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<b>PP</b>	Restricted to other programme participants (including the Commission Services)	
<b>RE</b>	Restricted to a group specified by the consortium (including the Commission Services)	
<b>CO</b>	Confidential, only for members of the consortium (including the Commission)	



## Table of contents

Goals.....	3
Target group.....	4
Methodology.....	4
Preparatory stage.....	4
Implementation.....	5
Feedback from the University of Chemistry and Technology Prague.....	5
Follow-up.....	5
Outputs.....	6
Book launch.....	6
Introductory analytical chapter.....	7
Transformations of gender and science in time.....	8
Conditions for science, education and career advancement.....	11
Success in science lies in “team work”.....	12
The position of women in science.....	13
Combining research and care may be a challenge.....	13
Conclusion.....	14
Literature.....	15

## **D2.8 - Book of interviews to promote women researcher**

### Task 2.4 Actions challenging gender stereotypes and consequent horizontal segregation

#### 2.4.2 Book publication of interviews to present female role models

The book of interviews is an output of Action 2.4.2, which focused on strengthening the position of women working at the University of Chemistry and Technology Prague (UCT) and changing how their role is perceived. Additionally, it strived to raise gender awareness and promote gender sensitive culture at the UCT. This Action publicly presents the operation of the institution as well as the women and their contribution to the scientific and pedagogical community. This helps to eliminate gender stereotypes, and reduce vertical and horizontal segregation, which constitutes a substantial problem at the UCT according to the initial survey. The outputs of the Action aim to improve the conditions and opportunities for women's advancement to leadership positions.

Besides popularisation activities (the interviews are published on a website, in the media and were the basis for a poster exhibition) the Action also serves research purposes. The interviews were analysed as part of a complex survey into conditions for women's professional development at the UCT, which supplements the completed qualitative and quantitative research. The very implementation of this Action is subject to analysis and evaluation of how the whole project and activities are put into practice.

## **Goals**

This Action and its outputs contribute to making women scientists working at the UCT visible, presenting their success and contribution to the research and pedagogical community as well as the institution, which in turn helps to strengthen their position and change how women's roles are perceived at the institution, in science and in various typically 'masculine' fields and scientific disciplines. The Action aimed at eliminating gender stereotypes and increasing gender awareness. Personal interviews and accounts are well-suited for these purposes. Personal accounts make it easy to show different models of women's professional careers in science, conditions for career advancement and barriers women have to face as well as strategies they use to overcome them. The interviews present young women researchers with role models who may provide them with motivation and inspiration. Another goal of the interviews is to show structural barriers and possible ways to amend the conditions and working environment at the institution. As the interviewees come from different generations, it is possible to point out the different impact past and present structural conditions have on the respective generations and their strategies.

The target group benefited from the Action, too. It was through the interviews that the women could reflect on their own situation and realise what they had accomplished and how they had succeeded. The interviews enabled them to see the conditions and the obstacles they had to overcome. In this respect, the Action helped to empower and motivate the interviewees. At the same time, the interviews raised awareness of gender issues, pointed out the importance of the TRIGGER project and motivated the women to get involved in other actions of the project (e.g. networking seminars and mentoring programme). The interviews also enabled many of the women scientists to learn more about the project and think about changes they could initiate.

## Target group

The target group for the interviews are women employees in teaching and research roles at the UCT. The goal was to present different models of career paths and professional and life experience. This is why we approached representatives of three generations (junior, middle-aged and senior), women holding different positions (scientific, research, pedagogical, management, administrative and leadership) and women from different disciplines, faculties and institutes.

## Methodology

### Preparatory stage

Based on the criteria guaranteeing the greatest possible diversity of the sample, UCT women employees were selected for the interviews. Members of the implementation team from the UCT played an important role in selecting and approaching the women as they were best positioned to identify potential interviewees based on their personal contacts with colleagues from different faculties and institutes where the team members work.

