

## **Post-doctoral position: Agent-based computational economics applied to regional veterinary services supply and demand**

### **Project duration**

18 to 24 months

### **The project**

The candidate will contribute to an ambitious research project aiming at evaluating the impacts of public policies in animal agriculture, targeting the renewal of the regional farming system that match with agro-ecological principles in Southern France. The candidate will focus on the farm-veterinarian complex and economic relationship, aiming at defining a win-win optimum that secures animal health services to farmers and provide attractive position for the veterinarians.

Based on questionnaires and surveys (provided by other scientists of the projects), the candidate will model the dairy cow production network of the area, including high quality productions. An econometric approach will be developing to analyze accounting data of a group of 50 veterinary offices (partners of the project). A multi-agent economic model, representative of dairy local livestock and vet services, will be created. It will be constructed through the representation of the various players in the sector, from above mentioned work, with a representation of the behaviors of each category of actors, including the specific sub-sectors (market segmentation). Particular attention will be paid to identify spontaneous or incentive-driven evolution. Importantly, the development of more preventive animal health activities that are based on herd level approach, regular herd monitoring, and better labor conditions will be tested. The model will be used to simulate the effects of potential public policies (*ex ante* evaluation).

### **Your profile**

Applicants should have recently earned a Ph.D. in Economics (or should be near completion of the dissertation) and should have shown interest in the topics of the group. The preferred candidate will demonstrate her or his potential to conduct high-quality research, ideally by having papers under revision or even accepted for publication in refereed international journals. The successful applicant is expected to independently conduct academic and policy-relevant research and also to contribute to ongoing research projects of the group. Know-how in agent based computational economics is welcome. Systems mapping and mathematical programming are required.

### **Your benefits**

The Postdoctoral research will be part of an international team specialized in economics of animal health, He/she will benefit from our agile management system and will have the opportunity to participate in many research activities (seminar series, conferences) and attend executive education sessions. Salary will be commensurate to experience, and benefits (health and vacations) follow French regulations. Senior faculty members will provide guidance to navigate in academic environment and entrepreneurship. The candidate will have the opportunity to participate in meetings involving renowned experts in economics and animal health worldwide.

## Our group

We are an enthusiastic group of researchers dedicated to the improvement of livestock and farmers well-being. We use innovative analytical tools to address modern challenges of economics of animal health:

- Assessing human decision-making with empirical and data-driven work
- Evaluating the effects of public policies in the animal health sector, at micro and macroeconomic scales
- Working transdisciplinary by combining computer science, systems approaches, epidemiology and economics.
- Understanding epidemic dynamics, using modelling and computer simulation of complex animal and human interactions

We are based on the gorgeous campus of the National Veterinary School of Toulouse. Our research team is integrated to The French National Research Institute for Agriculture, Food, and the Environment (INRAE), which is a public research establishment under the dual authority of the Ministry of Agriculture and the Ministry of Research. The institute is among the world leaders in agricultural and food sciences, in plant and animal sciences, INRAE's main goal is to be a key player in the transitions necessary to address major global challenges.



### Find more:

<http://www.envt.fr/>

<https://veteconomics.envt.fr/>

<https://medpopbov.envt.fr/>

## Interested?

We look forward to receiving your online application in a single pdf with the following documents: a letter of motivation, your CV, university transcripts, two academic references.

Please send the documents to:

[guillaume.lhermie@envt.fr](mailto:guillaume.lhermie@envt.fr) [didier.raboisson@envt.fr](mailto:didier.raboisson@envt.fr)

**Application close: 31 January 2021.** *The selection process will start before dead line. We consequently invite candidates not to wait for application closure for at least first contacts.*

The position is ideally planned to start early 2021. This is subject to changes, due to the international Covid-19 situations, and we will be comprehensive with constraints that apply to international candidates.

Our reference : 2021-EcoOcc