

Gender Equality Plan 2020 - 2023

The potential of women to increase and secure productivity and innovative strength in science and research is indispensable. ¹.

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Potsdam, September 3rd, 2020



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¹ Adapted by analogy from: Science Council. Five Years Offensive for Equal Opportunities for Scientists and Academics - Stocktaking and Recommendations; (Drs. 2218-12), May 2012 - online: [https://www.wissenschaftsrat.de/download/archiv/2218-12.pdf? blob=publicationFile&v=3](https://www.wissenschaftsrat.de/download/archiv/2218-12.pdf?blob=publicationFile&v=3) (p. 5)

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Preamble

The ATB accepts its responsibility towards people, society, and nature. Its research is committed to the principles of sustainability. The institute assumes responsibility towards all people and cultivates an open approach characterized by respect, solidarity, integration, and equity. Equal opportunities for all employees is a living culture at the institute. The ATB promotes the careers of people of all genders and their participation in the scientific life to the same extent. Mutual respect and honest appreciation of the diverse achievements of all employees enable the ATB to ensure appropriate and beneficial interaction and cooperation.

The ATB is committed to an institute culture that values the professional, family, and social responsibilities of all employees and particularly promotes the reconciliation of work and family life.

The institute takes into account the diversity of its personnel. As a cosmopolitan institute, the ATB welcomes employees from all countries and cultures, with their diverse experiences and biographies. They enrich the scientific community and create a productive institute atmosphere: Diversity is encouraged and supported at the ATB.

Based on the duties of the Equal Opportunities Officers, the concept of equal opportunities is presented here in the form of the Gender Equality Plan. The focus is on achieving equality between men and women in accordance with the legally defined tasks of the equal opportunities officers, the elimination of existing disadvantages based on gender - especially disadvantages for women, the prevention of future disadvantages, as well as the improvement of a family-friendly working environment, i.e. the compatibility of family, including care tasks, and professional activity for women and men.

1. Introduction

The Leibniz-Institut für Agrartechnik und Bioökonomie e.V. (Leibniz Institute for Agricultural Engineering and Bioeconomy, ATB) has made gender equality a central concern and in particular has set itself the goal of continuously and expeditiously increasing the proportion of women in management positions.

The ATB supports all employees with family responsibilities equally through various offers which make it possible to combine work and family life. As a Leibniz Institute, the ATB is committed to the equal opportunity goals of the Leibniz Association and is supported in its efforts by the Association through various instruments. **The objectives of the Leibniz equality standards are based on the 'cascade model', i.e. at each level of the academic career the proportion of women should be reached that already exists at the level below.** The ATB's Gender Equality Plan (GEP) 2020-2023, which is presented here, contains all goals and measures to achieve the research-oriented gender equality.

2. Assessment of the human resource structure, gender statistics, and support measures – the current situation

2.1. Number of employees

The assessment of the human resources structure at the ATB ensues according to the German Federal Equality Act (§13 BGlG) and the State Equality Act of Brandenburg (§6 para. 2 LGG Brandenburg).

Accordingly, the assessment includes gender-specific information on the:

- Number of full-time and part-time employees,
- Number of employees according to their level of education (apprenticeship, academic degree, i.e. bachelor, master, diploma, doctorates, and habilitation),
- Number of recruitments, and
- Number of employees taken over into permanent employment contracts.

This information is presented separately for the different pay groups according to the collective labor agreement for the civil service of the states (Tarifvertrag des öffentlichen Dienstes der Länder, TV-L) as well as non-tariff employees. The figures are further differentiated by employees financed by the core budget and by third-party funding (**Figure 1 A and B**). Special consideration is also given to the current and completed academic qualification projects (doctorate, habilitation). The evaluation is based on the German Federal Equality Act (§3 para. 10 BGlG) which states: "Women or men are underrepresented, if their respective proportion in the respective division of the employment structure lies below 50 %".

2.2. Scientific personnel – Classification into pay groups and levels

According to the cascade model of the "Research-Oriented Gender Equality Standards", the current proportion of women in a specific **pay group** of academic personnel within the ATB should be taken as the starting point for setting a flexible target rate for the next higher pay group. The basis is the intra-organizational number of employees.

Furthermore, in order to ensure uniform reporting by the ATB within the framework of the data collection of the Leibniz Association for the Pact for Research and Innovation, the target rates for the pay grades are itemized into the following **pay groups**:

- Group 1: E12/E13
- Group 2: E14
- Group 3: E15/W1
- Group 4: W2
- Group 5: W3

The target rates for management levels are queried for the following **levels**:

- Level 1: institute director
- Level 2: heads of department incl. leaders of independent junior research groups
- Level 3: group leaders (working groups, research groups and junior research groups within the departments)

2.3. Number of full-time and part-time employees – 2016 until 2019

2.3.1. Number of employees

Looking at the Leibniz Association overall (**Table 1**), women and men are represented in approximately equal proportions, including the doctoral candidates. In the higher academic qualification levels, especially at the level of management positions, the proportion of women in academic personnel is low compared to the other categories, reaching only 31.2% in 2018. However, an upward trend can be observed with a 3.9% increase compared to the previous triennium. The employment structure of the ATB is comparable to that of the Leibniz Association. The proportion of women and men in the total number of employees has changed only marginally in recent years as well as the number of employees has remained almost the same. The percentage distribution of women and men in general is approximately equal (**Table 1**), but in particular employee groups it is still unequal, e.g. the proportion of female doctoral researchers is slightly declining. However, at the ATB, a higher proportion of women works in management positions compared with the whole Leibniz Association. Nevertheless, the proportion of women in the higher scientific qualification levels is lower compared to that of the entire scientific staff.

The ATB is a non-university research institution of the Leibniz Association, whose internationally oriented research aims at a sustainable intensification of bioeconomic production systems. In order to implement and secure its research work, the ATB receives joint basic funding at an equal share from the Federal Government of Germany and the State of Brandenburg. In addition to this basic funding, third-party funds are acquired and used. The fundamental financing concept for research is reflected in the employment structure: Over the last four years there has been a stabilization of the number of employees financed by the core budget of the ATB, with an average of 144 ± 6^2 employees and an almost balanced ratio of women (52%) and men (48%) (**Figure 1A, Table A1** in the appendix). In contrast, there are employees whose financing is guaranteed by third-party funding. The majority of the employees financed by third-party funding are scientific personnel. The average percentage distribution of women ($50 \pm 5\%$) and men ($50 \pm 5\%$) is balanced in the period from 2016 until 2019 (**Figure 1A, Figure 1B and Table A1**). The **figure 1B** can be itemized with regard to pay groups 3 & 4

² Without trainees

(pay grade EG 15 and joint appointed professors), which overall also represents the management level 2 (heads of department including leaders of independent junior research groups). The proportion of female employees is significantly lower here. However, since 2016, there has only been one vacancy at ATB for which no sufficiently qualified woman had applied.

Table 1: Leibniz Association and ATB in figures from 2016 until 2019 with particular regard to the proportion of women in the human resource structure

Leibniz in figures³	2016	2017	2018	2019
Institutions	88	91	93	95
Employees	18.668	19.141	19.723	20.592
Share of women (in proportion to total staff in %)	53,8%	53,7%	53,3%	53,1%
Share of scientists (in proportion to total staff in %)	50,8%	51,6%	53%	55,9%
Proportion of women				
Share of women in academic staff (in %)	44,4%	43,0%	44,1%	45,7%
Share of women in scientific leadership positions (in %)	30,5%	31,2%	31,2%	31,7%
Share of women among doctoral candidates (in %)	47,4%	48,9%	46,9%	48,5%
ATB in figures	2016	2017	2018	2019 [#]
Employees	206	199	207	211
Share of women (in proportion to total staff in %)	52%	51%	53%	51%
Share of scientists (in proportion to total staff in %)	43%	42%	47%	48%
Proportion of women				
Share of women in academic staff (in %)	50%	43%	49%	44%
Share of women in scientific leadership positions (in %)	40%	36%	40%	33%
Share of women among doctoral candidates (in %)	61%	63%	52%	44%
Share of women in postdoctoral positions (in%)	30%	26%	29%	28%

[#] Data on the cutoff date June 30th, 2019

³ Source of Leibniz figures (last accessed on May 28th, 2020): <https://www.leibniz-gemeinschaft.de/en/about-us/organisation/leibniz-in-figures.html>

The management level 3 (leaders of groups – working groups, research groups and junior research groups within the departments) was introduced at the ATB in 2020 and can therefore not be considered for the period until 2019. This newly established management level cannot be assigned to specific pay grades and pay groups at the ATB, as the pay grades of group leaders cover a range from E11 to "joint appointment".

