

Applications are invited for 12 months post-doctoral research fellowship starting September 2010, at LSCE (CEA) near Paris, France, in the Biogeochemical modelling team (<http://www.lsce.ipsl.fr/>) to work on the following subject:

Improving soil organic matter dynamics modeling at regional to global scales

12 months contract (with possible 12 months extension)

Project: CarboSoil

The **CarboSoil** project (2008-2011) funded by the Groupement d'intérêt scientifique (GIS) "Climate-Environment-Society", aims at an improved understanding of the vulnerability of soil organic matter to global change. For this purpose, the project aims at improving existing models of soil organic matter dynamics based on the complementary expertise of the participating research institutions (BIOEMCO, ESE, LSCE). The objective is to integrate knowledge from new and existing (manipulative) field studies and theoretical modeling approaches to improve soil organic matter dynamics models at the large scale. The four major topics to be addressed are: a) the sensitivity of decomposition processes to temperature and humidity, b) the control of decomposition through microbial biomass, c) the effect of vertical profiles, and d) effects of soil tillage.

The post-doctorate fellow will help to generalize novel point-scale modeling approaches to improve soil organic matter modeling in the global dynamic vegetation model ORCHIDEE developed at IPSL. The generalized model will be evaluated and calibrated against CarboSoil datasets in close collaboration with soil scientists at BIOEMCO. Finally, new model will be used to assess the vulnerability of regional and global soil carbon stocks to global change. Exciting new scientific publications in peer-reviewed journals are expected.

The net monthly salary will be between 2000 and 2500 Euro before income tax depending on qualification.

Application should be send by email with a resume, CV, and the names, telephone and email address of a referees, before end of July 2010 to:

peylin@lsce.ipsl.fr

The successful candidate will have a background or strong interest in environmental modelling and some knowledge of soil sciences.
