



WTMC

Information Package

**for prospective WTMC PhD Candidates
and their Supervisors**

Spring 2020

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1. Introduction

This package aims to inform PhD candidates who intend to enter the WTMC Training Programme and their supervisors about the Netherlands Graduate Research School of Science, Technology and Modern Culture (WTMC).

In this package, you will find information about

- the graduate school WTMC
- the WTMC training programme and supervision
- the Skills and Crafts in the WTMC training programme
- the WTMC core literature list
- other activities and opportunities provided by WTMC
- how to become a member of WTMC

2. The graduate school WTMC

This package aims to inform PhD candidates who intend to enter the WTMC Training Programme and their supervisors about the Netherlands Graduate Research School of Science, Technology and Modern Culture (WTMC).

The Netherlands Graduate Research School of Science, Technology and Modern Culture (WTMC) is a collective effort of Dutch scholars studying aspects of the development of science, technology and modern culture. The history, sociology and philosophy of science and technology—science and technology studies (STS)—form the core of the work, but there are also strong inputs from cultural studies and innovation studies. The school coordinates and stimulates research in the field of science and technology studies, provides advanced training for PhD candidates, and aims to enhance the societal significance and visibility of STS.

Since 1995, the school has acquired a well-established position in the international field of science and technology studies. It aims to teach academic and professional skills in such a way that WTMC graduates feel firmly integrated in the next generation of scholars in science and technology studies—for instance through the interaction between candidates and the best scholars in their field. Today, many of the WTMC graduates have fine jobs at advisory boards, ministries, research institutes and universities, and contribute to the high quality of publications and contemporary debates about the role of science and technology in society.

Participants should have a Masters degree, preferably in Science & Technology Studies, or Innovation Studies or a degree with a sufficient basis in the social sciences and/or humanities. Moreover, participants must have been accepted as PhD candidate by a professor in a Dutch university (a professor with *ius promovendi*). Therefore, unlike the situation at many non-Dutch graduate schools, prospective participants cannot directly apply for a PhD position in WTMC.

We have tried to be as comprehensive as possible about WTMC and its training programme. Nonetheless, feel free to contact us with any remaining questions. A brochure about WTMC and its Training Programme is also available (see the [website](#)).

3. The WTMC training programme and supervision

The WTMC PhD Training Programme is an intensive trajectory that contributes both to the production of high-quality dissertations and to the education of skilled, independent researchers in STS—including Innovation Studies. Two coordinators are in charge of creating, organising and facilitating all workshops, summer schools, and writeshops. During these events, they also function as informal sounding boards for participants. The coordinators have an advisory role for the WTMC director, and in the teaching committee and the board. The priority of WTMC summer schools and workshops is the training of all-round STS researchers; this is the *national component* of the training. The completion of dissertations also requires the support of the universities participating in WTMC; the design and implementation of the *local component* is ultimately the responsibility of the university in which the PhD candidate is based.

The *national component* includes training in research skills and crafts that independent STS researchers require. It aims to *broaden* the candidates' knowledge of and experience with STS *research skills* as well as to provide critical reflection on when and how to apply such skills. The training programme offers a two-year cycle of workshops and summer schools that focus on the key themes and methods of current STS research. The national component of WTMC is geared towards providing an overview and 'taste' of a range of methods rather than the details of each and every method which should be acquired in the learning-by-doing of each project, supplemented by additional training where necessary. Moreover, the writeshops (in which dissertation chapters or articles are discussed in small groups)

in the final phase of the WTMC training provide a safe environment for intensive feedback on written work and help to foster further a close-knit network of STS researchers. The writeshops encourage PhD candidates to reflect on their (thesis-related) choices and to respond to feedback on their work, while the network functions as a group for mutual support and exchange of experiences, also later in the careers of the PhD candidates.

The national component broadens PhD candidates' knowledge of research skills and helps them to reflect on these skills in four ways, by

1. introducing the main themes and theories of STS research (Table I)
2. providing an overview and introduction in the key methods and methodologies of STS research (Table II)
3. practicing the written and oral presentation of research, as well as the appropriate giving and receiving feedback on presentations (Table III)
4. reflecting on the academic and professional development of the PhD candidates, and on issues relevant to the successful completion of a PhD, including reputation, motivation, ambition, relations with supervisors (Table IV)

The first two elements stress the broadening dimension of the research skills and crafts training (about two-thirds of the skills training effort in the workshops and summer schools). The last two support self-reflection by PhD candidates (about one-third). In the next section, the four ways of training research skills and crafts are presented. The final section summarizes the division between the local and national components and provides an overview of a typical PhD trajectory and the skills and crafts that a PhD candidate can expect to acquire.