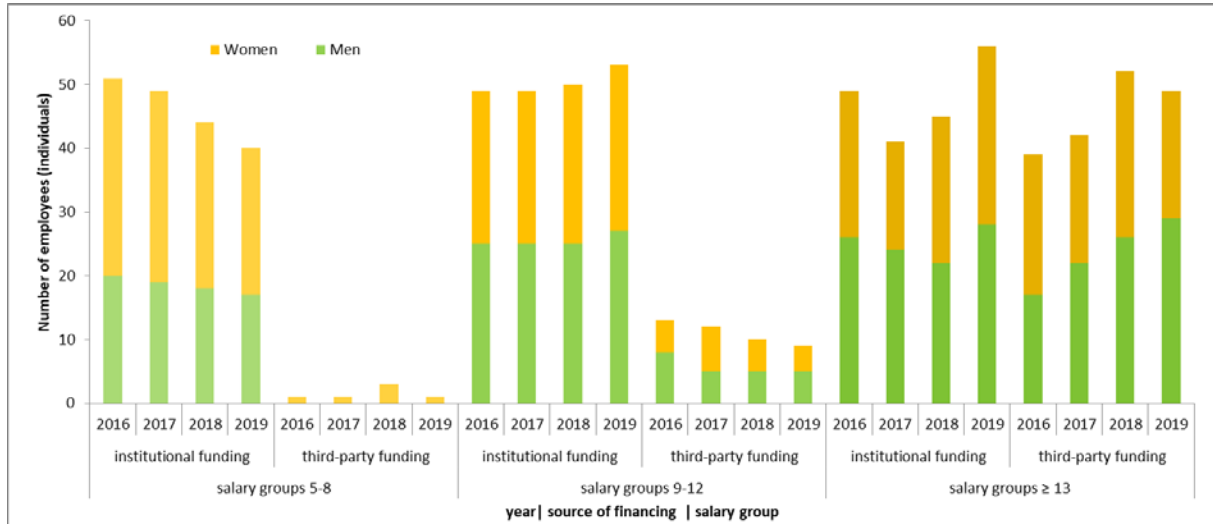


Figure 1A: Gender-specific data of the total staff with regard to the development of employment itemized by financing source as well as salary groups E5-8, E9-12 and ≥E13 (2016-2019, until cutoff date: June 30th, 2019)

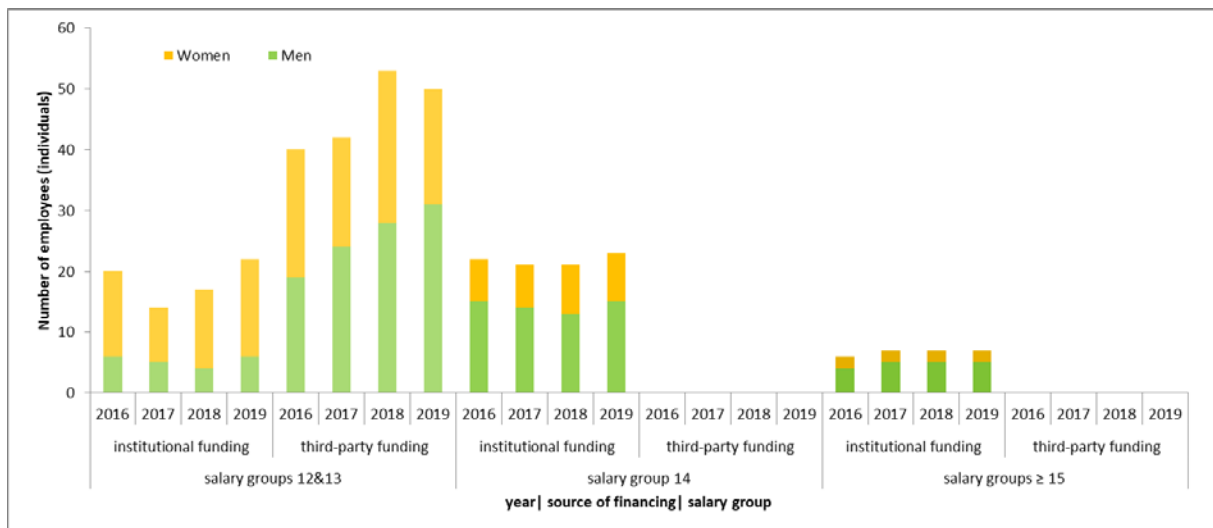


Figure 1B: Gender-specific data of scientific staff regarding the development of employment itemized by financing source as well as salary groups E12 & 13, E14 and ≥ E15 (2016 to 2019, until cutoff date: June 30th, 2019)

Regardless of the financing source, the ATB's personnel structure can be divided into science supporting personnel (centralized and decentralized) and scientific personnel. The centralized science supporting personnel (22 ± 1% of the personnel, thereof 64 ± 2% women and 36 ± 2% men; Table A2 in the appendix) includes employees of the science management unit (among others research promotion and coordination, press and public relations, technology transfer), the research site Marquardt and the administration (among others human resources, finance and controlling, IT, central workshop, real estate, library). The decentralized science supporting personnel (33 ± 1% of the personnel, 50 ± 2% women and 50 ± 2% men; Table A2 in the appendix) includes technical personnel that supports the scientists in the planning, implementation, and evaluation of experiments.

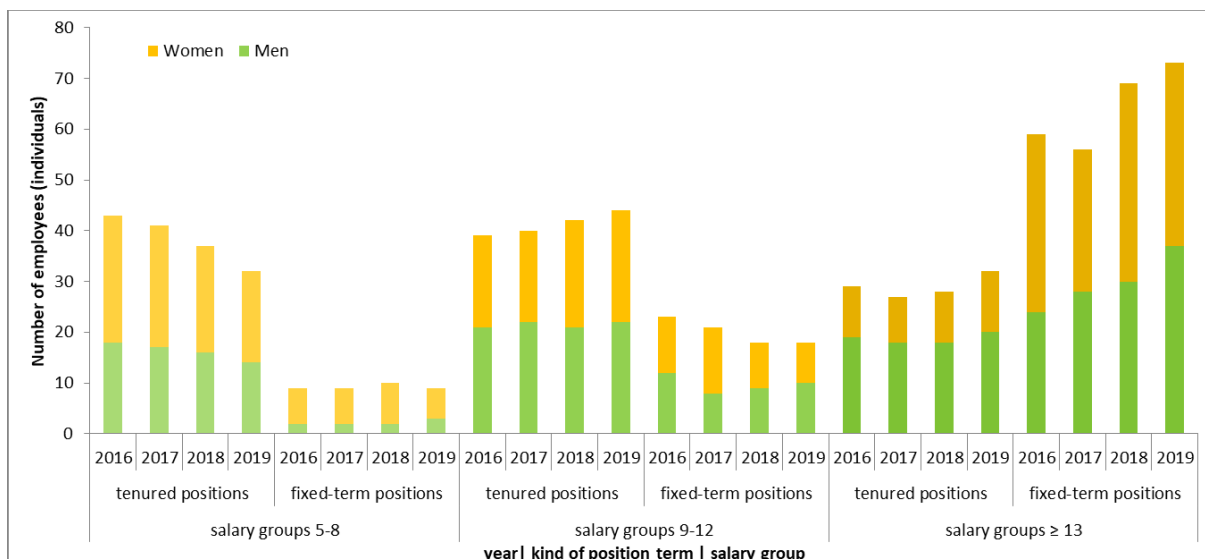


Figure 2A: Gender-specific data of the total staff with regard to the development of employment itemized by contract type (fixed-term and permanent) as well as salary groups E5-8, E9-12 and ≥E13 (2016-2019, until cutoff date: June 30th, 2019)

