2 Fully-funded, 4 year PhD positions in Urban and Regional Studies

Delft University of Technology Faculty of Architecture and the Built Environment OTB Research for the Built Environment Research programme Urban and Regional Studies

These fully-funded, full-time PhD positions are located in the new Urban Systems and Dynamics research group led by Dr. Evert Meijers. The group is part of the interdisciplinary and international research programme in Urban and Regional Studies, which has about 35 researchers. The research group explores dynamics in urban systems and how these affect economic competitiveness, environmental sustainability and social well-being. The Urban Systems and Dynamics research group currently has several openings arising from a VIDI grant that provides ample funding for research, training and travel.

Description PhD position 1: Spatial Dimension of Agglomeration Benefits & Costs Job number: BK2015-22

The formation and growth of cities is generally explained by the concept of agglomeration economies: the range of performance-enhancing opportunities, amenities, infrastructure, skills and knowledge available to firms and people when they locate near to each other. This PhD project takes a step back from the mainstream of agglomeration literature. The project questions whether the agglomeration externalities known as 'urbanisation economies' are actually geographically linked to agglomerations. In other words, this project explores the geographical foundations of agglomeration theory. This could provide an explanation for why many small and medium-sized European cities, despite their assumed lack of agglomeration benefits, perform better than many large cities, which seem to enjoy more agglomeration benefits. 'Borrowed size' and 'agglomeration shadows' are important concepts in this research. The PhD student will study the spatial distribution of agglomeration benefits and costs, in the Netherlands and in (parts of) the U.S., using a wide range of proxies for these benefits and costs. This includes house prices, wages, productivity levels, crime, the occurrence of social problems and the presence of particular economic activities or urban functions. This leads to a fundamental questioning of the extent to which agglomeration benefits and costs can still be considered a phenomenon confined to agglomerations, and whether, and to what extent, they have transformed into regional externalities or network externalities.

Description PhD position 2: Importance & Measurement of Inter-City Flows Job number: BK2015-23

Several studies have repeatedly shown the importance of a city's embeddedness in large-scale networks of all kinds – firms, capital, knowledge, people, goods – for its performance. Yet the measurement of such flows between cities is complex. As accurate and real flow data is not always available, scholars often rely on classic models such as the gravity model to predict flows or use one of several proxies to measure interaction between cities that have been developed more recently, which particularly focus on

measuring inter-firm flows at a global scale. The aim of this PhD project is to evaluate existing approaches for measuring inter-city flows and to develop a novel methodology to proxy relationships between cities. This novel methodology will depart from new measurements of the extent to which cities are complementary to predict flows between them. Particular emphasis will also be put on cultural and historic dimensions that affect the strength of interaction between cities, and which tend to be obscured in the current literature. Therefore, the main focus is on conceptually improving the measurement of interaction between cities. Care needs to be taken in adjusting the new methodology to the measurement of different types of flows that can be studied. The new method will be applied and adopted to different spatial scales, i.e. regional, national and international. The urban systems of the Netherlands and (parts of) the U.S. will be mapped. Finally, the research explores the role that 'big data' can play in measuring flows between cities.

Job requirements

Applicants should hold a Master degree in human/economic geography, transportation, urban studies, spatial economics, urban planning or another relevant discipline. Applicants should have excellent academic qualifications, above average study results, a strong interest in doing research, knowledge of quantitative research methods, an excellent command of spoken and written English and good communication skills. A good command of Dutch is an advantage but not essential. Some experience using GIS software is regarded as an asset but is not essential.

Conditions of employment

TU Delft offers an attractive benefits package, including a flexible work week and the option of assembling a customised compensation and benefits package (the 'IKA'). Salary and benefits are in accordance with the Collective Labour Agreement for Dutch Universities. Salary range: \notin 2125 – 2717 gross monthly based on fulltime employment (38 hours per week).

As a PhD candidate you will be enrolled in the TU Delft Graduate School. TU Delft Graduate School provides an inspiring research environment; an excellent team of supervisors, academic staff and a mentor; and a Doctoral Education Programme aimed at developing your transferable, discipline-related and research skills. Please visit graduateschool.tudelft.nl for more information.

For more information about this position, please contact Dr. Evert J. Meijers, phone: +31 (0)6-28616571, e-mail: <u>e.j.meijers@tudelft.nl</u>.

How to apply

To apply, please send a detailed CV, a grades list, the names of two references, your master thesis and/or any publications you have authored (a URL to a PDF is fine) along with a letter outlining your motivation for applying for one of these positions (or both). Please e-mail your application by **4 January 2016** to Celia Moualed, <u>HR-BK@tudelft.nl</u>.

For more information:

http://www.tudelft.nl/en/about-tu-delft/working-at-tu-delft/jobs/academic-jobs/phd/

For more information about our vibrant Faculty of Architecture and the Built Environment, which ranks third in the QS World University Rankings: http://www.bk.tudelft.nl/en/

For more information on doing research in the Netherlands, see: <u>https://www.academictransfer.com/coming-to-the-netherlands/</u>

Delft University of Technology

Delft University of Technology (TU Delft) is a multifaceted institution offering education and carrying out research in the technical sciences at an internationally recognised level. Education, research and design are strongly oriented towards applicability. TU Delft develops technologies for future generations, focusing on sustainability, safety and economic vitality. At TU Delft you will work in an environment where technical sciences and society converge. TU Delft comprises eight faculties, unique laboratories, research institutes and schools.

OTB - Research for the Built Environment specialises in independent research in the field of housing, urban studies, construction and the built environment. The policy areas of OTB are centred around various aspects of the built environment. For example, research is carried out into such areas as housing, urban renewal, transport and infrastructure, urban and regional development, sustainable building and building policy, land policy, geo-information resources and GIS technology. OTB is a department in the Faculty of Architecture and the Built Environment at Delft University of Technology.