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National Center for Research and Development Narodowe Centrum Badań i Rozwoju (NCBR)

"Gender Equality Plan"<br>\section*{for the National Center for Research and Development}

UPDATE for 2024

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The National Center for Research and Development (hereinafter referred to as the "Center", "NCBR" or "Agency") is an implementing agency whose aim is to connect the worlds of science and business, among others, by co-financing R\&D projects and financially supporting innovative ideas of Polish entrepreneurs and scientists. These activities serve to solve specific civilization problems and, thus, facilitate social and economic development of Poland. The Center also serves as an intermediary institution in operational programs distributing EU funds and, as part of the National Contact Point Department, it conducts information, educational, mentoring and advisory activities for domestic entities applying for co-financing of projects from the European Union's "Horizon Europe" program.

The "Horizon Europe" program is the largest Framework Program for research and innovation in the history of the Union. Over 7 years (2021-2027), a total of EUR 95.5 billion have been and will be allocated to innovative research and innovative solutions. As of 2022, having a "Gender Equality Plan" is an eligibility criterion for applying for funding from "Horizon Europe" for public bodies (including e.g. ministries, research funding organizations, municipalities, as well as public-for-profit organizations such as certain museums), research organizations (both public and private), higher education establishments (both public and private). Due to the need to adopt the "Gender Equality Plan" at the NCBR, the first step was to examine the current situation and define key areas that require changes as part of the implementation of the Plan.

As an employer, the NCBR is guided by the principle of equality both in the recruitment of job applicants and in its HR and remuneration policies.
Recognizing the diversity of points of view and experiences as values supporting the development of science, the NCBR, through its practices, attracts clients representing various social groups and actively supports gender equality in Polish academic centers, and also participates in international initiatives in this area. Creating equal opportunities in applying for funds at the Center's disposal, while giving priority to the criterion of scientific excellence in the process of assessing applications for co-financing, has been the overriding principle in the NCBR's activities since the beginning of its existence.
The "Gender Equality Plan" for the National Center for Research and Development based in Warsaw was developed with the entire community of the Agency in mind.
The document is based in particular on the following legal acts:

1) Constitution of the Republic of Poland of April 2, 1997 (Journal of Laws 1997/78, item 483);
2) Regulation (EU) 2021/695 of the European Parliament and of the Council of 28 April 2021 establishing the "Horizon Europe" framework program for research and innovation and the rules on participation and dissemination applicable to that program and repealing Regulation (EU) No. $1290 / 2013$ and (EU) No. 1291/2013;
3) Directive 2006/54/EC of the European Parliament and of the Council of 5 July 2006 on the implementation of the principle of equal opportunities and equal treatment of men and women in matters of employment and occupation (OJ EUL 2006. 204. 23);
4) Act of February 25, 1964 - the Family and Guardianship Code (Journal of Laws 2020/1359, as amended);
5) Act of 23 April 1964 - the Civil Code (Journal of Laws 2020/1740, as amended);
6) Act of 26 June 1974 - the Labor Code (Journal of Laws 2020/1320, 2021/1162);
7) Act of 6 June 1997 - the Penal Code (Journal of Laws 2021/2345, 2021/2447).

The "Gender Equality Plan" also takes into account good practices used in other EU Member States in equivalent documents, while the goals, activities and indicators are adapted to the needs and capabilities of the NCBR.

Its main goal is to make the NCBR a workplace for everyone, safe and free from discrimination, regardless of gender, ${ }^{1}$ age or nationality, thus enabling everyone to develop professionally and

[^0]personally without barriers. The implementation of this equality plan contributes to the establishment of clear procedures, which contributes to the creation of a better working environment that can attract and retain talents, eliminate barriers in combining work with private life, prevent career slowdown and support the involvement and use of the potential of teams diverse in terms of gender and age, among others, by improving the quality of jobs, the teaching process and employee development, which strengthens the NCBR in the competitive professional environment in the country. The Agency's "Gender Equality Plan" is the result of an analysis of its staffing and growth. It is a strategy planned for 4 years (from 2022 to 2025).
In the initial phase of the implementation of the "Gender Equality Plan" for the NCBR, it is planned to draw up a coherent document containing a list of necessary measures required for adaptation of existing procedures, adding new ones, and creating mechanisms for reporting irregularities, protecting whistleblowers and proposing corrective actions aimed at seeking consensus and mediation.

The "Gender Equality Plan" aims to engage the professional community in the process of promoting equality and equal development opportunities. This approach is also reflected in the fact that this document had been widely consulted with all the Agency's employees before it took its final shape.
The "Gender Equality Plan" for the NCBR includes:

- a diagnosis with the most important conclusions from the hitherto studies of the existing situation,
- a definition of the key areas of the Plan with recommendations for action.

Equality is a value that contributes to professional growth of people who have the right to develop. The starting point for the "Gender Equality Plan" is good practices translated into actions and improving communication in our community, so that good examples and equality solutions can be more efficiently disseminated. This allows us to combine the building of a climate of safety and equality in the workplace with working for an improvement of work performance. The NCBR's mission is to provide all its employees with access to professional development tools and skill acquisition opportunities, which requires counteracting discrimination through the early response system.
According to available research and consultation outcomes, some persons encounter various types of prejudices and institutional obstacles that can prevent them from taking advantage of professional development opportunities on an equal footing with others. These barriers often take the form of discrimination on grounds of gender, sexual harassment and difficulties in combining work and family life. Such obstacles slow down careers, especially in the case of women, and some people may lose interest in further professional development. Barriers to reconciling work with private life also discourage fathers who try to be involved in both spheres of life. Among the many benefits of equality at the NCBR, we can mention its positive impact on the quality of work at NCBR, the Agency's position in the competitive environment, the outcomes of dialogue and exchange of ideas taking place in the spirit of diversity with a sense of community, and the organization of work, which is particularly important in the rapidly changing external environment. Equality also translates into well-being at work.

Equality policies support the planning of clearer procedures, which contributes to both improving the working environment and attracting and retaining talents. This strategy will facilitate the integration of the process of building a climate of safety and equality in the workplace while preventing discrimination as a result of the early response.
The "Gender Equality Plan" for the NCBR will help us recruit personnel and develop professional careers regardless of gender, ethnic and cultural affiliation, sexual orientation or disability, to the Agency's advantage. Moreover, it should be emphasized that numerous teams were engaged in the drafting of the "Plan" - we take into account more than just one perspective, which is extremely beneficial for the results of the process, while creating an environment focused on longterm goals and solving problems and conflicts. The NCBR not only does not accept, but actively combats, all manifestations of unequal treatment or discrimination.

## 2 The establishment of the Project Team and the allocation of resources

The NCBR has established a Project Team for the development and implementation of the "Gender Equality Plan". The team comprises members of the following departments: the Center Director's and Legal Services Office, the Officer for Human Resources, the Strategic Management Department, the National Contact Point Department, the Beneficiary Cooperation Department, the Department of National Grants and EU Funds, a representative of Trade Unions and representatives of NCBR's subsidiaries (NCBR+ sp. z o.o.). The Team's term of office covers the pre-implementation and implementation phases of the "Gender Equality Plan". The Team members represent various job position levels at the NCBR. Decisions are made collectively, according to a developed model. The Team may be expanded to include employees of the NCBR Group interested in working towards gender equality.

## 3 Diagnosis

### 3.1 The NCBR's authorities

The authorities of the Center are: the NCBR's Director, the NCBR's Council and the Steering Committee for scientific research and development in the area of state security and defense (hereinafter referred to as the "Steering Committee"). The minister supervising the NCBR appoints and dismisses members of the NCBR's Council and the Steering Committee. On December 31, 2021, the NCBR's Council comprised 3 women and 28 men while the Steering Committee included 1 woman and 6 men.

### 3.2 The NCBR as an employer

### 3.2.1 Recruitment at the NCBR

The recruitment process at the NCBR involves collecting a sufficient number of applications for a given position, making a short list of candidates and, finally, selecting the person most suitable for the job. It is usually a multi-stage process, which allows for a thorough check of the applicants' qualifications. The recruitment process at the NCBR is regulated by the Act on the NCBR. Job advertisements are published in the Career tab of the NCBR's section on the Public Information Bulletin website and on the Agency's Intranet. We avoid using in these advertisements any phrases that could be contrary to the principles of equality and diversity, for example referring to stereotypes or personal preferences. The announcements highlight advantages important from the point of view of reconciling work with private life (such as flexible working hours, hybrid work, private medical care, sports and recreation package, group insurance or remuneration rules). The candidate is asked at the beginning of the recruitment process to complete a short form that allows us to check whether he or she meets the formal criteria for the position. After collecting applications, we attach a list of persons meeting the formal criteria to our original announcement on the Public Information Bulletin website (names and localities of residence). Each recruitment process has its supervisor whom the candidate can contact in case of additional questions or doubts regarding the job position or the recruitment process.

