

Integrating Gender, Diversity and Equality in Research Proposals

Updated: Aug. 18, 2021

When drafting your proposal, it is important to pay attention to gender, diversity and equality. These aspects must be addressed from different angles:

- Content taking gender aspects/effects into account in the research content of the project (background, objectives, methods, impact, dissemination → gendered innovations)
- 2. Human Resources the gender balance in the research team and the initiatives to attract diversity, support and special trainings provided by the organization to address the gender imbalance

The suggested text guides can be altered to fit the requirements of the funding agency. Table 1 and the contents of this document will be regularly updated based on new information and feedback from users and as needed.

Tips shown in grey boxes provide alternative options and suggestions regarding how the information can be better presented in the proposal. Tips in red boxes provide sample text which can be used directly in the proposal after a few modifications.

For more information on specific actions and initiatives, kindly contact the <u>Office for Gender</u> <u>Equality and Equal Opportunity</u> (in German: *Büro für Gleichstellung und Frauenförderung*)

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For questions regarding gender in research proposals, kindly contact the <u>Research and</u> <u>Technology House</u> (in German: *Forschungs– & Technologie-Haus*)

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Sex vs. Gender

Sex refers to biological attributes that distinguish male, female and/or intersex individuals. Gender refers to sociocultural attitudes, (gender roles assigned through culture, family, etc.) Be clear and consistent about the terminologies used and their relevance in your proposal. More gender and diversity terminology can be found at TU4U (DE/EN): https://tu4u.tugraz.at/go/vielfaltsbegriffe



Gender and Diversity in Research Content

 Determine the relevance of integrating a sex and gender analysis in your research. Are there any sex differences that should be investigated and addressed? Have you questioned the gender assumptions that can influence your scientific priorities, research questions and methods? Do you expect that your research findings affect male and females, women and men, or girls and boys differently?

The Office for Gender Equality and Equal Opportunity (<u>BGF</u>) published a handbook that serves as a guide when integrating the relative aspects of diversity into a research project. It provides concrete examples from various scientific disciplines and provides suggestions about how these can be translated into practice.

Handbook: "Taking diversity in research projects into account. How to make it work" English version of the handbook is available online: https://www.tugraz.at/fileadmin/user_upload/tugrazInternal/TU_Graz/Universitaet/ Diversity/HandbuchForschung/Handbook_Diversity_Research_EN.pdf

A supplementary online course is available at the TU Graz Teach Center. <u>https://tc.tugraz.at/main/course/view.php?id=1904</u>

- 2. Refer to existing projects. A downloadable gender tool kit explaining the relevance of gender in each research field with sample cases from the *Gender in Research* project by <u>Yellow Window</u> is available in the fields (link to PDF files in each field):
 - <u>Health</u>
 - Food, agriculture and biotechnology
 - <u>Nanosciences, nanotechnologies, materials, new production technologies</u>
 - Energy
 - <u>Environment</u>
 - <u>Transport</u>
 - Socio-economic science and humanities
 - <u>Science in society</u>
 - Specific activities of international cooperation

Refer to successful projects by TU Graz's "Mind the Gap" winners - Annex 4

More examples and checklists for engineering, health and medicine, and urban planning and design topics can be found at: http://genderedinnovations.stanford.edu/researchers.html



3. Engage researchers/scientists with gender expertise among your key research staff. They can be help you to develop a sound research methodology and be crucial in identifying potential gender/diversity aspects in sections of the project. You can also include trainings on gender dimensions in your proposal to help researchers develop and share gender expertise related to your project.

<u>Tip</u>: Each faculty member at TU Graz has an appointed gender expert among the academic staff, who has received certified training on the topic of gender and diversity. Kindly contact the Dean or <u>BGF</u> to get in touch with the gender expert in your faculty.

<u>Tip:</u> In most EU-funded projects, trainings on gender dimensions can be claimed as eligible costs. Kindly contact <u>BGF</u> for further information about the trainings offered.

4. Think out of the box! The research project that you are planning might not seem to have a gender aspect at first glance, but if you more closely examine the potential results of the research, you can consider which end product/service they (i.e. the results) will serve.

<u>Sample text:</u> The research project methodology doesn't have a gender/diversity aspect within the project boundaries, but the potential results may be relevant in... e.g. (further studies with gender/diversity aspects; the development of a product/service with gender/diversity aspects).

5. If no definitive gender/diversity aspect appears in your research proposal or in the potential utilization of the project results, you may suggest follow-up projects.

<u>Sample text</u>: The project team examined the gender/diversity relevance of the proposal in detail with a gender expert. The results of this examination show that the proposed project has no gender/diversity aspect since the project only... (rationale). The significance of gender/diversity aspects may be considered in a follow-up project.



