Internship proposal
Climate sub-national initiatives and international agreements

International climate negotiations have been ongoing for 25 years (UNFCC signed in 1992). International agreements, the Kyoto protocol and the Paris agreement, have been criticized for their lack of ambition related of their voluntary nature. The Paris agreement was perceived as a great diplomatic success, though its contribution to future emission mitigation efforts is debatable.

Besides negotiations between states, several 'transnational' initiatives have emerged, these initiatives involve firms, NGOs, sub-national public authorities. These initiatives range from the California-Quebec-Ontario CO2 permit market, the network of cities C40, the reforestation Bonn Challenge.

The objective of the internship is first to review some of these initiatives, and then to analyze the emergence of such transnational initiatives using game theory. Questions to be addressed are:
- What are the incentives of subnational actors to implement mitigation initiatives?
- Are they likely to provide a non negligible mitigation effort?
- Are international agreements and subnational initiatives complementary or substitutable?
- Should transnational initiatives be integrated within an international framework?

Useful links

- The C40 Cities Climate Leadership Group connects more than 90 of the world’s greatest cities, representing over 650 million people and one quarter of the global economy. http://www.c40.org/

- The Bonn Challenge global effort to bring 150 million hectares of the world’s deforested and degraded land into restoration by 2020, and 350 million hectares by 203
http://www.bonnchallenge.org/content/challenge

Academic litterature

On international negotiations:

**On sectoral approaches:**

**On subnational initiatives:**


**Requirements and further information**
Good knowledge of microeconomics,
Some familiarity with the economics of climate change and the economics of energy
Analytical and modeling capability (no need for econometrics)
The internship will take place under the joint supervision of Guy Meunier and Jean-Pierre Ponssard (Eco Department).

Students interested should send their CV and motivation letter to guy.meunier@polytechnique.edu