If an applicant meets the criteria of the advertisement, he or she is invited to a recruitment meeting by phone. In some cases, we ask a few questions about previous experience or expectations towards the future employer during this conversation. Our questions asked during the recruitment process are related only to the nature of the job and relevant professional qualifications and education. The candidate meets at the first meeting their future supervisor and, sometimes, also a prospective colleague. The recruiter also tells the candidate more about their future responsibilities, the NCBR Group, our values and our team. We give each candidate a feedback regardless of the recruitment result. We offer employment to candidates who have successfully completed the entire recruitment process and best meet our expectations.

### 3.2.2 Remote working

The remote mode of working (doing work from outside the Agency's headquarters) has been recommended to the NCBR's employees since 2020 in accordance with an internal instruction from the Center's Director. Heads of the NCBR's organizational units authorize or impose this mode, taking into account specific rules. Remote and hybrid work have become the preferred mode for a significant part of the NCBR's employees. According to a survey conducted by the NCBR among its employees in July 2021, 80\% of them were in favor of retaining the remote-andhybrid work, i.e. combining work from home and at the office. $90 \%$ of the respondents highly valued the opportunity to work remotely. $66.4 \%$ were happy that they could save time by not commuting to work. Second on the list of advantages, with a score of $36.8 \%$, was the fact that the working time of individual employees is more flexible, which is particularly important, for example, for employees who are parents. In 2023, the Work Regulations were adopted by the NCBR, which introduced solutions for remote work under the current wording of the Labor Code.

### 3.2.3 Organizational culture - survey results

At the turn of March and April 2023 a survey was conducted via the Intranet among all the NCBR Group's employees, entitled: "Reconciling professional and private lives at the NCBR".
194 persons responded to the survey, which means that $1 / 4$ of all employees in the Group were involved. $74 \%$ of the employees who responded to the survey are aged 30 to 50 and have been working at the NCBR for 2 to 9 years. Employees under 30 years of age constituted 20\% of the respondents. Employees with less than one year of experience constituted 10\% of the respondents. $73 \%$ of the respondents were women.
The survey asked for opinions on the forms of working at the NCBR and the solutions facilitating the reconciliation of professional and private lives. The survey shows that the NCBR Group's employees are very well informed about possible forms of support. Most of the respondents said they knew the solutions offered by the NCBR to help reconcile professional and private lives and were happy to use them.

Knowledge and declaration of using available solutions


When asked whether they have been personally affected by undesirable circumstances at the NCBR regarding the reconciliation of professional life and caring for loved ones, $13 \%$ of the respondents answered "yes". In response to the next question, they clarified that these were cir-
cumstances related mainly to: the impact of caring responsibilities on the assessment of achievements, the planning of business meetings / consultations for times conflicting with caregiving responsibilities, requiring the employee's availability after working hours (for example, answering work e-mails and phone calls), lack of supervisor's consent to combine work with child care.
$58 \%$ of the surveyed employees declared that they knew what documents adopted by the NCBR dealt with equal treatment. As many as $42 \%$ stated that they did not have such knowledge. One of the assumptions of the "Gender Equality Plan" adopted by the NCBR is to increase awareness, which is why measures have been taken to disseminate knowledge in this area. A tab on the Intranet and announcements on this topic were created, and webinars were organized.
When asked about working from home, $46 \%$ of the employees answered that they worked based on an individual schedule agreed with the manager. $56 \%$ of the employees declared that they would most like to work in a hybrid mode (partly at the office, partly from home) and $42 \%$ preferred the purely remote mode.
The main advantages of remote work that employees value most are:

- Saving time by not commuting to work - $94 \%$
- Better conditions for concentration and work - 83\%
- Comfort - 75\%
- Reduction in travel costs - 70\%
- Less frustration associated with the daily commute - 67\%
- Better conditions for working with clients - $59 \%$.

They consider the disadvantages of this form of work to be:

- Lack of integration with colleagues - $54 \%$
- No direct contacts - $53 \%$
- Increased fixed costs - 37\%.

The survey results were used by the HR Department to prepare new Work Regulations taking into account employees' opinions, as well as to plan other measures.

### 3.2.4 Employment status - detailed explanations, research hypotheses

The number of employees of the NCBR in 2021 was 539.13 including 382.83 women ( $71.01 \%$ ). The mean number of employees in 2022 was 544.53 persons of whom $69.88 \%$ were women. As of July 1,2023 , the number of employees was 540 including 392 women ( $72.59 \%$ ).

In 2021, for the purposes of developing the "Gender Equality Plan" for the NCBR, an analysis of the shares of men and women among the employees was carried out, taking into account the division into professional groups and managerial positions (see sections 3.2.5 to 3.2.9).
Moreover, when creating the Plan, the phenomenon of unequal treatment and discrimination on grounds of gender was examined through an analysis of the following aspects:
i. the amount of remuneration at individual job hierarchy levels,
ii. the use of maternity / parental leave,
iii. the number of unused leave days,
iv. job seniority and position,
v. the shares of men and women in specific positions.

The phenomenon of mobbing in the organization was also examined, divided into employee groups, in terms of:
i. effectiveness of anti-mobbing policies,
ii. impact on relations at work and the level of job satisfaction.

This analysis is complete and is based on a set of 570 employee files held in the HR and payroll system, regarding job seniority and position, remuneration and use of rest, maternity and parental leaves in 2021.
The survey on mobbing was incomplete - conducted among 113 employees of the NCBR. The participation in survey was voluntary. The data analyzed reflect the status on October 31, 2021.

As part of the statistical analysis of employment, employee leaves, mobbing and discrimination, several research hypotheses were formulated:

1) The shares of men and women among the employees are equal.
2) The structure of employee remuneration does not depend on the job position held.
3) The use of maternity, childcare and parental leaves does not depend on gender.
4) The number of unused leave days does not depend on gender.
5) The length of service of employees holding particular positions does not depend on gender.
6) The shares of men and women in individual job positions are equal.
7) There is no correlation between the perception of mobbing and well-being at work.
8) There is no relationship between the sense of being mobbed and evaluation of the atmosphere in the workplace.
The mobbing study was repeated in 2022.

### 3.2.5 General information on the employment structure

The starting point for analyzes aimed at drawing up the "Gender Equality Plan" is to check the shares of men and women among persons employed under an employment contract, regardless of the working hours. As of July 1, 2023, the NCBR employed 540 persons of whom $72.59 \%$ were women.

Table 1: Shares of men and women among the NCBR's employees

|  | Number | Cumulative number | Percentage | Cumulative percentage |
| :--- | :---: | :---: | :---: | :---: |
| Women | 392 | 399 | 72.59 | 72.59 |
| Men | 138 | 540 | 27.41 | 100 |
| Total |  | 540 |  | 100 |

Table 1 shows that the shares of men and women among full-time employees are uneven. We observe significant disproportions of the shares of men and women. Women definitely predominate among the total number of employees. The shares of men and women are similar in the case of employment in the most numerous job groups. The ratio of $70 \%$ employed women to $30 \%$ employed men is also reflected in the job groups: "R\&D staff" and "Managers". This trend is not visible in the case of "Managers", as shown in Table 2.