The selected candidates were contacted either by UCT team members or by the authors of the interviews from the research team at the Institute of Sociology. Contacts were also established using the network of women, namely at events held for women professors, such as social lunches. The original aim was to interview all twelve UCT women professors. However, three women professors turned the offer down without stating the reason why.

Thirty-three women were approached altogether and the planned twenty interviews were conducted. Some women did not write back, others refused as they did not want the interview to be published (they only agreed to be interviewed anonymously for research purposes) with some of them taking part in group interviews.

One of the reasons some women did not want to be interviewed was fear that they might be associated with the project and support for gender equality as some openly stated. In one case, the refusal resulted from the decision made by a man group leader who was consulted by one of the approached women working in his group. Some women might not have wanted to be presented publicly.

Especially women from the young generation were reluctant to identify as scientists 'yet', which made them hesitant to take part in a project that presents interviews with women scientists. The middle-aged group members were worried that they were not interesting enough, their job is frustrating, and they lack results and do not engage in research but rather administrative work. This group also manifested low self-confidence when the women refused to be interviewed because they did not feel good enough to be presented side by side with women professors. In these cases, the research team frequently managed to improve their self-esteem and the interviews eventually took place.

The final obstacle was time constraints on the part of the approached women. In several cases, the interview had to be rescheduled repeatedly. This shows that a generous time reserve is crucial as it mostly enabled the team to arrange and conduct the interviews in the end.

## Implementation

The interviews were conducted in the first two years of the project (2014 and 2015). They were semi-structured and followed a guide but there was enough room for topics that occurred during the interview, especially when the interviewees saw them as crucial for their career path and personal life (see the introductory chapter below for details). Every interviewee signed an informed consent form that provided information on the goals, processing and publishing of the interviews. The interviews usually took about one hour and a half.

The interviews were primarily meant to be published in an abridged, edited and authorised version. At the same time, fully transcribed interviews were analysed for research purposes. The most pertinent results are part of the introductory analytical chapter presented below.

## Feedback from the University of Chemistry and Technology Prague

Many people, mostly UCT employees, contacted us to provide feedback on the interviews and related activities. They, including UCT management, appreciated the idea of conducting interviews with women scientists of various ages and career stages. Most readers mentioned the interviews with women professors and women with advanced careers. They positively assess how they stay on top of things, share their experience and provide their younger colleagues with useful tips and advice. Interviews with women scientists at less advanced stages of their careers were also regarded positively as they show their strong potential and the interviews make them more visible.

The UCT Department of Communications asked for several interviews and gradually publishes them on the UCT website whenever there is anything new and significant to report regarding the particular woman. The readers praised the graphic design of the interviews and professional portraits of the women scientists published both on the [gro.vscht.cz](http://gro.vscht.cz) website and posters prepared for the 2015 Researchers' Night. The poster exhibition addressed the general public.

The only negative response came from one of the interviewed women scientists. She works in a men-only collective and her colleagues are opposed to any activities promoting gender equality. These men assess the interviews as a useless and wrong activity.

## Follow-up

More interviews are planned for the following two years of the project (2016 and 2017). We will publish these on the project website, too. Newly, the interviews will be conducted primarily with men researchers and teachers.

The interviews will make part of the popularisation and media activities of the UCT due to the project team's collaboration with the UCT Department of Communications. Based on an agreement with the Head of the Department of Communications, the interviews will gradually appear on the main UCT website in the following section:

<http://www.vscht.cz/popularizace/rozhovory>

The gathered data will be analysed and the analysis will serve as the basis for two scientific articles. The first one will present an analysis of twenty interviews with women scientists. The manuscript will be submitted for review in 2016. The second article will be comparative and will present the results of an analysis of interviews with women and men scientists from the UCT. The manuscript will be



submitted for review in 2018. The results of the two analyses will be presented at two conferences: one in 2016 and the other in 2017.