Further information:

- Integrating Dimensions of Gender and Diversity into Research Austrian Universities Gender Platform: <u>http://www.genderplattform.at/?cat=351&lang=en</u>
- Video about understanding gender dimensions and integrating these into research for MSCA projects: <u>https://www.youtube.com/watch?v=Hq4eWo30RfY</u>
- Examples of integrating gender dimension into research from the EU GENDER-NET project: <u>https://gender.eui.eu/gender-net-project/</u>

Gender and Diversity in Terms of Human Resources

TU Graz Gender Balance

TU Graz currently (April 2020) employs 3,850 staff members (as of June 2021), of whom 2,789 are academic and 1,063 are non-academic personnel. Females comprise 31% of these employees (1,186 female employees), and female academic staff comprise 23% of the total academic staff (626 female academic staff). Female students comprise around 26% of the total active students (2,239 female active students).

<u>Tip</u>: When presenting statistical figures about gender, it is advisable to present a combination of information, indicating how the project can have a direct impact or contribution to the improvement of the gender status (e.g. specific faculty or institute gender status).



Total TIL Graz			,-		
Academic Staff	2163	626	2789	77%	23%
Non-academic Staff	503	560	1063	47%	53%
Active Students	6217	2239	8457	74%	269
Architecture					
Professors	11	4	15	73%	27%
Established Researchers (Assoc. Prof. and Dozent)	4	2	6	67%	339
Early-stage and Recognized Researchers	135	102	237	57%	439
Researchers funded by third-party projects	17	<u>11</u>	28	61%	39%
Active Students	388	532	920	42%	58%
Civil Engineering Sciences					
Professors	17	1	18	94%	6%
Established Researchers (Assoc. Prof. and Dozent)	9	2	11	82%	189
Early-stage and Recognized Researchers	189	51	240	79%	219
Researchers funded by third-party projects	71	18	89	80%	209
Active Students	642	238	880	73%	279
Mechanical Engineering and Economic Sciences					
Professors	17	1	18	94%	6%
Established Researchers (Assoc. Prof. and Dozent)	20	1	21	95%	5%
Early-stage and Recognized Researchers	444	43	487	91%	99
Researchers funded by third-party projects	243	17	260	93%	79
Active Students	1390	121	1511	92%	89
Electrical and Information Engineering					
Professors	15	2	17	88%	129
Established Researchers (Assoc. Prof. and Dozent)	15	0	15	100%	0%
Early-stage and Recognized Researchers	322	51	373	86%	<u>149</u>
Researchers funded by third-party projects	140	22	162	86%	149
Active Students	996	<u>193</u>	1189	84%	169
Mathematics, Physics and Geodesy					
Professors	20	1	21	95%	5%
Established Researchers (Assoc. Prof. and Dozent)	22	4	26	85%	159
Early-stage and Recognized Researchers	256	73	329	78%	229
Researchers funded by third-party projects	98	26	<u>124</u>	79%	219
Active Students	518	191	709	73%	279
Technical Chemistry, Chemical and Process Engineering, E	Biotechnology				
Professors	16	3	19	84%	16%
Established Researchers (Assoc. Prof. and Dozent)	23	5	<u>28</u>	82%	189
Early-stage and Recognized Researchers	226	<u>139</u>	365	62%	389
Researchers funded by third-party projects	111	64	175	63%	379
Active Students	609	<u>524</u>	<u>1133</u>	54%	46%
Computer Science and Biomedical Engineering					
Professors	23	3	26	88%	129
Established Researchers (Assoc. Prof. and Dozent)	10	4	<u>1</u> 4	71%	299
Early-stage and Recognized Researchers	332	101	433	77%	239
Researchers funded by third-party projects	<u>138</u>	54	<u>192</u>	72%	289
, , , , ,	1674	440	<u>2114</u>	79%	<u>21</u> 9

Table 1: Gender Status of TU Graz Personnel and Active Students

(Source: Intellectual Capital Report 2020)¹

¹ <u>https://www.tugraz.at/fileadmin/user_upload/tugrazExternal/02bfe6da-df31-4c20-9e9f-819251ecfd4b/2020_2021/Stk_15/Wissensbilanz_2020.pdf</u>



Actions Taken to Promote Gender, Equality and Diversity at TU Graz

To encourage more women to display interest in the technical sciences and degree programmes, as well as participate in technical research projects, TU Graz promotes the following actions across all career levels:

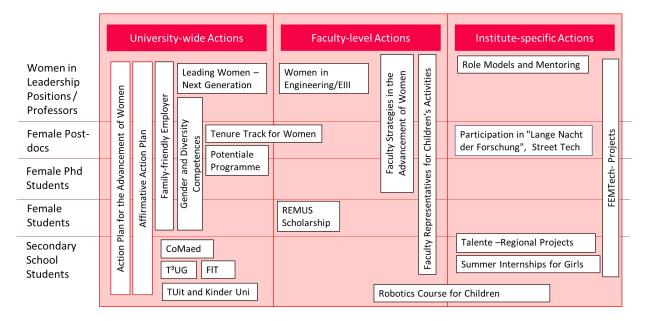


Figure 1. Actions taken to promote gender, equality and diversity at TU Graz

A full list of the actions promoted by TU Graz can be accessed in Annex 1.

An interactive mind map to all the actions with their respective descriptions and text suggestions can also be accessed via this <u>link</u>.

<u>*Tip*</u>: Highlight actions which your institute actively participates.