4. The Skills and Crafts in the WTMC training programme

The national component

The WTMC programme includes training in skills and crafts that support the education of PhD candidates into independent STS researchers. This training has two dimensions: broadening the candidates' knowledge and experience of research skills, and reflecting on the appropriate use of these skills. The goals of 'broadening' are attained by introducing the candidates to the main themes of STS research, as well as by providing basic training in specific STS methods. Tables I and II (as well as Tables III and IV below) provide an overview of the **final attainment aims** of the WTMC training programme, and how often we offer the training elements that actually help to reach the aims. These tables, as well as tables III and IV, are used by the coordinators when planning the workshops and schools, and inform the PhD candidates on what they may expect in terms of skills and crafts training during the programme.

Table I (broadening): Introducing the main themes and theories of STS research

Acquiring in-depth knowledge of classic and contemporary insights in the relationships between science, technology and modern culture.	● ● ●
Developing the capacity to use this knowledge in one's own research	● ● ●
Acquiring insight into the development of STS as an interdisciplinary field in relation to its 'founding disciplines'	● ●
Acquiring the ability to recognize the societal and cultural aspects of one's research, and to connect these to results from STS	● ●
Acquiring the ability to apply results from STS to policy, management and design contexts	● ●

Table II (broadening): Introduction to the key methods and methodologies used in STS research

Developing knowledge of key methods and methodologies used in STS: <ul style="list-style-type: none"> - interviewing - (participant) observation - historical document analysis - bibliometrics - computational analysis and modeling - discourse analysis - action research - scenario building and futuring - others
Developing the ability to assess the appropriateness of different methods and methodologies for different research questions, including one's own PhD research

Methods and methodologies are addressed in all events and are foregrounded in various exercises. Discussions of presentations and readings also explicitly address methodological choices.

In addition to broadening the PhD candidates' knowledge of STS literature and methods, the WTMC curriculum also aims to facilitate reflection by the PhD candidates on their own work, style and ambitions. This is elaborated in Tables III and IV.

Table III (reflection): Practicing the written and oral presentation of PhD research

Developing writing skills (e.g. writing an outline for thesis, review, peer review report, abstract, article, and funding application)	• •
Developing the oral skills to participate in academic debates in English	• • •
Developing the ability to develop and maintain (international) contacts in STS	• •
Developing the oral skills to present one's research in English	•

Table IV (reflection): Academic and professional development

Acquiring the ability to situate one's research in the context of STS	• • •
Relating one's own work to one's ambitions and future prospects within and beyond academia, job orientation within and outside of academia, writing a <i>curriculum vitae</i>	• •
Reflecting on learning processes during a PhD trajectory: iterative cycles, common pitfalls	•
Developing insight in and taking responsibility for one's own research process, and facilitating good supervision	•
Maintaining motivation and dealing with criticism	•
Recognizing one's professional responsibilities to society and the ethical dimensions of one's research	•

- = every two years
- • = every year
- • • = every workshop/summer school

Writeshops and Activities for advanced WTMC PhDs

WTMC PhDs complete the training programme roughly in the first two years of their appointment. As soon as they have completed five out of the six workshops/summer schools, they can take part in other activities. These activities are NOT part of the training programme leading to a certificate and do not enable PhDs to earn ECTS. A Writeshop is 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 candidates to maintain and extend their network of contacts with peers and senior scholars in their field. Other activities, such as networking events with alumni (Perspectives Day), on-site events and workshops on topics that are of interest to more senior PhDs are occasionally organised. These are advertised on the WTMC website and mailing list.

Attending workshops and summer schools

Prior to the workshops and summer schools, candidates receive a programme with texts and assignments to prepare in advance. Candidates are expected to prepare 40 hours for each workshop and 80 hours for the summer school. All workshops and schools are in English and often attract international participants. All candidates present their work at least once during the first two years of the programme.

