

# GENDER EQUALITY PLAN

AT THE JERZY HABER INSTITUTE OF CATALYSIS AND SURFACE CHEMISTRY  
POLISH ACADEMY OF SCIENCES

PLAN FOR GENDER EQUALITY ACTIONS FOR THE YEARS 2021-2025

Authors

MSc Magdalena Bodzioch

MSc Małgorzata Cybulska (deputy chair of Gender Equality Committee)

Dr. Marcel Krzan (chair of Gender Equality Committee)

Dr. Eng. Dawid Lupa

Dr. Aneta Michna

Prof. Krzysztof Szczepanowicz

# CONTENTS

Introduction .....3  
Diagnosis.....5  
Staff survey .....12  
Objectives .....19  
Actions .....19  
Summary .....23  
References .....23

# INTRODUCTION

The need to guarantee equal rights and duties to all persons irrespective of gender is deeply inscribed into the European core values. The declaration should have predominantly a practical dimension. Specific actions need to be undertaken to support gender equality not only in the private sphere but also in the workplace. It should be stressed that only protection against gender-based discrimination guarantees effective human rights protection.

The Jerzy Haber Institute of Catalysis and Surface Chemistry Polish Academy of Sciences (ICSC PAS) is a leading research unit whose activities ideally meet the European human resources strategy involving constant improvement of the conditions for employment and recruitment of researchers, confirmed by the 'HR Excellence in Research' award from the European Commission. The award of the emblem has not only been a recognition for the institute but has encouraged it to the constant improvement of the recruitment and employment policy, which has led to the development of the equality policy plan.

Having regard to good practices transformed into actions and an improvement in communication within the institute, the main goal of the developed „Gender Equality Plan at the Jerzy Haber Institute of Catalysis and Surface Chemistry Polish Academy of Sciences”, called also the „Gender Equality Plan at ICSC PAS”, is to establish a durable situation in which the best possible opportunities for unlimited professional development are provided to every person, irrespective of gender, who will be able to make choices based solely on personal needs, skills and aspirations without experiencing limitations based on gender stereotypes.

The implementation of this programme will have as an outcome an actual state in which persons who work, study, or have internships at ICSC PAS, and therefore form the human fabric of the institute, will feel safe in the institution free of discrimination, in which the respect for the individualism of each person and ensuring freedom of his/her professional development is always the primary commitment. Better education attained and enhanced professional qualifications of persons employed or learning at ICSC PAS will be a measurable outcome of the proposed plan.

It is worthwhile to emphasize that the presented „Gender Equality Plan at ICSC PAS” covers the programme of actions addressing the equality issues which will be implemented in the years 2021-2025. The main assumptions of this plan are based on the guidelines of the European Commission „A Union of equality: gender equality strategy 2020–2025”.

The plan of actions addressing the equality issues, developed based on analysis of profiles of education, employment, and research at ICSC PAS as well as on the survey conducted, rests on four objectives, which will be implemented through the proposed actions. The effectiveness of actions addressing the equality issues presented in the plan will be evaluated after four years that is in 2025.

The presented „Gender Equality Plan at ICSC PAS” covers:

- diagnosis with clearly formulated conclusions gained from an analysis of profiles of education, employment, and research as well as on the online survey conducted at ICSC PAS,
- objectives with the indicated remedial measures which will be undertaken at ICSC PAS to improve and facilitate actions to support gender equality.

# DIAGNOSIS

## Gender and employment at ICSC PAS

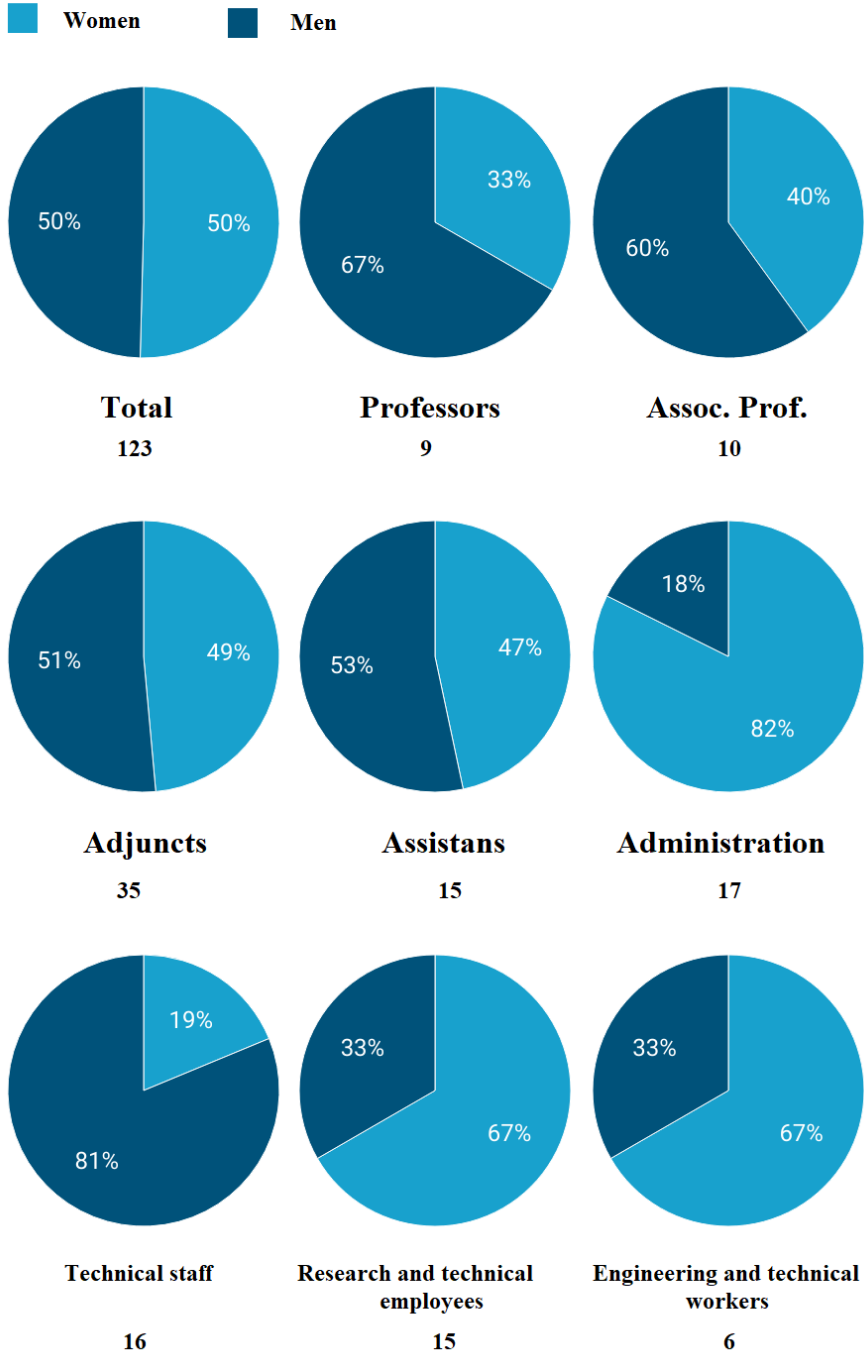
Figures on education, employment, and research at ICSC PAS in the context of the gender of persons engaged in these areas of the institute's functioning were a starting point for an analysis of the problem of gender inequalities. Data collected by the institute in 2019-2021 related to staff employment and education of doctoral students and covering the doctoral assessment processes were the basis of a graphical representation of the issue.