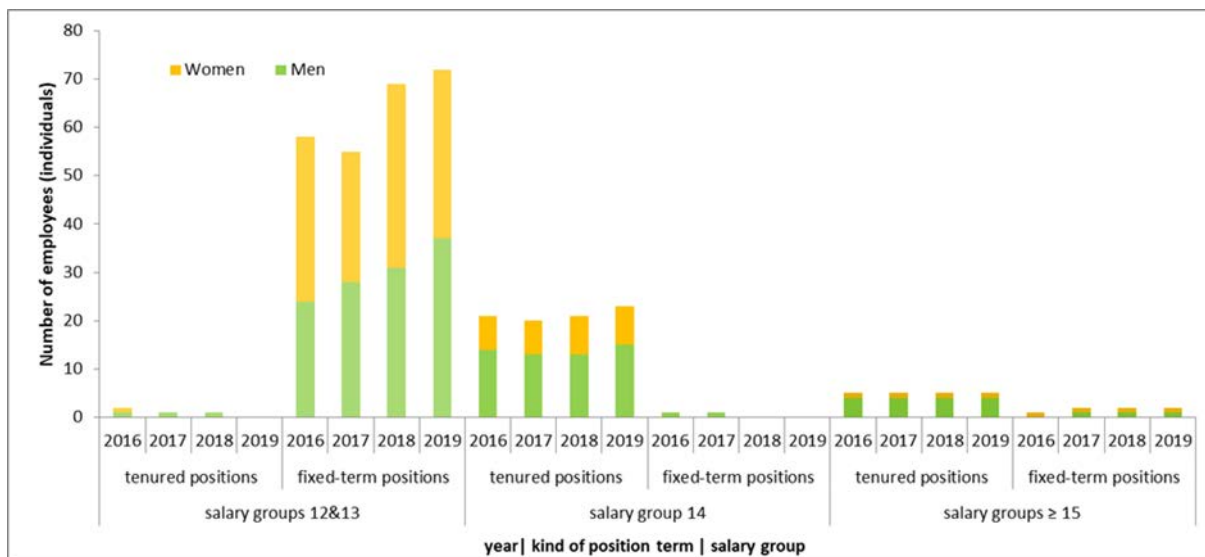


Figure 2B: Gender-specific data of the scientific staff on the development of employment figures itemized by contract type (fixed-term and permanent) as well as salary groups E12 & 13, E14 and ≥ E15 (2016-2019, until cutoff date: June 30th, 2019)

Within the decentralized science supporting personnel, a comparison of the pay groups E5-8 (mainly chemical-biological laboratory assistants) and E9-12 (mostly experimental technicians and engineers) clearly shows the differences in the percentage distribution of women and men (Table A2 in the appendix): While men are clearly underrepresented in pay groups E5-8 ($38 \pm 1\%$), women are underrepresented in pay groups E9-12 ($41 \pm 2\%$).

If we also look at the employment structure by type of contract, we see that the proportion of women employed on fixed-term contracts has been over 20% in both mentioned pay groups in the last four years. The share of men employed on fixed-term contracts in pay groups E9-12 ($31 \pm 4\%$) is about 2.5 times higher than in pay groups E5-8 ($12 \pm 4\%$), which is due to the fact that experimental technicians and engineers (E9-12) are often financed by third-party funds for specific projects (Figure 2A, Table A1 in the appendix). These two kinds of professions,

experimental technicians and engineers, are still dominated by men - the female applicant situation often does not allow for at least as many women as men to be invited to interviews.

Concerning scientific employees ($45 \pm 3\%$ of the personnel, $46 \pm 4\%$ women and $54 \pm 2\%$ men), a differentiated consideration is generally made according to the scientific career levels (doctorates, scientific orientation/consolidation phase of postdocs with habilitation, senior scientists potentially with habilitation, and scientists in leading position potentially with a joint appointment at a university).

A gender-specific analysis, broken down into full-time and part-time employment, shows an approximately equal distribution of male and female full-time employees in pay groups E5-8 ($46 \pm 3\%$ men, $54 \pm 3\%$ women), whereas the proportion of women in full-time employment in pay groups E 9-12 and \geq E13 is significantly lower, at $40 \pm 1\%$ and $30 \pm 6\%$ respectively (Figure 3). At $67 \pm 4\%$ on average, the share of women in part-time employment is significantly higher, if all pay groups are considered. Part-time employees in pay grade E13 (scientific personnel) form a special category, since $41 \pm 4\%$ of these are doctoral researchers who are working on their doctoral thesis in order to acquire the ability to conduct academic research within a thematically defined area in addition to their mostly externally funded, project-related and thus limited-term research tasks.. Irrespective of this, all employees are offered the possibility of part-time employment. So doing, diverse life models are made possible in harmony with the respective professional life and ATB's goals – for the best possible development of an individual's potential in combination with the promotion of their intrinsic motivation. One of the employees who have been a group leader since the first quarter of 2020 works part-time.

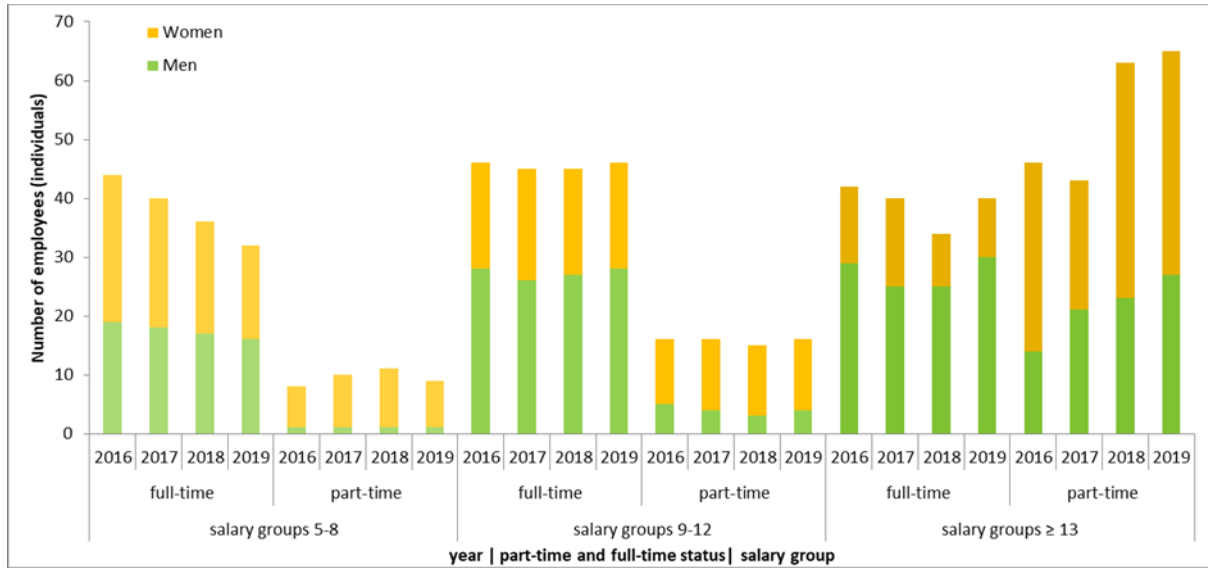


Figure 3A: Gender-specific data of the total staff with regard to the development of employment itemized by contractual working time (part-time and full-time) as well as salary groups E5-8, E9-12 and ≥E13 (2016-2019, until cutoff date: June 30th, 2019)