Supporting documents to aid you in writing your proposal:

Annex 1: Actions that Are Taken to Promote Gender, Equality and Diversity at TU Graz: Actions that Are Taken to Promote Gender, Equality, and Diversity at TU Graz (detailed list)

Annex 2: Practical Tips and Text Suggestions for Integrating Gender and Diversity in Terms of Human Resources: Practical Tips and Text Suggestions for Integrating Gender and Diversity in Terms of Human Resources

Annex 3: Description of the Framework Conditions for Female and Young Researchers – for FWF/FFG Proposals: Description of the Framework Conditions for Female and Young Researchers – for FWF/FFG Proposals

Annex 4: Mind the Gap Winners – TU Graz Diversity Award: List of Previous "Mind the Gap" Winners – TU Graz Diversity Award



Annex 1: Actions that Are Taken to Promote Gender, Equality and Diversity at TU Graz

University-wide Actions

1. Amendment of the University Charter

In accordance with the Universities Act 2002, all Austrian universities have the legal obligation to implement measures to promote equal opportunities and gender equality. This led to the inclusion of action plans to promote gender equality and equal opportunity in the University Charter, which was amended on June 2017.

1.1. <u>Action Plan for the Advancement of Women (in German:</u> <u>Frauenförderungsplan)</u>

The plan contains measures that have been developed to ensure that the university employs an equal number of men and women and that resources and tasks are shared equally. This plan also stipulates that women with equal qualifications are to be given preference.

Link to the Action Plan (in German):

https://www.tugraz.at/fileadmin/public/Studierende und Bedienstete/Satzung und Geschaeftsordnungen der TU Graz/Satzungsteil Frauenfoerderungsplan.pdf

1.2. <u>Affirmative Action Plan (in German: Gleichstellungsplan)</u>

The TU Graz Affirmative Action Plan contains measures to promote equal rights and the work-life balance and to counteract sexual harassment and discrimination in terms of gender, sexual orientation, religion, ethnical background, physical and psychological disabilities and age.

Link to the Action Plan (in German):

https://www.tugraz.at/fileadmin/public/Studierende und Bedienstete/Satzung und Geschaeftsordnungen der TU Graz/Satzungsteil Gleichstellungsplan.pdf

2. Anti-Discrimination

2.1. Involvement of the Office of the Working Group for Equal Opportunities in the Recruitment Process

The office of the Working Group for Equal Opportunities is composed of staff members who are not bound by directives. One of their main tasks is to demonstrate involvement in the staff recruitment procedure and assure that no one is discriminated against during the selection procedure in terms of their gender, race, religion/belief, age, or sexual orientation.

Website: <u>https://www.tugraz.at/tu-graz/organisationsstruktur/vertretungen-der-tu-graz-angehoerigen/arbeitskreis-fuer-gleichbehandlungsfragen/</u>



2.2. Sexual Harassment

Sexual harassment, other forms of harassment and bullying are infringements of personal rights, and TU Graz takes serious measures to counteract these. Awareness campaigns culminated in the publication of a brochure on sexual harassment, developed by AkG, which educates all members (employees and students) on these issues. This brochure is widely available at central offices of TU Graz. Confidential advice and support is offered by the AkG to affected parties, and, if necessary, TU Graz provides financial and organizational assistance for an external counselling service.

Link to the brochure (in German):

https://www.tugraz.at/fileadmin/public/Studierende und Bedienstete/Information/ TU Graz/Arbeitskreis fuer Gleichbehandlungsfragen/Sexuelle Belaestigung Brosch uere.pdf

3. Increasing the Gender Diversity in Science and Technology

3.1. For Women in Leadership Positions

3.1.1. Career Program: Leading Women – Next Generation

The aim of the "Leading Women" programme is to provide support for qualified female candidates (tenure track and postdoctoral lecture qualification (in German: the *Habilitation*)) during their preparation to fill future leadership positions (as vice rectors, deans, etc.) at TU Graz. The three-year management training program offers leadership workshops, individual coaching sessions and mentoring by female leaders. The share of women in university management tripled after a successful pilot project of the "Leading Women Career Programme" was carried out from 2014–2016.

3.1.2. Tenure Track Positions for Women

TU Graz advertises tenure track positions specifically for women to attract qualified female candidates. A tenure track position is a "post-doc" position that offers the possibility of further academic progression. Since its establishment, a total of 31 positions have been conferred, which increased the percentage of female associate professors from 11.7% to 30%².

<u>Tip</u>: More detailed information can be added to this text by mentioning the existing professorships for women in your own faculty and whether these are available or planned at your own institute (or also awarded by the programmes).

