

Three female engineers - three careers in plant engineering

Job profile Engineer

In 2021, female engineers still remain in the minority in the male domain of engineering. But things are changing here, too - a look at the practical side of things reveals that. Three female engineers talk about their experiences at school and provide encouragement for the path to plant engineering.

For weeks, the women's quota was the subject of heated political, media and social debate. In this context, the view of middle management is often forgotten - where the controversial quota does not take effect. Equal rights for women and men in the engineering industry do not seem to have happened yet: Only about 18 percent of all engineers on the labor market are women.

A look at the 2019/20 winter term reflects a similar picture: Only a quarter of first-year engineering students were female. But a change is noticeable: Many companies are especially promoting women in leadership positions and the industry is going along with this development - increasingly trying to inspire women for the professional field. A good moment to take a look behind the scenes and into practice.

Three examples: Female engineers share their stories

Three female engineers from the international VTU engineering group talked about their current job situation in the industry and the experiences they have had in the course of their careers. The company, which has subsidiaries in Austria and Germany, among other countries, specializes in plant engineering for the pharmaceutical, biotechnology, chemical, metallurgical, oil and gas industries.



*Nora Steiner,
Head of GMP Compliance Engineering*



*Brigitte Gübitz,
Risk Management Expert*



*Denise Gronemeier,
Process Engineer*

One of the three employees is Nora Steiner, who works in the German subsidiary as Head of GMP Compliance Engineering for the Central Germany region. After completing her studies in biotechnology, she found her profession as an engineer due to her interest in natural sciences and pharmaceutical technology. Now she applies her know-how at VTU.

The same goes for her colleague Denise Gronemeier: after completing her bachelor's degree in bioprocess engineering, she wanted to contribute her expertise as an engineer in plant design.

Dr. Brigitte Gübitz has been part of the technology company for many years. After ten years of professional experience at VTU, the graduate engineer in technical chemistry obtained her postgraduate degree in process engineering while working and now holds an expert position in risk management.

When gender plays (no) role

How do the three female engineers experience their day-to-day work? Dr. Brigitte Gübitz has a thoroughly positive view: "In the pharmaceutical industry, where I mainly work, I think there is a lot of emphasis on respectful interaction. So far, I have not been denied any expertise because of my gender."

For her colleague Denise Gronemeier, her gender has played a role in some situations at work: "I haven't experienced any direct rejection or disrespectful treatment, but there have been situations where I felt that, especially as a very young woman, I needed more convincing to gain the same acceptance and confidence in my abilities as male colleagues."

Nora Steiner held a similar view at the beginning of her professional career, but her assessment of this changed over the years: "At the beginning of my career, I thought that as a female engineer I had to compete more strongly with my male colleagues. In the meantime, however, I consider that to be an assumption and see things differently. The technical quality of my work is relevant, not my gender."

For this reason, Nora Steiner strictly rejects a quota for women, since just a higher number of women would not help anyone, but only expertise should count. Sometimes, however, she is annoyed by the common clichés she encounters in everyday life: "Many people think of a female engineer as having a masculine appearance. Just because women wear heeled shoes or bright lipstick doesn't mean less expertise. We should all think less in terms of labels and not judge the performance of others by their appearance."

Change takes time - and education

The roots of stereotypes, structural disadvantages and long-established routines with regard to classic role models go back centuries, if not millennia. Therefore, a change towards equal rights for women in all fields - including female engineers - will not happen overnight. While each individual can contribute to this, be it through mutual support, educational work and openly pointing out injustices, companies are required to further create the necessary structures for equal treatment. This will benefit both them and all employees in equal measure.

Companies can only benefit from promoting women because they can often bring different perspectives and drive diversity within the workforce - diverse teams are proven to be more successful and creative in their approach to work. "I think successful women sometimes have stronger empathy, diplomatic skills, as well as a more distinguished ability to organize and coordinate projects - compared to their male counterparts," says Nora Steiner. Her colleague Denise Gronemeier disagrees and sees no differences in the abilities of the sexes.

She also emphasizes that on both sides - for men as well as for women - personal interest and early childhood support or conditioning are essential for later career choices: "Every person is individual and has personal strengths and weaknesses. That's why our society should strive to ensure that children can experience and learn about science and technology at school so they are able to develop and nurture an interest in it. It is primarily a matter of women "wanting" and less that they "should".

So, as is very often the case, education plays a decisive role. According to a TIMSS study from 2020, fourth-graders from Germany have only mediocre knowledge of mathematics, physics and chemistry - far behind other economic nations. Girls tended to do slightly worse than boys. The education system therefore has a lot to catch up on in an international comparison.

An optimistic view into the future and a call for more courage

Companies and corporations are also already actively working together to promote women: For example, a national pact for women from the STEM sector has been established, in addition there is "Girls' Day", which has been running for years, and many companies prefer to hire women if they have the same qualifications. In addition, companies are increasingly promoting a family-friendly working environment to ensure that female employees are not disadvantaged.

Denise Gronemeier from VTU welcomes this and is optimistic about the future: "I think there will be more and more women in management positions because the family model and traditional roles are changing. If women have the opportunity to combine a time-intensive and responsible job with their own family, they will also increasingly strive for and achieve leadership positions."

According to Dr. Brigitte Gübitz, who is also the mother of two almost grown-up children, women are sometimes overly discouraged from studying natural sciences and encourages them to take the step: "From brewing beer to environmental technologies such as waste processing and wastewater treatment to high-tech pharmaceutical production - biotechnology makes it possible to have a career in almost any industry." In addition, the challenging study of a STEM subject is usually rewarded later in a career.

An exciting job and the salary is decent too

On the one hand, with an exciting and varied daily work routine and, on the other, in terms of financial appreciation. Dr. Brigitte Gübitz also agrees: "The pay in an engineering profession tends to be in the upper range - so it's also worth it in a literal sense." The tip to all future female engineers: If you are interested, pursue a career in the natural sciences and form alliances.

The conclusion is quite positive: The general change in society seems to have progressively arrived in the engineering sector as well and is bearing pleasing fruit. It is now up to all involved not to slacken their efforts and to continue on the path to gender equality. What is needed is not only a change in social thinking, but also a corporate culture free of discrimination and gender-neutral appreciation on the part of managers. Companies like VTU are setting a good example here. The goal must be to ensure that no woman, either in the technology and industrial sectors or elsewhere, is confronted with structural discrimination, stereotypes and stereotyped thinking.