



**Foundation for
Polish Science**

Implementation of the European Charter for Researchers and Code of Conduct for the Recruitment of Researchers

Internal review

INTERNAL REVIEW

Name Organisation under review:

FOUNDATION FOR POLISH SCIENCE (FNP)

Organisation's contact details:

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Web-link to published version of organisation's HR Strategy and Action Plan:

https://www.fnp.org.pl/en/o_fundacji/europejska-karta-naukowca-i-kodeks/

Web-link to organisational recruitment policy (OTM-R principles):

Not applicable (the Foundation does not employ and recruit researchers)

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ABOUT THE FOUNDATION

The **Foundation for Polish Science (FNP)** has been active since 1991. It is a non-governmental, apolitical, non-profit organisation with a mission to support science. It is the largest Polish **non-governmental source of funding for research**.

The Foundation carries out its statutory tasks by:

- Supporting leading scientists and research teams
- Assisting innovative projects and the commercialisation of scientific discoveries and inventions.

The Foundation operates in accordance with its guiding motto: *Supporting the best so they can become even better*, as well as the following principles:

- Support is provided directly to scientists and research teams.
- All grants, prizes and stipends are awarded by competition.
- The leading criterion in awarding support is scientific excellence.
- The achievements and output of FNP competition entrants is evaluated by scientists respected in their fields—both Polish and international (peer review method).
- Support is provided according to the “hard money” principle (high selectivity when choosing recipients).

ORGANISATIONAL INFORMATION

STAFF & STUDENTS	NA (research funding agency)
RESEARCH FUNDING (figures for most recent fiscal year)	NA (research funding agency)
ORGANISATIONAL PROFILE (a very brief description of your organisation, max. 100 words)	
<p>The Foundation for Polish Science (FNP) has been active since 1991. It is a non-governmental, apolitical, non-profit organisation with a mission to support science. It is the largest Polish non-governmental source of funding for research. The Foundation carries out its statutory tasks by:</p> <ul style="list-style-type: none"> • Supporting leading scientists and research teams • Assisting innovative projects and the commercialisation of scientific discoveries and inventions. <p>FNP's support is provided directly to scientists and research team (not institutions). All funding is awarded by way of a competition, according to the "hard money" principle (very low success rates) with scientific excellence as the leading criterion.</p>	

Other relevant information

In 1990-2016 the Foundation allocated a total of more than PLN 484m (about EUR 114.4m) to science. The value of the Foundation's own funds is currently PLN 299m (appr. EUR 71,2m) (as of 31 December 2016).

2016 saw the launch of new programmes financed from the Smart Growth Operational Programme (Measure 4.4 “Increasing the human potential in the R&D sector” and Measure 4.3 “International

Research Agendas” (IRA)). The total amount of funding earmarked for these programmes is PLN 1,147.9m (PLN 532.0m for IRA and PLN 615.9m for the other programmes).

Taking care to ensure that its activities remain transparent and open, the Foundation publishes extensive information on its activity in the form of annual reports. Every year its financial statements are audited by renowned auditing companies. The annual reports and information on FNP’s activity are available on the Foundation’s website, among other sources.

FNP in numbers (2016)	
Budget	PLN 26.433m (c. EUR 6.25m)
Programmes and awards	23
Calls (concluded)	20
Applications	1,928
Laureates	206
Reviewers/experts	742 (154 Polish and 588 foreign)
New (research) positions created in funded projects	217
FNP employees	57

Applicability of the Charter and Code

The Foundation does not employ researchers and does not participate directly in the research process. That means that numerous provisions of the European Charter for Researchers (the Charter) and the Code of Conduct for the Recruitment of Researchers (the Code) (together, “C&C”) are not directly applicable (e.g. principles concerning work regulations and safety or job stability). As a funding institution, FNP has limited leverage on the working conditions and recruitment of researchers. It is obliged, though, to refine its competitions and funding standards and provide researchers with the best possible support. It can also exert influence on beneficiaries—individual grantees as well as research institutions—to effectuate and promote principles of the Charter and Code. To achieve those high standards the Foundation endeavours to ensure a clear, fair and responsible human resources strategy internally, and to create sound and comfortable working conditions for its own employees.

Endorsement of the Charter and Code is understood at the Foundation in three separate aspects:

1. Rules and standards of FNP’s grant competitions
2. Expectations and obligations imposed on the recipients of FNP funds
3. Working conditions for FNP employees (who are not researchers, but internal HR strategy seems important for the organisation’s integrity).

In those three areas the Foundation exercises different levels of control. The procedures and standards of FNP competitions are largely designed and managed by the Foundation (although in certain aspects they depend upon the source of funding, e.g. structural funds regulations). As far as

the obligations of researchers are concerned, some of them are supervised directly by the Foundation (e.g. reporting, recruitment), but some others fall under the jurisdiction of the host institution (e.g. safe working practices). Many facets of research, researchers' working conditions and career development are determined by their direct employers (e.g. work regulations and safety, professional development, stability of employment) or national legal regulations (such as the Labour Code, with the employing institution responsible for compliance). On the other hand, providing researchers with appropriate working conditions (e.g. access to appropriate equipment) is foreseen in the funding agreements with laureates and beneficiaries. When granting funds to individual researchers or consortia, the Foundation enters into trilateral agreements with employing institutions, thus obliging these institutions to provide the laureates with appropriate conditions for research work.