In order to receive the credit for attending workshops and summer schools, and thus the certificate for the full WTMC training programme, you are required to be there for the entire event. If you think this may be a problem, contact the coordinators in charge of the event well in advance.

If you have already registered for a workshop or summer school, but are, for whatever reason, unable to actually attend the event, please contact Elize Schiweck or the coordinator in charge of the event *as soon as possible*. We may then be able to offer your place to someone on the waiting list. Failure to inform us (and ultimately the location of the event) may mean that WTMC is charged for (part of) the costs. In turn, your university may have to cover these costs. The PhD candidates are charged 10 euro a day for lunch and dinner. They will receive a bill for these costs

soon after the event. In the afternoon and evening, WTMC usually provides an opportunity to have some drinks together.

The local component

The table below provides an overview of the skills and crafts that are essential to learn or develop during the trajectory from PhD candidate to award of the PhD degree, and distinguishes between skills largely provided in the national component of the WTMC training programme, and those that are not covered by WTMC.

In the local component, the PhD candidate may acquire skills by following additional courses, but usually the candidate will learn by doing in the everyday practice of research, and in interaction with supervisors and colleagues. The WTMC wiki provides information on locally available courses such as literature retrieval, time management, academic writing in English, preparing for job interviews, and additional training in particular methods.

The table can serve as a checklist for PhD candidates and supervisors to see whether the candidate is on track in terms of developing research skills. The skills and crafts are presented by following the various phases of doing research and writing a thesis. Actual research practices often do not follow such a linear pattern, but the structure is convenient for the purpose of an overview.

Table V: Overview of research skills and crafts: National and local components

Research skills & crafts	WTMC component	Local component
Formulating a research question		
Writing a research proposal, formulating research questions		X
Orientation to research topic & relevant literature		
Understanding one's empirical field of research		X
Acquiring an overview of STS theories & literature, positioning one's research (and its societal and cultural aspects) in terms of STS theories	X	
Choosing theories & literature relevant to research project		X
Linking empirical issues to theoretical ones	X	
Recognizing the ethical dimensions of one's research	X	
Fine-tuning research questions		X
Planning & formulating an approach		
Operationalising research questions		X
Understanding research as an iterative process	X	
Time management		X
Doing the 'actual' research		
Acquiring an overview of STS methods, positioning one's own methods within STS	X	
Choosing methods for empirical research, learning-by-doing particular methods in-depth		X
Linking empirical data to particular theories		X
Learning to listen to criticism and incorporating this in research	X	
Limiting the scope of research		X
Monitoring & reflecting on one's own progress, identifying gaps in skills/knowledge, methods, learning to ask for supervision & advice	X	
Reporting & writing		
Writing a thesis outline	X	
Presenting research orally	X	
Writing different genres (e.g. review, peer review report, abstract, article, funding application)	X	
Acquiring the ability to apply results from STS to policy, management & design contexts	X	
Writing academic English		X
Ambitions, jobs & networking		
Networking skills, asking questions at presentations/conferences	X	
Relating one's work to ambitions within & beyond academia, job orientation, writing a CV	X	

5. The WTMC Core Literature List

Ideally, participants are already familiar with the 'classics' before they enter the programme. Participants with a Masters or Research Masters in STS will probably meet this requirement to a large extent. Those with a different background will need to do a considerable amount of reading. They will be expected to read the classics in the first phase of the programme. Close reading exercises during workshops and schools will help them to do so. The reading itself, of course, remains the candidate's responsibility. See the document WTMC Core Literature for a detailed list.

6. Other activities and opportunities provided by WTMC

WTMC is a vibrant network of scholars and it provides opportunities to take part in many activities, such as the Annual Meetings (below), 'Practice Workshops', 'Field Trips' or 'Perspectives Days'.

WTMC and STS Master Programmes

WTMC offers new and first year PhD candidates enrolled in the WTMC programme the opportunity to do one course in one of the Science & Technology Studies and Innovation Studies (research)masters in the university institutes which participate in WTMC (see [WTMC website](#) for overview of courses on offer)

This will enable the candidates to meet any deficiencies in their basic knowledge of STS. It also facilitates candidates to get acquainted with STS programmes at other universities than the ones with which they are affiliated.