At the time of publishing this document, two females and one male are Directors of the institute, which is a balanced proportion. Therefore, neither females nor males dominate.

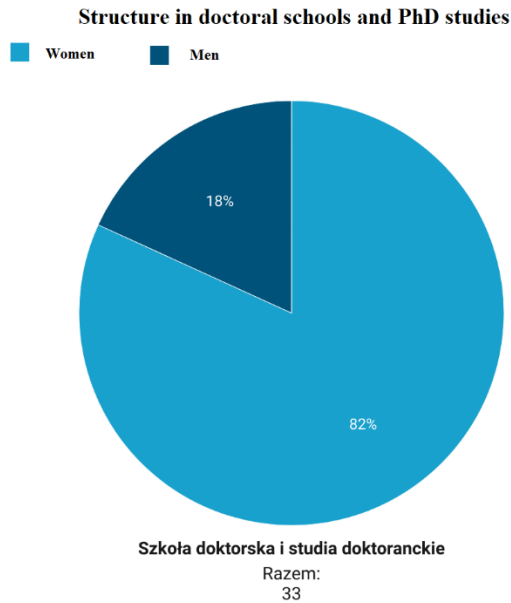
Generally, no gender bias in employment is observed. On July 1, 2021, 62 females and 61 males were employed at the institute which ideally fits into the gender equality strategy. Nevertheless, certain disproportions are observed in certain positions, which is discussed in detail below.

Two-thirds of six engineering and technical staff positions are occupied by females. The analogous proportion is observed for research-technical staff who constitute a larger group of 15 persons at the institute. Such disproportion in favour of females may be an outcome of the fact that young researchers become the research-technical staff members immediately after the defence of the doctoral work. As data on the education of doctoral students at ICSC PAS reveal a strong female representation in this group of young researchers (6 male and 27 female students), one can raise a hypothesis that gender is not an important criterion for employment in this staff group. At the same time, it can be concluded that representations of females and males in this staff group are a direct outcome of a significant over-representation of females among doctoral students.

## Employment structure at ICSC PAS



**Fig. 1 Employment structure at ICSC PAS**



**Fig. 2 Structure in doctoral schools and PhD studies**

Administration and technical service are two staff groups with the dominance of females and males, respectively. As many as 82% of administrative personnel are females. In contrast, over 80% of the technical service are males. Such strong gender polarization in these two staff groups agrees with the tendencies observed on a national or even global scale. The phenomenon is known as female dominance in public administration (or in English-language literature as *pink collars* the term referring to female-dominated jobs) already since the 1970ies. Unfortunately, no measures have been found so far to reduce this disproportion on a global or even national scale. Nevertheless, the institute needs to monitor the issue and take it into account during recruitment for specific positions, contributing in this way to its gender equality policy.

Male dominance in the technical service group also agrees with the tendencies observed in the global labour market. The analysis „Females and males in the labour market” carried out by the Polish Central Statistical Office (GUS, 2018) [1] indicated that women are less than 15% of all workers in professional groups such as industrial workers and craftsmen, operators and fitters of machines and equipment. Therefore, it can be concluded that the gender structure of the technical service group reflects the overall national employment trend. As the result, any intentional male over-representation has not been identified.

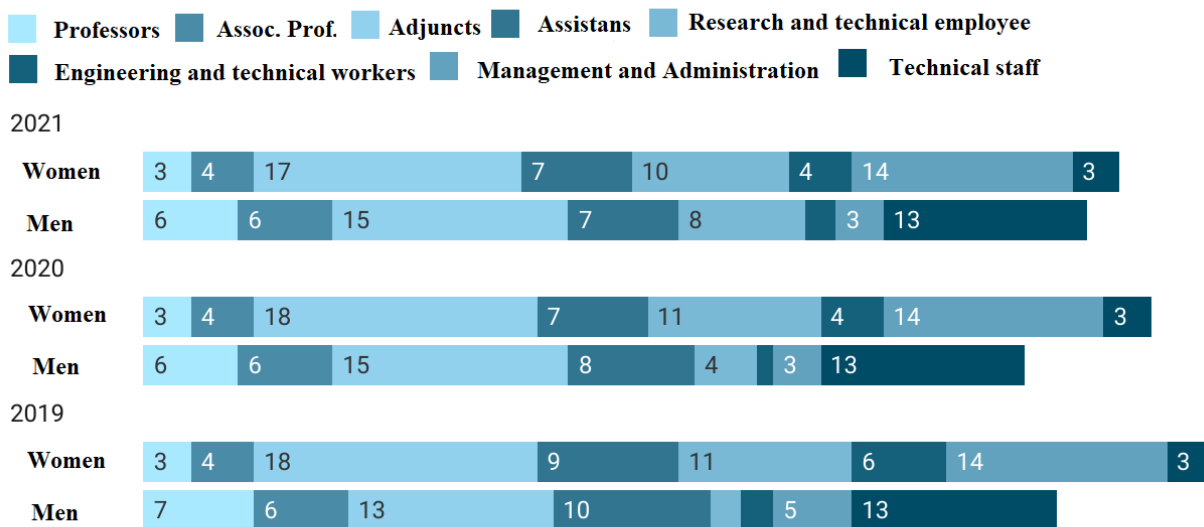
In contrast, no significant gender disproportions are observed among young researchers (research assistants) or more experienced researchers (assistant professors). In these groups, the percentages of females are 47 and 49%, respectively, which indicates equal chances of females and males in employment in the positions of a research assistant or an assistant professor, as well as in progression to the position of an assistant professor.