## Outputs

### 1) Publication of interviews

#### a. Website

The interviews, together with a short bio and portrait, were regularly published on the website of the TRIGGER project at the UCT: <http://gro.vscht.cz/rozhovory>

#### b. Journal Bulletin of Chemické Listy

The interviews will also be gradually published in a journal that targets the academic community in the field of chemistry. The first interview was published in 2015: *Bulletin Asociace českých chemických společností* 46 (4): 816-817; <http://chemicke-listy.cz/Bulletin/bulletin464/bulletin464.pdf>

#### c. Poster exhibition

Selected interviews were presented at a poster exhibition held during the 2015 Researchers' Night event at the UCT: <http://gro.vscht.cz/fotogalerie/postery>. The posters are also published on the website of the other Czech partner to the TRIGGER project, the National Contact Centre for Gender and Science at <http://www.genderaveda.cz/gender-veda/181101-vystavy/zeny-na-vscht>

### 2) Book of interviews

The book is intended for the general public as well as for the academic community. Both the UCT and NKC – Gender and Science will distribute it to their national networks, at expert conferences and in the framework of popularisation and educational activities. It will be presented to representatives of state administration bodies and institutions in science, research and higher education.

## Book launch

The book launch will take place on 17 February 2016. Project investigators from the UCT and the Institute of Sociology, including the book editors, will publicly present the book of interviews as part of the implementation of institutional change towards greater gender equality. Selected women interviewees who represent three generations of women scientists will talk about topics they found most important in their interviews. The book launch will be attended by



representatives of the UCT management. A media plan will be prepared in order to draw media attention to the book launch and facilitate further dissemination of the book.

## **Introductory analytical chapter**

### **Searching for a Dynamic Equilibrium: Three Generations of Women Researchers at the University of Chemistry and Technology Prague**

A dynamic equilibrium is a state where the driving force of a chemical reaction is directly proportional to the active masses of reactants. In such a state there appears to be nothing happening; there is no net change despite the fact that the reaction occurs in both directions. We use the term “dynamic equilibrium” as a metaphor to describe the position of women in technical fields in the Czech Republic. A dynamic equilibrium would be established if the numbers of men and women entering the field as students and PhD graduates would be directly proportional to the numbers of men and women with advanced academic careers, and in management and leadership positions in science and research. At present, although the number of women entering these fields has been growing, the dynamic equilibrium cannot be found because women often leave these fields once they obtain their doctoral degrees or sooner. The composition of the product – such as the women to men ratio in management and leadership positions – has not evolved toward greater parity even though more reactants are being added constantly. This book introduces women in scientific and research positions at the University of Chemistry and Technology Prague, who despite not always encountering ideal conditions, have not left the field and strive to find balance between multiple roles which they want or need to fulfil (as scientists, researchers, teachers, mothers and grandmothers).

The subtitle of this book indicates that the researchers appearing in this publication are in various stages of their professional career. The older generation of women researchers, however, appears to be closer to finding the balance. The generational factor is closely related to the stage of the woman's academic path. The interviewees include scientists in junior positions completing their doctoral degree studies, postgraduates, researchers who hold doctoral or associate professor degrees and have worked in their fields for a while, as well as professors and those with experience in management positions or in decision-making bodies of the university. When comparing professional and private paths of the three generations of researchers, the data collected shows the strong impact of socio-political changes on the scientific work environment and opportunities for the development of successful careers for women scientists. Shifts in the state family policy generally affect women more than men.

As numerous studies and surveys reveal, women often remain “invisible” in environments where men predominate. Fewer women than men hold management positions. Women often provide support activities which are indispensable for the functioning of a university and for research and teaching. However, the current evaluation systems, used to assess scientific and pedagogic work, do not appreciate these activities sufficiently although the researchers portrayed in this book undoubtedly deserve our attention. Their personal stories and testimonies show the wide range of professional careers and paths to success, as well as the impact of social and institutional requirements and barriers on individual decisions and choices.