Since the Foundation supports individual researchers, not institutions, its influence on the research institutions depends on the type of programme and the scale of funding. In the case of stipends for beginning researchers, such as doctoral students or postdocs, this influence is not significant. However, when even a junior researcher receives a research grant, the employing institution is obliged, under a formal agreement with the Foundation, to provide them with appropriate working conditions. Thus it may be said that the Foundation has an indirect influence on the application of these principles. In recent years, partly due to the implementation of the Charter and Code, this influence is exercised by the Foundation to a larger extent, and it is more and more involved in the everyday working environment of its beneficiaries.

With these three layers of implementation of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers, the scope of activities undertaken is quite wide, even if their scale may not be spectacular. Different activities related to the Charter and Code have been carried out by different units of the organisation, including:

- Programme Division (designing and conducting competitions, supporting researchers in their projects)
- Planning, Analysis and External Audit Division (project monitoring and audits)
- Programme Promotion and Cooperation Section (public engagement and communication of funded projects)
- Human Resources Coordinator (coordinating internal HR strategies at the Foundation)
- Programme Evaluation and Analysis Section (evaluating the Foundation's programmes and procedures).

Due to the institution's size and character, implementation of the Charter and Code has not required appointment of any formal committees dedicated to this task. The significance of the process, its implications and challenges, have been discussed on an ongoing basis.

The C&C has grown into an important aspect of day-to-day deliberations and decisions regarding programmes, the selection process, peer-review quality, gender balance, transparency and public communication. The task of coordinating the process lies with the head of the Programme Analysis and Evaluation Unit (reporting directly to the Executive Board of the Foundation).

C&C IMPLEMENTATION

FNP was recognised with an HR excellence award in 2012. In the process of an internal gap analysis, a range of challenges were identified and addressed in the form of an action plan. In 2014 the Foundation undertook a self-assessment of the implementation of the action plan (Step 4 of the HRS4R mechanism) and thereby retained its HR award. This document presents the new self-assessment conducted in November 2017.

Original action plan (2012)

In consequence of the internal gap analysis of 2012, the Foundation undertook to improve its mode of operation in the following aspects:

- Public engagement
- Relations with supervisors
- Non-discrimination principle
- Access to research training and continuous development
- Supervision
- Complaints/appeals
- Transparency
- Variations in the chronological order of CVs.

Among others, the following activities were accomplished:

- Elimination of age limits in FNP programmes (with the exception of the *START* programme)
- Elaborating instructions for reviewers and panellists, so they better understand the need to assess applicants' achievements in a manner appropriate to the course of their careers
- Replacing the request for publications from the last 3–5 years (as a basis for evaluation of researchers) with a request for the three best publications selected by the candidates (regardless of when they were published)
- Providing an appeal procedure as standard in FNP's programmes, as far as possible
- Providing candidates with the content of their reviews as standard in FNP's programmes, as far as possible.

Although the scope of the planned actions was not very wide, the implementation process has noticeably raised the awareness of C&C principles and fuelled further changes. In line with the recommendations of the Charter and Code, the Foundation has initiated numerous new activities not foreseen by the original action plan. These actions included new modules of the *SKILLS* programme, aimed at supporting researchers' development and careers. Initiated in 2011, the *SKILLS* programme offered researchers varied forms of assistance and empowerment, including mentoring and training. Later on, new forms of support were included, like coaching and internships at the best foreign institutions. Researchers were also involved in new competitions like *eNgage* (with the main objective of developing public engagement and science communication skills) or *INTER* (aimed at promoting interdisciplinary research and developing science popularisation abilities).

Another action taken by the Foundation to improve the quality of the research funding system was the *Programme Officers Academy* (under the *SKILLS* programme), aimed at improving skills related to the management of grant and stipend programmes. It was addressed to employees of the National Centre for Research and Development and the National Science Centre—major research funding agencies in Poland.

The *TEAMING* programme was another important development, not foreseen in the original action plan, undertaken with the intention of improving researchers' working environment. The Foundation embraced the task of selecting the best projects and helping them apply for the European programme *Teaming for Excellence*. Applicants were obliged to present development plans for new research units, and the Charter and Code played a crucial role in selection and support of these projects. Apart from strategic co-operation with an excellent foreign institution and conducting scientific research on the highest international level, new research units had to comply with international standards of research work, as well as selection and evaluation of researchers. The development plan of each new research unit had to provide for the adoption of the Charter and Code.

Other significant changes endorsed in compliance with the C&C related to the recruitment process in projects funded by the Foundation. In some programmes recruitment procedures were subject to evaluation by panellists making the funding decisions and constituted a part of the financing agreements. FNP required recruitment to be transparent and conducted through open competitions announced throughout the country and abroad (including the websites <http://www.eurosciencejobs.com>, <http://ec.europa.eu/eracareers> and <http://www.eracareers.poland.gov.pl>). Moreover, representatives of the Foundation participated (as observers) in recruitment processes, and the protocols from the recruitment processes constituted the basis for stipend decisions.

