

**FICHE NAVETTE: DOCTORANTS IDEX**

SECTOR: Higher Education Institution

LOCATION: France, Grenoble

**RESEARCH FIELD (cf mots clefs sur Euraxess Jobs):** transport economics, modal choice, applied microeconometrics (network econometrics, public policy evaluation, stated preferences survey), behavioral economics

RESEARCHER PROFILE:

*First stage researcher*

**INSTITUTION:** Univ. Grenoble Alpes, University of Innovation

One of the major research-intensive French universities, Univ. Grenoble Alpes\*\*1 enjoys an international reputation in many scientific fields, as confirmed by international rankings. It benefits from the implementation of major European instruments (ESRF, ILL, EMBL, IRAM, EMFL\*2). The vibrant ecosystem, grounded on a close interaction between research, education and companies, has earned Grenoble to be ranked as the 5th most innovative city in the world. Surrounded by mountains, the campus benefits from a natural environment and a high quality of life and work environment. With 7000 foreign students and the annual visit of more than 8000 researchers from all over the world, Univ. Grenoble Alpes is an internationally engaged university.

A personalized Welcome Center for international students, PhDs and researchers facilitates your arrival and installation.

In 2016, Univ. Grenoble Alpes was labeled «Initiative of Excellence ». This label aims at the emergence of around ten French world class research universities. By joining Univ. Grenoble Alpes, you have the opportunity to conduct world-class research, and to contribute to the social and economic challenges of the 21st century ("sustainable planet and society", "health, well-being and technology", "understanding and supporting innovation: culture, technology, organizations" "Digital technology").

\* ESRF (European Synchrotron Radiation Facility), ILL (Institut Laue-Langevin), IRAM (International Institute for Radio Astronomy), EMBL (European Molecular Biology Laboratory), EMFL (European Magnetic Field Laboratory)

**Key figures:**

- + 50,000 students including 7,000 international students
- 3,700 PhD students, 45% international
- 5,500 faculty members
- 180 different nationalities
- 1st city in France where it feels good to study and 5th city where it feels good to work
- ISSO: International Students & Scholars Office affiliated to EURAXESS

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<sup>1</sup> Univ. Grenoble Alpes

## **MANDATORY REFERENCES:**

CDP TITLE: **MobilAir**

SUBJECT TITLE: **Changing modes of transport and public policy levers**

SCIENTIFIC DEPARTMENT (LABORATORY'S NAME): **GAEL Grenoble Applied Economics Lab**

DOCTORAL SCHOOL'S: **Ecole doctorale Sciences Economiques – SE (Communauté Université Grenoble Alpes)**

SUPERVISOR'S NAME: **Sandrine Mathy**

## **SUBJECT DESCRIPTION:**

### **Changing modes of transport and public policy levers**

Many negative externalities are linked to road traffic and an increased use of the car (pollution, noise, accidents, increased cardiovascular disease). Different mechanisms have been implemented by the public authorities with the aim of encouraging individuals to reduce their use of the private car by switching to less polluting (urban public transport) or more active modes of transport (walking, cycling).

Despite the potential benefits to individual health (increased physical activity) and public health (reduction of air pollution), transport related behaviors remain very difficult to change. The modal choice is strongly constrained and anchored in habits. Although the majority of people believe that it would be desirable to limit use of the individual car, the use of other modes of transportation remains limited. It is therefore important to understand the current gap between intentions and practices. It is also necessary both to evaluate the impact of existing policies and to identify the psychological and economic levers that allow individuals to actually change their modes of travel. The role of environmental and health concerns remains unexplored. In addition, the behaviors adopted by the individual's friends, family, and colleagues may have an influence on his choice of mode of transportation. Incentives for modal shift have direct and indirect impacts on individual behavior. The indirect effect (via the influence of peers) is not yet included in the evaluation of these measures. Taking into account peers' influence would make it possible, on the one hand, to estimate the social multiplier of these measures and, on the other hand, to target the people most likely to modify their behaviors and the behaviors of those around them.

### **The thesis project**

This thesis aims to focus on the determinants of transport mode choices and public policies that allow for changes in habits. This question will be addressed from the point of view of behavioral economics and will integrate recent developments in applied econometrics, through both hybrid discrete choice models and the use of network econometrics.

Beyond the "transport" theme, this thesis aims to contribute to two fields of economics, which are in full expansion, and more particularly to the following questions:

- Network econometrics: To what extent and through which mechanisms does our environment influence our behavior? Is it possible to target certain people to maximize the effect of public policy measures?
- Behavioral economics: What levers can be implemented to enable individuals to adopt behaviors that have long-term benefits for their health or that of others?

The candidate will be part of an interdisciplinary consortium on air quality (the QAMECS-MobilAir consortium) financed by the Grenoble Idex, ADEME and Grenoble Alpes Métropole, for a total amount of 2 million euros. He/she could participate in the collection of original data on which his/ her thesis could partly be based. In particular:

1/ A stated preferences survey on transport related choices

The purpose of this survey is to examine the extent to which environmental, health and public health considerations are likely to influence individuals' modes of transportation choices. Discrete choice econometric models incorporating psychological variables will be used to answer this question.

2/ Survey on the influence of work peers on transport related choices

To what extent does an individual's professional network influence their modal choice? Is there a social multiplier effect of policies aimed at encouraging a change in transport mode choice? Is there heterogeneity of peer effects depending on the characteristics of the individual? Characteristics of those around him? Do some people have more influence on our behaviors, and if so who are these influential people? How is information disseminated within a professional network?

#### **ELIGIBILITY CRITERIA**

Applicants:

- must hold a Master's degree (or be about to earn one) or have a university degree equivalent to a European Master's (5-year duration),

The candidate must demonstrate excellent skills in econometrics (panel data, discrete choice models). Skills in econometrics applied to the evaluation of public policies will also be valued.

Mastery of a data analysis software such as Stata or R is required.

Applicants will have to send an application letter in English and attach:

- Their last diploma
- Their CV
- A motivation letter
- Letters of recommendation are welcome.

Address to send their application: [sandrine.mathy@univ-grenoble-alpes.fr](mailto:sandrine.mathy@univ-grenoble-alpes.fr) and [carole.treibich@univ-grenoble-alpes.fr](mailto:carole.treibich@univ-grenoble-alpes.fr)

#### **SELECTION PROCESS**

Application deadline: **10 June 2018** at 17:00 (CET)

Applications will be evaluated through a three-step process:

1. Eligibility check of applications in 15 June 2018
2. 1st round of selection: the applications will be evaluated by a Review Board in June 2018. Results will be given in June 2018.
3. 2nd round of selection: shortlisted candidates will be invited for an interview session in Grenoble at the end of June/ early July 2018. (if necessary)

TYPE of CONTRACT: temporary-3 years of doctoral contract

JOB STATUS: Full time

HOURS PER WEEK: 35

OFFER STARTING DATE: 1 October 2018

APPLICATION DEADLINE: 10 June 2018

Salary: between 1768.55 € and 2100 € brut per month (depending on complementary activity or not)