All twenty interviews took place in 2014 and 2015. The principal story line focuses on academic and professional paths. We were interested in finding out what made these women choose their particular academic field and why they opted for the University of Chemistry and Technology Prague as their workplace, which crucial moments and crossroads in their professional and personal lives led them to pick scientific and pedagogic professions and what position they currently hold. The women talk about their research topics, choices and decisions. They compare the expectations they used to have about their careers with their current situation, and describe what they like about their work most, what satisfies and frustrates them. They voice their opinions on the current system used to evaluate scientific and pedagogical work in general and more specifically at the University of Chemistry and Technology Prague as well as on current working conditions. They reflect not only on their experience and strategies they have used to successfully manage their job-related tasks and care of their children, but also talk about their academic fellowships and study abroad. All interviews address the position of women in science today and in the past, the men to women ratio in various fields and disciplines, as well as diversity and insufficient numbers of women in management positions and decision-making bodies.

This introductory chapter provides an overview of testimonies of twenty women and focuses on several selected topics. Firstly, the transformation of the research system in the Czech Republic is discussed theoretically with particular focus on the pivotal changes which affect scientific careers of women to a greater degree and more often than those of men. Similarly profound changes have also occurred in the Czech social system, thus the middle and younger generations of women look for jobs and build their careers under different conditions than their predecessors. Next, we present some of the topics which appear throughout the interviews. Our goal is to use the experience, opinions and personal stories of the interviewed women researchers to identify the conditions which are requisite and needed for scientific work, career advancement and professional success, in addition to the talents, abilities and qualities of a person interested in this line of work. We also discuss what it means to be successful in science and at a university. Additionally, we explore the reasons why women are not sufficiently represented in management positions at the university and the conditions the University of Chemistry and Technology Prague offers to combine the demands of scientific work with equally demanding childcare commitments.

## **Transformations of gender and science in time**

We all make our decisions in an environment organized by social structures. From the very beginning, our positions within these structures are not equal and depend, among other things, on our demographic characteristics. Thus, our conditions for work, mobility, starting a family and combining work with caring for children and household differ. The focus of our publication on women working as scientists, researchers and teachers at the University of Chemistry and Technology Prague is based on analyses which highlight gendered inequalities in Czech research and higher education (Tenglerová 2015, Špondrová 2014; Linková et al. 2013).

Gender is understood here as a category which is part of the social structure and culture. This means there are social roles which are perceived as primarily or exclusively women's and conversely as men's and their value is generally viewed differently. Roles chiefly associated with men are valued more and at the same time are perceived as a norm against which others are measured (Bem 1993). Gender permeates everything we do, and influences how we act in social interactions (West, Zimmermann 1987; Butler 1990) and how we perceive ourselves (for instance, when we get dressed in the morning or when considering which field is suitable for us). This follows shared patterns, which



makes it possible to bring into line those who do not act in accordance with general expectations. However, we are not completely determined by these patterns. On the contrary – the fact that gender norms can be and frequently are pointed out in everyday life signals their somewhat unstable quality in time, which is demonstrated in the shift in our perceptions of what is and is not acceptable for individual roles. In science, we can see a historical shift from when the field was completely closed off to women to when women were granted access to the academic system, at first in the role of students, and later as scientists and teachers.

Gender equality in science has not yet been achieved though. In 2015, the L'Oréal Foundation published the results of a public opinion survey on the status of women in Western Europe, which revealed that 67% of respondents believed women do not have the qualities required to hold top academic positions. The survey also showed that the respondents did not have a realistic idea of what the status of women in research within the European Union is. They indicated that about 28% of management positions were held by women, while in reality it is only 11% (L'Oréal Foundation 2015).

Gender equality has not been achieved in Czech science, either. (Linková et al. 2013: 24–26). Statistics show that relying on the natural course of events will not remedy the situation. It has been demonstrated that at the current pace, it would take several decades to actually reach gender equality. The majority of women in the younger and middle generations we spoke to would not be able to benefit from the change brought by the natural course of events. The notion itself, that we are moving away from various restrictions, including those based on masculine and feminine roles, is problematic as there is no guarantee that the positive shift towards gender equality cannot be reversed. For instance, research examining the impact of the pervasive push for excellence indicates that the assessment criteria of excellence were set so that they are aligned with the advantages the current gender order still offers to certain groups (Husu, Chevigné 2010; Linková, Červinková 2013). This means that the newly established conditions favour those already privileged in the gender order and thereby prevent gender equality.

