

# The Interdisciplinary Study Modules – project based learning at Darmstadt University of Technology

# Interdisciplinary Study Modules

Solution oriented and topic focused learning :

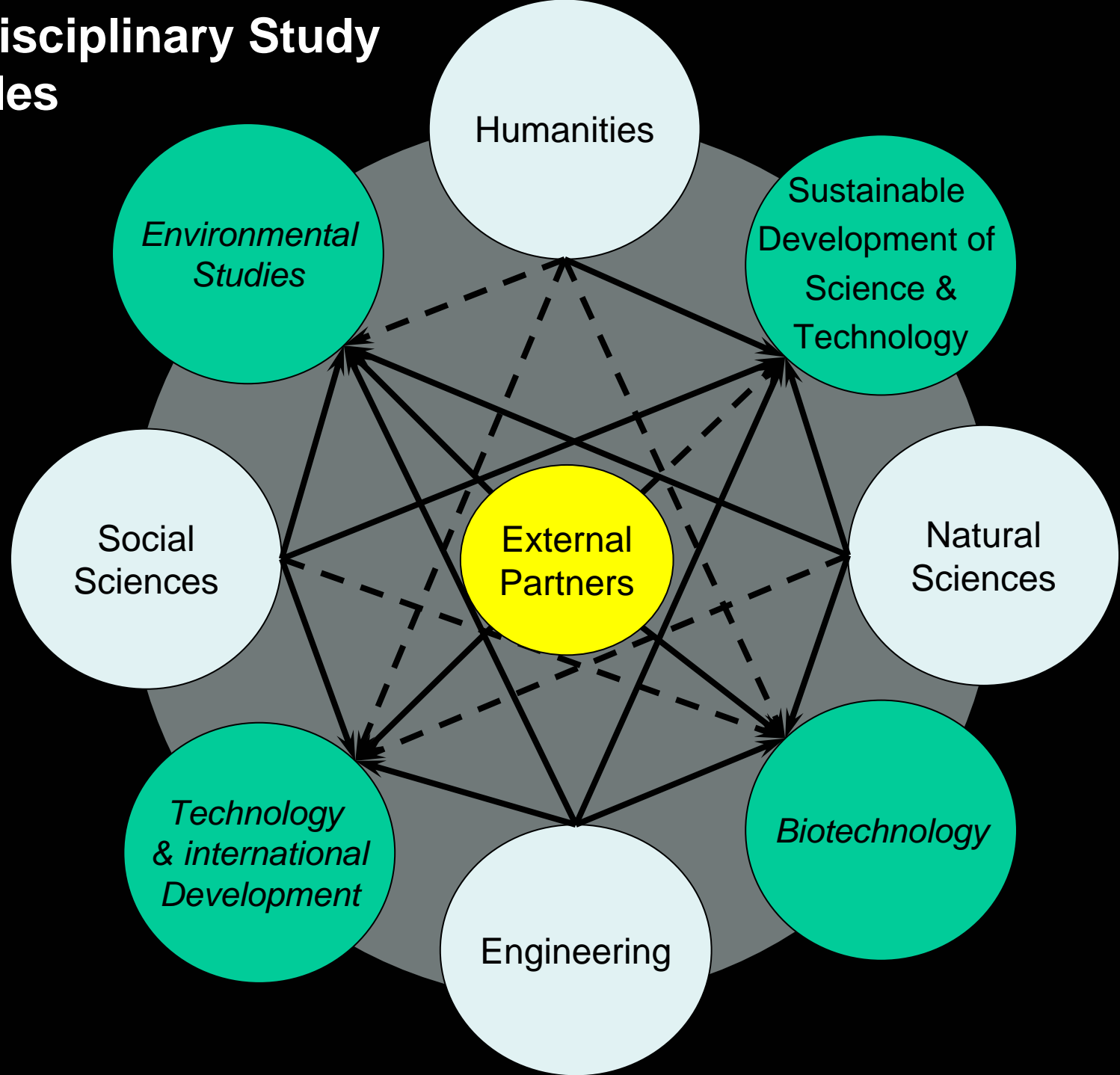
- • Technology and International Development (since 1987)
- • Environmental Studies (since 1993)
- Sustainable Development of Science and Technology (since 2003)
- Biotechnology (since 2003)

# Profile

## Supplement offer for students of all disciplines:

- integration in the BA/MA study courses with agreed curriculums
- each study module has its own curricular structure
- award of independent certificates for students possible