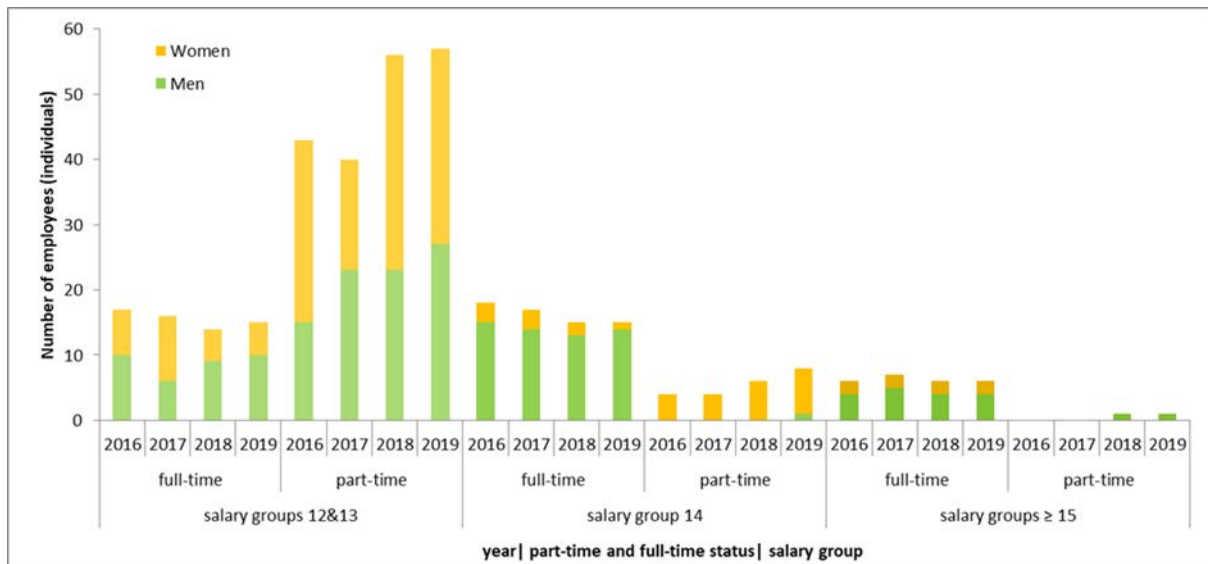


Figure 3B: Gender-specific data of the scientific staff on the development of employment figures itemized by contractual working time (part-time and full-time) and pay groups E12 & 13, E14 and ≥ E15 (2016-2019, until cutoff date: June 30th, 2019)

2.3.2. Scientific personnel

Looking at the scientific personnel of the Leibniz Association as a whole (**Table 2**), women and men are represented in approximately equal numbers in pay group 1 and at the third management level (group leaders). However, in the higher pay grades (> E13), the proportion of women is lower, as already mentioned, than in the other pay groups of academic personnel.

A comparison with the Leibniz guidance quotas shows that ATB has already achieved the Leibniz orientation ratio for 2020 in the two highest management levels "Institute management" and "Department management". On the 3rd management level "management of research and junior research groups" the Leibniz orientation ratio for 2020 was almost reached (**Table 2**). The managers of the working groups were introduced at the ATB in the 1st quarter of 2020 to

enable the scientific personnel to assume responsibility, to raise their own profile, and to make their leadership role internally and externally visible.

Table 2: Guidance quotas of the Leibniz Association which the institutes should take into account by achieving gender equality in scientific research. The Leibniz figures are average values across the Leibniz Association. (Leibniz Association, 2019)⁴

Leibniz in figures	2018	2020	
	Actual quota	Calculative target quota	Guidance quota
By pay group			
Group 5: W3/C4	18.3%	23%	33%
Group 4: W2/C3	33.3%	39%	40%
Group 3: E15/A15/E15Ü/A16/W1	23.9%	27%	40%
Group 2: E14/A14	35.1%	41%	50%
Group 1: E12/E13/A13	47.3%	50%	50%
By management level			
Level 1: Head of the institute	18.2%	21%	32%
Level 2: Heads of department	27.5%	32%	40%
Level 3: Leaders of research groups / young researcher groups / working groups	63.8%	39%	50%

ATB in figures	2019
	Actual quota[#]
By pay grade	
Group 5: W3	0%
Group 4: W2	66%
Group 3: E15/E15Ü/W1	0%
Group 2: E14	35%
Group 1: E12/E13	48,6%
By management level	
Level 1: Head of the institute	100%
Level 2: Heads of department	33%
Level 3: Leaders of research groups / young researcher groups / working groups (within departments) ⁵	48%

[#] Data until cutoff date: June 30th, 2019 and February 10th, 2020 (implementation of the working group management), respectively.

Regarding scientific personnel at the ATB, the share of women is currently (2019) 44%, which is in line within the Leibniz Association's average of 2018 (Table 1). On average, the ATB recorded a slight decline in the time period 2016-2019 compared to the previous triennium, from around 48% to around 46%.

A comparison of the employment structure of scientific personnel, itemized by financing source (Figure 1B) and by type of contract either fixed-term or permanent (Figure 2A, B), shows that the majority of third-party funded employees with fixed-term contracts are scientists in the pay

⁴ https://www.leibniz-gemeinschaft.de/fileadmin/user_upload/Bilder_und_Downloads/%C3%9Cber_uns/Organisation/Leibniz-Gemeinschaft_Pakt_Monitoring-Bericht_2019.pdf, p.84

⁵ This level was introduced at the ATB on February, 10th 2020.

grade E 13, i.e. doctoral students and postdocs, while the permanent positions which are financed by the institutional core budget are occupied by senior scientists (E14) or scientists in management positions (E15 and joint appointed professors / non-tariff employees). The share of female scientists, broken down by doctoral students, postdocs, senior scientists, and scientists in leading positions, are currently (cut-off date: June 30th, 2019) 44%, 54%, 33% and 33%, respectively (Table 1 and Table 3). Accordingly, as expected, women are underrepresented in the higher scientific qualification levels, i.e. at the level of senior scientists and at the level of scientists in leading positions. Overall the share of women in leading positions increased from 22% to 33% in the years from 2012 to 2019.

Table 3: Distribution of women and men in management and coordination positions at the ATB, comparing the years 2016 (cut-off date: December 31st, 2016) and 2019 (cut-off date: June 30th, 2019).

2016		As of 31.12.2016.		
Management positions	total	Women	Men	Women (%)
Scientific Director	1	0	1	0
Executive Board	4	2	2	50%
Heads of department incl. administration	7	4	3	57%
Head of junior research group	0	0	0	0%
Research program coordinators	4	1	3	25%
Scientific management positions	11	4	7	36%
Total	12	5	7	42%
2019		As of 30.06.2019		
Management positions	total	Women	Men	Women (%)
Scientific Director	1	1	0	100%
Executive Board	4	3	1	75%
Heads of department incl. administration	6	3	3	50%
Head of junior research group	1	0	1	0%
Research program coordinators	3	1	2	33%
Scientific management positions	9	3	6	33%
Total	10	4	6	40%

2.4. Training and support for scientific personnel of the ATB

2.4.1. Doctoral researchers

Since 2010 (last amended in 2020) there has been a targeted and structured development strategy for doctoral studies in the form of individual doctoral agreements, in which concrete targets for the doctoral researchers and the responsible academic supervisors are determined. The doctoral agreement contains the rights and obligations of the doctoral researchers and their supervisors, e.g. structured time management for working on the dissertation topic (planning, implementation, evaluation and interpretation of the scientific work), support of the publication writing, presentation of results at national and international conferences. It also takes into account the personal situation of the doctoral researchers, which makes it possible to reconcile family and professional responsibilities.

In addition to these internal ATB measures, the supervisor should take care to ensure that doctoral researchers are offered the opportunity to gain initial teaching experience.

Furthermore, the possibility of transitional funding towards the scientific orientation/consolidation phase should be considered, within which further publications and project applications can be written.