Although some shifts have occurred in the gender culture, such as the social acceptance of divorce and growing numbers of men who wish to be more involved in childcare, horizontal and vertical segregation in science persists and to a certain degree reflects the situation on the entire labour market. Horizontal segregation stems from the belief that certain socio-demographic qualities – often mainly sex and ethnicity – predetermine certain types of occupations for us (Jarkovská, Lišková, Šmídová 2010). Horizontal segregation is manifested in individual branches within science and individual specializations within these branches, as well as in the division of labour (for instance, it is interesting to map which gender holds the majority of administrative posts associated with science). Vertical segregation describes a situation known as the “glass ceiling” where women are directly and indirectly excluded from management positions. Women are not nominated for these positions and their nominations are generally not supported because they are not represented in the respective bodies. Equally, women often do not apply for these positions. Management positions are associated with qualities which are not perceived as typically feminine and this can lead to the ostracism of women who wish to attain these positions. They may be viewed as ambitious “careerists” where even the words “career” or “ambition” are often perceived negatively by women themselves (Valian 1999; Williams 2005).

The justification of the gender-based division of roles into masculine and feminine is based not only on the notion that women are biologically predetermined for these roles, but also on the ideology of domesticity which attributes close ties to household and care (for household, children, husband or partner) to women (Crompton 2006). Contemporary Czech society seems to accept many elements

of this ideology. According to the expectations of the majority as well as the actual practice, an ideal career is characterized as “a continual professional path for men and an interrupted professional path for women” (Křížková, Maříková, Hašková, Formánková 2011: 14), which also establishes the gender norm because it implicitly assigns interruptions in professional careers to women rather than men while opportunities to build a career are attributed to men.

This particular gender norm poses a major complication for women and active parents employed in science as viewed in the context of the transformation of Czech and European science policies (Linková et al. 2013, Vohlídalová 2014). The changes in the Czech system of science, its funding and assessment (Linková, Stöckelová 2012), which fall under the neo-liberal shift in science emphasizing autonomy and individual responsibility for one's career, are the major causes of this situation. Career paths should be strictly linear without any interruptions. Moreover, the linear academic career is expected to involve a high degree of mobility, both international as well as between individual workplaces. These expectations have a strong gendered impact on careers and life choices of women and men scientists (Červinková 2010). The emphasis on personal responsibility for one's career development and flexibility effectively diverts the attention away from the role of institutions in failing to maintain good working conditions and eroding employment security.

The focus on personal responsibility glosses over the structural disparities and the fact that certain groups, whose members are not assigned primary responsibilities for childcare and who are mobile, are more likely to meet the needs of employers and institutions (Linková et al. 2013). This constitutes a significant change for young women academic professionals, as the time they should be traveling abroad often overlaps with the time when families are started, which in itself is complicated by the instability of employee relations and successive fixed-term contracts (Vohlídalová, Červinková 2012; Vohlídalová 2014; Linková, Červinková 2013).

