Introduction
WTMC is a collective effort of scholars based in the Netherlands who study the development of science, technology and modern culture from an interdisciplinary perspective. Members of WTMC have backgrounds in the history, sociology and philosophy of science and technology, and other interdisciplinary fields including innovation studies, gender studies, cultural studies, and governance studies. WTMC is pluralistic not only in terms of discipline, but also in terms of objects of study, methods and approaches used.

WTMC has four objectives:
1. to provide high quality, advanced training for PhD candidates who study science, technology and modern culture, and thus to create new generations of scholars with a solid background in this interdisciplinary field (often referred to as STS – ‘Science and Technology Studies’, or ‘Science, Technology & Society’)
2. to stimulate and coordinate high quality research about science, technology and modern culture
3. to contribute to societal debates about the role of science and technology in society
4. to promote the visibility of STS as a field amongst research funding agencies, universities and others concerned with research and education policy.

History
Collaborative training for graduate students in science, technology and society studies started in 1988, and was supported by a government grant until the early 1990s. Over the years, the graduate training network gained national and international recognition. In 1994, the graduate training network was transformed into a slightly different organisation: the Graduate Research School of Science, Technology and Modern Culture (WTMC). It was officially accredited by the Royal Netherlands Academy of Arts and Sciences (KNAW) in 1995. Accreditation has been reconfirmed in 2000, 2005, 2011 and 2017.

Organisation
At present, the academic director of the school is Professor Stefan Kuhlmann from the University of Twente. Professor Harro van Lente, Maastricht University, chairs the board. Most of the other board members come from participating academic groups. The co-ordination of the training programme is in the hands of Dr Bernike Pasveer (Maastricht University) and Dr Anne Beaulieu (University of Groningen).

Establishing Institutions
Maastricht University, University of Twente, Utrecht University, Eindhoven University of Technology, Vrije Universiteit Amsterdam and Leiden University.

Participating Institutions
Radboud University Nijmegen, University of Amsterdam, University of Groningen, Erasmus University Rotterdam, and the Rathenau Institute (Royal Netherlands Academy of Arts and Sciences, KNAW).

Research Clusters
WTMC is organised around three clusters that also form the backbone of the training programme. In addition to the clusters of key questions, the graduate school pays attention to relevant developments in its traditional disciplines, such as history, philosophy and sociology.

Diagnosis of the Modern Research System
This cluster focuses on the history of national research systems, and on the relationships between the different levels of the research system, and between science and society. The formation of new networks, systems and actors is a key aspect within this theme. This is studied from historical, sociological and cultural perspectives, using both quantitative and qualitative methods.

Technological Development and Societal Regulation
This cluster focuses on the role of technology in society and the ways in which they are co-constructed. Key questions include: How do technical systems and technical artefacts emerge and develop? What is their role in modern society? These studies inform new perspectives on the politics of technological culture and new forms of technology assessment. The history of technology in the Netherlands has been an important topic.

Cultural Roles of Science, Technology and Rationality
This cluster focuses on the cultural, philosophical and normative consequences of the intertwining of science, technology and modern culture. Questions related to this theme concentrate on the way in which boundaries between science, technology and society are generated, and how science and technology are represented and presented in philosophical and political writings.
Aims of the Graduate Training Programme:

- To obtain an overview of classical and contemporary interactions and learning among the PhD students of the School.
- To learn how to translate these insights into one's own research approach and research design.
- To develop skills to use methodology and theory to study the interaction between science, technology and society.
- To develop skills necessary to communicate with and present one's work to the international research community.
- To prepare for a professional career in which knowledge of the interaction between science, technology and society plays a role.

Local and National Component

PhD students participating in one of the academic groups affiliated with WTMC obtain their training locally in their own institution and nationally from the Graduate Research School. The local component is provided by the home institution and in particular by the supervisor responsible for the PhD student. The local component includes supervision and training to compensate for gaps in students' prior training, such as academic language skills. The national component is organised by the Graduate Research School WTMC. The national component aims to make students familiar with classical and recent approaches to studying the interaction between science, technology and society. It also stimulates interaction and learning among the PhD students of the School.

