

# Governance of Smart Cities

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## Summary

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Ragnar Nurkse Department of Innovation and Governance is opening up to 4 PhD positions in the broad research area of Governance of Smart Cities. The prospective PhD students are requested to propose their own more specific research projects that will also support the development of the Finest Twins Centre of Excellence (CoE) in Smart Cities, the first smart city CoE globally focusing on the development of cross-border, sustainable and resilient smart city models and solutions (<http://www.finesttwins.eu>). The PhD project should focus on theoretical, critical, empirical or action research that contributes to the establishment of smart, resilient and sustainable cities worldwide.

Research field:	Public Administration
Supervisors:	Veiko Lember Wolfgang Johannes Drechsler Vasileios Kostakis Robert Krimmer Erkki Karo Ralf-Martin Soe
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 June 01, 2020 00:00 and July 03, 2020 23:59 (Europe/Zurich)

## Description

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Smart city governance research and practice is evolving from the original techno-centrism towards encompassing broader notions of public value, citizen participation, resilience and sustainability. The parallel evolution of global technological opportunities and new forms of more localized social interactions and dynamics poses complex governance challenges and opportunities. These range from developing technical, legal, data and institutional capacities for utilizing traditional smart city solutions to building new governance platforms for smart (enough) cities that achieve sustainable and resilient integration of technological and social processes. There are **five key inter-related themes** in smart city research that we are interested and we believe will crucially structure smart city developments in the coming decade:

1. **Innovation capacities of smart cities:** How can cities become “smart” in the sense of supporting both technological innovation and diffusion as well as economic development of local communities as part of smart city initiatives? What kind of policies and governance models should underpin this? Can we envision alternative policy and governance models for the existing “best practices”?
2. **Sustainability of smart cities:** How can cities become “smart enough” in the sense of sustainable development, including goals of climate neutrality, environmental and technological self-sufficiency and resilience? What kind of models of technology governance (e.g. open-source) are best fitted for these goals? How to measure the “smart sustainability” or “smart resilience” of cities and what kind of policies and governance models should underpin them?
3. **People-centric and inclusive smart cities:** How can cities become “smart” in the sense of providing functional cross-sectoral and cross-border platforms for public policy and service co-creation and co-production as the basis for legitimacy, people-centredness and happiness? What kind of governance models are required for people-centric and inclusive smart cities? Can we envision alternative governance models for the existing “best practices”?
4. **Data governance in smart cities:** How should cities develop capacities and processes for using data within municipal departments and for, regional, state-level and International cross-border collaborations? How can “twin smart cities” provide services to citizens residing in the neighbouring city? How can the interoperability

challenges be mastered that cross-border exchange of data poses, how can an ecosystem be provided that enables the City as a Platform? Which drivers can be identified to accelerate and which barriers need to be overcome to foster cross-border smart city services? Which are the needs of the stakeholders when providing services cross-border?

5. **Beyond the Smart City:** How can cities sustainably collaborate with each other and/or integrate with their surroundings, nationally as well as cross-border? What are the potential alternative models for regional and international cross-border collaborations (i.e. between Tallinn and Helsinki) and beyond (e.g. Tallinn-Helsinki and Singapore)? How do the ideological and ethical differences between regions and places affect Smart City developments and integration/collaboration? Is “more” always “better”, or can we consider, for the post-Covid19 world, “smart-enough” approaches as being more effective, legitimate, sustainable and resilient?

The prospective PhD students are encouraged to provide their original theoretical, empirical or action research projects that tackle one or several of these challenges as well as indicate preferred main and co-supervisor from the Nurkse Department.

### **Responsibilities and tasks**

During the PhD research, the students should develop and implement their own research plan that results in at least three peer-reviewed and internationally published articles. The research plan should also be in-line and contribute to the strategic research direction of the Nurkse Department and the Smart City CoE: we estimate that the ratio between autonomous independent research and contribution to the joint research directions is 50-50. As part of the PhD studies, the students are also expected to gain teaching, supervision and research management experiences at the Nurkse Department and the Smart City CoE.

### **Qualifications**

A successful PhD candidate should preferably have:

- a master's degree in social sciences (preferably in public administration, political science or economics) or in other areas with additional proof of social science research skills;
- a clear interest and own vision for independent research in the topic of the position;
- excellent command of English;
- strong and demonstrable writing and analytical skills;
- capacity to work both as an independent researcher and as part of an international team;
- capacity and willingness to provide assistance in organizational tasks relevant to the project.

### **We offer:**

- 4-year funded PhD position in one of the largest, most internationalized and leading social science research centers in Estonia with a large portfolio of ongoing pan-European and national public administration, digital governance and innovation studies projects
- Involvement in R&I activities with founding partners of the Smart City CoE and also other key stakeholders (e.g. cities)
- The chance to do high-level research in one of the most dynamic digital government contexts globally
- Opportunities for conference visits, research stays and networking with globally leading universities and research centers in the fields of public administration, innovation studies and digital government
- All PhD positions are guaranteed a net income of at least 1200 EUR (including 660 EUR PhD scholarship) and Estonian national health insurance. The position will be co-financed by the European Commission's H2020 grant (grant no 856022 funding the establishments of the Smart City CoE) and the Estonian national PhD scholarship measure

### **About the organization**

The Ragnar Nurkse Department of Innovation and Governance (RND) is an interdisciplinary research center of Tallinn University of Technology that focuses on socially relevant and future-oriented research and teaching issues:

- models and practices of governance and public administration globally;
- fiscal governance and fiscal bureaucracies;
- e-governance and digital transformation of societies: datafication, public services and state-citizen relations in the digital era, smart cities and digital public services and cross-border collaboration;
- P2P technologies, its' governance and potential new production models;
- science and innovation policies and its' management;

- philosophy and ethics of science and technology.

RND is a highly internationalised department and engages some of the top international thinkers and researchers in its research fields. Next to a fully English taught PhD degree it offers a MA degree in Technology Governance and Digital Transformations, and a unique Erasmus Mundus joint MSc programme in Public Sector Innovation and e-Governance (PIONEER) in cooperation with KU Leuven (Belgium) and University of Münster (Germany). RND and its staff have coordinated or been involved in a multitude of international research projects with the EU (INTERREG, COST, FP7, H2020), UN (UNDP), OECD (SIGMA), INET, and have 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). Recently RND initiated a major, 32 MEUR 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). RND 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 RND coordinates the Permanent Study Group on Public Administration, Technology and Innovation.

#### **Additional information**

For further information, please contact Prof Erkki Karo ([erkki.karo@taltech.ee](mailto:erkki.karo@taltech.ee)) or visit <http://ttu.ee/nurkse>.



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