Moreover, women researchers need to address the conflict between their academic career and parenthood in a social environment that is gender-conservative. Public opinion on gender-based division of work clearly shows the contradictions implicitly present in a number of interviews contained in this book. More than half of the respondents surveyed by the Public Opinion Research Centre in late 2013 believed that both partners should strive to have professional careers, while more than half of the respondents also indicated that women should cook and clean (Čadová 2014). The same survey showed that men are more conservative than women in the area of gender-based role division since they believe women should be primarily responsible for taking care of children and the household. Meanwhile, more women believe that both partners should share equally the responsibilities for their children and household. Their opinion is, however, not supported by the ideology of motherhood prevalent in Czech society, which fundamentally influences the Czech family policy. According to this ideology, the correct way to care for children is for the mother to stay home until the child turns three (Dudová 2007). Other models of motherhood are extremely difficult to pursue because there are not enough day-care facilities for children under the age of three and also because of societal preconceptions (Hašková, Saxonberg, Mudrák 2013). This ideology of motherhood has shaped the state family policy, which does not offer enough alternatives that would benefit especially parents working in the academic field. It is therefore interesting to focus on the ways individual researchers deal with this situation, from their choice of a non-stereotypical technical field (gender-wise), to their choice of whether, where and for how long they can travel abroad.

## Conditions for science, education and career advancement

The above paragraphs clearly indicate that the choices women researchers make before starting their careers and throughout their careers depend on a multitude of factors and circumstances. We will briefly outline the conditions which the interviewees perceive as the most important as well as their evaluation of the overall conditions in their workplace and/or at the University of Chemistry and Technology Prague. Apart from conditions enabling women to take care of their children while working, we also address the following major issues which were identified in the interviews: the manners in which scientific and pedagogical work is evaluated and the changes the educational system has undergone following the unification of the higher education structure within the European Union. Regardless of their specific fields and positions within the academic hierarchy, most interviewees criticized the current science evaluation system. While numerous women researchers emphasize the legitimacy of focusing on high quality publications and perceive impact factor journals as an objective gauge of a publication's quality, they strongly object to the idea that this should be the absolute benchmark. Even women employed at institutes with the highest number of quality publications somewhat agree that publishing in impact factor journals should not be the sole assessment criterion while the majority of researchers outside of the mainstream institutes who find it harder to publish in journals of comparable value strongly believe this is the case. Many women scientists, mainly those who have worked in the scientific field for a long time, criticize the entire system which strives to quantify the quality of science using a system of points. They point out that this approach has a negative impact and leads to publishing "at all costs" even while they believe this is not the case at the University of Chemistry and Technology Prague. Furthermore, they discussed how the assessment system affects research where instead of trusting the judgment of scientific employees, emphasis is placed on "publishable" research which inevitably narrows the scope of research to popular problems, which can generate the desired points or grants more easily. One woman researcher of the middle generation put it simply: *"We do not have space to do nice work."*

Although the researchers agree publishing is a vital part of scientific work, almost all of them claim that the University of Chemistry and Technology Prague is not just a research institution but also an academic one. They criticize the assessment system for not taking into consideration the fact that teaching is extremely demanding, both time-wise and psychologically. Some interviewees acknowledged that teaching within the University of Chemistry and Technology Prague is not split evenly as some workplaces provide significantly more instruction and offer basic courses for all students. It is also apparent that it is mostly women who work as teachers. This type of work is not paid well and providing quality instruction to students is time-consuming and limits the time which can be spent on other activities, including research. But these facts remain in the background. Each generation of women assessed the conditions for teaching differently. Many women who graduated from and taught in the five-year engineer study program were critical of the transition to the bachelor's and master's degree system, where instruction is split into two relatively separate stages. Many interviewees also condemned the quality of secondary education.

The burden of increased administrative workload resulting from the new evaluation system has also been criticized. It is indirectly related to the criticism of the research funding system in the Czech Republic, since it now practically relies on grants from the Czech Science Foundation. This may result in decreased financial and technical support for some researchers.

The interviewees indicate that there is room for improvement with regards to conditions, primarily at the state level. When assessing the institution, the interviewees generally agree that working conditions are good primarily because they are created by individual group members, not by structural limitations. Some women call for greater team diversification and expansion so that team

members can fill in for one another. This would also allow for narrowly specialized discussions in the workplace, not only at international conferences where professionals specialized in their respective topics meet.

## **Success in science lies in “team work”**

What does success in science mean for the interviewed women scientists? Which qualities, capabilities and requirements should a person possess to perform and become successful in scientific, research or pedagogic work?