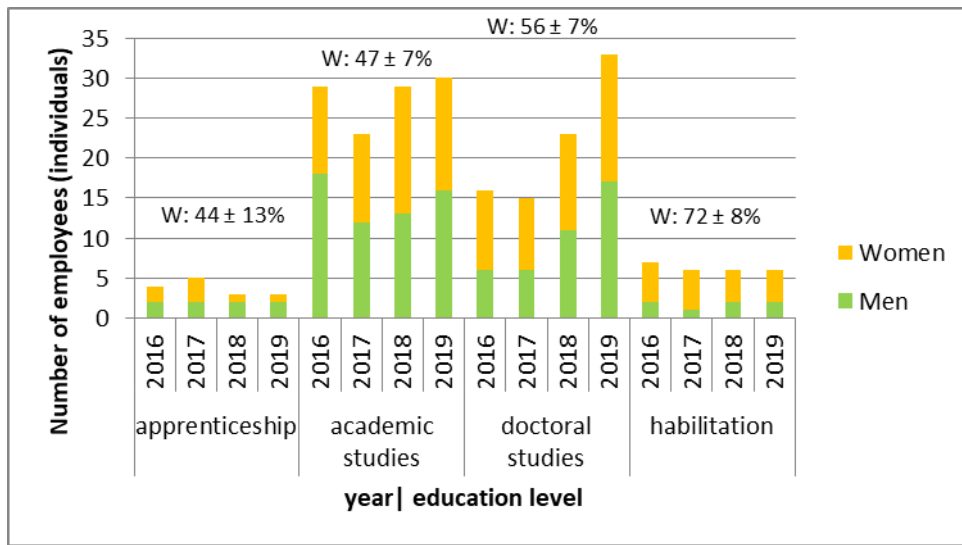


Figure 4: Gender-specific data on the development of employment itemized by vocational education and promotion of young researchers (studies – bachelor, master, diploma, doctorate and habilitation)

2.4.2. Postdocs

As mentioned above, the shares of women and men are approximately equally distributed up to and including the doctorate and during the post-doctoral phase (Figure 4, Table 2). A clearly different picture emerges in the subsequent academic career stages, most likely due to the preferred choice of part-time work by female colleagues.

This instrument for reconciling work and family life should be potentially considered critically by female scientists with regard to their planned career development.

The support of postdoctoral career development at the ATB is particularly oriented towards the following targets:

- Prearrangements for the next successful step for the academic career with the main focus on habilitation/attainment of teaching skills and eligibility for professorship
- Qualification for management tasks in science, industry, politics, and administration
- Increasing ATB's attractiveness for excellent scientists, especially from abroad

The ATB as well as the cooperating universities offer support to female scientists who have completed their doctorates in order to achieve these goals. Among other things, there are ATB-internal counselling sessions for those who are interested in a habilitation, in which possibilities are presented for the targeted acquisition of specific competences as well as necessary requirements or required performance criteria (e.g. the organization of courses) for the successful acquisition of the teaching qualification/authorization. Furthermore, the habilitating researchers are offered the support of a student assistant for one year. A mentor is appointed for habilitation candidates.

Until the cut-off date which was December 31st, 2019, four scientists (three males, one female) have habilitated since 2016. Each year one habilitation procedure was successfully completed

during that period. Currently, four female and one male scientist are working on their habilitation.

In the middle of 2019, a female scientist working at ATB was appointed to a professorship.

In addition to these internal ATB measures, the Leibniz Association offers a special mentoring program, called Leibniz Mentoring, for female scientists in Leibniz institutions to promote gender equality and the associated increase of the proportion of qualified women in scientific management positions. As part of the Leibniz Association, ATB participates in the mentoring program and supports the application of suitable female candidates.

The pearls network - Potsdam Research Network, of which the ATB is a founding member, offers the acquisition of specific competencies. Together with the research network pearls, the Potsdam Graduate School (PoGS) bundled its offer for postdocs in order to expand postdoc funding at the University of Potsdam and non-university research institutions. The PoGS offers further education and qualification opportunities such as project and time management, communication, leadership qualification, didactics, pedagogy, and participation in the "Senior Teaching Professionals" program.

The male and female scientists (postdocs) are supported in their professional development through opportunities to take on extended tasks and increasing their responsibilities in the form of project management and, since the first quarter of 2020, also as working group leaders. However, the transfer of new tasks and responsibilities may also lead to additional challenges. The ATB offered training courses for project managers in 2019. The workshops imparted both the knowledge and the necessary soft skills that helped the junior managers to meet the requirements of a responsible position. Particular attention is paid in general to questions of management, communication, and staff leadership. In addition, work organization in a team, leadership without a superior function, time management, strategy development, organizational and project management, as well as negotiation skills play an important role in the workshops.

2.4.3. Women in management positions and female professors

In the "Leibniz-Professorinnenprogramm" (Leibniz Programme for Women Professors) the Leibniz competition promotes top female scientists by awarding them a W2/W3 position, either for an unlimited period or with an academic tenure option. The program aims to support the successful recruitment of top female scientists and to encourage the initiation of such appointments at an early stage. Within the framework of the "Leibniz Best Minds Network", the supported female scientists are given the opportunity for networking and further education. Since the Scientific Advisory Board and the General Assembly recommended that the ATB should not establish a further department, the program might not be implemented at the ATB in the medium term. The ATB will use this program specifically to fill vacant positions for department heads. A prerequisite, however, is an open appointment procedure.

The Equal Opportunities Officers will continue to examine the relevance and applicability of further instruments to promote the application and appointment of excellent female scientists to professorships and will inform and advise the female scientists about these instruments.

2.5. Recruitments

The average number of new vacancies per year (2016-2018) was 31, about half of those were in the scientific field. According to recruitment statistics, $64 \pm 12\%$ of the new vacancies at ATB were filled by women during the time period 2016-2018, whereby the proportion of female

applicants ($51 \pm 3\%$) was slightly higher than that of (male) applicants ($49 \pm 3\%$). Positions with pay grade E13 or higher (mostly scientific personnel) were filled by women to $56 \pm 14\%$, although the proportion of female applicants was $47 \pm 3\%$ (Table 4).

Table 4: Gender-specific statistics on staffing, taking into account the number of vacancies to be filled, the number of applications and the corresponding hiring in the years 2016 to 2019, listed by pay groups.

salary groups	Number of positions		Applications					Hiring				
			total	women	men	women [%]	men [%]	total	women	men	women [%]	men [%]
total	2016	25	744	387	357	52	48	23	17	6	74	26
	2017	33	488	263	225	54	46	31	21	10	68	32
	2018	36	414	196	218	47	53	30	15	15	50	50
	2019	32	547	190	357	35	65	23	12	11	52	48
	mean	31	549	282	267	51	49	28	18	10	64	36
	SD	6	173	97	78	3	3	4	3	5	12	12
E 5-8	2016	5	93	64	29	69	31	4	4	0	100	0
	2017	5	96	56	40	58	42	5	4	1	80	20
	2018	5	44	15	29	34	66	4	2	2	50	50
	2019	k.A.	k.A.	k.A.	k.A.	k.A.	k.A.	2	1	1	50	50
	mean	5	78	45	33	54	46	4	3	1	77	23
	SD	0	29	26	6	18	18	1	1	1	25	25
E 9-12	2016	8	210	122	88	58	42	8	7	1	88	13
	2017	10	116	68	48	59	41	9	5	4	56	44
	2018	9	114	63	51	55	45	7	5	2	71	29
	2019	k.A.	k.A.	k.A.	k.A.	k.A.	k.A.	7	5	2	71	29
	mean	9	147	84	62	57	43	8	6	2	71	29
	SD	1	55	33	22	2	2	1	1	2	16	16
≥ E 13	2016	12	441	201	240	46	54	11	6	5	55	45
	2017	18	276	139	137	50	50	17	12	5	71	29
	2018	22	256	118	138	46	54	19	8	11	42	58
	2019	k.A.	k.A.	k.A.	k.A.	k.A.	k.A.	14	6	8	43	57
	mean	17	324	153	172	47	53	16	9	7	56	44
	SD	5	102	43	59	3	3	4	3	3	14	14

2.6. Reconciliation of work and family life

The ATB is committed to the compatibility of work and family. In accordance with the ATB's understanding, "family is given everywhere where responsibility (upbringing and/or care) is borne in particular for partners, for children, for parents, and for other relatives". Since 2010, the ATB has been certified within the framework of the "berufundfamilie" audit of berufundfamilie Service GmbH, which was created from an initiative of the non-profit Hertie Foundation. In the year 2013, a working group was established at the ATB for the implementation of the reconciliation of work and family life, in which the equal opportunities officer is a member. A family and life-phase conscious personnel policy was further consolidated during the past "consolidation" audit period. In March 2020, the certificate was again confirmed with the start of the 'Dialogue' audit phase.

