECCOREV)	FR 3098	Université Paul Cézanne, CNRS
Groupe de Recherche en Economie Quantitative d'Aix-Marseille (GREQAM)	UMR6579	Université de la Méditerranée, Université Paul Cézanne, EHESS, CNRS
Mediterranean Institute of Oceanology (MIO)	UMR 6117	Université de la Méditerranée, CNRS, IRD, université du Sud Toulon-Var
Institut Méditerranéen de Biodiversité et d'Ecologie marine et continentale (IMBE)	UMR 6116	Université Paul Cézanne, Université de Provence, CNRS, IRD, Université d'Avignon
Droit public comparé, Droit international et Droit européen (DPCDIDE)	UMR 6201	Université Paul Cézanne, Université de Pau et des Pays de l'Adour, Université du Sud Toulon Var, CNRS
Géochimie des sols et des eaux (GSE)	UR 1119	INRA
ESPACE/DESMID	UMR 6012	Université de la Méditerranée, CNRS
REAX (Risques et Environnement Aix)	REAX	CEMAGREF
Ecodéveloppement (ECODEV)	UR 0767	INRA
Entreprise(s) / company	Secteur(s) d'activité/activity field	Effectif/ Staff size

SUMMARY

❖ Context and objectives

The objective of the “OT-Med: Bassin Méditerranéen” Laboratory of Excellence project (OT-Med) is to create an interdisciplinary “**Earth Institute**” with high international profile, focussing on the **environment and sustainable development** of Mediterranean and semi-arid environments (in reference to the Earth Institute of the Columbia university. The Mediterranean basin has been a key area of human-environment interactions for thousands of years, representing significant risks as well as huge opportunities for sustainable development. A new integrated approach will help to guide decision-making in the region based on new scientific findings drawn from research in marine and terrestrial systems. This project aims to increase the international visibility of our research as well as to consolidate the bridge between physical-biological sciences and the socio-economic world.

OT-Med intends to significantly contribute to the meta-program **MISTRALS**¹ launched by the French national research structures working on the Mediterranean region. The establishment of the Union for the Mediterranean (UPM, *Union Pour la Méditerranée*) constitutes a political and institutional framework, which further underlines the necessity to harness, organise and coordinate existing regional strengths in these fields. Their contributions will help in finding solutions to vital problems.

OT-Med encompasses nine research units and a research federation: (i) four units in the area of the geosciences/life sciences, all highly rated by AERES in 2011 (two A+, one A, one not yet rated); (ii) four units in the area of humanities and social sciences, also very well evaluated (two A+, one A, one not yet rated); (iii) the *Risques et Environnement* unit of CEMAGREF (not yet rated), which develops fundamental and applied environmental research with a strong orientation towards end-users; (iv) the research federation ECCOREV which includes more than 40 institutions, and can be considered as a “cloud” of associate members. It has been very well evaluated but not rated by AERES.

❖ Research project

¹ **ACRONYMS ARE DEFINED IN APPENDIX 4 (pages 11-14)**

The scientific project is divided into three main work packages (WP) and two transversal work packages. The originality of our approach is that both short- and long-term time scales will be considered: history is often a key in understanding the present as well as in predicting the future. WP1 is devoted to the study of **climatic and anthropogenic changes and natural hazards**. This includes earthquakes, landslides, extreme climatic events, sea-circulation changes, perturbation of aquifers and hydrosystems. WP2 aims to understand the impact of climate and socio-economic changes on ecosystems with a focus on the **ecosystem services**, in particular related to biodiversity, soils, agriculture, forestry, marine biogeochemistry and food-web interactions. Strongly rooted in the social sciences, WP3 will analyse **human-environment interactions**, looking at the perception of hazards, adaptation and mitigation. It will focus on modelling decision-making in the context of risks and compare the functioning of international environmental regimes for climate and biodiversity. It will also study ancient Mediterranean civilizations with respect to their adaptation to climatic changes. The knowledge gained from all WPs will be applied for better management of ecosystems, for conservation and for the sustainable delivery of ecosystem services. A transversal WP (TWP) coordinates the **observation systems** and the databases necessary to collect these observations; a second one will target an important final product of OT-Med, an **integrated model** extending from the climate system to the socio-economic agents.

❖ Training and communication

Studies of many of the OT-Med components are currently undertaken in the partner laboratories, but OT-Med intends to amplify their quality by creating synergies between the scientists at all levels. This will be achieved by organising and structuring interdisciplinary exchanges in research and education, in the following ways: (1) by promoting interdisciplinary research projects with funding to strengthen synergies (internal calls for proposals); (2) by coordinating an ambitious policy for the reception of visiting researchers, post-docs and Ph.D. fellowships, and exchanges with southern countries; (3) by developing a policy of Academy-Industry Chairs; (4) by organising international symposia and workshops; (5) by improving the existing observation systems and organising them into a local network (collaboration with OSU PYTHEAS); (6) by organising a regular series of workshops, summer schools and conferences; (7) by developing interdisciplinary exchanges and training with Master and Doctoral level programmes, with a particular emphasis on North African countries; (8) by organising scientific, technical and socio-economic databases resulting from research to benefit researchers, notably modellers.

OT-Med will create a reference portal for expertise with the construction and maintenance of document archives, databanks, expertise and joint project support for both local and national governments, competitiveness poles, firms and associations. It is supported (see letters in appendix 7) by three “Pole of Competitiveness” (Risques, Eau, Mer PACA), Plan Bleu (Centre of regional activities on Environment and Development in Mediterranean, UNEP) and by an association representing professionals of environment (EA).

OT-Med will contribute to the creation of an international network, by strengthening institutional ties with the universities involved in parallel projects, in particular, the “Earth Institute” of Columbia University, the “Grantham Institute” of Imperial College and the London School of Economics. Other international institutes with similar interests in the Mediterranean will be included, with particular emphasis on universities and research centres in developing countries and the Mediterranean area.

❖ Governance and organisation :

The organizational structure of OT-Med has been strongly inspired by the Columbia University “Earth Institute”. The core of the organisation is the **steering committee**, which will consist of representatives of the laboratories and the coordinators of the work packages. A group of deputy directors will be designated for the following sectors of responsibility: international networking, training and communication. The committee will ensure that all scientific projects are in line with the project; it will act as a supervising structure for scientific results and the management of all projects. The institute and the steering committee will be chaired by the **executive director**. The **scientific council** will consist of internationally recognised scientific individuals across all areas of the environmental sciences. It will be chaired by the **president**, who will liaise with the university and

research stakeholders. The **stakeholder committee** will include representatives from the socio-economic community, policymakers and NGOs working on vulnerability and natural hazard issues. At least four appointments will be made to support OT-Med: a general secretary, a project engineer for international affairs and communication, an engineer to produce and maintain the portal and web site, and a research engineer to coordinate the integrated modelling effort. OT-Med will have an offensive strategy to motivate scientists from the different laboratories to work together. Every six months, a call for proposals will be launched, in order to fund light equipment, visiting scientists, post-docs, transversal PhD theses, summer schools etc. The proposals will be evaluated by the steering committee with the help of independent referees.

❖ Insertion in Aix-Marseille University's strategy

OT-Med is one of the fundaments of the A*MIDEX project (unified Aix-Marseille University), which encompasses the main research and education partners of the OT-Med site, and has been identified as one of the main projects of the “*Environment, planet and Universe*” priority theme of A*MIDEX.