Table 2: Shares of men and women among the NCBR's employees by job position

|  | Aggregated figures |  | Count table: Gender (badanie_v2.sta) |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Position type | Number | Cumulative number | Percentage |
| Women | R\&D staff | 331 | 331 | 72.91 |
| Men | R\&D staff | 123 | 454 | 27.09 |
| Women | Managers | 61 | 61 | 70.93 |
| Men | Managers | 25 | 86 | 29.07 |

Table 3: Shares of men and women among the NCBR's employees by job position
Count table: Gender (badanie_v2.sta) | Flagged cell number > 10 (no boundary totals determined)

|  | Position type | Women | Men | Row total |
| :--- | :---: | :---: | :---: | :---: |
| Number | Managers | 61 | 25 | 86 |
| $\%$ of the column |  | $15.56 \%$ | $16.89 \%$ |  |
| $\%$ of the row |  | $70.93 \%$ | $29.07 \%$ |  |
| $\%$ of the total |  | $11.30 \%$ | $4.63 \%$ | $15.93 \%$ |
| Number | R\&D staff | 331 | 123 | 454 |
| $\%$ of the column |  | $84.44 \%$ | $83.11 \%$ |  |
| $\%$ of the row |  | $72.91 \%$ | $27.09 \%$ |  |
| $\%$ of the total |  | $61.30 \%$ | $22.78 \%$ | $84.07 \%$ |

The analysis of the shares of men and women in the case of the "Managers" and "R\&D staff" job groups shows that there are no significant differences, which may indicate the lack of inequalities. $17.29 \%$ of the population of "Managers" were women and $18.13 \%$ were men. The same is
the case with the "R\&D staff": $82.21 \%$ women and $80.7 \%$ men. Despite the large disproportion in the overall employment of men and women at the NCBR, there is no significant percentage difference in employment in the two job categories. The situation is different among the "Managers", but due to the size of this group it is difficult to analyze it. The shares of men and women are not equal. Women clearly predominate in the total number of employees and in the individual job groups: "Managers" and "R\&D staff".

### 3.2.6 Salary amounts at individual job hierarchy levels

As part of the analysis of remuneration levels at individual job hierarchy levels, the first stage will be the adoption of a methodology for calculating the pay gap in the NCBR. Once the methodology is agreed on, the monitoring of this employment aspect will begin. Based on the observed data, measures will be taken to prevent the pay gap.

Table 4: Student's t-test: comparison of the mean salaries in individual positions
Aggregated figures | Cross-sectional table of descriptive statistics (badanie_v2.sta) Inclusion condition v14>0

| $\begin{aligned} & \frac{0}{0} \\ & \frac{0}{\Pi} \\ & \end{aligned}$ |  |  |  | + | " | 2 |  | ㄷ <br> 0 <br> 0 <br> 0 <br> 1 <br> 0 <br> $\mathbf{0}$ <br> 2 <br> 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gross | Executives | 115.34\% | 69.21\% | 2.304 | 1 | 0.261 | 2 | 1 | 16.31\% | 0\% | 0.00 | 1.000 |
| salary per | R\&D staff | 113.12\% | 94.42\% | 6.403 | 464 | 0.000 | 138 | 328 | 39.76\% | 21.29\% | 3.426 | 0.000 |
| full-time | Managers | 112.95\% | 94.37\% | 2.489 | 98 | 0.014 | 31 | 69 | 16.31\% | 32.35\% | 1.268 | 0.415 |

### 3.2.7 The use of maternity and parental leaves

Child care involves maternity, paternity and parental leaves. These leaves are available to the NCBR's employees as parents or as other persons caring for children.

Table 5: The Use of leaves related to the birth / raising of a child among men and women Count table (badanie_v2.sta) | Flagged cell number > 10 (no boundary totals determined)

|  | Child leave | Women | Men | Row total |
| :--- | :---: | :---: | :---: | :---: |
| Number | Parental leave | 16 | 0 | 16 |
| $\%$ of the column |  | $2.96 \%$ | $0 \%$ |  |
| $\%$ of the row |  | $100.00 \%$ | $0 \%$ |  |
| $\%$ of the total |  | $2.96 \%$ | $0 \%$ | $4.04 \%$ |
| Number | None | 376 | 148 | 524 |
| $\%$ of the column |  | $95.92 \%$ | $100 \%$ |  |
| $\%$ of the row |  | $71.76 \%$ | $28.24 \%$ |  |
| $\%$ of the total |  | $69.63 \%$ | $30.37 \%$ | $97.04 \%$ |
| Number | Total | 392 | 148 | 540 |
| $\%$ of the total |  | $72.59 \%$ | $27.41 \%$ |  |

The possibility of using this group of leaves varies for men and women, and employees' decisions to take them are also influenced by cultural and other considerations, not necessarily related to the NCBR's policy. Nevertheless, $13.03 \%$ of the women took advantage of their rights related to parenthood, compared to $6.43 \%$ of the men, i.e. almost twice fewer.

### 3.2.8 Analysis of the number of unused leave days among men and women

Table 6: Descriptive statistics - men's and women's leaves by job position

|  |  | Mean "remaining leave" | Max. remaining leave |
| :---: | :---: | :---: | :---: |
| Executives | Women | 27.93 | 51 |
|  | Men | 27.61 | 47 |
|  | Total | 27.71 | 47 |
| R\&D staff | Women | 27.01 | 75 |
|  | Men | 22.90 | 57 |
|  | Total | 25.49 | 57 |
| Total | Women | 26.62 | 75 |
|  | Men | 25.64 | 57 |
|  | Total | 26.35 | 57 |

A more thorough analysis reveals a very high number of unused leave days among women in "R\&D staff" positions: up to 78. The case is similar with the "Managers", which is confirmed by the standard deviation. The highest values of variance over 10 days of rest (annual) leave are observed among women in the positions of "R\&D staff" and "Managers".
The unused leave trends among men and women, where each of the groups has a $50 \%$ share, are similar. We see a large number of outliers and extremes in women, which we do not see in men. The research hypothesis has been confirmed: the number of unused leave days does not depend on gender.

The dispersion is strong in the case of women in "R\&D staff" positions. The 67.95 rate is high, which indicates that the mean number of rest leave days has a small informative value. Also the skewness index, 1.76, confirms this state: there are large numbers of unused rest leave days that deviate from the mean and we have a large right-side asymmetry of the distribution.
Due to the use of the truncated mean or the $5 \%$ winsorized mean for calculation of the overdue leave days, after rejecting the most extreme values at both ends, we observe mean values of the rest leave in women in "R\&D staff" positions and they no longer have high deviations from the mean values.

### 3.2.9 Job seniorities and job hierarchy levels among men and women

Table 7: Men's job seniorities in individual positions
Men | Flagged cell number > 10 | Count table (badanie_v2.sta) (no boundary totals determined)

|  | Position type | Group seniority |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Up to 2 years | 2-4 years | 4-6 years | Over 6 years |  |
| Number total |  |  |  |  |  |
| \% of the column | R\&D staff | 9 | 12 | 16 | 86 | 123 |
| $\%$ of the row |  | $100.00 \%$ | $85.71 \%$ | $94.12 \%$ | $79.63 \%$ |  |
| $\%$ of the total |  | $7.32 \%$ | $9.76 \%$ | $13.01 \%$ | $69.92 \%$ |  |
| Number |  | $6.08 \%$ | $8.11 \%$ | $10.81 \%$ | $58.11 \%$ | $83.11 \%$ |
| $\%$ of the column |  | 0 | 2 | 1 | 22 | 25 |
| $\%$ of the row |  | $0.00 \%$ | $14.29 \%$ | $5.88 \%$ | $20.37 \%$ |  |
| $\%$ of the total |  | $0.00 \%$ | $8.00 \%$ | $4.00 \%$ | $88.00 \%$ |  |
| Number |  | $0.00 \%$ | $1.35 \%$ | $0.68 \%$ | $14.86 \%$ | $16.89 \%$ |
| $\%$ of the total | Total | 9 | 14 | 17 | 108 | 148 |

Table 8: Women's job seniorities in individual positions
Women | Flagged cell number > 10 | Count table (badanie_v2.sta) (no boundary totals determined)

|  | Position type | Group seniority |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Up to 2 years | 2-4 years | 4-6 years | Over 6 years | Row total |  |
| Number | R\&D staff | 9 | 12 | 16 | 86 | 123 |  |
| \% of the column |  | $100.00 \%$ | $85.71 \%$ | $94.12 \%$ | $79.63 \%$ |  |  |
| $\%$ of the row |  | $7.32 \%$ | $9.76 \%$ | $13.01 \%$ | $69.92 \%$ |  |  |
| $\%$ of the total |  | $6.08 \%$ | $8.11 \%$ | $10.81 \%$ | $58.11 \%$ | $83.11 \%$ |  |
| Number | Managers | 0 | 2 | 1 | 22 | 25 |  |
| $\%$ of the column |  | $0.00 \%$ | $14.29 \%$ | $5.88 \%$ | $20.37 \%$ |  |  |
| $\%$ of the row |  | $0.00 \%$ | $8.00 \%$ | $4.00 \%$ | $88.00 \%$ |  |  |
| $\%$ of the total |  | $0.00 \%$ | $1.35 \%$ | $0.68 \%$ | $14.86 \%$ | $16.89 \%$ |  |
| Number | Total | 9 | 14 | 17 | 108 | 148 |  |
| $\%$ of the total |  | $6.08 \%$ | $9.46 \%$ | $11.49 \%$ | $72.97 \%$ | $100 \%$ |  |

The analysis of the general employment trend at the NCBR, measured by overall job seniority, shows that persons with seniority of up to 2 years are the most numerous group among the men and women: $59.06 \%$ and $40.85 \%$, respectively.
The "R\&D staff" with up to 2 -year job seniority are the largest group with a predominance of men ( $51.46 \%$ ). This group of men is followed in terms of size by the 2-4 years seniority group ( $12.28 \%$ ) and, next, by the 6+ years group. In the case of women, the second most numerous group of the "R\&D staff" is the group with more than 6 years of job seniority ( $21.80 \%$ ).