'Doing a course' in this case means that the candidates will attend the course, and write papers required by the course, but will not take any official exam or acquire any official ECTS credits. The coordinator of the course, however, will inform the supervisor of the PhD candidate about the candidates' attendance of and contribution to the course, and will read and correct the papers of the candidates. PhD candidates can not do more than one course. The expenses for travel and accommodation at the other university, as well as the costs for required course reading materials is the responsibility of the university with which the PhD candidate is affiliated. This means that attending a course always involves the approval of the supervisor. Some of the programmes have a maximum of one or two WTMC PhD candidates they admit per course.

Since the various Master programmes are organized very differently in terms of length of the courses, number of meetings a week, schedules, use of literature, and syllabi, PhD candidates should always contact the coordinators of the Master programmes in advance.

See for information about the STS Master Programmes and the contact persons: the WTMC website (www.wtmc.eu) under STS Master Programmes, or contact wtmc@utwente.nl.

WTMC Annual Meeting

Each year, usually in November, WTMC has its annual meeting. Information on the programme of the annual event will be provided through the Notes on WTMC, the WTMC listserv and the website (see below). PhD candidates are welcome to register for and attend these meetings.

WTMC website, WTMC list server and the Notes on WTMC

The WTMC website (<http://www.wtmc.eu>) provides information on upcoming events, and has an archive with information on previous workshops, schools, and annual meetings. It lists all members of WTMC, as well as all PhD candidates, with a summary of their research topics and questions. The programmes of WTMC training events are also published on the workshop, starting with the summer school of 2018.

In addition to the WTMC website, WTMC has a WTMC list server on which members can post relevant information on conferences, opportunities for funding, vacancies et cetera. For the PhD candidates, there is a distinct list server that informs candidates on whatever is relevant for their training.

About twice a year, the WTMC academic director sends out *Notes on WTMC* (an electronic newsletter) with details on upcoming events such as the annual meeting, new books and prizes, issues discussed at the WTMC Board, WTMC Training Committee and WTMC Research Committee. PhD candidates wishing to contribute to the newsletter, please contact the academic director of WTMC.

7. WTMC PhD candidates

The general criteria for becoming a PhD candidate of WTMC and/or to participate in the WTMC training programme can be found in the [WTMC brochure](#). 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 in a Dutch university. A detailed explanation can be found in the document Eligibility for WTMC Membership of PhDs and Researchers (see **Annex A** and **Annex B**).

PhD representatives advising the WTMC Board and Training Committee (opleidingscommissie)

WTMC enables PhD candidates to advise WTMC on the WTMC training programme and other issues in two ways. First, it has a two-year position for a PhD candidate-advisor in the WTMC Board. In previous years, PhD candidates have often implemented this position with two persons. As soon as the position is vacant, PhD-candidates will be informed about the procedure for candidacy. In addition, two PhD candidates are members of the WTMC Training Committee that advises the WTMC Board and coordinators on issues concerning the WTMC Training Programme. Next to the Teaching Committee, WTMC has a Research Committee that advises the Board on the research programme for WTMC staff members.

In Case of problems

Should you encounter problems in your research or in writing your dissertation that cannot be solved by discussing these problems with your supervisors (which is, of course, always the preferred route) you can consult the coordinators about this. They can advise you on how to get on track. In case of serious problems, they can, with your agreement, ask the academic director to mediate between you and your supervisors.

Certificates

PhD candidates will receive a WTMC certificate as soon as they have attended *4 three-day workshops & 2 five-day summer schools from the first phase of the PhD training*. External participants will receive a certificate for each distinct course, however, they can exchange these certificates for a certificate for the full programme once they have met the requirements stated above with respect to the regular candidates. In practice, this means that external participants will have to hand in six certificates (of 4 workshops and 2 summer schools) to obtain the certificate for the full programme.

WTMC funding for dissertations

WTMC PhD students who have finished their dissertation are eligible for a WTMC grant up to 500 euros partially covering the publication costs of their PhD thesis. The amount up to 500 euros will be granted to PhD students:

- on the understanding that the student can show that up to 500 euros of the printing costs for the dissertation have not been covered by other sponsors (like department, research funding organisations);
- provided that the student mentions the WTMC training and funding in the acknowledgements of the thesis.

PhD candidates can apply for the grant in a period up to five years after completion of the training programme.

WTMC does not provide any funding to attend conferences. Please contact your supervisor, your university or NWO for conference attendance grants.