Most women hesitate when asked about their greatest professional success or they modestly mention “team work”, collaboration and success achieved by their colleagues, the team or the institution where they work. Team work and cooperation play a very important role in their perception of scientific work. Women from the younger and middle generations also stress the creation of a supportive environment and a network of contacts (for instance, the availability of technical equipment, international contacts from their supervisor/professor) which have helped them to achieve their results. All three “generational” testimonies show that women researchers at the University of Chemistry and Technology Prague value pedagogical activities. They see the success of their students as their own success and this makes them happy. The older generation of scientists also talks about the importance of educating the new generation, succession and handing over the leadership of the group.

For the interviewed women, success may mean very different things from formal acknowledgment of their work in the form of awards and international recognition of their achievements to the creation of publications and establishing of international cooperation to even more personal acquisition of new knowledge, skills and expertise. They also consider it success when results of their work are useful and used in real life and when new fields of study and pedagogical methods are developed. Junior scientists believe they are successful when they manage to win awards or earn professor degrees at a young age. Achieving management positions and participating in decision-making processes is perceived as success especially by women of the older generation. The fact that they managed to win recognition in a relatively masculinized environment (being the first woman to receive a professorship in her respective field or earning a professor degree in a masculine team or field) was also seen as success.

The middle and younger generations felt the need to combine their work and taking care of their household and children, and this feeling influenced their assessment of their own success. Success for them lies in the very ability to combine their time-consuming career with family life.

It is the time invested which is often cited as one of the key prerequisites for career advancement and a successful scientific career. The interviewees believe that in order to achieve success, enthusiasm for science, personal interest and engagement, curiosity and motivation are crucial. Those who lack these qualities will not invest the required time. According to the prevailing opinion, science cannot be done as a duty or a must. There must be willingness to go the extra mile. For that, diligence, purposefulness, ambition, patience, ability to cooperate, sharing of knowledge and communication with others are needed.

## The position of women in science

According to the interviewees, the position of women in science and a particular fields of study, as well as the shift in the perception of women in scientific or pedagogic careers, are most often related to the ever increasing number of women students. The researchers commented on the differences in the numbers of women and men in individual fields of study and at individual faculties (relative feminization of the Faculty of Food and Biochemical Technology, or the prevalence of men and masculinization of the environment at the Faculty of Chemical Technology). In this context, they frequently mentioned different preferences and interests of girls and boys which are reflected in their choice of a particular field of study. These are conditioned by gender roles and social expectations as well as upbringing. One researcher of the older generation provided an explanation: *"...but I think that girls are not any worse at maths than boys, they are just told that from early on in their childhood, which is a terrible mistake. The parents and grandmothers are to blame."* The majority of women interviewed believe that greater workplace and team diversity (not only in terms of gender, but also age, or integrating people from different countries or cultures) could be beneficial because different capabilities, skills, life experience and approaches to work can be utilized.

In some of the interviews, the question of gender (in)equality and the status of women was narrowed to direct discrimination, which women in the academic environment rarely face today (unlike in the past). However, many researchers mentioned the manifestations of indirect discrimination, gender stereotypes and prejudices that are reflected in attitudes towards women, including women students. The women often talked about different gender roles and division of labour in private life. These then predetermine the career prospects of women compared to men. One of the professors said: *"Gender does have some influence. When we look at statistics, we can see the numbers of women associate professors and professors are much lower than in the case of men. (...) The fact that men have much more time than women, they spend less time taking care of the household, also plays a very important role."*

The interviewees see the low representation of women in management, associate professor and professor positions to be one of the biggest problems. According to them, a management position is a time-consuming commitment and requires individuals to combine research, teaching and administrative and managerial work. In the current structure of gender roles and the existing family and science policies, it is difficult to aspire to such positions due to family responsibilities and childcare. Success stories of women, who were able to carry out their management position and professorship, without having to give up starting a family and having children, show that the conditions for combining personal and professional life were very different in the past social and political context. Interviews with the older generation of researchers reveal another crucial aspect: the distribution of roles in a relationship and within the family. They often mentioned the need for greater involvement of partners and some of them even questioned the feasibility of a two-career partnership.