The analysis of the "Managers" shows an opposite trend. The largest group of men (7.02\%), have a job seniority of up to 2 years. The largest group of women have more than 6 years of experience.
The mean seniority of the "Managers" - both men and women - is similar: approximately 5 years. Only the greater right-side skewness of the distribution in the case of men may indicate that there are more younger men than women among the "Managers".
$50 \%$ of the male and female "Managers" have similar lengths of service: from 1 to 9 years. The maximum length is much higher for men than for women: 19 years. In the case of both male and female "Managers" there are outliers in the cumulative job seniority: 21 for women and 23 years for men. No extreme values were recorded.
Analyzing the length of service of the "R\&D staff", we see that $50 \%$ of the women have 0 to 6 years of job seniority, and the men from 0 to 3 years. The medians are similar, with a slight tendency for a higher value, 2 years, in women. The lengths of service as the "R\&D staff" have outliers and extreme values for both men and women. The extreme value for women is is 28 years.

Table 9: Student's $t$-test of equality of men and women in terms of the mean seniority as the "R\&D staff" and "Managers"
Aggregated figures | T-tests; grouping value: gender (badanie_v2.sta) | Group 1-M; Group 2 - W

| $\begin{aligned} & \frac{0}{0} \\ & \frac{0}{\pi} \\ & \frac{1}{\pi} \\ & \lambda \end{aligned}$ |  |  |  | + | \% | 0 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Seniority in months | Executives | 26.000 | 171.000 | -20.929 | 1 | 0.030 | 2 | 1 | 5.657 | 0.00 | 0.00 | 1.000 |
|  | R\&D staff | 33.362 | 51.521 | -3.486 | 464 | 0.001 | 138 | 328 | 44.144 | 54.062 | 1.450 | 0.007 |
|  | Managers | 72.000 | 69.058 | 0.231 | 98 | 0.818 | 31 | 69 | 72.388 | 51.966 | 1.940 | 0.025 |

Table 10: Mannn-Whiney $U$ test of equality of men and women in terms of the mean seniority as the "R\&D staff" and "Managers"
Mann-Whitney U test (adjusted for continuity) (badanie_v2.sta) | Variable of reference: gender The flagged results are significant with $p<.05000$ | Inclusion condition: v5 = "Managers"

|  |  |  | כ | N | 2 |  | 2 | $\begin{aligned} & \text { ᄃ } \\ & \sum_{0}^{0} \\ & 1 \\ & \frac{1}{\bar{N}} \\ & \mathbf{N} \\ & \mathbf{Z} \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Group seniority in years | Executives | 1520.000 | 3530.000 | -0.335 | 0.737 | $-0.350$ | 0.726 | 31 | 69 | 0.739 |

Based on the Student's t-test, it can be concluded that the mean length of service of men and women as managers is the same (with the probability of committing a type II error of 0.828009 ). This conclusion is confirmed by the Mann-Whitney $U$ test.

The situation is different for the "R\&D staff" for whom we have grounds to conclude that the mean length of service is not the same (with the probability of committing a type I error of 0.000536 ) and - as indicated by the mean value - the length of service of women in this position is longer. The size of the group of "Managers" makes it impossible to draw conclusions based on the test. The lengths of service of men and women as the "Managers" can be considered the same, however, the mean lengths of service for the "R\&D staff" are different. There are no significant statistical differences in the shares of men and women in the "Managers" and "R\&D staff" positions. Based on the analysis, no deviations indicating significant differences have been found.

### 3.2.10 Mobbing - the scale of occurrence

The aim of the anonymous survey conducted among the employees was to investigate the phenomenon of mobbing at the NCBR, among other things. The survey contained 50 questions in both closed and open formulas, however, the actual number could be smaller, depending on the answers provided. 113 employees took part in the survey.

Table 11: Exposure to mobbing among the NCBR's employees
Aggregated figures | Count table: Have you heard about mobbing?

|  |  | Number | Cumulative number | Percentage |
| :---: | :---: | :---: | :---: | :---: |
| Women | Yes | 70 | 70 | 93.33 |
|  | No | 5 | 75 | 6.67 |
| Men | Yes | 36 | 36 | 94.74 |
|  | No | 2 | 38 | 5.26 |

The surveys show that both men and women are aware of the issue of mobbing in the work environment. $93.33 \%$ of the women and $94.73 \%$ of the men taking part in the survey declare that they have heard about the phenomenon of mobbing.

Table 12: Exposure to mobbing depending on job seniority
Aggregated figures | Count table: Have you noticed mobbing being used against anyone at the NCBR / Company?

| Seniority | Answer | Number | Cumulative number | Percentage |
| :---: | :---: | :---: | :---: | :---: |
| Yes Less than 1 year | Yes | 4 | 4 | 16.67 |
|  | No | 20 | 24 | 83.33 |
| $1-3$ years | Yes | 16 | 16 | 51.62 |
|  | No | 15 | 31 | 48.38 |
| More than 3 years | Yes | 32 | 32 | 55.17 |
|  | No | 26 | 58 | 44.83 |

The analysis of Table 12 shows that $83 \%$ of the employees who took part in the survey and worked at the NCBR for less than one year did not notice mobbing in the organization. More than
half of persons with more than q year and more than 3 years of seniority believed that mobbing happened. Table 13 illustrates the awareness of the anti-mobbing policy.

Table 13: Awareness of the existence of anti-mobbing policies among company employees
No division into groups | Count table: Does the NCBR / Company have such policies?

|  | Number | Cumulative number | Percentage |
| :---: | :---: | :---: | :---: |
| Yes | 81 | 81 | 71.68 |
| I don't know | 27 | 108 | 23.89 |
| No | 5 | 113 | 4.43 |

According to an anonymous survey conducted among the employees of the NCBR Group, $71.68 \%$ of the employees who took part in the survey know that the NCBR has policies to counteract mobbing. However, this awareness is greater in the group of employees with the shortest job seniority. Interestingly, as many as $87.5 \%$ of the employees with less than 1 year of seniority declare that they know that anti-mobbing policies exist. Only a small percentage of employees believe that the NCBR's anti-mobbing procedures, regardless of their length of service. The largest percentage of staff who believe is in the group of persons working at the NCBR for less than a year. The Women who noticed that other employees are being mobbed claim that this phenomenon negatively affects the working atmosphere at the NCBR (33.33\%). Another 33.33\% of all the women who took part in the survey claim that their perception of working at the NCBR is neither good nor bad. Only $28.21 \%$ of all the women who noticed mobbing claim that they can work comfortably at the NCBR. The men who have not seen mobbing towards other employees (as many as $52 \%$ ) claim that they enjoy working at the NCBR. Another $32 \%$ of the men say that they definitely enjoy working at the NCBR. $46.15 \%$ of the men who took part in the survey claim that they would notice if other employees were mobbed and, at the same, time declare that they feel bad working at the NCBR.

