Position: Post-Doc

The Faculty of Economic Sciences at the University of Warsaw is seeking to fill a position of a Post-Doc (3 years full-time, fixed-term).

Economists have studied the possibility of de-linking economic activity from energy and material use for years. Yet, we’ve failed to achieve this so far. Recently, the circular economy has achieved an increasing attention as policy that can help achieve this goal. It relies on recovering materials from old products and re-using them as inputs for production for as long as possible. However, existing economic models adopt a linear view on consumption-production, where input use is optimized to maximize the GDP growth. This approach does not capture feedback loops involved in the processes of reuse, repair and recycling of products as well as it ignores behavioral changes necessary to make a transition to the circular economy possible. As a result, we lack models, which would allow us to assess long-term consequences of the circular economy.

The aim of this project is to propose agent-based models to study the economy-wide effects of the circular economy. Formally, we will extend agent-based models by input-output and material flow analysis. Agent-based technique (ABM) allows modelling many heterogeneous, boundedly-rational agents interact with each other. Instead of relying on aggregate equations, such models examine macro phenomena emerging from interactions of boundedly rational agents within networks. They have proved capable of explaining core economic phenomena like economic growth, technological change, and business cycles.

We are looking for candidates to join our team to work on agent-based models of the circular economy. The candidate with work closely with prof. Safarzynska. The project will be carried out in collaboration with prof. Raberto (University of Genoa).

Requirements:

- PhD degree (or close to completion) up to 7 years after the PhD defense
- Strong programming skills
- Fluent English
- Ability to publish in international journals
- Experience in agent-based modeling will be an advantage
- Signed form: [CLAUSE]

Employment conditions:

- Full-time employment for 3 years, starting from September/October 2020, subject to an evaluation procedure after 6 months of employment.
- Annual remuneration is PLN 120 000 including taxes.

List of documents required:

- Recent CV including employment history, scholarships, research projects and a list of publications
- A motivation letter
• A contact detail of the referee

*Please send the required documents by 15st of July to: ksaferzy@gmail.com*