In turn, slightly larger differences in proportions of males and females are observed at higher stages of the research careers that is to say among institute professors and persons with the title of professor. The differences observed indicate that the period between the doctoral defence and obtaining the scientific degree of habilitated doctor (which paves the way to obtaining the position of institute professor) and the stage of obtaining the title of professor are key to the careers of women in research at ICSC PAS. It can be noticed that the careers of women in research considerably slow down at these stages and the reasons for this may be increased duties related to maternity and childcare or care of elderly family members.

It is worthwhile to emphasize that similar disproportions are observed in other countries as the United States where married women with small children have a 35% lower chance of a permanent job compared to married fathers of small children, and married men with children make 70% of research staff, compared to 44% of women in the same life situation [2].

The employment structure of females and males in the years 2019 – 2021 is shown in Fig. 3.

### Employment structure of females and males in the years 2019 – 2021



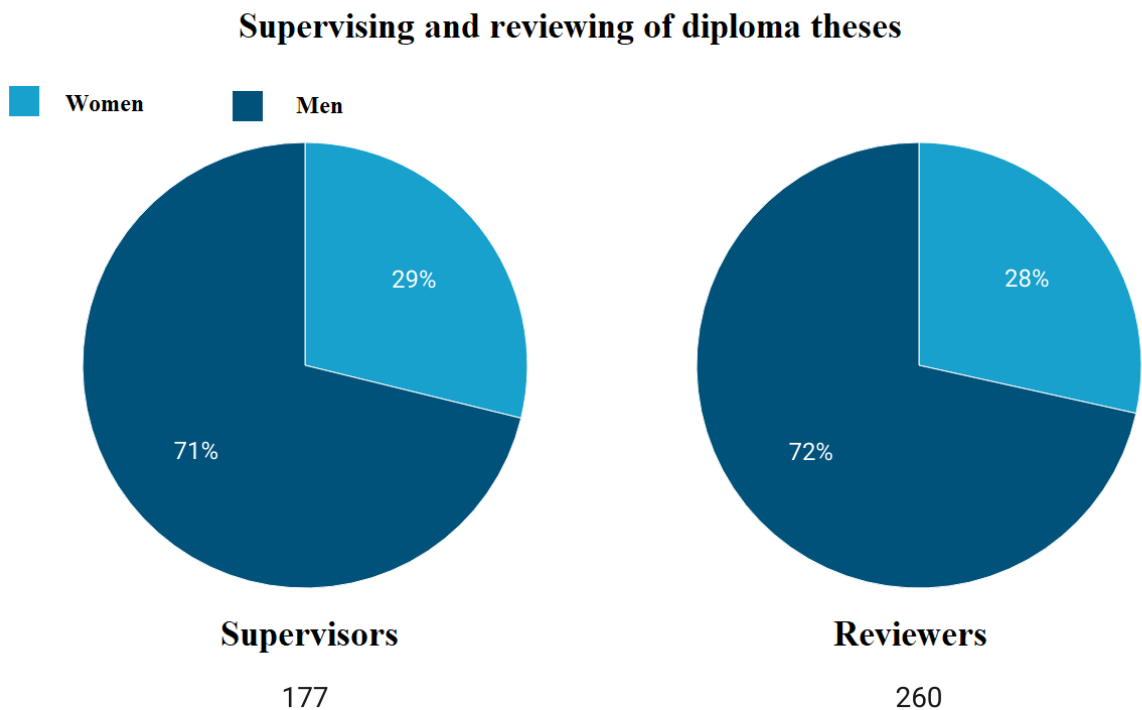
**Fig. 3 Employment structure of females and males in the years 2019 – 2021**

As one can notice, the position-specific employment disproportion has diminished in the research positions. However, the tendency of female or male predominance, respectively, continues to be clearly evident in management and administration or technical service sectors.

Knowledge of the employment structure at ICSC PAS discussed above makes possible analysis of certain aspects of the institute's research activity. Supervising and reviewing diploma theses are an inherent aspect of the work of each member of the research staff. So far, altogether 177 diploma theses (for the degree of inżynier, magister, or doktor) have been defended. However, it is



worthwhile to note that females, despite representing nearly half of the institute's research staff (40% of institute professors, nearly 50% of assistant professors, and research assistants), have supervised only 29% of the theses. Similarly, females made up only 28% of reviewers of the diploma theses. The reasons for such marked disproportion may be twofold. First, women at this stage of career in research (between the degree of doktor and doktor habilitowany) use more time for their domestic responsibilities and childcare owing to a traditional family model, therefore, they are less willing to undertake additional activities related to supervising the diploma students. Secondly, the diploma students, owing to existing stereotypes/convictions on „male superiority in research” and „difficult contacts with female supervisors” may prefer males as supervisors. It should be noted at this points that irrespective of the reasons for the observed issue, the institute should undertake measures aimed at removing the disproportion, for example through active promotion of diploma students supervision.