### 3.3 The NCBR as an institution financing projects in the area of R\&D and social policies

As an agency providing support for research and development, the Center offers several programs, primarily of a grant nature. The Center's offer includes European programs (financed from EU funds), national programs (including strategic, security and defense) and international programs (including, among others, Norwegian Funds and bilateral cooperation programs). Programs, regardless of their source of financing, are addressed to various types of beneficiaries. The two most important groups among them are enterprises and research institutions.
Assessment criteria referred to as "horizontal" ones apply to the issue of equal opportunities for men and women (including reducing equality barriers) in project activities, i.e. at the level of the funding application. They concern primarily applications submitted under European programs (the "Smart Growth" Operational Program, the "Knowledge, Education, Development" Operational Program and, in the next perspective, the "European Funds for a Modern Economy" Program and the "European Funds for Social Development" Program²). Such a wide program offer of the Center and many sources of financing for R\&D projects make it important to unify standards in this area, both within EU programs, in the face of the next EU financial perspective, and within national programs implemented by the Center. It should be emphasized that the Center, as an Intermediate Body, operates in consultation with other institutions responsible for the implementation of programs financed from European funds and is accountable to the Managing Authorities which, in turn, supervise the entire implementation process. Therefore, the Center's activities in the area of programs financed from EU funds are adapted to the guidelines of the Managing Authorities and require joint arrangements.
Taking into account the specificity of the Center's activities and the R\&D area, the monitoring of phenomena related to ensuring equal opportunities for men and women in supported projects is limited. This is due to three important reasons:

[^1]1) The applicants under the programs are entities (enterprises, research institutions, scientific and industrial consortiums) and not natural persons. The exception is the LIDER program addressed to young researchers.
2) The Center's extensive program offer and, as a result, many sources of financing make it difficult to identify this phenomenon in a systemic way.
3) Lack of the "gender" variable in IT systems collecting data on funding applications or other variables enabling its identification (including assurance of appropriate quality of data and its validation).

The above-mentioned barriers significantly hamper the diagnosis and, at a later stage, the monitoring of R\&D projects in terms of the representation of men and women in research teams in cofinancing applications and in the final projects. Only in some competitions organized by the Center is it possible to distinguish men from women based on the personal identification number (PESEL) - this applies to selected activities under the "Smart Growth" Operational Program and national programs.
It was possible to determine the shares of men and women among the R\&D and administrative staff only in the case of applications that included PESEL numbers in the part regarding project teams. The analysis used internal data according to the status of applications for co-financing and signed contracts as of December 31, 2021. It should be noted that the data presented below are only a reference point - the analysis was limited only to those applications for co-financing in which it was possible to distinguish men from women based on the PESEL number. This is therefore an approximate picture of the structure of project teams in terms of participation of men and women. The analysis covered a total of 7,759 applications submitted in 2018-2021. Of this pool, 1,958 received funding (as of December 31, 2021). The vast majority ( $97 \%$ ) of the analyzed applications for co-financed projects concern European programs (the "Smart Growth" Operational Program), and the research area is primarily engineering and technical sciences ( $75 \%$ of applications submitted and $77 \%$ co-financed).

Table 14: Number of applications submitted and co-financed in 2018-2021 and the number of staff in projects under the NCBR's programs covered by the analysis

|  | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | Total |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Number of applications submitted | $\mathbf{1 , 6 1 9}$ | $\mathbf{1 , 9 2 5}$ | 2,997 | $\mathbf{1 , 2 1 8}$ | 7,759 |
| Number of applications (projects) co-financed | 114 | 509 | 571 | 768 | 1,958 |
| Staff: applications submitted | 10,577 | 12,329 | 22,402 | 9,093 | 54,401 |
| Staff: applications (projects) co-financed | 864 | 3,435 | 4,168 | 6,098 | 14,565 |

Applications for co-financing include information about the project staff, dividing them into two groups: "R\&D staff" and "Managers". An R\&D manager and an administrative managing manager can be identified in each group, provided that one person can perform both roles. The following graph shows the project staff regardless of their roles in the project.

Figure 1: Percentage shares of men and women in applications for co-financing and in projects implemented under the NCBR's programs in 2018-2021


There are more men than women both in applications and in projects. This trend has continued in the subsequent analyzed years. Women usually constitute about $25 \%$ of the team listed in the project documentation.
From the point of the leading area of science of submitted applications and co-financed projects (assigned to the application), most of the project team conducts research in the area of engineering and technical sciences (in accordance with the specificity of the R\&D area). The analysis of the shares of men and women shows that the greatest imbalance among project teams occurs in this research specialization. In other areas of science (except natural sciences) there is a better balance. In the case of humanities there is a predominance of women in co-financed projects.

Fiqure 2: Percentage shares of men and women in project teams by the areas of science specified in applications for co-financing and in projects implemented under the NCBR's programs in 2018-2021


The median age of women in the submitted applications is 42 years (mean 43.5 years) and the age and of men 44 years (mean: 46 years). In the case of co-financed projects, the median age is almost the same: 42 for women and 44 years for men (mean 43 and 45 years, respectively). The imbalance in the representation of men and women occurs in all age groups, but the greatest disproportion concerns the most experienced staff - aged 56 and older.

Figure 3: Percentage shares of men and women in applications for coand in projects implemented under the NCBR's programs in 2018-2021 by age


The next graph shows the shares of men and women by staff type: "R\&D" and "Administration" (regardless of their actual roles). R\&D activities are the domain of men. In the case of the administrative staff in R\&D projects there is a more balanced distribution, because the share of women in this role is larger: 39\%.

Figure 4: Percentage shares of men and women in project teams in applications for cofinancing and in projects implemented under the NCBR's programs in 2018-2021 by roles


A similar structure can be observed in the case of project managers performing acting in the capacity of both R\&D and administrative staff. The percentage of women among "Administrative managers" is slightly higher than among "R\&D managers", but the imbalance in both areas has persisted over the past few years.

Fiqure 5: Percentage shares of men and women in applications for co-financing and in projects implemented under the NCBR's programs in 2018-2021 by roles


Taking into account the leading areas of the projects, women are also a minority in the group of managers supervising R\&D, as in the case of project teams. The greatest disproportion occurs in projects involving engineering and technical sciences. A balance can only be found in projects implemented in the area of humanities (specified as the main research area in the applications).

Figure 6: Percentage shares of men and women in applications for co-financing and in projects implemented under the NCBR's programs in 2018-2021 by role, according to the leading area of sciences


Regardless of gender, the median age of R\&D managers is as follows: according to the applications: 46 years (mean: men -49 , women -47.5 ), according to the projects: men -46 , women 45 (mean 48 and 46 years, respectively). Disparities can be seen in all these age groups. The highest rate is observed among the oldest management staff aged 56+.

Fiqure 7: Percentage shares of men and women among R\&D managers in applications for cofinancing and in projects implemented under the NCBR's programs in 2018-2021 by age


Assuming that the project manager supervising the R\&D work represents the leader of the consortium, the manager's place of work was determined, i.e. the institution for which the manager leads the R\&D project. The vast majority of managers in this area represent enterprises ( $95 \%$ ). From this perspective, the shares of men and women among R\&D managers are strongly out of balance: the percentage of women as leaders of R\&D projects in the enterprise sector is the lowest ( $13 \%$ ) and does not exceed $15 \%$, taking into account the size of the enterprise measured by the number of employees.

Fiqure 8: Percentage shares of men and women among R\&D managers in applications for co-financing and in projects implemented under the NCBR's programs in 2018-2021 by types of represented entities


Summarizing the statistics of the shares of men and women among the project staff within the NCBR's programs, an imbalance can be observed within each analyzed aspect. A balance is considered to be achieved when the share of men or women ranges from $40 \%$ to $60 \%$. However, in the area of strictly R\&D-related projects, this criterion is difficult to meet. Firstly, the issue is a consequence of the employment structure in R\&D in Poland, which is dominated by engineering and technical sciences. According to data from the Central Statistical Office, ${ }^{3}$ a total of 283,431 persons (in-house and outsourced R\&D staff) were employed in the R\&D sector in 2020. The largest group were research workers: 196,420. The share of women in this group was $37 \%$ and the percentages in the institutional breakdown were $23 \%$ in the corporate sector and $47 \%$ in the higher education sector. These statistics demonstrate that the potential of women is still untapped in R\&D - especially in the corporate sector. A study by Kantar, ${ }^{4}$ commissioned by Ayming Polska, shows that more than half of the companies pursuing innovation in Poland have R\&D teams dominated by men. Women constitute less than $15 \%$ of the members of such teams. In every fifth company, there are from $15 \%$ to $50 \%$ of women. However, only $7 \%$ of the companies can boast of R\&D teams dominated by women.
The second cause of the issue is the imbalance in the scientific sector. Women constitute approximately half of doctors, but only one-fifth of full professors. The higher the level of a scientific career, the smaller is the representation of women. According to the Central Statistical Office, there were $26 \%$ of female professors, $41.5 \%$ of habilitated doctors and $50 \%$ of doctors among the in-house R\&D staff of higher education institutions in 2020. The disproportion in the corporate sector is even greater: $18 \%$ of professors, $29 \%$ of habilitated doctors, $34 \%$ of doctors.