# Interdisciplinary Study Modules



# Students & Seminars/Lectures/Projects

## Students

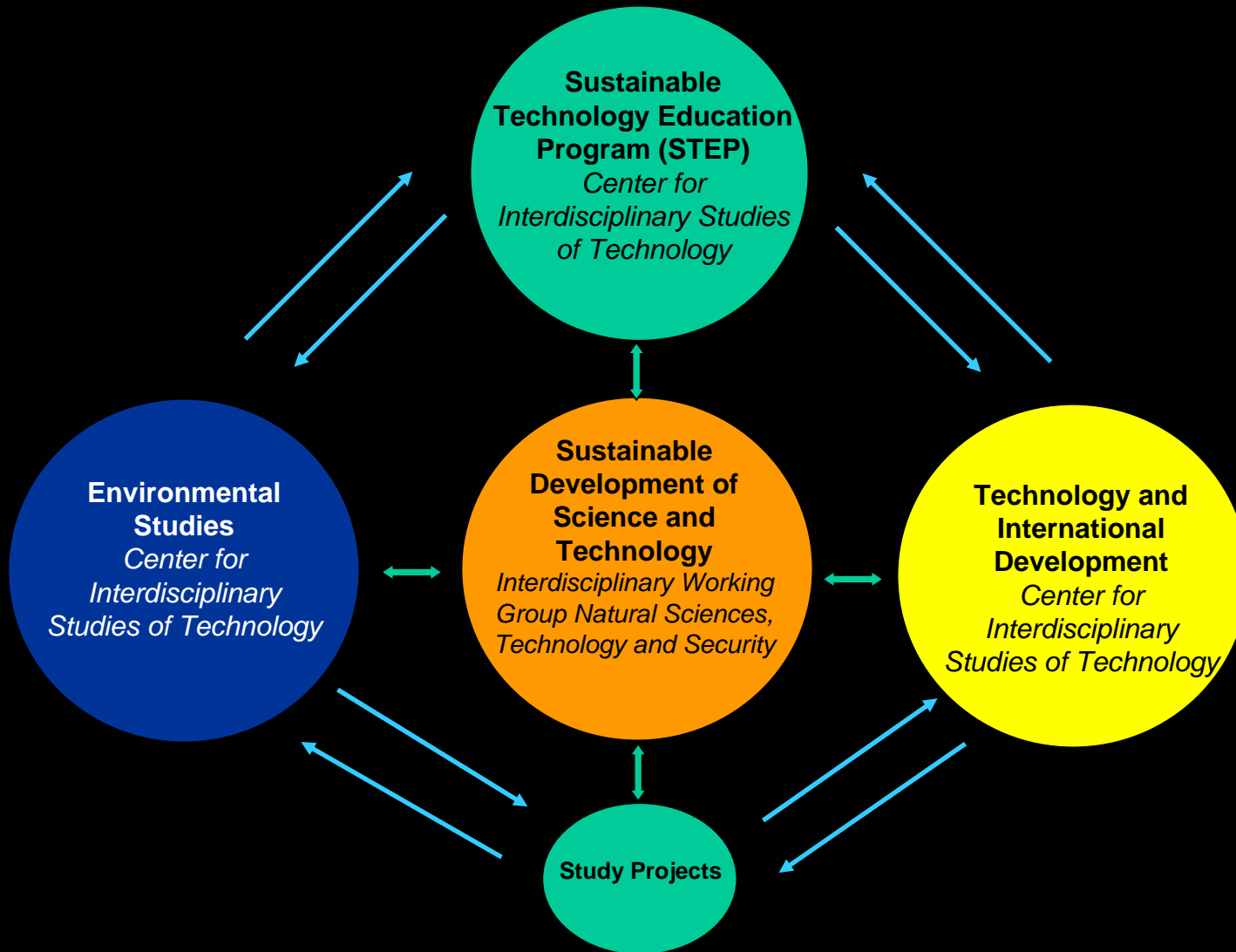
- 500-800 students per term from all disciplines  
Example: Lecture Environmental Sciences  
summer term 2007: students from 11 different disciplines

## Seminars/Lectures/Projects

- 25-30 Seminars/Lectures/Projects per term
- Development of innovative learning and teaching methods in cooperation with internal and external partners
- Team-Teaching

# Sustainable Technology Education Program (STEP)

UN Decade „Education for Sustainable Development“



3  
Interdisciplinary  
Study Modules

**Aim:** Development of additional practical experiences in the interdisciplinary study modules and increased interaction between university and society in regional and international context.