## Combining research and care may be a challenge

As we indicated in the introduction, motherhood played a crucial role in the scientific careers of those women who have children. Most of them believe that this is a matter which specifically concerns women and their creativity. Many women are convinced that men should be more involved in care responsibilities and household chores and create better conditions for women's academic work. Some researchers found it natural to seek help with childcare outside the family so that they could go back to work as soon as possible. This topic clearly demonstrates generational differences.

Older scientists mostly utilized nannies and nurseries, which enabled them to quickly return from maternity leave back to work. They do not perceive this as something unusual. The middle and younger generations of women, who must combine the care for their children with work today, when there is a shortage of day-care centres and private nannies are expensive, speak highly of the conditions at University of Chemistry and Technology Prague, which enable them to return to work, and emphasize the positive interpersonal relationships in the workplace. At the same time, all interviewees accept that the primary responsibility for raising children rests on the woman and that her career is inevitably affected. Although the researchers do not speak negatively of women who do not have or want children, motherhood is the expected norm. It is cited as one of the main obstacles and an explanation of why women do not aspire to management positions.

The researchers surveyed do not put much emphasis on the role of employers in providing conditions for combining work and childcare and household duties. Therefore, they highly value the benefits provided by the University of Chemistry and Technology Prague. The main benefit is a children's group called Test Tube, which was mentioned by many women, even those who do not have children or whose children are now grown up. Also highly valued is the option to work from home and part-time, mainly by women who just recently returned to work after maternity or parental leave. Their situation is solved individually based on their agreement with their superiors as there are no general university-wide regulations.

The traditional division of roles in the family also applies to two-career scientific couples and includes taking care of both the children and the household. In the researchers' opinions it is women again who are responsible for carrying out these activities which also limit the time that women can devote to science or building a career. In this context, several interviewees mentioned that it would greatly help women as well as young men who want to start a family, if salaries in science and universities were raised. In general, the testimonies show that motherhood, unlike fatherhood, always affects a woman's career. Older women scientists are particularly critical. They emphasize the importance of the partner's involvement in taking care of children, even if this is only through support and appreciation of the partner's time-consuming scientific work. Both older and younger women researchers agree that men's scientific work is not influenced by family commitments in any way.

## Conclusion

Women scientists, researches and teachers at the University of Chemistry and Technology Prague perceive their workplace quite positively. They appreciate good interpersonal relationships and space for negotiations with the management related to combining their personal and professional life. At the same time, they cite many gender-based stereotypes which they have often faced in the past and at their workplace.

Since the interviewees viewed positively the opportunities for research and teaching careers for women and often expressed their pride in the quality of the University of Chemistry and Technology Prague as a leading Czech research centre, we can say that on the input side of the chemical reaction, which can be compared with a woman's career at the University of Chemistry and Technology Prague, everything is in good order. As mentioned in the introduction, and as the researchers themselves note, the interest of girls and young women in the individual fields is growing. Nevertheless, the dynamic equilibrium has not yet been achieved, and increasing the amount of "reactants", i.e. women who enter the science field, has not ushered in balance in terms of their representation among the "products" which would be reflected in a greater share of women in higher positions in the academic hierarchy and management positions. This suggests that there are

processes during the reaction which for now prevent this balance from being reached. These processes are often based on the overall organization of research and its history, but they take different forms in the personal stories of the individual women scientists, from indirect discrimination to measures disadvantaging those, whom our society expects to provide care. We hope that this book will serve as a guide to solving the equation for all who care or should care about the issue of women in Czech science, and that it will inspire people to seek solutions. The commitment of the women researchers and their beliefs about the meaningfulness of scientific, research and academic work are extremely inspiring. These women surely deserve that the dynamic equilibrium be found soon.

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