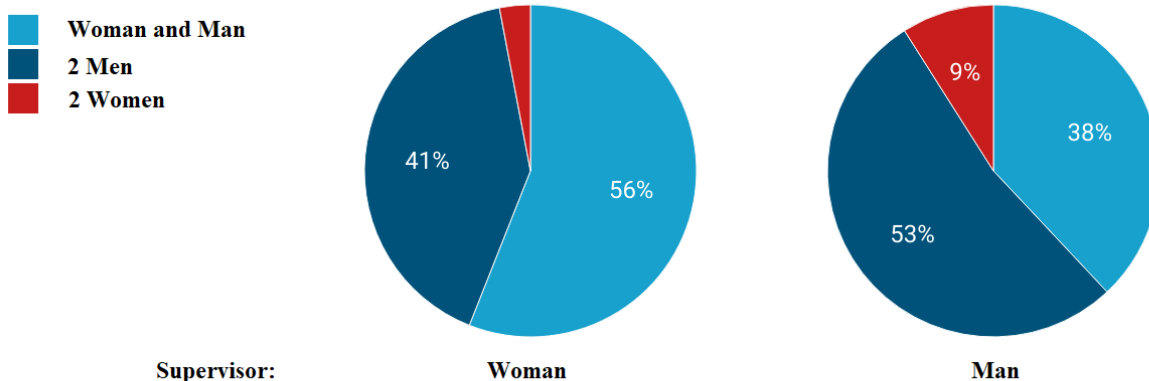


**Fig. 4 Supervising and reviewing of diploma theses**

In the case of doctoral theses defended following the so-called old assessment process (two reviews of the thesis), interesting relationships become visible when comparing the gender of a supervisor with the gender of reviewers. In the case of female supervisors, a selection of one female and one male as reviewers was decided in more than half of the cases (56% of theses). 42% of theses had two male reviewers. Only 3% of theses supervised by females were reviewed by two

female reviewers. In the case of male supervisors, a selection of two females as reviewers was decided three times more frequently that is to say in 9% of cases. Males also more frequently supervised theses reviewed by two male reviewers (53% of theses), in turn, less frequently they supervised theses reviewed by one male and one female reviewers (38% of theses). However, the configuration of male and female reviewers determined is a complex issue and does not need to reflect real aspects. It should be borne in mind that supervisors only propose reviewers and their appointment is adopted in a secret ballot by the Scientific Board of ICSC PAS whose gender structure is discussed below.

### Gender of a supervisor vs. gender of reviewers

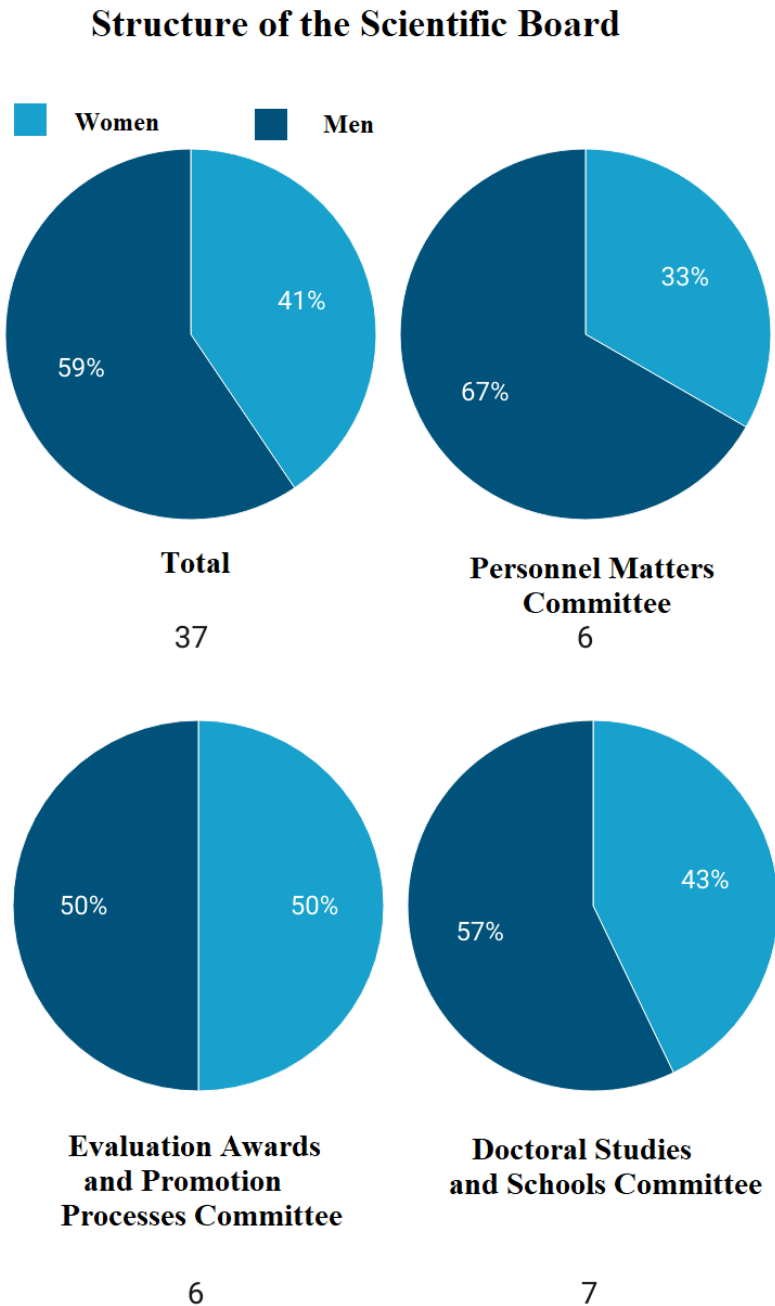


**Fig. 5 Gender of a supervisor vs. gender of reviewers**

Generally, the Scientific Board (SB) has a slight male dominance (59% of males) and its gender structure is close to the employment structure in the institute professors group. Having in mind the fact that females represent 15% of persons with the title of professor or equivalent in Europe [3], there is no ground for identifying significant, intentional male dominance in SB ICSC PAS. In contrast, it is worthwhile to emphasize an issue of over-representation of females in SB ICSC PAS in relation to the national tendency of 18.2% of females among persons with the title of professor.

The institute implements its mission also through the appointment of special committees. Females represent one-third of the members of Personnel Matters Committee. Smaller disproportion is evident in the composition of Doctoral Studies and Schools Committee in which females represent 43% of its members, in turn, Evaluation Awards and Promotion Processes Committee consists of equal numbers of females and males. However, it should be borne in mind that, owing to the small numbers of members in the above committees, significant disproportions are an outcome of the over-representation of one male or two males. To reduce the slight disproportions, the institute should undertake measures promoting the participation of women in the committees.