²<u>https://www.tugraz.at/fileadmin/public/Studierende_und_Bedienstete/Information/TU_Graz/Wissenbilanzen/Wissensbi</u>



3.2. For Postdoctoral and Postgraduate Students: Potential Programme

This programme offers continuing education for female academicians in cooperation with other universities (Potential Programme, in cooperation with Uni Graz). The topics range from self-organization skills to strategic career planning and are organized by the <u>BGF</u>. An updated calendar of events including the mentioned programme and further workshops to promote equal opportunities can be found at: https://koordination-gender.uni-graz.at/de/gleichstellung0/

3.3. Programmes for Recruiting New Students

Recruiting suitable students, and especially female students, is an increasingly important topic that begins long before the student graduate complete their secondary education and actually choose their studies. At TU Graz, extensive programmes have been developed that cater to new, potential students and specially target young women. These include:

- <u>CoMaed</u> courses: Comprises seven (7) different computer courses for young women aged 10 to 18 during the summer vacations.
- T³UG programme: Offered every summer up to 80 young women aged 15 and older, giving them the opportunity to get a taste of technology and gain insights into how research is carried out at an institute as part of an internship.
- <u>FIT Fem in Tech</u> (Women in Technology): Provides advice to young women at the FIT Info Day event on how to choose a degree programme and encourages prospective female students to enter a technical or scientific degree programme. Support is provided by the FIT ambassadors, who act as role models.
- <u>KinderUni</u> Graz (joint project of all Graz universities and colleges) and the <u>TUit</u> <u>Workshops:</u> Offers children and students (kindergarten to secondary school) initial insights into natural sciences and technology. No gender segregation specifically applies here, especially since the offers are provided to kindergarten and school classes. This has the advantage that the social dimension is taken into account, as the offers are open to all types of kindergarten and schools.

Other programmes offered for children by TU Graz are not gender-specific but Poten for all participants, placing a special focus on participants with an immigration background. A list can be found here: <u>https://www.tugraz.at/tu-graz/services/angebote-fuer-kinder-und-jugendliche/</u>

<u>*Tip*</u>: More detailed information about each program can be provided by describing specific activities in which your institute is actively involved.



3.4. Programmes for Alumnae

3.4.1. Alumni Network WomenUniverse

WomenUniverse is a forum established in 2020 by alumniTUGraz that serves as a communication channel for female graduates, female students and all women who are interested in exploring the connection between science and business. This forum establishes a support group that enables participants to share inspiration and experiences, discuss career options and interact and network with one another.

Website: <u>http://alumni.tugraz.at/womenuniverse</u>

3.4.2. Women in Engineering

The local Graz community of female engineers provides support for career development and social networking among local women in engineering. TU Graz and representative Styrian high-tech companies (AMS, Infineon, NXP) are the core team members and support the group by organizing events and promoting exchanges. An annual event is held on June 23 each year to celebrate International Women in Engineering Day.

Website: https://www.tugraz.at/events/wie/home/

4. TU Graz as a Family-friendly Employer

TU Graz continually strives to improve the work-life balance of its students and staff by offering various services and infrastructure including childcare, parental leave and care for sick children. These efforts resulted in TU Graz being given the distinction as one of the "most family-friendly enterprises in Styria" in 2018.

• <u>nanoversity</u>

The childcare facility is a state-run nursery and kindergarten facility that is accessible to the children of students and employees, located on the Inffeld Campus. The facility focuses on "Natural Science and Technology" and "Gender and Diversity". Girls and boys should be able to develop in an environment free of traditional role stereotypes and receive the same opportunities. Children can express and explore their interests and disinterests, strengths and weaknesses.

Flexible childcare is offered in the same facility, whereby children of TU Graz staff are looked after on an hourly basis (max. 20h/week) or on a weekly basis during the summer.

<u>Returning to Work after Parental Leave</u>

To improve the planning of parental leave and re-entry after parental leave, TU Graz has offered the two-day workshop "How to Combine Parenthood with a Career" since 2020. TU Graz especially promotes paternity leave and the *Papamonat* (one-month leave following the birth of a child) to promote gender equality.



• Care of Relatives

Information on the topic is provided in a brochure, counselling sessions, lectures and workshops. TU Graz has offered its own virtual care roundtable discussion group since 2021.

5. Promotion of Gender and Diversity Competences

5.1. Building Gender and Diversity Competences

The integration of diversity into the universities core functions of teaching and research (Strategy IDuK) was a strategy developed overall to create an inclusive organization. Gender- and diversity-competent actions, teaching, research and management should become part of the TU Graz culture. The strategy is anchored in the TU Graz Development and Equality Plan and the corresponding recommendations for actions issued at the *Österreichische Universitätenkonferenz* (uniko) are also implemented.

The following actions have been developed for this purpose at TU Graz:

5.1.1. Support for Researchers

Support is provided for researchers that helps them to improve the innovation potential of their research by taking gender and diversity into account. The Office for Gender Equality and Equal Opportunity has published a handbook entitled *Taking Diversity in Research Projects into Account. How to Make It Work*, which serves as a guide in integrating aspects of diversity in research projects. The publication provides concrete examples from various scientific disciplines and suggestions on how these examples can be translated into practice. A supplementary online course is available at the TU Graz Teach Center.