The employees see and appreciate the comprehensive flexible options, which are presented below as examples:

- Flexible and individual work arrangements - flexible working hours, part-time work, working from home, staff/work meetings within core working hours in the morning
- Structuring and reliable regulation of the processes around family-related time off (parental leave, nursing leave) including the change to full-time employment and securing the return to work

3. Forecast for personnel development –target situation

The available figures (analysis of the current situation) show that the measures which were taken in recent years to implement equal opportunities have been partially successful. With regard to the proportion of women at the "doctoral" career level, the targets have already been achieved in the period from 2016 until 2018 (Table 1). There is still a need for action at the higher levels; in particular, the proportion of women at the career level of scientific orientation/consolidation phase (postdocs, senior researchers) and female researchers in management positions (level 2: head of department incl. management of junior research groups and level 3: group leaders (working groups, research groups and junior research groups within the departments)) should be increased in the coming years. If possible, the remuneration of this performance should also be reflected in a higher pay scale for these women.

The assessment of ATB’s human resource structure clearly shows that there is a balanced gender ratio in the range of third-party funded scientific personnel (Figure 1). Many employees financed by third-party funds are at the beginning of their scientific careers (cf. Figure 5 - categories "20-30 years" and "30-40 years") and are therefore usually employed on fixed-term contracts due to the specific research periods of the projects. This has the advantage that the personnel structure is regularly "renewed". On the other hand, there are efforts to retain outstanding scientists and competent, experienced, science-supporting personnel for the long term, i.e. to extend the fixed-term contracts to permanent contracts. In the years 2016 to 2019, a total of 15 employees were taken on as permanent employees, of whom one woman and one man are part of the scientific personnel (Table A3).

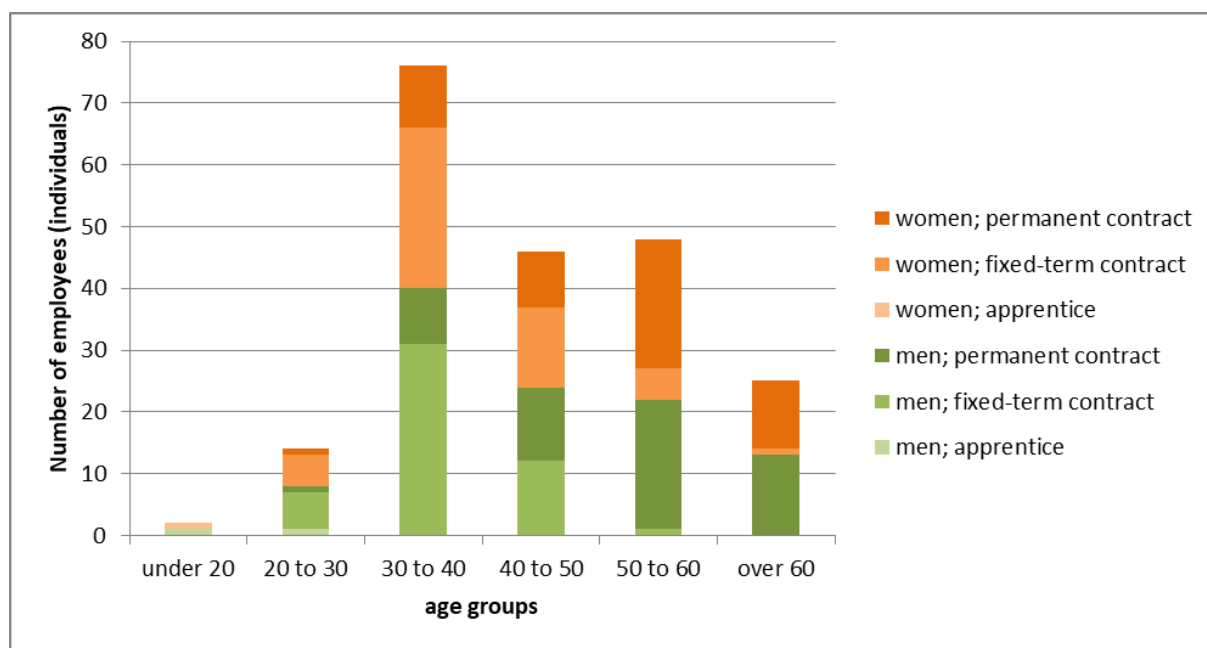


Figure 5: Gender-specific information on the current age structure in accordance to the type of contract as a basis for a base-financed personnel forecast.

If we also take into account the current age structure at the ATB (Figure 5), it becomes apparent that 25 employees are listed in the age group > 60 years, 24 of them (eleven women, thirteen men) are employed on a permanent basis. This group includes employees who are about to retire in the foreseeable future. Most of these positions are available for refilling, although the future professional orientation will be discussed on a case-by-case basis. Seven of the 25 employees who will leave active working life in the next few years (by 2024 at the latest) are

academic scientists (two women, five men), so that when new appointments are made, there is an opportunity here to increase the proportion of women in the field of senior scientists by qualified women. One of the scientific positions that will become vacant due to retirement is a department head position.

Looking at the personnel development forecast for management positions, the departmental head of "Engineering for Crop Production" (ATB) will become a tenured position in 2020, together with the W2 professorship "Agromechatronics - Sensor-Based Process Control in Agriculture" at the Technical University of Berlin (position holder Prof. Dr. Cornelia Weltzien). In the current procedure for the joint appointment (W3) of the department "Microbiome Management" (ATB) and the professorship "Plant Microbiome Management" at the University of Potsdam, an appointment is expected in autumn 2020. In this case, the ATB as well as the participating university will strive for equal opportunities. The same applies to the ongoing appointment procedure for the institute management in joint appointment with the Humboldt University of Berlin (W3-Professorship Agricultural Engineering in Bioeconomic Systems).

4. Need for action, formulation of targets and action plan

4.1. Need for action and formulation of targets

On the basis of the inventory and the forecast of personnel development, the central need for action at ATB with regard to gender equality consists in increasing the proportion of women in scientific personnel at management level.

The ATB focuses on the promotion of scientists at different career levels in the natural and engineering sciences in close cooperation with the partner universities in Brandenburg and Berlin. The promotion of junior scientists is carried out by supervising and processing qualification work such as bachelor and master theses, doctoral theses and consultations on habilitations (obtaining the ability to teach and to be appointed to a professorship).

Based on the research policy objectives with regard to ensuring equal opportunities (including federal and state legislation, implementation of the DFG's research-oriented gender equality standards and, since 2015, the Leibniz gender equality standards, the requirements of the Joint Science Conference's Pact for Research and Innovation (Gemeinsame Wissenschaftskonferenz - GWK) or the MINT Pact) and taking into account the above-mentioned assessment of human resource structure of the ATB, the following fields of action arise at the institute for the next four years:

- **Cascade model:** The cascade model serves the goal of realizing equal opportunities at all academic career levels and using existing skills and talents for research and teaching. The basic idea is that the proportion of women at a higher level of academic qualification is based on the proportion of women at the level below (Table 2). It is recommended that realistic but ambitious target quotas are defined, which, however, do not override the principle of the best selection or call into question the priority of the excellence benchmark.

Formulation of objectives: Accordingly, the ATB needs to take action to increase the proportion of female scientific personnel at management level 2 (head of department incl. management of junior research groups). This proportion must be increased in the coming years. On the 3rd level " groups leaders (working groups, research groups and junior

research groups within the departments)" the Leibniz orientation quota 2020 must be achieved and maintained.