A summary of your research on the WTMC website

The WTMC website hosts an overview of all PhD candidates enrolled in the WTMC training programme. Please send us a summary of your research, using the following format:

Format PhD project descriptions WTMC (for [website WTMC](#))

Contact Information

Name

Affiliation

(Example: Dept. of Science, Technology & Policy Studies, Faculty of Behavioural, Management and Social Sciences, University of Twente)

Affiliation Address

(Example: P.O. Box 217, 7500 AE Enschede)

Phone Number

Personel Email address

Address Personal Website

(If available)

Background (max. 100 words)

Information on Bachelors Degree, Masters Degree, MA thesis, et cetera

Summary PhD Project (max. 300 words)

Title

Supervisor(s)

Content

Publications (if available)

Peer-reviewed, scholarly and professional publications

Frequently asked questions

Q: Can I register for part of a workshop/ summer school?

A: That is not possible. Workshops and summer schools are residential and need to be fully completed in order to fulfill the requirements of event, to earn the corresponding ECTs and receive a certificate.

Q: Can I pick and choose workshops as I like?

A: As the curriculum serves to introduce you to the field of STS, the most desirable path is to participate to all workshops and summer schools on offer in the first two years of your PhD.

Q: Can I still register for a workshop after I've completed the regular WTMC training programme?

A: This is possible provided you register as an 'external' participants, including paying the corresponding registration fee. If the event the school is fully booked, we prioritize regular and external registrations.

Q: Can I participate after I've finished my PhD thesis?

A: No, the programme is for PhD candidates only.

Q: Can I participate without working on a PhD thesis?

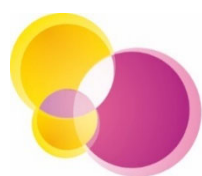
A: In principle the answer is no, but exceptions may be made, at the discretion of the WTMC director.

Q: I would like to do a course in English language skills and writing, or a course in Statistics, or in using a specific data software. Does WTMC provide such courses?

A: No. Such elements are part of the local component of the PhD training. The local component should include supervision and the training to compensate for gaps in candidates' prior training, such as English Language Skills and Statistics.

Q: I would like to learn everything about a specific methodology (interviewing, participant observation, bibliometrics, or other). Does WTMC provide for such trainings?

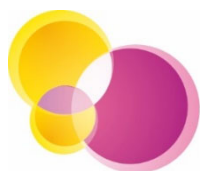
R: No. We strive to provide insight into methods so that you are able to assess what kinds of data and evidence they may (not) generate, but for full mastery of specific methods, you are referred to specialized courses.



Annex A:

WTMC Training - eligibility and participation of PhD candidates

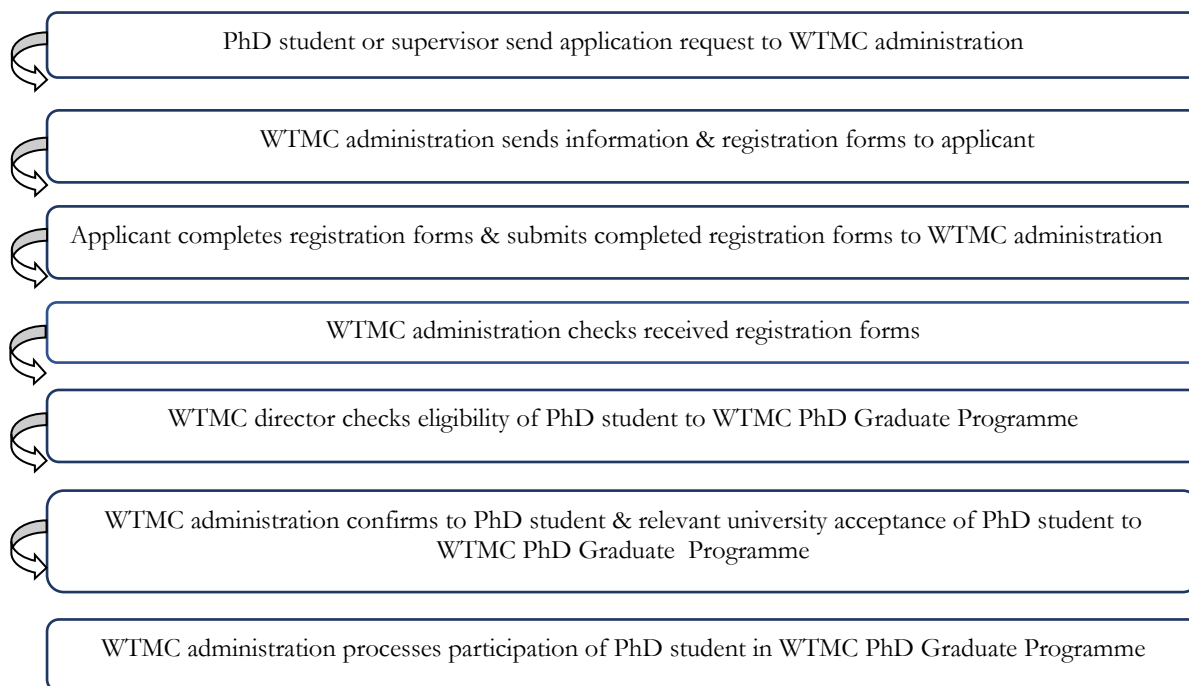
	New WTMC PhD candidate	New external PhD candidate	PhD candidate who has completed WTMC training
<i>University</i>	Is a member institution	Is not a member institution=external	
<i>Faculty/ department</i>	This does not matter, agreement is with CvB		
<i>Promotor, Co-promotor, or daily supervisor</i>	Must be a member for at least 0.1 (costs 150 euros/year)		
<i>Costs</i>	Infrastructure fee paid by university (2800 euros establishing institution; 500 euros participating institution) Yearly fee/PhD (1500 euros)	About 700 euros/workshop about 1100 for summer school	Same as external
<i>Procedure</i>	A plan, a summary and registration form must be submitted; WTMC secretariat has templates; Information package explains programme and requirements.	Register for each workshop/Summer School individually, as instructed in event announcements	Same and external
<i>Priority of acceptance</i>	Highest priority	Second priority	Third priority
<i>Scope of training/ certification</i>	Four workshops and two summer school are required for WTMC training certificate	Participation certificates for each specific event are given; if 4 workshops and 2 summer schools, participant receive a WTMC training certificate	Same as external
<i>ECTS</i>	Workshop=3 Summer school=5	Workshop=3 Summer school=5	Workshop=3 Summer school=5



WTMC

Annex B:

How to apply for WTMC PhD Graduate Programme:





WTMC

Annex C:

Information for WTMC prospective members

Conditions

Researchers whose research is in the WTMC thematic areas and who meet the following conditions, can apply for a membership of WTMC:

- The prospective member should have a PhD degree.
- The prospective member should publish nationally and internationally in the field of Science, Technology and Modern Culture (WTMC). These publications should be of scientific quality.
- When the prospective member is associate professor or professor, is able to demonstrate competence in the guidance of PhD students.
- The prospective member should decide whether they want to become an 'institutional' or an 'individual' member. For an 'institutional' membership, researchers who work in an institution already participating to WTMC or with, an institution that has announced that it will participate in WTMC are eligible. 'Individual' membership is only possible if the institute in which the researcher works is not able to participate in WTMC, and the participation of the individual researcher gives added value to the WTMC.
- The prospective member provides information on how much research they will participate in WTMC. The smallest possible participation is 0.1 fte research time.
- Postdocs may participate for the duration of their appointment.

Procedure

If a researcher wants to become an institutional member and thinks they meet these conditions, the dean of their faculty or research institute is to send a letter requesting membership of the researcher concerned to the Director of WTMC. This letter contains the information referred to under 'conditions', with the curriculum vitae of the researcher as an annex. The Director then decides as soon as possible whether admission is possible and informs the researcher and their dean. The Director also assigns the researcher of the WTMC research themes.

- (1) *Diagnosis of the Modern Research System*
- (2) *Technological Culture and Social Regulation*
- (3) *Cultural Roles of Science, Technology and Rationality*

If a researcher wants to become an individual member, a letter from the researcher (with the information requested under 'conditions' and a curriculum vitae from the researcher) to the Director of WTMC is sufficient.

Cost

An institution participating in WTMC pays an amount for the infrastructure of WTMC (more information from the Director) plus 100 euros per 0.1 fte research formation per year. An individual member pays 100 euros per 0.1 fte research per year. The costs for a PhD student are 1500 euros per year, or 6000 euros for the entire training programme of 4 workshops and 2 summer school.