The participation of women in the labor market in the R\&D area will grow. Taking into account the employment of women with higher education in the science and technology sector, according to Eurostat data, there has been a systematic increase in the percentage of women in this group in Poland in the last decade. While in 2011 women constituted $46 \%$ of the employees in the abovementioned sector, in 2021 they numbered $58 \%$ (4 percentage points more than the average for the EU countries). There has been also a noticeable increase in the number of women among students of public technical universities: $+35 \%$ in the academic year 2020/2021. Women also constituted $16 \%$ of students of computer sciences and $16 \%$ of new technology students. ${ }^{5}$ These statistics show a better balance of staff in the science and technology sector, which in turn should translate into mitigating disproportions in the area of R\&D projects, including those financed under the NCBR's programs. In order to fully monitor the shares of men and women in projects co-financed by the NCBR, it is necessary to systematically collect relevant data as part of implementation of the diverse offer of the Center's programs. Due to limited information on the representation of men and women in the NCBR's programs, the analysis results provided above, derived from funding applications, do not reflect the full picture of the shares of men and women in project teams. However, they confirm the observed trends in the R\&D sector and may constitute a reference point for other initiatives undertaken by the Center. But it is necessary to identify measures conductive to the application of the principles of equality in projects that are implemented primarily by external entities - including enterprises and research institutions. This, in turn, determines the area of activities undertaken, which is the requirement to apply the so-called "horizontal criteria" and take measures to make applicants aware of the need to follow the principles of equal opportunities and non-discrimination towards men and women and disabled persons in projects.

### 3.4 The NCBR as an institution cooperating with external experts

The NCBR is a key platform for developing and supporting innovative technological and social solutions, as well as creating an ecosystem of knowledge and information. It initiates and implements projects contributing to the civilizational development of the country. The NCBR, as an implementing agency and an Intermediate Institution in the implementation of programs financed from European funds, has a wide range of programs (national, international, financed from EU funds). Every year it announces several dozen calls for proposals, and applications for co-financing submitted as part of

[^2]the calls are evaluated by experts cooperating with the NCBR based on framework agreements. The evaluation of an application may consist in obtaining several opinions from individual experts selected to evaluate the application or granting a score based on a consensus of a panel of experts (a team of experts evaluating the application). Experts cooperating with the Center take part not only in the process of selecting applications for co-financing but also prepare substantive assessments related to the consideration of appeals against the rejection of applications or to the enforcement of the NCBR's rights and obligations under grant agreements. For example, they evaluate reports or requests for changes at the project implementation stage, carry out audits in ongoing projects, prepare project evaluations for the supervisory team or offer other types of opinions and expertise, such as legal, financial or economic studies for the NCBR.
Their opinions are decisive for granting, withholding or changing the financing of projects, which is why they play an important role in the process of creating innovations by Polish entrepreneurs and scientists.
In order to ensure continuity in obtaining assessments in its tasks, the NCBR maintains the Expert Database. The recruitment to the database is an ongoing process and all necessary information on how to become one of the experts can be found in the dedicated section of the NCBR website. Additionally, so-called "targeted recruitment" is conducted to attract experts in specific areas of science and economy (two such recruitments were completed in 2021). Information about these calls can be found not only on the NCBR's website but also on its social media or in the newsletter. This information is also provided directly to research institutions and enterprises. The NCBR has no influence on the assurance of equal opportunities for men and women among experts who register in the Database, because the registration process and willingness to cooperate with the NCBR depend solely on private and individual decisions of representatives of scientific and economic communities and on time that experts can spare. Each expert listed in the Database has an account in a dedicated IT system, in which they register essential information about their scientific title or degree, professional experience, publications and specialization, along with relevant keywords. Optional information includes diplomas, certificates or other evidence of qualifications. The expert may update and otherwise edit this information. This input is subject to formal and substantive verification by the NCBR. Most of the assessments commissioned and carried out by experts take place in the LSI IT system, after logging in to the expert's account. In addition, during the pandemic, panel meetings were introduced using electronic means of communication, which has facilitated the performance of tasks related to the assessment of applications for co-financing, without the need to come to the NCBR's headquarters.
The Center has defined clear criteria according to which the formal and substantive candidacies of experts are verified. This is done based on the verification criteria displayed at the gate to the Database along with a description of how the verification will proceed and with sample acknowledgments of meeting the criteria. These criteria are the same for both men and women, and for Polish and foreign experts. Currently, work is underway to adapt the IT system to ensure that experts can add to the system copies of necessary proofs of education, degrees, titles and professional experience without the need to send them physically. Once the necessary preparatory work has been done, the expert can access the criteria and the method of verification on the NCBR's website. This system also complies with the guidelines of the Managing Authorities in order to be able to recruit experts for the new 2021-2027 perspective in the "European Funds for a Modern Economy" Program and the "European Funds for Social Development" Program.
NCBR has 4,001 active experts (conditions - signed framework agreement, positive substantive verification of the information contained in the expert's profile and no exclusions, data used in the analysis come from the Expert Database as of May 17, 2022). The NCBR has 4,001 active experts (those with signed framework agreements, verified profiles and no exclusions). The data used in this analysis come from the Expert Database updated on May 17, 2022. 3,603 experts are Poles and 398 come from other countries. $30.6 \%$ of the experts are women and $69.4 \%$ are men.

Table 15: Experts registered in the NCBR's Expert Database

|  | Experts | Polish experts | Foreign experts |
| :--- | :---: | :---: | :---: |
| Women | 1,223 | 1,126 | 97 |
| Men | 2,778 | 2,477 | 301 |
| Total | 4,001 | 3,603 | 398 |

Figure 9: Percentage shares of men and women in the NCBR's Expert Database


In terms of nationality, men and women constitute $68.7 \%$ and $31.3 \%$ of the Poles and $75.6 \%$ and $24.4 \%$ of the foreigners, respectively. The largest group among the Polish experts $(1,438)$ are aged $41-50$, of whom $34.7 \%$ are women, while among foreign experts the most numerous group (139) are aged $51-60$, including $28.1 \%$ of women. The largest percentage of women among the Polish experts is in the 41-50 age group and the smallest in the up to 30 years group. However, among foreign experts, the largest percentage are women in the age group of 31-40 years, and the smallest percentage is in the age group of 41-50 years. On the other hand, among the foreign experts, the largest percentage are women aged 31-40 years and smallest one women aged 41-50. However, among male experts, the largest group are experts $60+$ years old $-27.1 \%$ of all foreign experts. In contrast, among male experts, the largest group (27.1\%) are those aged $60+$. The NCBR has no registered foreign experts younger than 30.

Table 16: Shares of men and women by age among the NCBR's experts
Polish experts

|  | Up to 30 years | $\mathbf{3 1 - 4 0}$ years | $\mathbf{4 1 - 5 0}$ years | $\mathbf{5 1 - 6 0}$ years | $\mathbf{6 0 +}$ years |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Women | 2 | 219 | 499 | 227 | $\mathbf{1 7 9}$ |  |
| Men | 15 | 436 | 939 | 480 | 607 |  |
| Total | 17 | 655 | 1,438 | 707 | 786 |  |
|  | Foreign experts |  |  |  |  |  |
|  | Up to 30 years | $\mathbf{3 1 - 4 0}$ years | $\mathbf{4 1 - 5 0}$ years | $\mathbf{5 1 - 6 0}$ years | $\mathbf{6 0 +}$ years |  |
| Women | 0 | 11 | 19 | 39 | 28 |  |
| Men | 0 | 18 | 75 | 100 | 108 |  |
| Total | 0 | 29 | 94 | 139 | 136 |  |

Fiqure 10: Percentage shares of men and women among the NCBR's experts by age: A - All experts, $B$ - Polish experts, $C$ - Foreign experts



While looking at the shares of men and women by their titles or degrees among the experts cooperating with the NCBR, it can be seen that the largest group are persons with the degree of a doctor or doctor of engineering. Women constitute $34.1 \%$ of the 1,295 Polish experts. Among the foreign experts there are 169 doctors and doctors of engineering and 163 professors, of whom women constitute $28.4 \%$ and $17.8 \%$ respectively. Among foreign experts, the largest group of women among experts are women with habilitated doctor degrees or habilitated doctor degrees in engineering, constituting approximately $40 \%$. The largest group of women among the foreign experts (about $40 \%$ ) are those holding the degree of habilitated doctor or habilitated doctor of engineering. On the other hand, among foreign experts, only men hold the title of master or master of engineering.