Workshops, Summer Schools & Writeshops

The PhD programme has two parts. The first two years of the programme introduce students into the broad field of studies of the interaction between science, technology and society, and provide training in particular skills. During each of these first two years, students attend two workshops and one summer school. Workshops are organised around specific themes (linked to the three clusters of questions around which WTMC is organised), while the summer school is organised around a theme and an anchor teacher. The anchor teachers are leading scholars from the field. WTMC workshops and summer schools are residential.

Examples of recent workshop themes:
- Science and Citizenship
- Critical Theory of Technology
- Future-Making
- Doing Comparison
- Assessing Technology Assessment
- The Nature of Nature
- Postcolonial STS
- Open Science

Anchor Teachers of Previous Summer Schools

- Donald MacKenzie (1987)
- Harry Collins (1988)
- Roy Porter (1989)
- Helga Nowotny (1990)
- Steve Shapin (1991)
- Bruno Latour (1992)
- Brian Wynne (1993)
- Trevor Pinch (1995)
- Karin Knorr-Cetina & Trevor Pinch (1995)
- Ted Porter (1996)
- Donna Haraway (1997)
- Shelia Jasanoff (1998)
- Helen Verran (2012)
- Uffe Fehl (2016)
- Christine Hine (2017)
- Elizabeth Shaw (2018)
- Michael Guggenheim (2019)

Requirements for the certificate of the national component:

First phase PhD training: 4 three-day workshops & 2 five-day summer schools.
Second phase PhD training: The 4 one-day Writeshops are a service to advanced students who have concluded the first phase. The Writeshops are not compulsory.

Prior to the workshops and summer schools, students receive a programme with tests and assignments to prepare in advance. Students are expected to spend 40 hours preparing for each workshop and 90 hours for the summer school. All workshops and schools are in English and often attract international participants. All students present their work at least once during the first two years of the programme.

In the next phase of their PhD research Writeshops are organized twice a year. These are the occasion to discuss and receive feedback from senior academics and peers on their writing (dissertation chapters or articles). Texts are distributed in advance. The total amount of preparation depends on the number of participants. Each Writeshop ends with a dinner enabling PhD students to maintain and extend their network of contacts with peers and senior scholars in their field.

Acquiring academic and professional skills is an important component of the WTMC graduate training programme. Workshops and summer schools invite students to reflect critically on theoretical and methodological approaches and on their own research design and findings. Interaction among the students is crucial, and that is why the workshops and summer schools are residential. In addition to a selection of research skills (such as textual analysis, network analysis, and ethnographic techniques), there is training in skills such as structuring the thesis, writing review articles, composing abstracts for conferences, writing research proposals for funding, and the art of redrafting.

Profile of Regular Participants

Participants should have a Masters degree, preferably in the study of science, technology and society or a degree with a sufficient basis in the social sciences and/or humanities. They must have been accepted as a PhD candidate by a professor at a Dutch university. Preferably, participants are already familiar with the key literature as defined by the WTMC Board. If not, participants are expected to read these classics in the first phase of the programme. Close reading exercises during workshops and schools will help them to do so.

External Participants

The Graduate Research School accepts PhD students from institutions not affiliated with WTMC. The same requirements hold and the academic director will review the request in terms of its relevance to WTMC. Alternatively, external students can participate in workshops and summer schools on an ad hoc basis. Participants from affiliated institutions always have priority over external participants.

Locations and Fees

The workshops and summer schools of WTMC are held at a suitable conference centre. The location offer board, a bar service, and is easily accessible by public transport.

Each year, two workshops are organised (in Spring and Autumn), a summer school in August / September, and two Writeshops (Spring and Autumn). The schedule may be modified depending on circumstances.

External students pay a fee for the workshops and summer schools in which they participate. Fees correspond to the amount paid by the affiliated institutions for the regular PhD students. External students who are members of EASST are entitled to a slight discount.

More information on the WTMC website (www.wtmc.eu).