

# MINOR GOVERNANCE OF INNOVATION AND SOCIO-TECHNICAL CHANGE



THIS MODULE IS PART OF THE HTHT-PACKAGE

'PHILOSOPHY AND GOVERNANCE OF SCIENCE AND

TECHNOLOGY'. THE PACKAGE CONSISTS OF TWO

MODULES: 'PHILOSOPHY OF SCIENCE AND TECHNOLOGY'

(15 EC, QUARTILE 1) AND 'GOVERNANCE OF INNOVATION

AND SOCIO-TECHNICAL CHANGE' (15 EC, QUARTILE 2).

THE MODULES CAN EITHER BE CHOSEN SEPARATELY OR

AS A PACKAGE.

## **WHAT IS A HTHT MINOR?**

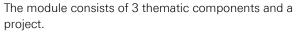
A HTHT-minor fits within the UT profile: High Tech, Human Touch. The minor is offered in English and accessible for both national and international students. The goal of the HTHT-minor is to illuminate specific societal themes for which the UT develops High Tech Human Touch solutions. These solutions are created by conducting high-quality research. Both the form and the content of the minors are High Tech Human Touch (multidisciplinary) and are profiling for the student.

The UT offers most HTHT-minors in a coherent package of 2 (30 EC). There are also HTHT minors of 15 EC that do not belong to a package. You can choose one of these minors and combine this with one minor of a package. If possible, you can even choose 2 minors from different packages.

#### **MINOR INFORMATION**

In this module you will learn how society and technology influence each other, in particular how this plays out in innovation processes when new technologies are developed and embedded into society, and you will learn about possibilities for purposefully shaping innovation processes and socio-technical change. Technologies play a central role for modern societies, be it in the form of enablers of key societal functions such as energy, water, mobility, public health etc., or as creating risks and unwanted effects. Thus, science and technology are also an important issue for governance, with policy and other societal actors trying to shape innovation. As part of this, anticipating possible future developments, of technologies and their effects on society, is a common element of the work of researchers, innovation and governance actors, but needs to be informed by an understanding of sociotechnical dynamics.





## **Innovation and Social Change**

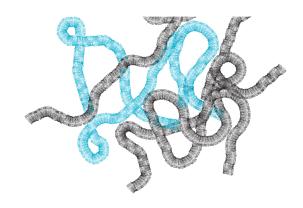
The first component is dedicated to developing an understanding of the interrelations of innovation and social change and how these typically unfold. For instance, new telecare or point-of-care devices have to find a place in patient's daily life or medical routines, just as in the broader health system, and may be more or less welcomed. Electric or self-driving vehicles depend on as well as affect user's mobility patterns, and have to be integrated into the mobility and (smart) electricity system more widely. E-government may facilitate information flows, but also change roles and power relations of various actors. Along such an 'innovation journey' user's practices, broader systems and the innovations themselves change. We will use both contemporary and historical examples to explore this empirically.

## **Governance of Science, Technology and Innovation**

The second component delves into possibilities, approaches and limitations of governing innovation and socio-technical change, building on the insights of the other components. You will learn about different types of policy problems, different ways of framing a problem and the practice of policy-making.

# **Prospecting and Assessing Technology**

The third component addresses how these insights can be used for anticipating and assessing future developments around innovations, for instance in the form of scenarios, and how expectations and scenarios inform innovation processes. You will learn about the (often) strategic role of expectations and promises in research, innovation and policy, as well as about their dynamics – e.g. hype-disappointment cycles.



We need to understand socio technical change – in the past, present and future.

## **Project**

Each project group chooses a particular innovation to focus on, suggested by the students or the teachers, and a research question which will guide the project work. All projects consist of an analytical part and a design part, suggesting a recommendation to an innovation or policy actor, or doing a scenario development.

## **Target groups**

Following this module will allow (technical) students to reflect and anticipate on the societal relevance of particular technologies and on the way the world 'beyond the lab' influences the work of researchers and designers. Students (from the social sciences) will enhance their understanding of technology and innovation as essential ingredients of modern social life, and the role policy and social science can play in the governance of science and technology in society.

## **About KiTeS**

The Knowledge, Transformation and Society group is interdisciplinary, and so is the content of the module as will be the teachers, combining insights and perspectives from science and technology studies, policy studies, history, and sociology.

## **MORE INFORMATION**

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For more information about this minor and for general information about minors: www.utwente.nl/minor