It is worthwhile to note at this point that the Committee preparing this report fully meets the criterion of gender equality that is to say it consists of three females and three males.



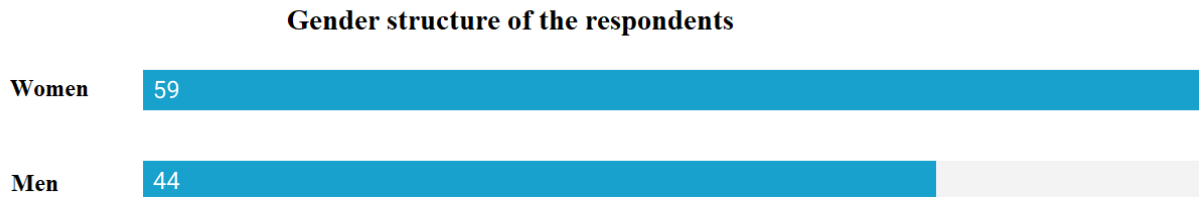
**Fig. 6 Structure of the Scientific Board of ICSC PAS**

# STAFF SURVEY

To determine the scale and nature of gender-based discrimination among the staff and doctoral students at ICSC PAS, an opinion survey has been conducted to identify a possible issue of discrimination and to evaluate actions countering discrimination undertaken so far. The survey had the form of a voluntary questionnaire consisting of the following questions:

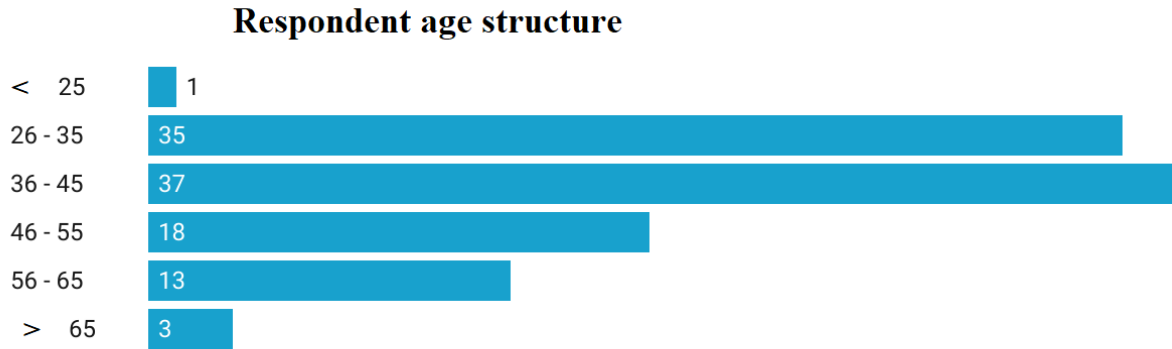
1. In your opinion, is the gender-based inequality of chances a social problem?
2. Have there been cases of gender-based discrimination at ICSC PAS?
3. In your opinion, does gender limit the professional development at ICSC PAS?
4. Are actions undertaken at ICSC PAS to support equality of chances irrespective of gender or to counteract gender-based discrimination?

103 persons participated in the questionnaire in the period from August 12 to September 6, 2021, when answers were collected. The gender structure of the respondents is shown in Fig. 7.



**Fig. 7 Gender structure of the respondents (according to respondent declarations)**

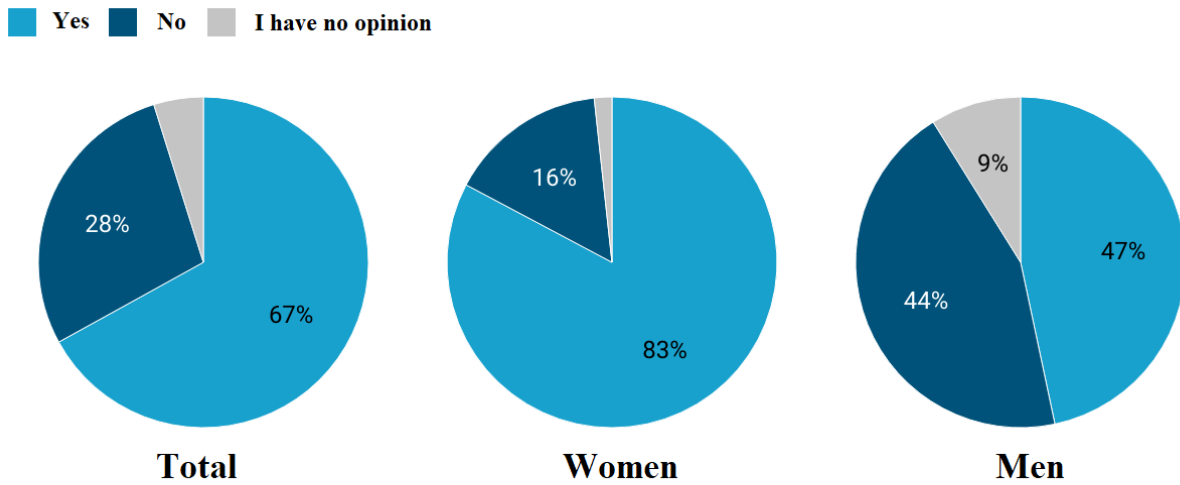
The visible over-representation of women among the questionnaire respondents in relation to the employment structure is probably due to the over-representation of female doctoral students in doctoral students admitted to doctoral studies and schools. The conclusion is supported by the distribution in respondent age (Fig. 8). As one can notice, persons of age between 26 and 35 years represent the second most numerous group of respondents. The fact points to the significance of gender equality issues for persons starting their careers in research.



**Fig. 8 Respondent age structure (according to respondent declarations)**

The analysis of whether discrimination is a real issue at ICSC PAS began with an investigation of whether staff members and doctoral students at ICSC PAS regard gender-based discrimination issues as a social problem (question 1). Analysing the general trend in responses, one can conclude that nearly 2/3 of respondents regard discrimination as a social problem. 28% are of a contrary opinion whereas 5% of respondents have no opinion on the issue. Therefore, the investigation indicates that gender-based discrimination is a significant social problem in the opinion of the research staff of ICSC PAS. In turn, the analysis of responses to question 1 in terms of gender declared by the respondents indicates that women gave the „Yes” answer more frequently than men (83 and 47%, respectively). Such marked disproportion can indicate a higher awareness of harmful practices brought by gender-based discrimination among women or indirectly indicate that there are women who more frequently fall victim to discrimination. Verification of this hypothesis obviously requires analysis of the distribution – in terms of respondent gender – of answers to questions asked in the further part of the questionnaire discussed.

