

Education and knowledge transfer: Compact and flexible formats

Background: Why education and knowledge transfer?

Energy transition and electric mobility imply transition processes (technical, society-related) that require interdisciplinary education for students and employees but also knowledge transfer to individuals who are or might be affected by the transition process.

Education and Knowledge Transfer: Questions and Methods

- Which formats of academic and professional training are suitable for which target groups in order to best transfer concepts that merge the mobility and the energy transition?
- Which characteristics should the formats have and of which interdisciplinary components should they consist in order to best meet the demands of the industry?
- Which outreach formats are best suited to inform, sensitize, and increase acceptance for which target groups when it comes to fossil-free mobility?
- **Analyzing** target groups and their demands (explorative qualitative interviews), documentary and literature research, workshops, case studies.
- **Defining** relevant characteristics for education formats, integrating different relevant disciplinary perspectives into a comprehensive interdisciplinary approach.
- **Conceptualizing** varying formats.
- **Evaluating** the offered formats as case studies (quantitative questionnaires).

Results: Master programs

Four Master programs were developed and are now offered by TU Berlin at the EUREF-Campus. Programs were found to have the following main characteristics in order to be successful:

- Short and flexible in order to reach staff of companies
- Theory-based content while utilizing a broad interdisciplinary and practical approach Demonstration of how to merge the energy and the mobility transitions in a living lab setting
- Graduates should act as multipliers in the broader society

All students take part in a campus tour including in the so-called zeemoBase (see upper picture) which is both showroom and core of the EUREF-Campus Micro Smart Grid. It is the result of several working groups' and partners' cooperation and is used for professional trainings, knowledge transfer, and visitors.



Results: Professional training

Highly individualized modules are in demand but difficult to organize due to the differing knowledge and backgrounds of training groups. It is therefore necessary to conduct thorough consultation in advance of the trainings (see middle picture) and invite companies to send employees who share roughly a similar level of existing knowledge. Compact, modular, and praxis oriented training programs are generally valued best. Six modules were developed and are currently tested.



Results: Knowledge transfer

A symposium format (see lower picture) lends itself well to parties that already are interested in the symposium's annually changing topic. A school project day raises interest in school children who did not have any connection to the topic before.



Pictures: Karoline Karohs

Next steps

Feedback results from evaluating the Master programs and professional trainings are used for adapting and improving the programs. Moreover, all M2G working groups are asked for input and speakers in order to include in-depth and up-to-date project results in the educational formats.