



# Urban analytics and data technologies

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## Summary

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*The Ragnar Nurkse Department of Innovation and Governance is opening up a doctoral position in the research area of 'Urban analytics and data.' Doctoral research students are invited to submit their ideas for topic specific research projects, which will be in line with the main research axes of the FinEst Twins project, from which the position is funded. The projects should focus on theoretical and empirical research that contributes to establishing smart, resilient, and sustainable cities worldwide and fostering the design and use of data technologies that consider social diversities.*

Research field:	Public policy and innovation
Supervisor:	Prof. Dr. Anu Masso
Availability:	This position is available.
Offered by:	School of Business and Governance Ragnar Nurkse Department of Innovation and Governance
Application deadline:	Applications are accepted between November 16, 2020 00:00 and December 16, 2020 23:59 (Europe/Zurich)

## Description

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Research on data technologies has evolved from the original narrow techno-centrism to broader public value concepts, citizen participation, resilience, and sustainability. The parallel development of global data technological opportunities and new forms of localized social interaction and dynamics poses complex challenges and opportunities for diversity governance. These include not only the development of technical, legal, and institutional capacities for the use of data technologies but also examining the unknown social mechanisms for considering the diversities in data technologies, and for building new governance principles for smart societies and cities that achieve sustainable and resilient integration of data technological and social processes. There are three key inter-related themes that we are interested in (but not necessarily limited to these), and we believe will crucially structure governance of social diversities through data technologies in the coming decades:

1. Towards diversity sensitive smart mobility. Datafied mobility solutions like under-skin microchips instead of train tickets, cars driven by algorithms instead of people, or volunteered cycling data provide convenient and sustainable transport planning opportunities. Data technologies are also transforming our understandings about mobility, diversity, and cities that are to be examined.
2. From central data platforms to data commons. Data platforms provide enormous opportunities for creating, accessing, and using the data and turning these into valuable knowledge for city planning. But we do not know how the citizens are framed and conceptualized in the cross-border, instead of national, data platforms and the twin cities' framework. Emerging data commons versus global principles for governing diversities through data technologies will be introduced and tested.
3. Other themes related to urban data, data analytics and diversity. Data technologies in the framework of smart cities and twin cities provide infinitely diverse data sources but collide with our understandings of social diversities. The conceptions on (super)diversity when advancing joint cross-border initiatives rather than adjusting the data technologies from one social context to another, are to be tested.

Prospective candidates for the post of Doctoral research student are encouraged to provide their original empirical or theoretical projects that tackles one or several of these challenges and indicates their secondary supervisor from within or outside the Nurkse Department.

### Responsibilities and tasks

During the Doctoral research period (4 years), the researcher is expected to design, develop, and complete their research resulting in at least three peer-reviewed articles published in internationally recognized journals. The research plan should also be in line with, and contribute to, the strategic research axes of the FinEst Twins CoE and its members. The ideal research ratio expected is 50:50 between the successful candidate's own research and their contribution to the Finest Twins project strategic research agenda. In addition to conducting research, the Ragnar Nurkse



department expects the successful candidate to participate in a professional development program by participating in the teaching and supervision of undergraduate and master's students and gaining research management experience at the Nurkse Department. In this respect, courses, workshops, seminars, and inductions will be provided, to which new researchers are encouraged to attend and contribute.

### **Qualifications**

The successful candidate should have:

- a master's degree in social sciences (preferably in sociology, public administration, media and communication studies, or human geography) or in other areas with additional proof of social science research skills;
- expertise in qualitative or quantitative, digital or computational research methods; knowledge in experimental study design and cognitive methods like eye-tracking, is an advantage;
- a clear interest in (and a concise vision for) independent research concerning the chosen topic;
- excellent command of English (proficiency in the Estonian language is beneficial);
- strong and demonstrable writing and analytical skills;
- capacity to work both as an independent researcher and as part of an international team;
- ability and willingness to assist in organizational tasks relevant to the project.

### **We offer:**

- a 4-year funded Ph.D. position at TalTech, one of the largest, internationally renowned, and leading social sciences research centres in Estonia with a broad portfolio of ongoing pan-European and national projects in data studies, public administration, digital governance, and innovation studies projects.
- involvement in R&I activities with the founding partners of the FinEst Twins project and other key stakeholders (e.g., cities).
- opportunities for conference visits, research stays, and networking with globally leading universities and research centres in the fields of public administration, innovation studies, and digital government.
- Ph.D. positions are guaranteed a net monthly income of 1200EUR (including 660EUR Ph.D. scholarship) and Estonian national health insurance).
- The position will be financed by the European Commission's H2020 grant (grant no 856022 funding the establishments of the Smart City CoE) and the Estonian national Ph.D. scholarship measure; the position will start February 1, 2021.

### **About the organization**

The Ragnar Nurkse Department of Innovation and Governance is an interdisciplinary, international research centre within Tallinn University of Technology hosting world-renowned award-winning scholars and focusing on socially relevant research and teaching, such as:

- digital transformation of societies: social datafication, algorithmic governance, data justice, state-citizen relations in the digital era, smart cities and cross-border data relations;
- models and practices of (e)-governance and public administration globally;
- P2P technologies, their governance and potential new production models;
- fiscal governance and fiscal bureaucracies;
- science and innovation policies and its' management;
- philosophy and ethics of science and technology.

The Ragnar Nurkse Department is highly internationalised and engages top international theorists and researchers in its research fields. Besides a fully English taught Ph.D. degree, the Department offers a MA degree in Technology Governance and Digital Transformations, and a unique Erasmus Mundus joint MSc program in Public Sector Innovation and e-Governance (PIONEER) in cooperation with KU Leuven (Belgium) and University of Munster (Germany). The Ragnar Nurkse Department and its staff have coordinated or been involved in a multitude of international research projects within the EU (INTERREG, COST, FP7, H2020), UN (UNDP), OECD (SIGMA), INET. The department has participated in various European Commission working groups (the EU's Lisbon Agenda Group, Expert Group on Managing Risks in Public Technology Procurement, Expert Group on Public Sector Innovation).

The Ragnar Nurkse Department recently initiated a major, €32 million international R&D project on Smart Cities (FinestTwins) and coordinated the H2020 funded large-scale innovation pilot on implementing The Once-Only Principle (TOOP), which laid the foundation for the data exchange layer foreseen in the European Single Digital Gateway Regulation (SDGR).



The Ragnar Nurkse Department is also engaged in several international associations, such as the European Master in Public Administration program (EMPA), European Inter-University Association on Society, Science and Technology (ESST), and the European Group for Public Administration (EGPA), where The Ragnar Nurkse Department coordinates the Permanent Study Group on Public Administration, Technology and Innovation.

**Additional information**

For further information, please contact Prof Anu Masso (anu.mass@taltech.ee) or visit <http://ttu.ee/nurkse>. To get more information about the team, visit <https://taltech.ee/datalab>.

To apply for this position you must in addition to all other application documents submit a research proposal consisting a maximum of five pages.



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