



Call for applications
PhD contracts context 2020

École Doctorale Économie-Gestion de Montpellier
(EDEG, ED 231)



You're well trained in economics and believe that climate change is a challenge worth your energy: you might want to consider applying for a 3 years PhD contract in Economics at the University of Montpellier 2020-2023.

Topic:

The role of green finance for the energy transition: a macroeconomic perspective

Motivation and objectives:

The global challenge of climate change mitigation calls for epochal adjustment in the scale and the direction of investment. In light of the typically long life of the equipment involved, this adjustment is topical in the energy producing sector and the sectors originating the bulk of energy demand. As it has been shown using the general dynamic equilibrium approach of growth theory with directed technological change and non-renewable natural resources, a credible commitment by governments to price carbon emissions should affect current investors' choices, and promote the transition toward a low carbon energy system. Nevertheless, calls for the implementation of additional policy interventions, beyond carbon pricing, are widespread in both the public and academic debate. Rationales underpinning such calls rely on market imperfections beyond the environmental externality. This PhD program aims at shedding some light on such rationales. It shall provide recommendations for the design of climate policies to stimulate low carbon investment, by considering potential and plausible market failures that may limit the efficiency of carbon pricing alone. The focus will be on the potential role of specific green financial instruments.

Approach:

The candidate is expected to propose and develop her (his) own approach to the subject. Yet, the suggested approach to study the subject in a macroeconomic perspective is to adopt a theoretical modelling methodology, in the spirit of growth theory. This framework should be firmly grounded in microeconomics, concerning the specific market failure considered. A theoretical analysis built on such a setting can be used to perform comparative dynamics exercises, and hence to provide novel arguments and designs for climate policy. Moreover, the approach can serve to conduct quantitative exercises by calibration and simulation, and thus provide some background on the empirical plausibility of the results. Although willingness to work on a formal dynamic macroeconomic model is clearly required, some empirical grounding shall not be left aside.

Specific skills:

The Ph.D. candidate should have a sound knowledge of growth theory, and possibly in energy and environmental economics. A Ph.D. candidate on the subject should be autonomous and ready to invest to acquire specific skills. Experience with applied modelling (e.g. R, Matlab, Mathematica, GAMS) and/or handling datasets and econometrics is valuable. The candidate is expected to take part to the activities of the [CEE-M](#) and engage in exchange with other members. It is therefore important that the candidate be curious and open to scientific, business and regulation issues related to the study of energy and finance sectors and their history.

Application:

Applicants shall follow the [procedure through the EDEG portal](#).

Potential applicants are invited to contact the supervisors explaining their interest for the subject and justifying the relevant skills they have acquired so far : [Francesco Ricci](#) and [Marion Davin](#).

More information available [here](#).