

self-efficacy4MINT

funded under the guideline "MissionMINT – women shape the future"

**how we strengthen women's self-efficacy beliefs
and unlock their full potential for STEM careers.**

a collaborative project to analyse and promote the factors
for successful STEM careers by and for women.

project title: self-efficacy4MINT – strengthening self-efficacy beliefs as a key to successful STEM careers by and for women

funding guideline: increasing the proportion of women in the STEM research and innovation process: strengthening self-efficacy, initiative and creativity (MissionMINT – women shape the future)

PROJECT PARTNERS

Bavarian University of Business and Technology (HDBW) | Research Institute for Workplace Learning (f-bb) | Otto von Guericke University Magdeburg (OVGU)

funded by the Federal Ministry for Research, Technology and Space

1. Project Goals and Duration

The central aim of the "self-efficacy4MINT" project is to analyse the factors that strengthen self-efficacy in young women during the transition from university to a STEM profession, and to identify supportive framework conditions within companies. By optimising these framework conditions, the project aims to facilitate career entry for academically qualified women in the STEM sector.

The research is conducted along two dimensions: on the one hand, the perspectives of women regarding strengthening factors and reasons for experiencing helplessness or ineffectiveness are examined; on the other hand, the measures taken by companies to create an organisational culture that promotes self-efficacy.

- **requested duration:** 01 October 2025 to 30 September 2028.
- **requested funding:** EUR 589,122.96.

2. Consortium and Contact Persons

role	institution	contact person
lead partner (consortium lead)	Bavarian University of Business and Technology (HDBW) gGmbH	Prof. Dr. Markus Kleinschwärzer (mark.us.kleinschwaerzer@hdbw-hochschule.de)
cooperation partner	Research Institute for Workplace Learning (f-bb) gGmbH	Dr. Kristin Hecker (kristin.hecker@f-bb.de)

cooperation partner	Otto von Guericke University Magdeburg (OVGU), professorship for engineering pedagogy and didactics of technical education	Dr. Stefan Brämer (stefan.braemer@ovgu.de)
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3. Target Groups

female professionals and graduates:

- female students of STEM subjects (DQR/EQF levels 6 and 7) who are nearing the end of their studies or are already in the process of transitioning to employment.
- career entrants following the successful completion of a STEM degree.
- professionally active graduates (DQR/EQF levels 6 and 7) with at least ten years of professional experience.
- women who have not continued their career path in a STEM profession.

companies:

- mid-sized enterprises with a high proportion of STEM occupations within their workforce.
- focus on companies from the fields of action of the High-Tech Strategy, such as health and care, sustainability, energy, mobility, urban and rural areas, security, and economy and work 4.0.

4. Methodological Approach (Sequential Work Packages)

The project is divided into three sequential work packages (WP):

1. WP1: analysis phase (10/2025–11/2026):

- individual perspective (TPA): conducting at least 30 problem-centred interviews with various female target groups in order to identify contextual factors and biographical key experiences that strengthen or weaken self-efficacy beliefs, initiative and creativity.
- organisational perspective (TPB): conducting at least 10 interviews with senior management or HR managers in mid-sized companies to analyse their organisational culture and measures for attracting and retaining female STEM employees.
- the results will be evaluated using qualitative content analysis.

2. WP2: development phase (11/2026–10/2027):

- development of a workshop concept to promote self-efficacy for female students at the transition to a STEM profession.
- development of a concept for implementing a women-friendly organisational culture for companies.

3. WP3: pilot and transfer phase (10/2027–09/2028):

- piloting of the workshop concept with female STEM students (HDBW, OVGU) and in at least one company.
- evaluation of the concepts using standardised psychological test procedures to measure self-efficacy beliefs.
- transfer of the final products into practice.

5. Key Products and Transfer

Based on the findings of the analysis, products will be developed and piloted in cooperating companies in order to promote the self-efficacy of the target group.

- **workshop concept for companies:** a concept for implementing a diverse and self-efficacy-promoting organisational culture, jointly developed with women and companies. This concept aims to involve managers and teams and to foster a positive "gender culture".
- **concept for female students:** a concept for developing self-efficacy in the context of career choice, which promotes the increase of initiative. This includes a workshop concept, peer-to-peer support and mentoring by role models.
- **public availability:** the practice-ready products – including short articles, guidelines, handouts, workshop materials, videos and posters – will be made freely and publicly available via the project website.
- **network transfer:** the findings will be actively disseminated and discussed through the networks of the consortium partners (e.g. AGBFN, employer associations, KME) as well as through a concluding transfer and final conference in barcamp format.
- the project understands self-efficacy as a dynamic set of self-assessments. In addition to experiences of success and positive feedback, this can also be strengthened through observational learning, particularly when a person is able to identify with the role model.