The English version of the handbook is available online: <u>https://www.tugraz.at/fileadmin/user_upload/tugrazInternal/TU_Graz/Universita</u> et/Diversity/HandbuchForschung/Handbook_Diversity_Research_EN.pdf

Link to the online course at the Teach Center (in German): <u>https://tc.tugraz.at/main/course/view.php?id=1932</u>

5.1.2. Support for Teachers

Students have diverse talents, but also different backgrounds, language skills and educational experiences. The checklist with key questions on diversity that is provided in the classroom (in German: *Checkliste zur Diversität in der Lehre*) offers teachers an opportunity for reflection and shows how student diversity can enrich the learning environment. In addition to providing specific suggestions on how to offer varied didactic instructions, the checklist also includes the names of TU Graz contact persons and an overview of additional materials. The checklist has also



been prepared and supplemented with examples of teachers' experiences at TU Graz and is freely accessible in the Teach Center of TU Graz (currently only in German).

Link to the checklist:

https://tu4u.tugraz.at/fileadmin/public/Studierende und Bedienstete/Anleitung en/Diversitaet Lehre Checkliste 170420.pdf

Link to the online course in Teach Center: https://tc.tugraz.at/main/course/view.php?id=1904

5.1.3. Courses for Scientists

TU Graz offers a comprehensive course for researchers and teachers (six (6) modules over two (2) days) on the theoretical principles of "Gender and Diversity" and promotes the following skills:

- Recognizing possible gender and diversity aspects in one's own field of research and formulating gender and diversity aspects in research proposals.
- Designing study-centred, gender- and diversity-conscious teaching
- Gender- and diversity-conscious personnel selection, team leadership and team collaboration
- Ethical aspects of technology design

The course concludes with an informal paper to ensure the transfer of practice. Scientists in career positions can have the course credited towards fulfilling their qualification requirements. The certificate can be attached to research proposals as proof of gender and diversity competence.

Website: <u>https://www.tugraz.at/tu-graz/universitaet/leitziele-und-</u> schwerpunkte/diversitaet/diversitaet/#c234565

<u>Tip</u>: Highlight the gender and diversity competence of your institute/team members or of the applicant by mentioning their participation in this course or by attaching the certificate to research proposals as proof of gender and diversity competence.

5.1.4. Lecture Series "Diversity in the Center of Research" (in German: "Vielfalt im Zentrum der Forschung")

Each summer semester, lecturers from all faculties provide insight into the developments, findings and applications of diversity aspects in science and technology at TU Graz. In addition, interested TU Graz members can also attend the individual lectures.



A list of the lectures in the updated lecture series is available here: <u>https://www.tugraz.at/tu-graz/universitaet/leitziele-und-</u> <u>schwerpunkte/diversitaet/diversitaet/#c369129</u>

<u>*Tip*</u>: Highlight the lectures that your faculty/institute offers.

5.2. <u>Diversity Award "Mind the Gap"</u>

TU Graz promotes the scientific discussion of the human factor in technology and natural sciences by sponsoring the "Mind the Gap" diversity award. The annual call for proposals is made on the occasion of the International Women's Day on March 8th. TU Graz aims to promote initiatives in this direction and increase their visibility. The five best entries are selected in a jury session and awarded a cash prize of € 750 to 1,500 (for teams). Both students and employees of TU Graz may enter the competition.

Link to the call: <u>https://tu4u.tugraz.at/en/students/my-current-study-</u> programme/diversity-at-tu-graz/mind-the-gap-prize-for-gender-and-diversity/

<u>*Tip:</u> Highlight awards previously won by students or staff members from your respective institute or research field.*</u>



Actions on the Faculty Level

6. Faculty Strategies in the Advancement of Women

The coordination of all initiatives in promoting gender, equality and diversity at TU Graz is centrally managed by the Office for Gender Equality and Equal Opportunity. In addition, each faculty has an appointed representative for the creation and organization of programs catering young people. Inter-faculty exchanges among the appointed representatives, together with the BGF, take place twice per semester.

The following is a non-exhaustive list of initiatives implemented by each faculty:

6.1. Architecture

The faculty has a dedicated contact person for children and youth activities. In 2017 and 2020, students of the faculty were each awarded a "Mind the Gap" award for addressing diversity aspects in their master's theses.

6.2. <u>Civil Engineering Sciences</u>

The faculty has a dedicated contact person for children and youth activities.

6.3. Mechanical Engineering and Economic Sciences

The faculty has a dedicated contact person for children and youth activities and is actively involved in the Talente Regional programme, which supports projects that enable children and young people to engage with research, technology and innovation (RTI) in the fields of science and technology over a longer period of time. Link to the Talente Regional (FFG website): <u>https://www.ffg.at/talente-regional</u>

The faculty is also actively involved in the acquisition of FEMtech projects with a focus on gender-relevant aspects (e.g. GenIAL – Gender Issues in Augmented Learning), and research questions related to passenger safety and assistance systems, to name a few.

Link to GenIAL project overview: <u>https://graz.pure.elsevier.com/en/projects/genial-gender-issues-in-augmented-learning</u>

To promote excellence for female bachelor's and master's degree students, the faculty collaborates with REMUS to award five scholarships to talented and motivated female students in the field of mechanical engineering for a maximum period of two years and to offers a possibility of an internship at the company.

