

European Workshop on Ethical Issues in Human-Machine Interaction and Service Robotics

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Overview:

- ❖ The research field of Human-Machine Interaction
- ❖ The Federal Government's High-Tech Strategy as an overarching political framework
- ❖ Examples of the funding activities of Division 524
- ❖ Integrative research funding to take ELSI into account
- ❖ BMBF study on “Ethical questions in the field of age-appropriate assisting systems”
- ❖ The BMBF's motivation and expectations regarding the robo-ethics workshop

Definition of Human-Machine Interaction (BMBF)

Technology is entering more and more areas of people's lives (living, smart mobility, health maintenance, assisted care). Various disciplines such as ICT, robotics, neural and cognitive sciences, design, psychology and social sciences are combining their approaches to human-machine interaction and placing them **at the service of the individual**. The BMBF's "Human-Machine Interaction" (HMI) research programme is funding the development of such technologies and is thus contributing towards **solving the key societal challenges** which the Federal Government has defined as priority tasks in its new High-Tech Strategy.

The High-Tech Strategy (HTS)

...is an interdepartmental innovation strategy which encourages **technical and social innovations** in order to boost growth and promote innovations. The HTS involve 6 priority tasks where **research can contribute to solving societal challenges**:

- Digital Economy and Society
- Sustainable Economy and Energy
- Innovative Workplace
- Healthy Living (and Active Ageing)
- Smart Mobility
- Civil Security





HMI funding activities in Division 524

- Project funding:
 - Publication of thematic calls (innovations in the field of care, smart mobility, experiential learning)
 - Funding collaborative projects
- Structural funding measures:
 - *KMU-innovativ* - Innovation Programme for SMEs
 - Innovation clusters, local government offices, retired experts as technology ambassadors
 - Funding junior research groups
 - Research infrastructures (e.g. BASE)
- Other funding instruments (support programmes):
 - **Studies (inter alia on ethics)**
 - HMI Think Tank (junior interdisciplinary brainstorming group)
- International Activities:
 - BMBF is partner in the “JPI More Years, Better Lives” (fast track projects, joint calls)
 - National Contact Point for Human-Machine Interaction in Demographic Change (national support for successful German participation in H 2020)





The concept of Integrated Research Funding

- Applicants in all HMI calls are required to explain whether and in how far they have taken ELSI aspects into account in their project.
- As a rule the panel of experts includes experts in the field of ELSI.
- Consideration of ELSI aspects is an evaluation criterion.
- If necessary, applicants are required to involve external expertise in the fields of ethics/humanities and social sciences in their project.
- The applicant can be provided with practical assistance, for example under the MEESTAR Model (Assoc. Professor A. Manzeschke) (flyer, brochure, workshop).

BMBF study on “Ethical questions in the field of age-appropriate assisting systems” (Project Coordinator: Assoc. Professor A. Manzeschke)

- Duration: January – October 2012
- MEESTAR: Model for the ethical evaluation of socio-technical arrangements
- Results: Brochure and flyer on the MEESTAR Model as practical guideline
- Organization of 1-2 day workshops (with project partners in assisted care, work 60+, mobility)
- Mainly positive feedback from participants



- At national level:
 - Plans to pursue the topic of ethics in HMI further
 - Ethics session at the BMBF's 2nd Demography Congress in Berlin on 29 June 2015 (<http://www.mtidw.de/zukunftskongress>)
 - Ethics workshop with the 8 HMI junior research groups in Berlin on 30 June
- At international level:
 - Review of EU activities on ELSI in the field of “emerging technologies” (including ICT, Robotics) within framework of RRI and FP projects (FP7, H 2020)
 - SSH embedding activities in H2020
 - Exchanges and cooperation with the EU Commission and experts aimed at developing a suitable range of ELSI instruments for applicants, research funders and industry.