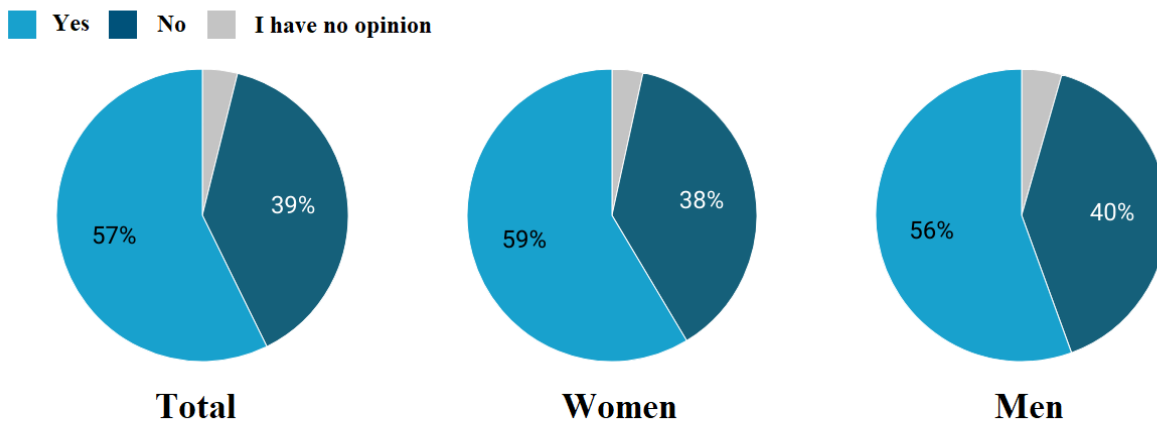
## Do you think that gender inequality is a social problem?



**Fig. 9 Distribution of responses to question 1 of the questionnaire in terms of respondent gender**

In the subsequent question, the questionnaire aimed at identifying cases of discrimination occurring in the past at ICSC PAS. Irrespective of declared respondent gender, an overwhelming majority of respondents declared that no such cases took place at ICSC PAS or that the respondent was not aware of such cases. Only a few persons (2 women and 2 men) have selected the answer „Yes” indicating therefore that such cases took place. These respondents received an additional open question in which they were requested to describe the specific cases of discrimination. The answers received are presented below:

## Have there been instances of gender discrimination in ICSC PAS?



**Fig. 10 Distribution of responses to question 2 of the questionnaire in terms of respondent gender**

„Yes, verbal abuse” – man, 36 – 45 years

„Favouring females in the managerial positions” – man, 56 – 65 years

„Verbal abuse” – woman, 36 – 45 years

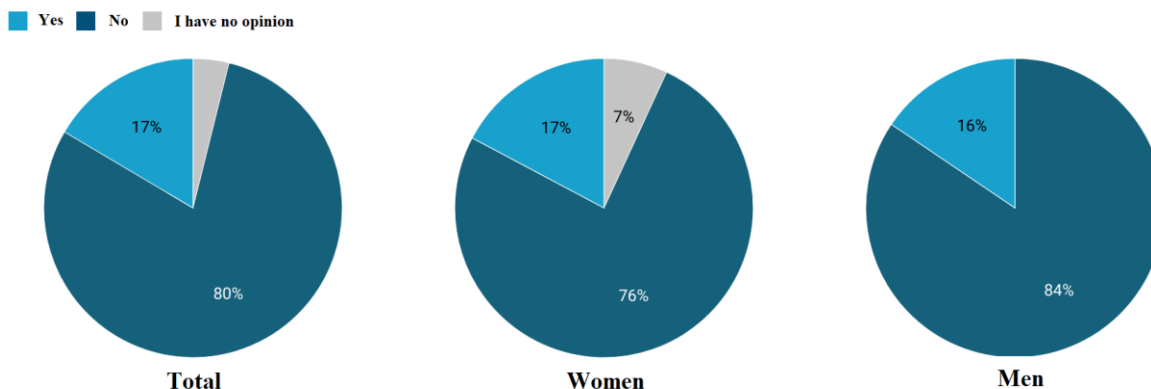
„Better treatment of men in contacts with their superiors, financial department or Directors” – women, 46 – 55 years

Therefore, the cases of discrimination reported above concern mainly interpersonal contacts. Unfortunately, no specific examples of using abusive statements were provided (for example, women are more stupid, men are lazy by nature) but the answers unequivocally point to a problem of using – at ICSC PAS – language structures that have a character of the discriminating stereotype. One of the male respondents also stated that women were favoured in managerial positions. At the time of publishing this document, there are three Directors at ICSC PAS, of which two are women. In turn, 5 females and 6 males are heads of 11 research groups. Taking into account the above data, one has to conclude that managerial positions are not occupied by giving preference to gender. One of the female respondents indicated a problem of better treatment of men in contact with their superiors, financial department, or Directors, without providing, unfortunately, specific cases of such circumstances. It is difficult to assess if the above observation is true not only because of its character but also because of the lack of any specific information which would allow the

occurrence and scale of the problem to be assessed quantitatively. Such a signal is, however, a valuable piece of information for this Committee as to the need of monitoring relations between a staff member – his/her superior, research staff – administration, and a staff member – Directors.

Next, the respondents were asked whether, in their opinion, gender is an aspect limiting the professional development at ICSC PAS.

