

## Fiche de synthèse du projet (A)

**Thème** (se rapporter à l'Appel à Projets) : 5 – « Nouveaux capteurs et capteurs distribués »

**Intitulé du projet** : « **Microlaboratoires d'analyses *in situ* pour des observatoires environnementaux** »

**Acronyme du projet** : MAISOE

### Liste des partenaires

<b>1 : LCA</b>	<b>7 : LOSE</b>
<b>2 : CIRIMAT</b>	
<b>3 : LAAS</b>	
<b>4 : LEGOS</b>	
<b>5 : LGC</b>	
<b>6 : LMTG</b>	

### Coordinateur du projet

nom, prénom, appartenance, coordonnées (adresse, téléphone, télécopie, mél)

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**Durée du projet**: 48 mois

**Personnes.mois (totalité du projet)** ...494.....

**Coût total**: 1375.....k€

**Aide demandée à la Fondation STAE**: .....1375.....k€

### Résumé du projet, en anglais (15 lignes maximum)

The main objective of our proposal is to develop and test *in situ* microsensors in order to measure concentrations of elements (which may be present at trace levels) and to analyse their speciation. These studied elements may either act as nutrients in phytoplankton growth (marine systems and hydrothermal fluids) or be toxic such as mercury (continental systems). Since these natural systems are very complex and hostile due to their heterogeneity and extreme conditions, it is necessary to develop anticorrosion and antifouling protection in order to have relevant data in time and space, even in remote location.

The expected deliverables shall be prototypes of microsensors designed to qualitative and quantitative detection of the selected components, in a first step at the laboratory scale with reference materials and in a second step in natural systems. These new instruments will have to be inexpensive, micro-designed and robust after implementation of the different functionalities.

A network of excellence in Toulouse shall emerge from this proposal. The deliverables will be used for improving on the one hand the understanding of the impacts of the studied elements on their biogeochemistry and on the other hand the modelling of global change.