

### **DeSIRE Tenure track position #3: Governing Resilience of the RURBAN Metropolis**

University: University of Twente  
Faculty: Faculty of Behavioral, Management and Social Sciences  
Responsible Professor: Prof. Tatiana Filatova (t.filatova@utwente.nl)  
Expected to open: This position is expected to open around October 2018

#### **Description:**

The proposed TT will contribute to the development of a new systemic, technology and engineering based perspective and corresponding macro and micro resiliency strategies of and for public local and regional authorities, policies and governance: global governance for the resilience of the integrated RURBAN Delta.

The TT will be part of the BMS Resilience Research Program as well as strategic domain plan of the faculty. The research program involves researchers from various social sciences with a shared focus on technology and computational methods to explore how individuals, organizations, communities, cities and regions withstand, cope, learn, adapt and continue developing in the face of gradual stress, abrupt shocks or disruptive innovation. The Program does so by treating modern technology both as a research tool (VR; Data analytics, new statistics, (remote) sensing, GIS/ABM, gaming and visualisation; the BMS Tech4people Lab), as well as the context of and vehicle for newly emerging societal challenges and opportunities for design, engineering and policy action in producing resilient solutions in the light of the UN Sustainable Development goals. An ideal candidate will share an emphasis on technology and local self-governance, as well as governance assessment models and sustainable urban-rural development challenges.

Most urbanised Delta's of the world consist out of conglomerations and 'networks' of larger and smaller cities, towns and villages, and urbanised and rural regions. The idea behind the proposed TT is that by adding a geo- and spatial technological dimension (delta's, regions, towns, villages, agglomerations) to the issue of public 'resilience governance', the often exclusively sectorial (public safety, water, infra, energy, food) and disciplinary (psychology, public administration, communication science, civil engineering, risk management) approaches can be integrated in a natural way—thus leading to more comprehensive, systemic and innovating resiliency assessments and strategies. In the urban transformation and 'Metropolitan Revolution' we are currently witnessing that the notion of 'the Triumph of the (big) City' is gradually giving way to also pay attention to a conception of the development in terms of a social-economically and technology driven diffusion of urban and rural activities, which more adequately is denominated as rurbanisation. Taking the issue of urban governance, resilience and technology for sustainable development out of its frame of the singular (mega)city and combining this with newly developing technology based approaches (ICT; agent-based modeling, 'smart regions', 'intelligent villages', 'digital delta's', computational 'big data policy centers') and human and institutional behavioral science perspectives on civic engagement, communal participation and common pool resource (CPR) management with the help of modern technology, potentially provides new avenues for resilience science, resilience engineering and resilience strategies.

#### **Position in framework of the programme** (please delete what is not applicable):

- Approaches/discipline: agent based modelling/ cross-cutting methodologies/ Policy & Governance aspects / Ethical aspects
- Scale/application area: Cities & regions of interconnected mid-size towns/ Water / Urban - Infra / Agri-Food

#### **Synergy with other tenure track position(s):**

- Monitoring the resilience of artificial and natural infrastructure in cities and urbanized deltas (UT, Engineering Technology)
- Spatial transformation of food systems (UT, Geo-Information Science and Earth Observation)
- Modeling and governance for the response to large-scale disruptions (DUT, Technology Policy Management)
- Operational Measures for the Assessment of Resilience and Sustainability of Complex Adaptive Systems (WUR, Plant Sciences)