Fiqure 11: Percentage shares of men and women among experts registered in the Database down by academic titles / degrees: $A$ - All experts, $B$ - Polish experts, $C$ - Foreign experts

A



Experts must specify the fields in which they have knowledge and experience, as well as education (academic titles or degrees) in their expert profiles in the NCBR's database. Experts define the field/fields in which they specialize in accordance with the list of fields of science and technology according to the OECD classification, Each expert defines the field(s) of their specialization according to the OECD's classification and in line with the statistical classification of economic activities (NACE). Experts who wish to work under the new 2021-2027 perspective of the "European Funds for a Modern Economy" Program will also be required to sign up for selected National Smart Specialization(s) (KIS). The NCBR is currently adapting the IT system dedicated to experts for the recruitment of experts in the new 2021-2027 perspective. Like experts, applicants requesting grants must locate their projects in specific OECD, NABS and PKD categories and provide keywords. The selection of experts to assess projects of all types is based mainly on the OECD's classification, keywords and information contained in the application abstract and title for the best match. When selecting experts, scientific achievements, professional experience, participation in R\&D work and implementations are also taken into account. Experts are not discriminated against during the selection in terms of bender - what counts is only their experience and knowledge converging with the subject matter of the assessment. In the EU's financial perspective for 2021-2027, under the "European Funds for a Modern Economy" Program, this selection will be based on specific National Smart Specialization code(s) declared by experts. Funding applications will also be classified by applicants according to the National Smart Specialization. Applications for co-financing will also be classified by applicants according to the Na tional Smart Specialization codes. When analyzing the shares of men and women in terms of the OECD's classification, a gender balance can be observed among experts in four areas, while engineering and technical sciences are strongly dominated by men (78\%). The predominant specializations among foreign female experts are humanities ( $67 \%$ ) and social sciences (50\%). The remaining areas are dominated by male experts who account for nearly $80 \%$ of their total number in agricultural, engineering and technical sciences. Women account for $55 \%$ of experts in the humanities, also among the Polish experts. In medical and health care sciences, women account for $48.8 \%$, and in social and agricultural sciences $46.5 \%$ and $44.7 \%$, respectively. We can say that there is a balance in these four fields because the shares of men and women among the Polish experts are in the range of $40-60 \%$.

Fiqure 12: Percentage shares of men and women by the OECD's science and technology fields: $A$ - All experts, $B$ - Polish experts, $C$ - Foreign experts


A

The number of women listed in the NCBR's Expert Database is a reflection of the representation of women in science in general. According to the authors of the European Commission's Report entitled "She Figures 2018", ${ }^{6}$ women constitute $59 \%$ of university graduates, $45 \%$ of doctoral students ( $50 \%$ in Poland) and just 18-19\% of professors (21-27\% in Poland, according to various statistics). The turning point in women's careers is the age of $25-35$. Due to the need for numerous foreign internships, conference trips and intensive participation in research at this stage, this is the period of the most dynamic development of a scientific career. At the same time, it is the time considered the most favorable for a women to start a family, but making this choice is likely to interrupt her career or limit the amount of time available for professional development or for additional activities, such as working as an expert.

[^3]
### 4.1 The NCBR as an employer

| Goal | Proposed measures | Responsible units | Preparatory activities | Targets | Timing / freq. of monitoring |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1. Appoint a Plenipotentiary of the NCBR's Director for ethics, equality and diversity | HR Management Department, Security and Compliance Management Department, Office of the NCBR's Director and Legal Services | Take steps to review the existing internal rules and make them more consistent with a view to appointing the Plenipotentiary for Ethics, Equality and Diversity. | Appoint the Plenipotentiary until 2025. | Once a year |
|  | 2. Train the NCBR's recruiters and managers on avoiding discrimination on grounds of gender in the recruitment process | HR Management Department | Train at least 50\% of people involved in the recruitment process (department directors and recruiters) by 2023 | Train at least $80 \%$ of people involved in the recruitment process by 2025. | Once a year |
|  | 3. Train employees on the issues of counteracting mobbing, discrimination and unwitting bias. | HR Management Department | Set up e-learning courses for employees on counteracting mobbing, discrimination and unwitting prejudices. | Train the NCBR's employees through elearning by 2025. | Once a year |
| 1. Improve knowledge of the NCBR's employees about equality issues and encourage positive attitudes towards diversity | 3.1. Train staff on equality of men and women issues in research. | HR Management Department, Communication and Marketing Department | Raise awareness of the importance of equality of men and women in research. | Train employees from the BZB, BSR, Expert Management, BWM and DOB departments to raise awareness of equality of men and women in research based on the NCBR's "Gender Equality Plan" -5 webinars by the end of 2023. Include the subject matter of the "Gender Equality Plan" in onboarding training by the end of 2022. | At the end of 2022 |
|  | 3.2. Raise employees' awareness of mobbing and discrimination. | HR Management Department | Messages reminding of, and promoting, the provisions of the anti-mobbing procedure. | A message reminding of, and promoting, the provisions of the antimobbing procedure published once a year on the Intranet. | Every year |
|  | 4. Introduce equality principles in the context of remuneration processes. | HR Management Department | Develop of a methodology for calculating the pay gap at the NCBR and for monitoring the phenomenon. | Reduce the pay gap between men and women playing the same roles by at least 20\% every year. Adopt the methodology for calculating the pay gap at the NCBR by the end of 2024 and measure the gap once a year. | Every year |
|  | 5. Including questions regarding the current state of compliance with equality issues at the NCBR in the annual antimobbing survey | HR Management Department | First survey by the end of 2022. | Annual anonymous survey among the NCBR's employees | Every year. To be introduced in the survey in 2023. |


| Goal | Proposed measures | Responsible units | Preparatory activities | Targets | Timing / freq. of monitoring |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6. Make it easier for women to take up managerial positions. | HR Management Department | Identify women willing to take up managerial positions. | Conduct a survey by the end of 2024 and annually thereafter. | Every year as of 2024 |
|  |  |  | Facilitate the development of managerial competences. | Provide an e-learning package for employees interested in developing their managerial skills. |  |
| 2. Include information on the gender of persons employed at the NCBR in the annual report on the NCBR's activities. | 1. Include data on employment at the NCBR broken down by gender in the NCBR's annual activity report. | Strategic Management Department |  | Annual report on the Center's activities containing data on employment at the NCBR by gender | Every year after the NCBR report for 2022. |

Reporting and whistleblowing mechanisms are a foundation for an effective solution-oriented system for supporting diversity and measures supporting equality of men and women and counteracting violence in the workplace (mobbing, harassment). Thanks to transparent procedures for reporting and solving problems, as well as existing mediation tools, the organizational culture is developed and improvement measures are implemented. The NCBR aims to create mechanisms and tools thanks to which the Center will not only influence employees' awareness in this area (raising the organizational culture at the level of employee behaviors and reactions), but will also actively respond to any manifestation of such unacceptable behaviors.
In the long term, the pursuit of this goal will contribute to the elimination of prejudices, customs and traditions based on stereotypical roles, discrimination and gender-based violence including sexual harassment.