# Integrated Ecological Planning and Consulting

## History and Background:

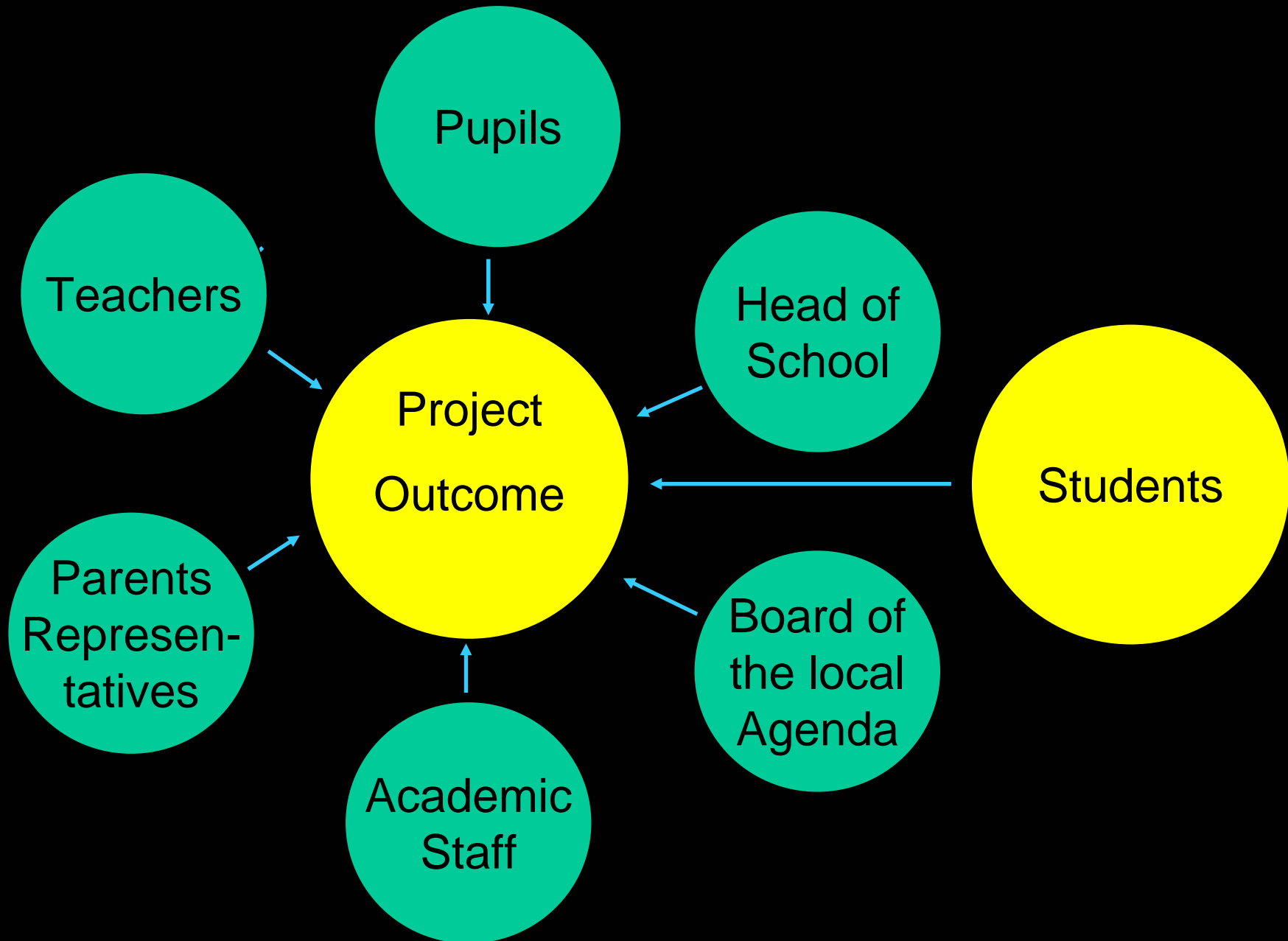
- Contract between the TU Darmstadt and the municipality of Riedstadt
- Context of the Lokal Agenda 21
- Study projects in the Environmental Studies every year
- Examples for topics:
  - Nachhaltige Gewerbegebietsentwicklung
  - „Saint Tropez am Baggersee“
  - Schulgeländegestaltung im Rahmen eines Ganztagsschulkonzeptes

# Integrated Ecological Planning and Consulting

## Educational concept and methods:

- Disciplinary expert knowledge + factual knowledge + transferable skills
- Role of teachers (accompany and support group process, coach the projekt group, teach basic project management skills, expertise from different disciplinary backgrounds necessary)
- Culture of teaching – culture of learning
- Student-projekt working groups
- Participatory process
- Different stakeholders