### In your opinion, does gender limit the possibility of professional work in ICSC PAS?



**Fig. 11 Distribution of responses to question 3 of the questionnaire in terms of respondent gender**

Analysing the results shown above, one can notice that only women regard gender as a factor limiting the professional development. A decisive majority of men that is 84% of respondents selected the answer „No”, whereas the remaining 16% had no opinion on the issue. In contrast, 4 female respondents gave a positive answer and, therefore, received an additional question requesting a broader description of the problem. The answers received are presented below:

*„Limited participation in research stays, postdoctoral fellowships because of small children, family” – woman, 36 – 45 years*

*„Maternity and later care of a sick child limit time of work and the possibility of implementing professional plans, which is reflected also in the yearly assessment of a female researcher” – woman 26 – 35 years*

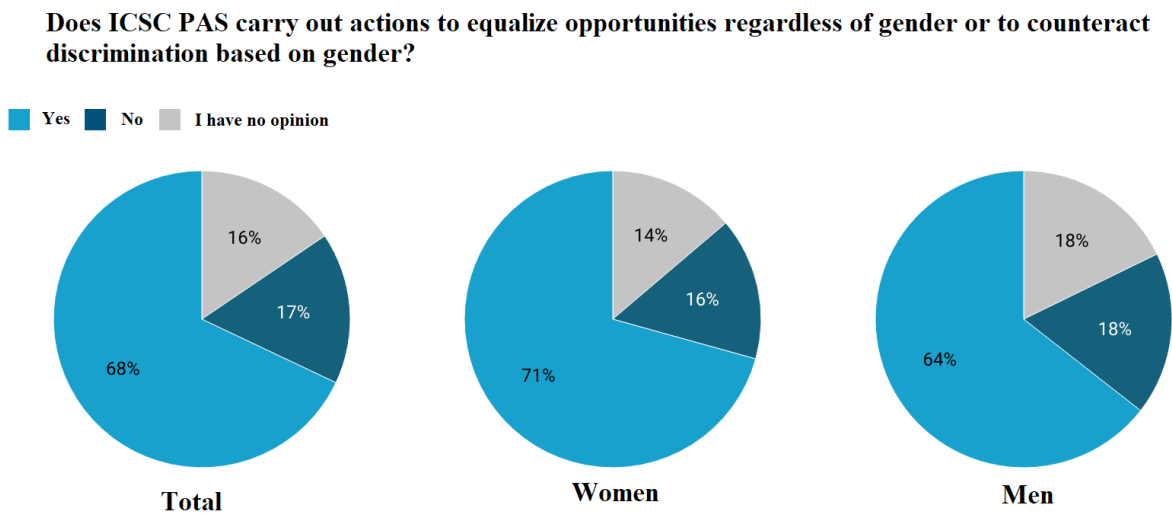
*„The limitation is related not to the institute itself but to the problem of combing research work with family life (the aspects of maternity and laboratory)” – woman, 26 – 35 years*

*„A woman after the pregnancy period and the maternity leave is assessed as persons who maintained the continuity of work” – woman, 26 – 35 years.*



The data analysis indicates that the problem with the limitation of research work concerns equally early career and more experienced female researchers (26 – 35 years and 36 – 45 years, respectively) and involves only aspects of combining maternity and childcare with the research work. The female respondents indicate not only difficulties in mobility related to childcare but also unfair criteria of staff assessment, and more precisely the fact that maternity and parental leave are not taken into account in the assessment of achievements of staff members. In reality, according to the Regulation for Assessment at ICSC PAS, the assessment score is normalized to time actually worked by a staff member, if he/she requests that gaps in working time to which he/she is legally entitled are taken into account. Indicating unfair criteria of staff assessment by a female respondent is an outcome of a lack of knowledge of the assessment regulation currently in force. However, it is worthwhile to note that the reservations quoted above might not have appeared if the score of a staff member had been normalized to time actually worked ex officio that is without his/her request.

The respondents were also asked whether, in their opinion, actions are undertaken at ICSC PAS to support equality of chances irrespective of gender or to counteract gender-based discrimination (Fig. 12)



**Fig. 12 Distribution of responses to question 4 of the questionnaire in terms of respondent gender.**

Responses shown in Fig. 12 unequivocally indicate that the overwhelming majority of both women and men do not know if any actions are undertaken at ICSC PAS to counteract discrimination. Only 14% of women and 18% of men are of the opinion that such actions are undertaken. A similar number of the respondents believe that no such actions take place. Persons who marked the answer

„Yes” were additionally asked for an assessment of such actions. The following answers to the question „How do you assess the actions undertaken?” were given:

*„Gender Equality Committee has only started its activities and the effects of its work will be visible only in the future”* – man, 46 – 55 years

*„I regard very positively the appointment of Gender Equality Committee.”* – woman, 26 – 35 years

*„As sufficient”* – woman, 46 – 55 years

*„Positively”* – woman, 36 – 45 years

*„Because I have not identified a gender-based discrimination problem in our institute, I regard actions against the gender-based discrimination (including the appointment of this committee.) as playing it safe or (more openly) fighting a non-existing problem – I have an impression that with no outcome.”* – man, 26 – 35 years

*„I do not see any concrete effects of the actions undertaken, but the fact that a special gender equality committee was appointed is an encouraging perspective of future changes.”* – woman, 26 – 35 years

*„Positively”* – man, 36 – 45 years

*„Very well”* – man, below 25 years

*„I assess them positively because there are no gender-based limitations in the career in research and work.”* – woman, 36 – 45 years

*„I regard them as appropriate and advancing in the right direction”* – woman, above 65 years

*„I think that they are sufficient”* – man, 56 – 65 years

The assessment of actions countering discrimination undertaken so far at ICSC PAS is predominantly positive or more rarely neutral (as sufficient). No person knowledgeable on actions countering discrimination assessed them negatively, which confirms their effectiveness.

One of the male respondents, while having not identified a discrimination problem questioned the sense of functioning of the Committee and implementing the gender equality policy, which indicates a lack of understanding of the core aspects of the gender-based discrimination problem. The organization of cyclic meetings and training sessions aimed at familiarising the staff with the gender-based discrimination problems and the proposed actions countering discrimination may contribute in the future to a better understanding of the causes and scale of the problem not only at ICSC PAS but also in Poland and globally.

# OBJECTIVES

Analysis of profiles of education, employment, and research as well as of the online survey conducted at ICSC PAS, allowed the objectives to be defined and actions addressing the equality issues to be identified in the programme "Gender Equality Plan at ICSC PAS" which will be implemented in the years 2021-2025.

