

Federal Ministry of Education and Research

## Success with STEM – New Chances for Women

Outcomes of the funding line (summary)



# Erfolg

### Karrieren gesta

### Foreword

Developing innovations in STEM (science, technology, engineering, and mathematics) professions is the engine that drives our society. In particular, the need to include all talent and potential is fundamental to the will to succeed in developing cutting-edge technologies. The fact that more and more women are choosing to study STEM subjects is a sign of encouragement, but there is still room for improvement.

The German government is therefore committed to attracting more girls and women to STEM careers and to boosting the opportunities available to them in the STEM job market. The Federal Ministry of Education and Research (BMBF) is pursuing this objective with the funding line *"Success with STEM – New Chances for Women"*. A total of 55 funded projects have developed strategies to increase gender equality in STEM careers, supporting girls and women on their STEM career paths in the age of digitisation. The conference *"Success with STEM – Shaping Careers*, Unlocking Potential" in November 2019 not only presented the wide-ranging outcomes of the funded projects but also showed how they can be translated into practice and contribute to networking the various actors.

The key message: women must be actively involved as key STEM players in the digital transformation and must also be perceived as such. To ensure this, increasing the visibility of STEM women and their numerical growth is imperative. Female role models exude charisma and encourage other women to pursue a STEM career all the way to the top.

Success in making more use of the talents of women and their potential in STEM professions remains dependent upon ensuring that the innovative and transfer-orientated ideas from the projects are incorporated into the work environment and everyday life.

You are invited to use the outcomes of the conference as a basis for sharing ideas with actors in the STEM world and implementing strategies to attract more women to STEM careers.





lten, Potenziale entfalten



## Erfolg mit MINT

Karrieren gestalten, Potenziale entfalten

Podiumsdiskussion ,Chancen für Frauen auf dem MINT-Arbeitsmarkt'

Maximilian Elling Prof.<sup>in</sup> Lena Hipp, PhD Aya Jaff Dr.<sup>in</sup> Julia Schüller und Dr. Peter Bassler Prof.<sup>in</sup> Barbara Schwarze



#### Getting more girls and young women interested in STEM careers

Since 2008, the National Pact for Women in STEM Occupations, "Go STEM," has been the only nationwide network initiative focussed on attracting and inspiring girls and women to study STEM subjects and enter STEM professions and careers. It now connects more than 360 partners from government, business, science, and the media, translating the dialogue on the topic of women and STEM into innovation. The organisations that are part of this ever-growing network share their experience and best practices with a particular eye to attracting young women to the innovative jobs of the future in STEM subjects.

To support the objectives of the National Pact for Women in STEM Occupations, the BMBF launched the funding line "Success with STEM – New Chances for Women" in 2015. The aim of this line is to identify and implement ways to help girls and women successfully make the transition into STEM courses of study and professions, and to support specific STEM career paths for women. A total of 55 projects receives some 20.5 million euros in funding from the BMBF in the period from 2016 to 2021. Many projects address the topic of digitisation – the development of an app or an information platform, for example, offers schoolgirls study and career guidance in STEM subjects – while other projects focus on issues such as overcoming gender stereotypes or the importance of diversity in study and career guidance. "Success with STEM – New Chances for Women" is thus a key contributor to cultural change at universities, in science, and in business within the diverse and dynamic world of STEM professions.

"Go STEM" and the funding line "Success with STEM – New Chances for Women" are part of Field of Action 3, "Chances for Girls and Women in STEM," in the Federal Ministry of Education and Research's STEM Action Plan.

## Summary of transfer conference "Success with STEM – Shaping Careers, Unlocking Potential"

The conference, held in Berlin on 11 and 12 November 2019, focussed on the transfer of solutions developed in projects within the funding line "Success with STEM" that are helping to successfully shape STEM careers for women. The project teams presented their outcomes and discussed transfer ideas with other STEM multipliers.

The talks identified subjects such as the visibility of female role models, gender-sensitive language, overcoming gender clichés, and the importance of understanding women's lived experience in the job market as important fields of action. The projects "Do IT!," "Digital Me," and "MINTcoach," for example, highlighted the importance of real and accessible STEM role models in young women's social environment as instrumental in guiding their career choices. In her keynote address, Professor Antje Boetius, herself a role model as Director of the Alfred Wegener Institute in Bremerhaven, also stressed the importance of a varied visual language and a clear understanding of the societal significance of STEM topics to attracting young women to such professions. Programmer and entrepreneur Aya Jaff firmly agreed that using language that reflects the experience of young women is central to overcoming inhibitions. The "SMILE" project showed how this might be done: in hands-on workshops, schoolgirls were able to program IT applications, in the process developing smart objects for their everyday lives. There were also wide-ranging discussions of ways to communicate STEM topics to a

female audience. Producer Cedric Engels, aka YouTuber "Doktor Whatson," took the example of automated video recommendations in YouTube user profiles to illustrate how algorithms can serve to perpetuate gender stereotypes. The project "intoMINT 4.0" presented its app, which playfully encourages young women to engage with a range of STEM topics using a selection of diverse tasks in the form of real-world experiments and small-scale projects. With regard to the STEM job market, there was general consensus that achieving a satisfactory work-life balance and women's underrepresentation in executive positions remain the central topics to which businesses need to be further sensitised. Dr Julia Schüller and Dr Peter Bassler from BASF SE illustrated how taking on management responsibility can be achieved on a part-time basis, using their "joint management" model as an example. Other job market recommendations were presented by the "GeWInN" project, which specifically developed a guide for IT companies containing gender-sensitive ideas, for example on organisational cultures in IT.





The conference ended with a number of key findings: In order to lastingly attract more women to innovative STEM professions, we must not only create the conditions in which they can thrive but must also work to cement them in educational institutions, in science, and in business. We also need to tailor the language we use in addressing to young women, give them more encouragement, and provide more personal support, for example through networks and mentoring, so that they not only become aware of their own STEM talents but also continue to develop them.

#### More information:

The outcomes of the conference are documented in a brochure that can be downloaded free of charge from the BMBF website: <u>bmbf.de/de/mint-pakt-und-girls-day-214.html</u>

Opening address at the transfer conference by Parliamentary State Secretary Michael Meister: <u>bmbf.de/de/erfolg-mit-mint---neue-chancen-fuer-frauen-10111.html</u>

Web portal of the office of the National Pact for Women in STEM Occupations, "Go STEM": <u>komm-mach-mint.de</u>



#### Published by

Federal Ministry of Education and Research (BMBF) Department of Equal Opportunities and Diversity in Science and Research 53170 Bonn

#### Last updated

November 2020

Edited by BMBF

Editorial assistance DLR Project Management Agency, Bonn

Layout

KOMPAKTMEDIEN Agentur für Kommunikation GmbH, Berlin

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