# Integrated school ground planning and shaping



# Shaping Technologies for Sustainable Globalisation

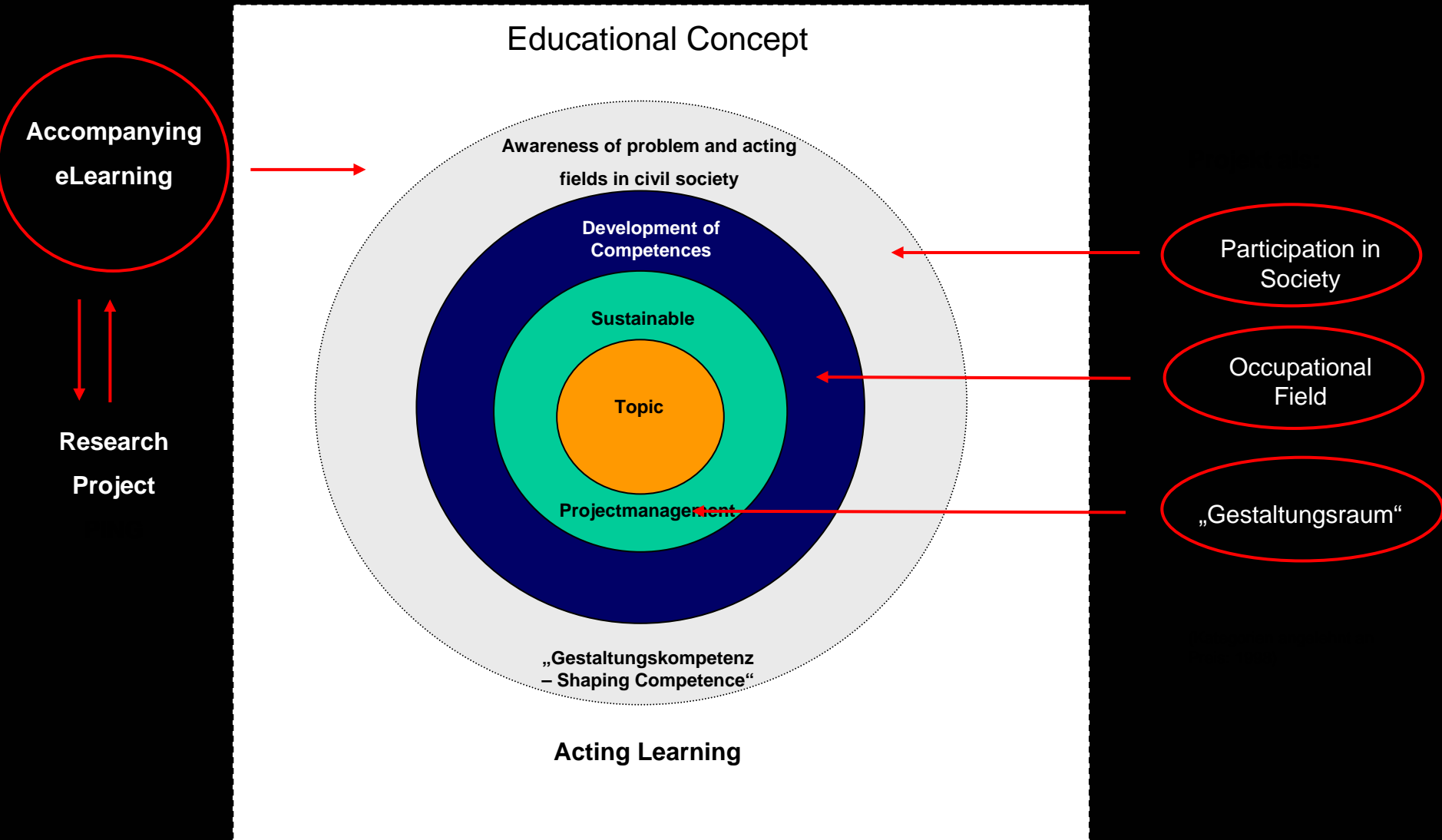
## History and Background

- The project seminar was developed together with the Development Policy Network of Non Governmental Organisations in Hessen (2005-6)
- Yearly changing topics are discussed with all stakeholders (NGOs, coordinator, students) involved

## Project Character

- Project outcome = real products
- For example: Intercultural City Guide Darmstadt (Website)
- Group-Working (supported by eLearning Plattform)
- Students are responsible for project planning, development and outcomes, teacher is consulting and coaching the group (mediating)

# Shaping Technologies for Sustainable Globalisation



# Lessons Learnt

## What is needed:

- Strong encouragement of scientific staff
- Institutional background which is not based on only one disciplinary department
- Financial overhead (especially for including external lecturers)

## What we have to be aware of:

- Time and capacity to develop innovative learning and teaching methods
- Complexity of coordination

Thanks for your attention!  
Any questions?