The Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB) researches at the interface of biological and technical systems at national and international level. ATB research spans from basic research to application and is aimed at sustainable intensification. Research activities include conceptualising, analysing, modelling and evaluation of bio-economic production systems. ATB develops and integrates new technologies and management strategies for a knowledge-based, site-specific production of biomass, and its use for food, feed and as raw materials and bio-fuels. ATB contributes to food security, animal welfare, the holistic use of biomass, and to the protection of climate and environment.

We are seeking - subject to final budget approval for a granted project - for a

**Scientist (PhD candidate) (m/f/d) (65%)**

for the topic

**Modelling and Mitigation of Methane Emissions from Animal Manure**

for three years, starting in December 2019

With six European partners, the project funded under the EraNet Joint Call 2018 will develop a new methodology to determine CH₄ emissions from manure management in combination with a farm model to describe C and N flows at farm level. With a focus on existing technologies for mitigation, in particular feeding and anaerobic digestion, the methodology shall be used to improve estimates of CH₄ emissions and GHG mitigation potentials. GHG mitigation scenarios, including C storage and N use efficiency will be studied and the results upscaled for national emission inventories.

**Your tasks**

- Analyse degradable VS in manure, measure related emissions, investigate effects of storage time, determine methane production with laboratory scale digesters
- Analyse the effectiveness of mitigation options (feeding, manure storage/treatment)
- Data analysis and processing, including statistical analysis, research data management
- Translate results into suggestions for emission inventory improvement
- Contribute to overall project activities
  - Collaborate with European partners
  - Support project management tasks (e.g. report writing)
  - Support project dissemination activities

**Our expectations**

- **Your professional qualification profile:**
  - University Master degree in natural sciences or related engineering disciplines
  - Knowledge in European livestock systems (dairy and pigs), manure management and anaerobic digestion, lab experiments
  - Data collection, data management, data exchange
  - Computer applications: knowledge of modelling and analytical software packages as well as of model verification, sensitivity analyses and parameter studies, MS Office applications
  - Experiences in project management are welcome
  - Fluent in written and spoken English

- **Personal qualification:**
  - Independent, self-responsible, reliable and result-oriented way of working
  - Ability to analyse complex data and situations
  - Team spirit, ability to cooperate, flexibility, commitment, ability to work under pressure, reliability
  - Willingness to travel, valid driving license for use in Europe (min. category B)
  - Crosscultural competence
  - Willingness to do a PhD

**We offer**

- Your participation in a transnational, excellent project consortium
- Excellent infrastructure for carrying out scientific work
- Attractive, interdisciplinary working environment and very good conditions to develop your own scientific career and your network
- Experienced supervisory team for your PhD studies, and close collaboration with universities in the metropolitan area of Berlin/Potsdam
- Family-friendly working conditions that foster the compatibility of work and family life

The salary is based on your qualification and professional experience according to TV-L E13. This part-time position (65%) is limited to three years, based on the duration of the project, and supposed to start on December 1st, 2019.

Further information can be obtained from Prof. UZ, PD Dr. Barbara Amon (e-Mail: bamon@atb-potsdam.de) and Dr. Christiane Herrmann (e-Mail: cherrmann@atb-potsdam.de).

If you would like to participate in our interdisciplinary research, please apply until September 23rd, 2019 by e-mail (in English; if possible one PDF document; max. 5 MB), quoting the reference number 2019-2-2 under karriere@atb-potsdam.de.

Equality of opportunity is part of our personnel policy. Disabled applicants with adequate qualification will be preferentially considered.

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