Link to information about the REMUS scholarship: <u>https://www.tugraz.at/studium/studieren-an-der-tu-</u> <u>graz/studieninteressierte/finanzielles/stipendien-fuer-studierende/remus-</u> <u>stipendien/</u>



Students and researchers were recognized with the "Mind the Gap" award in 2017, 2018, 2019 and 2020 for their exemplary exploration and integration of diversity in research projects and theses.

6.4. <u>Electrical and Information Engineering</u>

The faculty has a dedicated contact person for children and youth activities and is actively involved in funded research projects (Talente Regional, FFG) developed to bring electrical engineering closer to young children aged 9–14. Within the framework of this project, young students (with a focus on those with migrant backgrounds) are given insights into the field of electrical engineering and information technology using practical, child-friendly experiments.

Link to the "Fridolin auf Touren" Project: <u>https://open4innovation.at/de/projekte/talente-regional/fridolin-auf-touren.php</u>

In 2018, one faculty member was awarded the "Mind the Gap" award for their exemplary integration of diversity aspects in a course.

6.5. <u>Mathematics, Physics and Geodesy</u>

To increase the number of incoming female students and retain them during the duration of their studies, as well as support them in pursuing a career in their respective fields, the faculty developed a comprehensive strategy at the beginning of 2021. The aim is also to increase diversity within the target groups as a whole. The contact person for details is the dean of the faculty.

The faculty has three (3) dedicated contact persons for children and youth activities, one for each of the research fields: mathematics, physics and geomatics engineering. Several initiatives and projects are offered in the form of online learning materials, toys and developed apps.

Link to the "Gehirnzentrale" Project: <u>https://open4innovation.at/de/projekte/talente-regional/gehirnzentrale.php</u>

Link to "Geometriekoffer": <u>http://www.geometrie.tugraz.at/gig/</u>

Link to Math Learning apps: <u>https://schule.learninglab.tugraz.at/math</u>

6.6. <u>Technical Chemistry, Chemical and Process Engineering, Biotechnology</u> Various activities are carried out by the faculty to strengthen the connections between female students and young female scientists. Such activities include the mentoring program for female students and the participation in the Global Women's Breakfast, which is organized annually by IUPAC.

The faculty has a dedicated contact person for children and youth activities, and the institutes are actively involved in funded research projects (Talente Regional,



Sparkling Science) which have been developed to engage school children in STEM activities. One of the projects from Institute of Environmental Biotechnology, "Apple Microbiome", received the "Mind the Gap" award in 2020.

Links to projects in which the faculty is currently involved:

Apple Microbiome: <u>https://www.sparklingscience.at/en/projects/show.html?--</u> <u>typo3_neos_nodetypes-page[id]=996</u>

RCPE: <u>https://open4innovation.at/de/projekte/talente-regional/ffg-at-rcpe.php</u> Enzyme im Alltag: <u>https://open4innovation.at/de/projekte/talente-regional/enzyme-im-alltag.php</u>

Medikament im Fokus: <u>https://open4innovation.at/de/projekte/talente-regional/medikamente-im-fokus.php</u>

Nawitech RCPE: <u>https://open4innovation.at/de/projekte/talente-regional/nawitech-rcpe.php</u>

Unseen: https://open4innovation.at/de/projekte/talente-regional/unseen.php

6.7. <u>Computer Science and Biomedical Engineering</u>

CS Talks is a lecture series hosted by the faculty to which internationally successful female scientists in the field of computer science are invited. The working group Women in CS implements initiatives designed to attract more female students by facilitating workshops on gender-related topics.

Link to CS talks: https://www.tugraz.at/fakultaeten/csbme/news/events/cs-talks/

The faculty has a dedicated contact person for children and youth activities and is actively involved in the Robotics Club and a girls' coding week.

Link to Robotics Club: <u>https://kinderbuero.at/neuigkeit/robotik-forschungswoche-</u> fuer-kids-2021/

Link to the girls' coding week: <u>https://www.tugraz.at/sites/comaed/kurse/girls-</u> coding-week/

The FEMtech project "Code'n Stitch" hosted by the Institute of Software Technology received the "Mind the Gap" award in 2020. The programme was developed to show girls new ways of using technology by learning how to program and code. It also helps boys to get inspired in the digital design process by encouraging them to take part in the handicraft lessons.

Link to information about "Code'n'Stitch": <u>https://codenstitch.wordpress.com/</u>

Female students and researchers at the faculty were recognized with a "Mind the Gap" award in 2017, 2018, 2019 and 2020 for their exemplary engagement and the integration of diversity in their courses, publications, research projects and theses.



Institute-specific Actions with Text Suggestions

7. Institute-specific Actions

The proportion of women at the institute is ## % and is above average as compared to the proportion in the *faculty/university/...*

Furthermore, *Prof. /Dr.* ______ at the *Institute name* is one of 31 women holding a tenure track position for women at TU Graz. *Prof./Dr.*_____ will not only take on the role as one of the key researchers in the project, but will also act as a role model to help attract female students to the project.