- **Assessment of human resource structure**, personnel forecasts and the definition of flexible target quotas are part of the annual program budget.

Formulation of objectives: The assessment of human resource structure and its analysis with regard to the derivation of the need for action will continue.

- **Promotion of junior researchers:** The continuation of successful, goal-oriented, structured promotion of junior researchers includes support for the acquisition of the ability to carry out independent scientific work within a thematically defined research area as well as support for the acquisition of specific competencies, especially in the area of publishing scientific findings (in national and international journals, national and international conferences), the acquisition of third-party funding, efficient project and time management, leadership qualifications, and the promotion of professional skills.

Formulation of objectives: The successful, goal-oriented, structured promotion of young researchers will be further consolidated with a special focus on the promotion of young female scientists.

- **Reconciliation of work and family life:** Equality requires that both women and men are able to combine their (scientific) career with care tasks during different family phases. There is a perception, especially among junior scientists, that personal welfare and careers in science are often difficult to reconcile.

Work-life balance is approached when efforts are consistently made for more gender equality - especially in work life, but also in unpaid "care" tasks. In addition to housework, care work includes all paid and unpaid care work. Its special character is that it cannot be rationalized without a 'loss of quality'. There is still no structural solution for a gender-equitable division of socially relevant, unpaid household and care work. This can be seen in the low value placed on activities related to the care economy and the subsequent consequences for one's CV, especially for women. The second gender equality report of the German Federal Minister of Family Affairs, Senior Citizens, Women and Youth in 2017 formulates the program "New ways of restructuring paid work and (unpaid)care work⁶". The OECD has published the brochure "Dare to Share - Germany's Way to Partnership in Family and Work", which uses statistical results to show that women do more paid and unpaid work than men. The Gender Care Gap shows that women do 52% more unpaid care work than men.⁷

A dropout from science by highly qualified women after the doctoral phase can be observed. In some disciplines it is particularly difficult to attract women to leading positions in science. These trends also affect the ATB. The ATB is therefore also committed to the compatibility of work and family responsibilities and has been successfully participating in the "berufundfamilie" audit since 2010. Following the re-audit stages 'Optimization' and 'Consolidation', the certificate was re-confirmed in March 2020. The ATB is currently in the 'Dialogue' re-audit phase. The ATB's primary objectives in this context include the development and consolidation of an institute culture and policy that recognizes and values the social importance of family-related tasks, the implementation of work-life balance in the internal organization of work, raising the awareness of all managers for the concerns of employees with family responsibilities, the qualification of senior scientists in their role as

⁶ <https://www.gleichstellungsbericht.de/kontext/controllers/document.php/64.5/6/3c5410.pdf>

⁷ Häußler, A.; Küster, C.; Ohrem, S.; Wagenknecht, I., Care und die Wissenschaft vom Haushalt. Springer: 2018.

managers with responsibility for personnel, and increased awareness and communication of the topic at all organizational levels.

The compatibility of science and responsibility for care is also anchored in central funding programs of the Leibniz Association, for example by crediting parental leave with two years per child in the Leibniz competition or a childcare offer for participants in the Leibniz mentoring program. In the Leibniz competition, funding for compatibility measures can also be applied for.

Formulation of objectives: The ATB continues its participation in the "berufundfamilie" audit.

- **Further training/qualification offers:** The ATB intensively supports the participation of its employees in internal and external further training and qualification measures, whereby these are primarily oriented to professional needs. In particular, managers at ATB must be trained when taking up a new management position. These training courses include mandatory topics such as equal treatment and compatibility of work and family life.

Formulation of objectives: The ATB continues to intensively support the participation of its employees in internal and external further training and qualification measures with particular attention to gender issues.

- **Composition of the committees:** For the evaluation of the research performance and to advise the ATB in all important scientific matters, the General Assembly appoints up to ten well-known people from science and industry to the Scientific Advisory Board. Currently four of the eight active members of the Scientific Advisory Board are women. ATB's Executive Board consists of three scientific members and the head of administration. Currently two of the three scientific members are women.

Formulation of objectives: The equality of men and women amongst the members of the Scientific Advisory Board will be maintained. At least one member of the Executive Board shall continue to be a woman.

- **Visibility of scientific achievements by women**

Formulation of objectives: A colloquium will be held annually on Women's Day on March 8th, to which an internationally renowned female scientist will be invited. In this way the successes of women in science are made visible. It is also intended to encourage female doctoral researchers to pursue a career in science.

4.2. Concrete measures to increase the proportion of female scientific personnel in management positions

In principle, both the structural and personnel Leibniz equality standards⁸ must be taken into account to ensure equal opportunities. These aim to improve the organizational culture, in which the consideration and implementation of equality goals is regarded as a management task of the board. Targeted measures in the sense of a sustainable personnel policy are primarily aimed at the implementation of personnel equality goals, including a targeted increase in the number of women and men in areas in which they are underrepresented.

In terms of human resource development, the Leibniz institutions focus on the following five measures to promote equality (Figure 6):

1. Equality-oriented guidelines for filling vacancies

⁸ Implementation of Research-Oriented Gender Equality Standards in the Institutions of the Leibniz Association, Final Report 2014, WG Research-Oriented Gender Equality Standards of the Presidential Board of the Leibniz Association.

2. Early involvement of equal opportunities officers in the search for candidates
3. Selection and appointment committee shall be composed of at least one woman entitled to vote
4. Taking family responsibilities into account when assessing CVs
5. Balanced ratio of invited men and women to interviews

At the Leibniz institutions, the distribution of these gender equality measures in personnel recruitment is as follows (Figure 6).

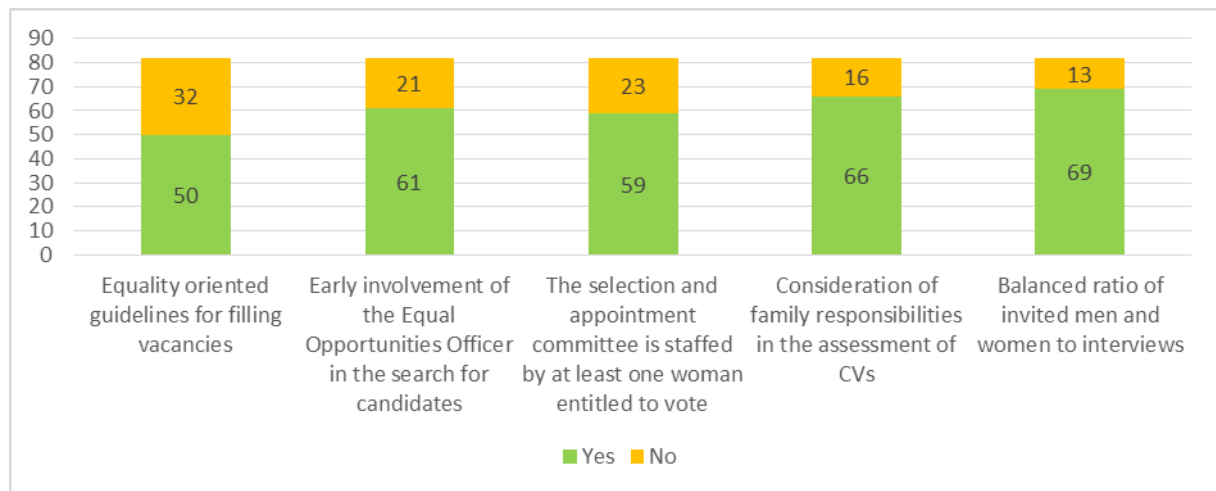


Figure 6: Frequency distribution of measures promoting equality in personnel recruitment in the Leibniz Association (Project Group Leibniz Equality Standards, 2017)

The vacancies at the ATB are filled in accordance to the "Company Agreement on the Implementation of the Replacement of Vacancies". According to § 2, paragraph 1 BV (Betriebsvereinbarung – company agreement), all vacancies, regardless of their method of financing, are generally advertised publicly. All genders are always addressed in job advertisements. This is already good practice and will be continued. In addition, information about vacant jobs is forwarded in a timely and reliable manner.

