



MA in Technology Governance
at
Tallinn University of Technology, Estonia

**A Top-level, Two-year Masters' Degree
in the Most Exciting City in Northern Europe**

TECHNOLOGY GOVERNANCE

In order to understand the causes of, and to improve or even create the chances for, economic growth and development, their three key aspects – technological development, public policy, and economic development – must be connected in a trans-disciplinary way. Technology Governance is the name of that connection – a set of efforts and policies undertaken by the public and private sector and society actors in a given space in time to develop a knowledge base, social cohesion and competitiveness at the same time. So far, both in academic research and in policy advice, these aspects have tended to be separated. The Technology Governance programme (TG) at Tallinn University of Technology is designed to bridge these gaps and to focus on research, teaching, and advice in an interrelated way. This is the old Continental tradition of *Staatswissenschaften*, which has always seen State and Economy as complementary, and which has essentially been the foundation of all socio-economic success stories since the mid-19th century.

In the TG programme in Tallinn, our focus is therefore on:

- techno-economic paradigms;
- the history of economic policy;
- the administration of innovation;
- the context of European integration, technology and innovation policy;
- the development of Central and Eastern European countries, and
- the theory of uneven development.

The Tallinn TG MA, in other words, is a technology-focused special graduate degree that could be placed in such areas as Innovation Policy, Industrial Policy, Development Economics, or even *Staatswissenschaften* as a realistic alternative to mainstream (“Standard Textbook”) Economics. In that sense, this is **the** international Innovation Policy and High Tech program with a solid foundation in history and theory, embedded in an exciting environment, that so many students and scholars were always looking for yet could not find!

The “local” Estonian degree (a two-year MA in Public Management with a specialization in Technology Governance), which formed the basis for the English-language MA, was designed especially for administrators of Industrial and Innovation Policy, who otherwise had not obtained the training and instruction needed. The Estonian membership in the EU made this a pressing issue. The fact that it is based on a local program gives this new degree both solidity and embeddedness in the local academic culture and student community.

However, the TG MA is an international, globally-focused degree in its outlook, interest, faculty, and student body. Its use of the local experience as a case study does not mean that this is what the degree is “about”. Rather, it is relevant for all areas of the world – from the least to the most developed nations. An important subject is the study of the economic and political mechanisms that make economic development such an uneven process.

This course really can boast to be driven by demand rather than supply; so many graduate and undergraduate students, and faculty members, had asked the founders where one could obtain a degree in these fields. Well – here it is!

THE LOCATION

Estonia (<http://www.visitestonia.com/>, <http://www.riik.ee/en/>) is one of the most successful new EU member countries. Called “the only post-Soviet Scandinavian country,” its small size – less than 1.4 million inhabitants – makes it a perfect place for comparative and in-depth studies in the social sciences. “Medieval and wired,” as another slogan goes, traditional and innovative at the same time – Estonia’s ICT infrastructure is one of the most developed in the world. It is easy to reach by car, ferry, and especially by air, with frequent connections to most European airports, including several cheap carriers.

Tallinn (<http://www.tallinn.ee/eng>), perhaps the best-preserved Hanseatic town of all (a UNESCO World Cultural Heritage site), a harbor, sailing, and beach capital – the site of the 1980 Summer Olympics in water-sports –, is as dynamic and exciting as a city of half a million can be. *Newsweek* called Tallinn one of the top “funky towns” of the world. It is also the regional cultural capital, with many excellent concerts, art and design exhibitions, and theater productions.

Tallinn University of Technology (TUT) (<http://www.ttu.ee/?lang=en>) is one of the leading technical universities, and one of the best, most patent-producing schools in the region; it closely works with its Finnish counterparts. TUT – one of the schools fondly called “the MIT of the North” – gives this programme a serious and solid base. A fully accredited State university, founded in 1918, it has a large, diverse, and integrated student body and many student facilities, as well as modern student housing.

The Institute of Public Administration (<http://ahi.ttu.ee/web/eng/>) is the multi-disciplinary department granting the degree. As the TG MA is based in Public Management and not in Economics, it can proceed unstraddled by the typical mainstream economic skepticism towards technology, growth, and innovation. The department’s site is in the West of Tallinn, separated from the nearby Sea by coastal woods, allowing trekking in summer and crosscountry skiing in winter, with prepared tracks starting right outside the door.

THE CORE FACULTY

Wolfgang Drechsler BA MA PhD (Marburg) CPAdm, Professor of Technology Governance and Public Management. Drechsler, who also holds an appointment at the University of Tartu, previously taught at the Universities of Marburg, Gießen, and Frankfurt/Main, all in Germany, and as Visiting Professor in Lund, Sweden. He has served as Advisor to the President of Estonia, as Executive Secretary with the German *Wissenschaftsrat* during the German Reunification, and as Senior Legislative Analyst in the United States Congress. His main areas of interest include the role of the state in economic growth, the administration of innovation, the epistemology of economics, and *Staatswissenschaften* in general; he also has a background in Continental philosophy.

Tarmo Kalvet BA MPA PhD (Tallinn University of Technology). Tarmo Kalvet is the head of the Innovation Program of PRAXIS, Estonia's leading policy think-tank, and has taught many graduate and undergraduate courses in innovation policy and related subjects at the University of Tartu. In his PRAXIS capacity, he has authored and coordinated several important policy papers and analyses. His main interests are ICT, e-governance, and innovation policy.