The NCBR has the "Procedure for counteracting mobbing and discrimination at the NCBR" and the "Procedure for reporting incidents and protecting whistleblowers at the NCBR", which will be adapted to the needs of the organization and legal requirements.
Sustainable support for the development of professional careers of men and women contributes to the creation of a better working environment that can attract and retain the best talents, eliminate barriers to balancing work and private life, prevent career slowdown and support the involvement and use of the potential of diverse teams at the NCBR. The achievement of this goal will contribute to the creation of conditions for men and women to pursue their professional ambitions on an equal footing.
As part of the recruitment processes at the NCBR, we strive to implement an open, effective recruitment procedure that takes into account gender equality issues. It is very important to include in the recruitment procedure the principle that if a man and a woman with the same qualifications compete for the same position, the choice of the underrepresented party should be preferred. Our goal is to create a recruitment procedure in which we will define the rules for selecting application documents while maintaining a balanced representation of men and women. Appropriate wording of recruitment advertisements, without any signs of preference for men or women, is one of such mechanisms. The representation of both men and women within the recruitment committee is another of these tools. Ensuring that all available information channels are used in such a way as to reach the widest possible range of candidates for the position is also a basic condition for the success of these desired changes.
We will introduce a mandatory e-learning for employees on counteracting mobbing and discrimination. This will allow not only to conduct educational activities but also to verify knowledge and provide access to training content in this area at any time. In the training courses, we will emphasize the need to work to promote equality of men and women rather than to favor women, at the same time building awareness that men can also share the responsibilities of caring for children or the elderly, just as women do.
At the NCBR, it is important for us to work with managers as a special group that influences the occurrence of discrimination among employees. So far, we have conducted dedicated training for
them on counteracting mobbing and discrimination. We plan to expand this topic to include training on unwitting bias, also towards employees in special situations, such as parenting. This is important in many HR processes, such as recruitment, promotion planning, bonus system or non-pecuniary motivation of employees.

## E-learning courses will also be introduced for experts evaluating applications.

### 4.2 NCBR as an institution financing projects in the area of R\&D and social policies

| Goal | Proposed measures | Responsible units | Preparatory activities | Targets | Timing / freq. of monitoring |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Take into account gender equality aspects in program documentation. | 1. Include the criterion of gender equality in the area of intervention in the evaluation of projects. | DPWP, DSI | Verify the existing templates of competition regulations / program provisions in terms of information on gender equality and the possibility of applying evaluation criteria (horizontal, access, rewarding, etc.). | Develop a model criterion or a set of criteria applicable to individual programs. | Every year as of 2023 |
| 2. Raise awareness of the importance of equality of men and women in research. | 1. Promotional activities - presentations of projects taking into account the aspect of gender | DKM with support from substantive units | Identify projects to promote. Identify promotional channels for content related to gender equality in research. Plan for regular activities to promote women in scientific research. | Provide regular presentation of projects in selected promotional channels - at least once a year, collective information in selected information channels. Launch cyclical activities | Every year as of 2023 |
|  | 2. Provide elearning for experts on the importance of gender equality | Expert Management Department | Develop of a training plan. | An e-learning module for experts with a test containing questions on gender equality. | A single training course with a final test to be successfully passed no later than within 12 months from applying for the position of an expert or from the introduction of the training (for experts already registered in the NCBR's Expert Database). Ongoing measurement. |
|  | 3. Inform employees about current promotional and training activities regarding equality and diversity. | Internal communication | News presenting the "Gender Equality Plan" | Provide information about current information and training activities on an ongoing basis. | Every year as of 2023 |
|  | 4. Disseminate information regarding equality and diversity in projects monitored by the NCBR. | DKM with support from substantive units | Collect data on equality and diversity in projects monitored by the NCBR. | Publish analysis results in available information channels. | Every 2 years as of 2023 |

As one of the major agencies established to finance scientific R\&D in Poland, the NCBR has an important role to play in shaping the awareness of the scientific community regarding the importance of issues related to the equality of men and women. This applies both to the issue of equal opportunities for men and women in science, as well as to taking into account the gender aspect in the ongoing scientific research.

The diagnosis has revealed a lack of consistency in the collection of gender-identifying data of project managers and project team members in the hitherto analyzed co-financing applications. It is necessary to modify and standardize application forms so that they constitute a reliable and comparable source of knowledge about the shares of men and women among managers and research teams. This requires a change in the program documentation both in programs financed from European funds and in national programs. Moreover, it is important to introduce changes to the IT system through which applications for co-financing are submitted. At the same time, these measures require consultations with the Managing Authorities. This campaign can be launched in 2023 and it should be continued.

The diagnosis shows the need for verification of the existing contest regulations and other documentation of the NCBR's programs in terms of information on gender equality and the applicability of evaluation criteria (e.g. horizontal, access, rewarding) in this aspect. This requires a benchmark criterion or a set of criteria for each program. It is possible to begin this action in 2023.

To obtain necessary information about both Polish and foreign experts, an additional "Date of birth" box is required for accurate monitoring of persons by age. A monitoring report will be prepared at the beginning of each calendar year (no later than the end of March) based on end-ofyear extracts from the Database. In addition, gender monitoring will be introduced for experts scheduled to work in the financial perspective 2021-2027 under the "European Funds for a Modern Economy" Program and the "European Funds for Social Development" Program (reports will prepared in the same way as the general reports from the Database).

The goal of supporting gender equality in research co-financed by the Center and of raising awareness of the importance of gender equality will be achieved in two ways: by promoting equality of men and women in funded research and by sensitizing experts assessing applications, as well as applicants and beneficiaries.
Training in improving gender equality through the prism of projects monitored by the NCBR will be addressed to various recipient groups, applicants, beneficiaries and experts, among others. Training for experts evaluating proposals will be extended to include a module on gender equality in research and unwitting bias.

Next, promotional and dissemination activities will consist in presenting projects taking into account the gender aspect in the research, informing employees about promotional and training activities carried out in respect of equality and diversity, disseminating information on equality and diversity in projects monitored by the NCBR and in the group of experts performing evaluations. It is planned to publish results of analyses via the available NCBR's information channels (website, social media) at least every two years.

## 5 Audit of implementation of the Plan

The implementation status of the "Gender Equality Plan" for the National Center for Research and Development for 2022-2025 will be monitored by the Equality Team and by the Plenipotentiary of the NCBR's Director for Equality and Diversity. The Plan will be updated if there is a justified need. As a rule, the audit will be conducted annually (or with a different frequency - according to individual provisions as part of the implementation of specific activities). The implementation of the Plan will be monitored based on its general outcomes or specific predefined measures. Documentation of the implementation of individual activities will be collected in the organization's knowledge resources and made available for inspection.

Information and educational activities will be important. The monitoring of these activities will consist in verifying knowledge of procedures for counteracting inequalities and issues related to equality and non-discrimination.
The implementation status of the Plan is monitored by the Gender Equality Team following the existing guidelines. The Team has updated the Plan as part of the verification.
The update was intended to adapt activities to changes taking place in the organization.

The monitoring instruments used and the assessment make it possible to highlight the transformation potential of the planned activities.
The goals are indexed as they are implemented based on appropriate progress and success indicators, thanks to which it is possible to objectively assess whether the NCBR, as an organization aware of changes, is undergoing a transformation in the area of gender equality.
Information and educational activities have strengthened the organization's commitment to achieving the goals adopted in the Plan.

## 6 Conclusion

Equality and diversity are values that contribute to the development of science and the development of every organization. Development is one of the values of NCBR, which is why we want to achieve it all the more by introducing regulations and implementing activities that can create space for it. The starting point for the NCBR's "Gender Equality Plan" are the collected data and good practices translated into action and better communication within the NCBR community, so that good examples and equality solutions can be better disseminated. This allows us to combine the efforts to create a safe egalitarian climate at the NCBR with the commitment to counteract discrimination using our early response system.



[^0]:    ${ }^{1}$ The term "gender" includes also non-binary persons.

[^1]:    2 "Smart Growth" Operational Program 2014-2020, "Knowledge, Education, Development" Operational Program 2014-2020, "European Funds for a Modern Economy" Program 2021-2027, "European Funds for Social Development" Program 2021-2027

[^2]:    ${ }^{3}$ Central Statistical Office's report: "R\&D activities in 2020"
    ${ }^{4} \mathrm{https}: / / w w w . a y m i n g . p l / a n a l i z y-i-a k t u a l n o s c i / k o m u n i k a t y-p r a s o w e / r o z n o r o d n o s c-w s p i e r a-i n n o w a c j e-a l e-w-d z i a l a c h-b r-~$ women-wciaz-stanowia-mniejszosc
    ${ }^{5}$ Report by OPI PIB and Perspektywy: "Women at technical universities in 2022"

[^3]:    ${ }^{6}$ https://www.fnp.org.pl/jak-fundacja-wspiera-women-w-nauce