Active recruitment at ATB is supported by

- “ad personam”- procedure,
- Consultation of national and international databases,
- Use of networks of the respective subject,
- Targeted personal approach by e.g. the HR department,
- Active involvement of the equal opportunities officer.

At the ATB, the equal opportunities officers provide particularly intensive support during job interviews for job advertisements from 100% 13 TV-L. Furthermore, care is taken to invite at least as many women as men to job interviews. Potential female applicants are to be contacted specifically. Platforms and networks will be used even more intensively in the future.

In addition to actively supporting the filling of vacancies, equal opportunities are maintained at the ATB by the equal opportunities plan, by supporting the waiver of invitations to tender, by actively participating in the meetings of the works council, the Kollegium, in the meetings of the work-life audit working group, and in the doctoral committee.

5. Appointment, function and competences of the equal opportunities officer

All tasks, rights and duties of the Equal Opportunities Officer and her deputy are regulated by federal (Article 2, § 25 BGG) and state legislation (§ 22 LGG Brandenburg) and the AVGG. The tasks of the Equal Opportunities Officer include in particular:

- Supporting the department/institution in the implementation of and compliance with legislation
- Taking an active part in all staff, organizational, and social matters affecting equality between women and men (including recruitment, promotions, grading, transfers, delegation of higher-level tasks, training and staff development, analysis of staff structure, preparation of the gender equality plan, appointment of staff to committees)

The performance of all the tasks of the Equal Opportunities Officer is guaranteed by the fact that, as a permanent guest of the Kollegium, she is kept adequately informed of all staff, organizational and social matters of the institute and has a right of veto if necessary. In addition, the Equal Opportunities Officer is a voting member of the panel for deciding on applications for budget-financed extensions of doctoral researcher activities.

Further training on the subject of equal opportunities and diversity management and participation in network meetings of the Leibniz Association are promoted by the Executive Board.

The work of the Equal Opportunities Officer is further supported by a student assistant.

6. Reporting obligation and progression of the gender equality plan

The gender equality plan is kept up to date. Once it comes into force, the assessment of human resource structure, the analysis of the employment structure, and the estimate of the number of posts available for personnel measures will be updated every second year.

Every three years, the Institute's Executive Board shall submit a report on the implementation of the Equal Opportunities Plan, in particular with regard to the measures for personnel recruitment and promotion written down in chapter 4 and the measures for reconciling work and family life.

In addition, information on the structural and personnel Leibniz equality standards, i.e. stocktaking of the employee structure, personnel forecasts, and the definition of flexible target quotas, are part of the annual program budget and an annual data query of the Leibniz Association.

7. Conclusion

The gender equality plan is published in the ATB intranet in German and English and is valid for 4 years.

This Equal Opportunities Plan comes into force with the signature of the Scientific Director (Chairperson of the Board) and the Equal Opportunities Officer.

8. Resources

Projektgruppe Leibniz-Gleichstellungsstandards (2017) Bericht zur Umsetzung der Leibniz-Gleichstellungsstandards in den Einrichtungen der Leibniz-Gemeinschaft. 72p.
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Leibniz-Gemeinschaft (2016) Standards für die Besetzung von wissenschaftlichen Leitungspositionen in der Leibniz-Gemeinschaft. Leibniz-Gemeinschaft November 2016.
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https://wissenschaftsrat.de/download/archiv/2218-12.pdf?_blob=publicationFile&v=3 (abgerufen am 13.05.2020)

Appendix

Tables

Table A 1: Gender-specific data on the development of employment figures itemized by budgetary finance and third-party funding and pay groups E5-8, E9-12 and ≥E13 (2016-2019), MW=Mittelwert(average), Stabw.=Standardabweichung (standard deviation).

salary groups		total	institutional funded positions				third-party funded positions				
			men	women	men [%]	women [%]	total	men	women	men [%]	women [%]
total	2016	149	71	78	48	52	53	25	28	47	53
	2017	139	68	71	49	51	55	27	28	49	51
	2018	139	65	74	47	53	65	31	34	48	52
	2019	149	72	77	48	52	59	34	25	58	42
	mean	144	69	75	48	52	58	29	29	50	50
	SD	6	3	3	1	1	5	4	4	5	5
E 5-8	2016	51	20	31	39	61	1	0	1	0	100
	2017	49	19	30	39	61	1	0	1	0	100
	2018	44	18	26	41	59	3	0	3	0	100
	2019	40	17	23	43	58	1	0	1	0	100
	mean	46	19	28	40	60	2	0	2	0	100
	SD	5	1	4	2	2	1	0	1	0	0
E 9-12	2016	49	25	24	51	49	13	8	5	62	38
	2017	49	25	24	51	49	12	5	7	42	58
	2018	50	25	25	50	50	10	5	5	50	50
	2019	53	27	26	51	49	9	5	4	56	44
	mean	50	26	25	51	49	11	6	5	52	48
	SD	2	1	1	0	0	2	2	1	8	8
≥ E 13	2016	49	26	23	53	47	39	17	22	44	56
	2017	41	24	17	59	41	42	22	20	52	48
	2018	45	22	23	49	51	52	26	26	50	50
	2019	56	28	28	50	50	49	29	20	59	41
	mean	48	25	23	52	48	46	24	22	52	48
	SD	6	3	5	4	4	6	5	3	6	6

Table A2: Gender-specific data on the development of employment figures itemized by centralized and decentralized academic supporting personnel and pay groups E 5-8, E9-12 (2016-2019)), MW=Mittelwert (average), Stabw.=Standardabweichung (standard deviation).

salary groups		centralized research supporting staff					decentralized research supporting staff				
		total	men	women	men [%]	women [%]	total	men	women	men [%]	women [%]
total	2016	40	15	25	38	63	74	37	37	50	50
	2017	40	14	26	35	65	70	33	37	47	53
	2018	42	14	28	33	67	64	32	32	50	50
	2019	44	17	27	39	61	62	32	30	52	48
	mean	42	15	27	36	64	68	34	34	50	50
	SD	2	1	1	2	2	6	2	4	2	2
E 5-8	2016	16	6	10	38	63	36	14	22	39	61
	2017	17	7	10	41	59	33	12	21	36	64
	2018	16	6	10	38	63	31	12	19	39	61
	2019	15	7	8	47	53	26	10	16	38	62
	mean	16	7	10	41	59	32	12	20	38	62
	SD	1	1	1	4	4	4	2	3	1	1
E 9-12	2016	21	8	13	38	62	38	23	15	61	39
	2017	20	7	13	35	65	37	21	16	57	43
	2018	23	8	15	35	65	33	20	13	61	39
	2019	23	9	14	39	61	35	21	14	60	40
	mean	22	8	14	37	63	36	21	15	59	41
	SD	2	1	1	2	2	2	1	1	2	2

Table A3: Gender-specific data on employees taken over from fixed-term contracts into permanent contracts (tenure) in the comparison of pay groups E 5-8, E 9-12 and ≥ E 13 in the years 2016 to 2019. MW = mean value, Stabw = standard deviation.

conversion of fixed-termed positions into tenured positions						
		total	women	men	women [%]	men [%]
gesamt	2016	4	4	0	100	0
	2017	7	4	3	57	43
	2018	1	0	1	0	100
	2019	3	1	2	33	67
	gesamt	15	9	6	60	40
	SD	1	1	1	47	47
E 5-8	2016	0	0	0		
	2017	3	2	1	67	33
	2018	0	0	0		
	2019	1	0	1	0	100
	mean	1	1	1	33	67
	SD	1	1	1	47	47
E 9-12	2016	3	3	0	100	0
	2017	4	2	2	50	50
	2018	0	0	0		
	2019	2	1	1	50	50
	mean	2	2	1	67	33
	SD	2	1	1	29	29
≥ E 13	2016	1	1	0	100	0
	2017	0	0	0		
	2018	1	0	1	0	100
	2019	0	0	0		
	mean	1	0	0	50	50
	SD	1	1	1	71	71