In order to attract more female students (for master's theses and PhD positions) to the project \underline{xx} all scientific partners at TU Graz will use the expertise of their female staff to spark the interest of candidates in the research field, and especially female candidates. Female researchers will act as role models for potential future female employees, showing them the different career opportunities for women in this research field. As role models, they will also be involved in the recruitment process to encourage and motivate more female applicants to join the project team.

Other activities at the institute in the area of promoting women and young researchers that can be cited include:

- Participation in open science initiatives (Lange Nacht der Forschung, Science Days).
- Participation in the programme "FIT Fem in Tech" (formerly "Frauen in die Technik")
- Participation in events organized by the KinderUni Graz
- Implementation of projects with a gender focus (e.g. FEMTech projects from the FFG)
- Implementation of projects for and with students (e.g. Talente Regional, Sparkling Science)
- Supervision of interns at the institute (Talente-Praktika, T3UG...)
- Active promotion of parental/paternal leaves of absence
- Winning of "Mind the Gap" award
- Participation in the course "Gender and Diversity Competences for Scientists"

<u>Sample text:</u> The <u>(Research Group name/Institute name)</u> at TU Graz regularly participates in the program "Fem in Tech (FIT)" to familiarize potential female candidates with the research activities and spark their interest in exciting projects.



Annex 2: Practical Tips and Text Suggestions for Integrating Gender and Diversity in Terms of Human Resources

The <u>(Research Group name/Institute name)*</u> is made up of ## women and ## men, representing a higher female to male ratio as compared to the <u>(faculty's/university's)</u>* average.

*choose which alternative would provide a better outlook on the current gender status

The recruitment for the *project xx* will be monitored while considering the goal of equal gender hiring for research (and for technical) positions.

<u>*Tip*</u>: Highlight the following aspects as appropriate: Gender balance in decision-making roles or whether both males and females will share leading roles.

To rectify the gender imbalance, the *project xx* will contribute to the initiatives offered by the *(consortium/institute/faculty/university)** through... *(initiatives/actions)*.

As female <u>(scientists/engineers/architects, etc.)*</u> are clearly underrepresented in the <u>(research field/management level)*</u>, a particular objective of <u>project xx</u> is to promote gender equality by... <u>(initiatives/actions)</u>.

To ensure a proper consideration of gender equality in recruitment and decision-making, the <u>(consortium/project)*</u> appoints <u>Prof. xx</u> as the gender responsible person<u>/s</u>. This person will identify any gender barriers in training and supervision and counteract these by taking appropriate measures.

<u>*Prof./Dr. XX*</u> is one of the principal investigators, who will serve as the gender responsible person for the <u>project xx</u> and strive to serve as a role model for potential female candidates.

<u>Project xx</u> has been developed to achieve a balanced gender mixture in the future leadership of the xx field by prioritizing female researchers during the recruitment process.

The *faculty of XX* has a certified gender expert who will assist in the gender mainstreaming of the project.

<u>*Tip*</u>: Gender aspects should be visibly integrated throughout the whole proposal and not only in the gender section of the proposal.



For Horizon Europe proposals: At the evaluation stage, a gender balance in staff is one of the ranking factors that comes into play to prioritize the proposals that exceed the threshold with same scores. When it is used, evaluators need to compare the proportion of men and women in the personnel named in the proposals, and they will rank the proposal higher when the proportion is closer to 50/50.³

³ <u>https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/gender_en.htm</u>



Annex 3: Description of the Framework Conditions for Female and Young Researchers – for FWF/FFG Proposals

The following text module provides an overall outlook on the general gender strategies taken by TU Graz. The initiatives mentioned in the text module can be customized to more effectively present the faculty or project proposal.

The overall equality and diversity strategy of TU Graz, as stipulated by the Rectorate and documented in the *Frauenförderungsplan*, influences the position of women in every stage of their career.

Specific attention is paid to the hiring process in terms of attracting more female researchers, and female applicants are preferred in the case of equivalent qualifications. The compulsory integration of a representative of the TU Graz Office for Gender Equality and Equal Opportunity within the hiring process additionally ensures the promotion of female employees within the project. To further enhance the number of female applicants, TU Graz (*or the project/department/CRC*) uses its international networks to advertise all scientific positions.

To attract internal female students (for master's thesis and PhD positions) to work for *the project/department/CRC*, all scientific partners at TU Graz utilize the expertise of their female researchers to exert a positive influence on and mentor potential female candidates. Female researchers act as role models to show these candidates the different career opportunities for women in this research field. These role models are also involved in the hiring process, so that more female applicants will be encouraged and motivated to join the project team.

To attract female researchers to work within the project, the consortium encourages female researchers to participate in the strategic career planning programme for female PhD candidates in the first phase of their academic career. Female researchers who are obtaining their postgraduate certificate in higher education (in German: the *Habilitation*) at *project/department/CRC* are encouraged to actively participate in the regular meetings for habilitated women at TU Graz. These meetings provide an avenue to establish an interdisciplinary network and share experiences.

For women in leadership positions, the first career management project in Austria for female scientists "Leading Women" was initiated.