## Objectives of “Gender Equality Plan at ICSC PAS”

1. Raising awareness of the gravity of gender equality issues and strengthening positive attitudes of the staff.
2. Supporting mobility of research staff members with a family.
3. Supporting careers of women in research.
4. Raising awareness of the need to take into account longer absences of a member of staff in the workplace in his/her annual assessment.

# ACTIONS

Objective 1. Raising awareness of the gravity of gender equality issues and strengthening positive attitudes of the staff.

Action:

- training sessions on avoiding discriminatory stereotypes and hate speech in communication,
- appointing Gender Equality Committee – monitoring hate speech.

Responsible entities:

- Gender Equality Committee
- HR Committee
- Disciplinary spokesman at ICSC PAS

Objective 2. Supporting mobility of research staff members with a family.

Action:

- promoting initiatives making possible mobility with a family by Projects Section.

Responsible entities:

- Gender Equality Committee
- HR Committee
- Projects Section

Objective 3. Supporting careers of women in research

Actions:

- promoting activities of women as supervisors and reviewers (active support of experienced researchers),
- introducing flexible working for male and female members of staff, introducing individual time schedules, task-oriented working, and other flexible working arrangements allowing staff members to combine work with family life.

Responsible entities:

- Gender Equality Committee
- HR Committee
- Disciplinary spokesman at ICSC PAS

Objective 4. Raising awareness of the need to take into account longer absences of a member of staff in the workplace in his/her annual assessment.

Actions:

- training on staff assessment regulations,
- updating the Regulation for Assessment of Researchers at the Jerzy Haber Institute of Catalysis and Surface Chemistry Polish Academy of Sciences so that normalization taking into account the effective time actually worked by a staff member is introduced automatically without the necessity of submitting a request – updating a form in which the information is introduced.

Table 1. Action plan with the approximate time axis 2021-2025.

	2021	
Quarter IV	Approving the „Gender Equality Plan at ICSC PAS”	Directors and the Scientific Board
	Appointing the Gender Equality Committee	Directors
	Developing the schedule and content of the required training sessions for years 2022 and 2023	Gender Equality Committee
	2022	
Quarters I - II	Training sessions on avoiding discriminatory stereotypes and hate speech in communication (counteracting the hate speech)	Gender Equality Committee HR Committee Disciplinary spokesman at ICSC PAS
	Supporting mobility of researchers with a family	Gender Equality Committee / HR Committee / Projects Section
	Promoting activities of women as supervisors and reviewers (active support of experienced researchers)	Gender Equality Committee / HR Committee / Disciplinary spokesman at ICSC PAS
	Updating the Regulation for Assessment of Researchers at ICSC PAS	Gender Equality Committee and Directors of the institute
Quarters III-IV	Training/training sessions on preventing and counteracting sexual harassment and ways of reacting to such misconduct by staff members and Directors	Gender Equality Committee
	Staff survey on the actual state of measures ensuring gender equality	Gender Equality Committee
	Statistical analysis of actual employment proportions in terms of gender at the institute in 2022	Gender Equality Committee
	Assessment of actions implemented so far	Gender Equality Committee
	2023	
Quarters I - II	Introducing flexible working for male and female members of staff, introducing individual time schedules, task-oriented working time, and other flexible working arrangements allowing staff members to combine work with family life	Directors of the institute supported by Gender Equality Committee and HR Committee
	Training on the labour law – to raise awareness of the need to take into account longer absences of a member of staff in the workplace in his/her annual assessment	Gender Equality Committee supported by HR Committee

Quarters III - IV	Staff survey on the actual state of measures ensuring gender equality	Gender Equality Committee
	Statistical analysis of actual employment proportions in terms of gender at the institute in 2023	Gender Equality Committee
	Assessment of actions implemented so far	Gender Equality Committee
	Developing the time schedule and content of the required training sessions and actions for subsequent years of project duration	Gender Equality Committee
	2024	
Quarters I - II	Training sessions meeting the needs identified in investigations and surveys in the second half of 2023	Gender Equality Committee
Quarters III - IV	Staff survey on the actual state of measures ensuring gender equality	Gender Equality Committee
	Statistical analysis of actual employment proportions in terms of gender at the institute in 2024	Gender Equality Committee
	Assessment of actions implemented so far	Gender Equality Committee
	2025	Gender Equality Committee
Quarters I - II	Training sessions meeting the needs identified in investigations and surveys in the second half of 2024	Gender Equality Committee
Quarters III - IV	Staff survey on the actual state of measures ensuring gender equality	Gender Equality Committee
	Statistical analysis of actual employment proportions in terms of gender at the institute in 2025	Gender Equality Committee
	Assessment of actions implemented so far	Gender Equality Committee

## SUMMARY

The presented actions will enable raising awareness of the gender equality issue among female and male members of staff, and hence will contribute to early identification of discriminatory activities and, should they appear, to an appropriate reaction to the occurring anomalies.

It is forecast that actions oriented on young researchers with a family and female researchers, especially in their mid-careers, will counteract the issue of loss of their engagement in their careers in research and will enable the development of methodological and organizational solutions for future development programmes implemented at ICSC PAS.

Increasing the powers of HR Committee and the disciplinary spokesman at ICSC PAS as well as appointing Gender Equality Committee will contribute to launching equality actions, which will have a direct effect on counteracting and preventing possible discriminatory problems at ICSC PAS and will enable undertaking advisory activities in issues related to combining work with family-related duties.

## REFERENCES

- [1] *Kobiety i mężczyźni na rynku pracy*. GUS, 2018
- [2] Criado-Perez, Caroline. *Niewidzialne kobiety: jak dane tworzą świat skrojony pod mężczyzn*. Karakter, 2020.
- [3] *Gender in the Global Research Landscape: Analysis of Research Performance Through a Gender Lens Across 20 Years, 12 Geographies, and 27 Subject Areas*. Elsevier, 2017. [https://www.elsevier.com/\\_\\_data/assets/pdf\\_file/0008/265661/ElsevierGenderReport\\_final\\_for-web.pdf](https://www.elsevier.com/__data/assets/pdf_file/0008/265661/ElsevierGenderReport_final_for-web.pdf) : (accessed: September 28, 2021).