Rainer Kattel BA MA PhD (Tartu), Professor of Public Administration and European Studies, Head of the Programme. Professor Kattel is also the Head of the Department of Public Administration. He is a Senior Research Fellow with PRAXIS and serves on several national and EU commissions in charge of science and research policy and funding, including the Innovation Policy Council. He is particularly interested in Biotechnology and national innovation systems, and he also has a strong background in Philosophy and Classics.

Jan Kregel BA MA PhD (Rutgers), Permanent Visiting Professor of Technology Governance and Finance. Kregel currently serves as Chief of the Policy Analysis and Development Branch of the Financing for Development Office of UNDESA, the United Nations' Department of Economic and Social Affairs. Until 2004, he was High Level Expert in International Finance and Macroeconomics in the New York Liaison Office of the UN

Conference on Trade and Development (UNCTAD), being in essence its chief economist. For many years, he held the Chair for Political Economy at the University of Bologna. He was on the faculty of Johns Hopkins SAIS, whose Bologna Center he co-directed in the late 1980s, and he is a Visiting Professor at the University of Missouri at Kansas City. He is a Life Fellow of the Royal Economic Society in London and is counted as one of the leading post- Keynesian economists today. His main area of interest is finance.

Carlota Perez, University of Cambridge, Permanent Visiting Professor of Technology and Socio-Economic Development. Perez, who mainly lives in Caracas, Venezuela, as a consultant, is Honorary Research Fellow at SPRU, University of Sussex, and Adjunct Senior Research Fellow at the United Nations University's Institute of New Technologies, Maastricht, The Netherlands. Currently, she is Visiting Senior Research Fellow at the Cambridge Endowment for Research in Finance (CERF), University of Cambridge. Perez has held posts in the government of her country, first in the Institute of Foreign Commerce in relation with the technology aspects of the North-South Dialogue (1975-1977), later as founding Director of Technology in the Ministry of Industry (1980-1983). She is perhaps most famous for her development of the concept of the “Techno-Economic Paradigm Shift”.

Erik S. Reinert BA MBA (Harvard) PhD (Cornell), Professor of Technology Governance and Development Strategies. Professor Reinert is also the Chairman of the Other Canon Foundation (www.othercanon.org). Early in his career, he developed a small business (color sampling) in Bergamo, Italy, into the leading European firm of its kind. He retired after selling the firm in order to pursue his scholarly and policy interests, and became Director of Research of Norsk Investorforum; he also held a part-time position at The Centre for Development and the Environment (SUM) at the University of Oslo. Reinert’s main areas of interest are the theory of uneven development and the history of economic policy.

All core faculty members also have extensive senior experience in international consulting and advice, including about every international donor and finance organization.

THE CURRICULUM

The Technology Governance MA was launched in 2006. It is taught partially in modules (intensive, week-long classes) and partially by overarching courses and workshops. The program culminates in a thesis that is to be completed during the second academic year. The Fall term of the second academic year is meant for internship. All courses are taught in English. The academic year runs from 1 September to 31 May, with Christmas holidays from 20 December to 31 January and graduation in June.

The program is divided into three basic modules and an additional one:

a. Development and Economics

- i. History of economic policy
- ii. Finance
- iii. Industry, learning, skills
- iv. Case studies

b. Science and Technology

- i. Techno-economic paradigms
- ii. High-tech: ICT, biotech and nanotechnology
- iii. Traditional industries
- iv. Education and Science
- v. Philosophy and Critique of Technology
- vi. Case studies

c. Governance and Administration

- i. The State
- ii. Public Administration
- iii. Lesson-drawing
- iv. Small states

d. Internationalisation / Globalization and Regions

- i. The EU
- ii. International organizations
- iii. Globalization

THE COSTS & APPLICATION

The programme provides 2 state-commissioned places for studies, which exempts from tuition fee and enables to apply for a monthly scholarship. To find out more, please write to Rainer Kattel at kattel@staff.ttu.ee.

Those, who do not qualify for state-commissioned places, have to pay for their studies (see the section "Costs"). Tuition fee is the same for local and foreign students. Tuition fee calculation is based on the number of credit points. 1 credit costs 60 euros. Thus, the tuition fee amounts to 3,000 euros. The cost of elective credits depend on their origin (credit costs vary slightly between different university departments). Living costs in Tallinn are around 4,500 euros per academic year (this includes eating in the university cafeteria and lodging at the university dormitories). Thus, the total cost of studies is about 7,500 euros (plus travel to Tallinn) which is less expensive compared to similar degree programmes in the USA and in other European universities.

Our program has rolling enrollement, students can apply throughout the year. In addition to standard application documents (<http://www.ip.ttu.ee/>), applicants are requested to submit **CV and 1 page-long description of MA thesis proposal** (the topic, research questions, objectives, methodology etc.). CV and description of MA thesis proposal should be sent to Rainer Kattel via e-mail (kattel@staff.ttu.ee). Please use pdf files.

More information regarding Technology Governance programme, Tallinn University of Technology, and supportive services for international students may be obtained from the following websites:

<http://www.technologygovernance.eu>

<http://www.ttu.ee/?lang=en>

<http://www.campusttu.ee/eng/>

<http://www.ip.ttu.ee/>