TU Graz was distinguished as "Most Family-friendly Businesses in Styria" in 2017 by providing its employees a balanced work-life environment. TU Graz has a kindergarten and nursery on its campus, which are open the whole year without summer breaks.

However, due to the rather low population of female students in technical studies in Austria and at TU Graz, it is necessary to spark the curiosity of children and young people at an early stage and present the science and technology in attractive ways. To attract female students, TU Graz offers specific formats and events such as FIT (*Frauen in die Technik*), where young



women can get more information on how to pursue their career aspirations and opportunities in the STEM field, as well as on campus life at TU Graz.

Annex 4: Mind the Gap Winners – TU Graz Diversity Award

2019

Elma Sadaj (Production Science and Management)

Sadaj developed a learning factory for logistics services which included participants of different ages and sexes in a participatory way. Her thesis should contribute to the more practice-oriented training and further education of customers and employees in the logistics sector.

Robert Gaugi (Institute of Electricity Economics and Energy Innovation (IEE))

Gaugl earned merit for the gender-neutral formulation of the content of the institute's website and was committed to ensuring barrier-free access to the IEE website, especially for people with visual impairments.

Sadegh Arefnezhad (Institute of Automotive Engineering)

In a publication included in his doctoral thesis, the doctoral student described his "WACHsens" study, the aim of which is to identify the fatigue levels of motorists. For the study, 90 subjects were intentionally selected according to gender and age. Ultimately, the research work should serve to extend the binary scale "tired / awake".

Sascha Rossman (Registration Office)

Stimulated by his work at the Austrian Students' Union and the Registration Office, Rossmann looked at the influence of origin, gender and family on mental health and academic success. He developed a workshop concept to train students as contact persons.

<u>Project Team of "GenIAL" (Institute of Mechanics, Institute of Mechanical Engineering and</u> <u>Business Informatics)</u>

Reinhard Braunstingl and his team, consisting of Ioana Koglbauer, Birgit Mösl, Harald Schaffernak and Wolfgang Vorraber, identified gender-specific weaknesses and strengths in flight training. In a subsequent project, the researchers will design gender-conscious teaching methods using augmented reality technologies.



2020 Project: Code'n'Stitch

In the "Code'n'Stitch" project, young women expanded a programming learning app to include the option of programming an embroidery machine as part of a two-year FEMtech project with support from the Austrian Research Promotion Agency (FFG). The learning task aims to get more young women – but also young men who are enthusiastic about embroidery –interested in technology. An advertisement-free app with open access was launched to accompany the project.

Project team: Sarina Gursch, Vesna Krnjic and Wolfgang Slany from the Institute of Software Technology

Project: Mikrobielle Vielfalt - das Apfelmikrobiom

In the Sparkling Science project "Mikrobielle Vielfalt - das Apfelmikrobiom", young people with different educational backgrounds investigated the microbial diversity of apples together with researchers and artists. The results were published, jointly transferred into art projects and exhibited in the Haus der Wissenschaften in Graz and the Graz Botanical Garden.

Project team: Daria Rybakova, Gabriele Berg, Birgit Wassermann and Timothy Mark from the Institute of Environmental Biotechnology.

Conference paper: Digitalization and (Global) Equity: Who Benefits, Who Loses?

Nicki Lisa Cole investigated global distributional (in)justice using the example of supply chains for electronics. She investigated who produces for whom and under what circumstances, as well as the extent to which the companies involved fulfil their promises of social responsibility. This is a hot topic in view of the increasing digitalization and use of electronic devices. Cole approached the topic from the perspective of ethnicity.

Nicki Lisa Cole is from the Institute for Interactive Systems and Data science / STS Unit

<u>Conference paper: Gender Gap? A Snapshot of a Bachelor Computer Science Course at TU</u> <u>Graz</u>

In his block course "Programming O", Christian Schindler investigated whether female students suffer from disadvantages due to their previous school education and their self-assessments, as well as how these differences affect grades in the course. The starting point was the fact that young women still choose to study computer science much less frequently as compared to other degree programmes such as architecture.

Christian Schindler is from the Institute of Software Technology



Dissertation: Counteracting Demographic Challenges in Industrial Blue Collar Work

In his dissertation, Matthias Wolf dealt with the design of physical work for the group of workers that is getting older on average. Especially when performing physically demanding work, complaints such as musculoskeletal disorders occur up to ten times more frequently in older workers. Wolf showed that people's ability to work can be prolonged and that they can be more productive if the challenges for and demands of older workers are empirically surveyed and considered at an early stage.

Matthias Wolf is from the Institute for Innovation and Industrial Management (Mechanical Engineering)

Master's Thesis Portrait of the Bauer. On Architecture and Agronomy of Property

In his master's thesis, Philipp Sattler shows where a lack of diversity and discrimination can lead when they are structurally and legally anchored. To do so, he examines the principle of the (hereditary) peasant and his or her legal and rhetorical conception. In his work, he proves this conception to be the basis of a blood-and-soil ideology and a new class. He shows how it continues to shape property relations in Austria to this day and, in particular, promoted the establishment of concentration camps during the National Socialist era.

Philipp Sattler is from the Institute for Contemporary Art