MAS in Science, Technology and Policy
“Helping government and business deal with the great societal challenges of our time through smart and effective policies requires close collaboration between natural and social scientists and engineers. ETH and its Institute of Science, Technology and Policy (ISTP) have a unique role to play in this regard. My ISTP colleagues and I embed our Master students in a vibrant interdisciplinary and challenging learning environment to equip them with the skills necessary to embark on successful policy-oriented careers in government, business, or civil society.”

“In many societal domains technological advancements are outpacing existing rules and policies. As natural and social scientists, engineers and architects, we have a unique mission to bridge short-term thought processes with long-term strategies to improve human lives. At the ISTP, we educate, train, and work with future generations of policy makers and their advisors, ensuring their sensitivity to, and understanding of, medium- and long-term scientific, technological, economic, and social changes that will be a part of our common future.”
Program Objectives

Public policies addressing key challenges of our time—including sustainable use of natural resources, urban development, energy, and the information and communications technology revolution—rely heavily on new knowledge generated by natural, engineering, and social sciences.

The purpose of the MAS in Science, Technology and Policy (STP) is to provide the skills necessary to effectively engage with public policy, where sound judgment requires an understanding of science and technology, and also depends on the appraisal of the institutional, social, and political context within which challenges arise.

To enable graduates to successfully engage with ill-defined problems, the ETH's MAS in Science, Technology and Policy provides both an understanding of policy processes and institutions and a set of methods for framing problems, evaluating options, and managing policies.
The MAS STP program is composed of 60 ECTS, and to be completed in 2 semesters. Prerequisite for admittance to the MAS is an MSc degree recognized by the ETH in science, engineering or related disciplines including mathematics, architecture, and medical or life sciences as well as demonstrated interested in public policy.

The following six core courses provide the MAS STP’s foundation:
1. Cornerstone course bridging science, technology and policy
2. Public institutions and policy-making processes
3. Markets and economic policy instruments
4. Quantitative policy analysis and modeling
5. Methods of data collection and data analysis
6. Science and policy communication

Electives focus on a wide range of public policy issues and can be selected by the student from offerings across ETH Zurich.

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<td>Core Courses in Science, Technology &amp; Policy</td>
<td>MAS-specific Core Courses (12 ECTS)</td>
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<td>(24 ECTS)</td>
<td>Policy Analysis Project (12 ECTS)</td>
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The research paper emphasizes academic skills in public policy analysis and logically extends from coursework, while the policy analysis project is more applied in nature and should be carried out as part of an internship or regular employment in the public, private, or academic sector.

Both for their research paper and the policy analysis project, students are individually coached by professors or experienced senior researchers.
Student Skills

The MAS STP program equips students from natural science and engineering backgrounds with skills for analyzing complex societal problems at the interface of science, technology and policy.

The STP program provides students

• a critical understanding of the institutions and decision-making processes commonly found at the national and international level

• experience identifying the most important economic, institutional, social and political factors that determine how people perceive and frame policy problems

• an understanding of the theoretical and conceptual approaches that policymakers frequently apply to analyze and solve societal problems

• quantitative skills for policy analysis, including statistical analysis to identify the effects of past policies, simulation modeling to anticipate the effects of future interventions, and methods of decision-analysis to identify robust strategies under conditions of uncertainty

• experience in communication, both in order to learn the most important attributes of a decision-context from stakeholders, and to be able to explain policy analysis results to a wide range of potential audiences
The MAS in Science, Technology and Policy is designed for students seeking careers that not only require an outstanding education in natural sciences or engineering, but also strong skills for analyzing existing public policies and evaluating proposed solutions for important societal problems.

**Industry and government**
In industry and government, graduates will adapt academic approaches and apply innovative insights to real-world problem solving.

**International organizations**
Given their interdisciplinary backgrounds and leadership skills, ISTP graduates will be attractive employees for international organizations.

**Consulting**
In consulting, graduates will contribute to feasible and effective solutions to real-world problems, based on innovative new methods at the interface of science, technology and policy.

You may apply for admission to the MAS in Science, Technology and Policy if you have completed a MSc degree recognized by the ETH in science, engineering, or related disciplines including mathematics, architecture, and medical/life sciences.

Applications are accepted from January 1st to May 30th: [www.ethz.ch/mas-stp](http://www.ethz.ch/mas-stp)

Additional information can be found on the ISTP website at: [www.istp.ethz.ch](http://www.istp.ethz.ch)
Alfredo Brillembourg & Hubert Klumpner Profs
Architecture and Urban Design

“To paraphrase J.W. v Goethe’s quote: I call architecture frozen music. We like to say that urbanism is frozen politics. In that sense, the ISTP brings the forces of governance, the economy and design together into a format that promises a basis for real-world challenges. To harmonise the culture of city building with mastering technological, scientific and governance matters. The ISTP offers a necessary laboratory for the challenges of our Future Cities, both in Switzerland and the world.”

Prof. Dr. Timothy Roscoe, Professor of Computer Sciences

“In my field of Computer Science, it no longer makes any sense to separate technologies like encryption, social networks, Big Data, security, and the Internet on the one hand, and issues of public policy, political economy, and social concern on the other. For me, the ISTP is all about integrating these, so that the policy is grounded in a serious understanding of the technology, and vice versa.”

Prof. Dr. Bernhard Wehrli, Professor of Environmental Sciences

“Facts and insights from environmental sciences changed the public discourse about our common future. Today, we face the challenge to move from discourse to action. For me, the ISTP means leaving the comfort zone of narrowly-defined disciplinary work. We start with a few interdisciplinary teams. Students and experts develop concrete options and solutions for urgent societal problems such as coping with limited natural resources or designing more sustainable cities.”

Other ISTP Professors Contributing to the Program:
Prof. Kay Axhausen (D-BAUG)    Prof. Janet Hering (D-USYS)
Prof. Stefan Bechtold (D-GESS)  Prof. Thomas Hofmann (D-INFK)
Prof. Paolo Burlando (D-BAUG)  Prof. Reto Knutti (D-USYS)
Prof. Lars-Erik Cederman (D-GESS)  Prof. Anthony Patt (D-USYS)
Prof. Andreas Diekmann (D-GESS)  Prof. Frank Schimmelfennig (D-GESS)  Prof. Dr. Andreas Wenger (D-GESS)
Prof. Adrienne Grêt-Regamey (D-BAUG)
Prof. Isabel Günther (D-GESS)
Prof. Dirk Helbing (D-GESS)
Our Vision

To contribute to evidence-based and effective policy-making with regard to key societal challenges, such as urbanization, the energy transition, digital society, and sustainable use of natural resources and the environment.

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