In the two years following the original action plan, the Foundation did a lot to improve the transparency of its operations. This included reconstruction of its website to provide more user-friendly, detailed information (or links to such information) about all the Foundation's activities, including programme documentation. Much more effort was put into updating the English version of the website.

Action plan revisited (2014)

In 2014 following challenges were identified:

- I. **Growing burden on researchers, due to increasing expectations regarding the public, e.g. engagement.** The original action plan featured:
 - Including in application forms questions concerning the candidate's plans for social communication of the research (although this would not be a criterion for evaluation of applications), including requests for information on these types of activities in the forms for reporting on realisation of projects
 - Requiring the Foundation's beneficiaries, in the agreements signed with them, to conduct activities encouraging public understanding of the role of research.

The first action was abandoned, as the Foundation decided to avoid overloading researchers with the preparation of multi-page applications, limiting the application form to providing only the essential information, especially in the case of programmes with a very low success rate.

The second action evolved into obliging laureates to comply with the FNP Code of Ethics for Competition Winners and Beneficiaries, which was to be supplemented with a new clause on public engagement and communication of science.

FNP undertook active promotion of public understanding of science through information on its website, its Facebook page, in the newsletter and other publications, as well as conferences and other meetings.

Another intended action with a similar purpose was the introduction of an honorary award for initiatives for the understanding of science in the society.

- II. **Dependence on external funding.** In 2008–2015 the Foundation had at its disposal significant funds to provide researchers with manifold forms of support (training, internships, coaching, mentoring). This project was financed by the European Union via the European Social Fund. In 2014 it was clear that FNP had to identify new means of assisting researchers in their continuous development.

The updated action plan reflected changes in FNP's profile, structure and financial situation. In 2014 FNP underwent some major organisational changes. In 2008–2015 most of its programmes were financed from EU structural funds. In 2014 most of those programmes were gradually coming to an end (end of the financial perspective). New initiatives were planned with a significant degree of uncertainty, dependent on the funds from the Smart Growth Operational Programme 2014–2020. These plans were strongly dependent on decisions at the governmental level. It was difficult at this stage to declare any specific actions aimed at the implementation of the Charter and Code. On the other hand, the necessity to develop new programmes made it easier to adapt to the principles of the Charter and Code. For example, when designing its new activities, FNP projected high ethical standards and transparent selection procedures in the grant competitions, as well as clear-cut, open and fair recruitment principles in the funded research teams. One of the new ideas presented in the revised action plan of 2014 related to an independent, international certification of Polish academic institutions. The plan was based on the intention to support researchers by enhancing their working environment. FNP wanted to introduce a “quality mark” to be granted to those institutions that met criteria of scientific excellence, demonstrated courage in taking up breakthrough subjects of research, and represented the highest standards of research. The aim of this initiative was to distinguish best practices—also with respect to the principles of the Charter and Code—and to create a relevant benchmark, so-called centres of excellence. Apart from scientific excellence, such institutions were expected to demonstrate their compliance with international standards in the management and recruitment of researchers, as well other principles of the C&C. Subsequently, this idea evolved into the *International Research Agendas* programme (<https://www.fnp.org.pl/en/oferta/irap/>).

In 2017 the Foundation conducted a second internal assessment of C&C implementation. This process has included numerous discussions with:

- Executive Board
- Programme Officers and Programme Directors
- Programme Promotion and Cooperation Section
- Human Resources Coordinator.

The person responsible for the process is the head of the Programme Evaluation and Analysis Section. This person has been directly involved in the weekly Executive Board meetings and ongoing monitoring of the selection process in FNP competitions (observing panels). The main aim of this monitoring is to ensure compliance with the C&C principles.

Another source of information on C&C implementation was feedback from crucial stakeholders:

- Researchers participating in FNP competitions. (In 2017 a survey was sent out to 650 researchers who applied to selected FNP programmes in 2016–2017. The survey was completed by 246 researchers [38% response rate]. The results were analysed in the context of another study run by the Foundation in 2016, which referred to the question of how Polish researchers (not only FNP applicants) perceive and judge the research funding system in Poland and, in particular, FNP's role in the system.)
- Panellists involved in the selection process. (In 2017 a survey was sent out to 104 experts who took part in FNP panels in the period of one year. The survey was answered by 40 experts [38% response rate].)

The table below presents actions planned in 2014 and their outcomes after the 3-year period.

Actions planned in 2014 and their outcomes

Area	Action	Outcomes
Public engagement of researchers	Introducing a new criterion for assessment of applications in the new <i>TEAMING</i> programme and some of the Foundation's planned programmes. The projects will be assessed <i>inter alia</i> for their "influence on the understanding of the role of science in the economic and social development of Poland."	Done
	Introducing a clause emphasising the "reputation and understanding of science in the society" to the Foundation's Code of Ethics for Competition Winners and Beneficiaries. This provision of the code will apply to all of FNP's laureates and beneficiaries and will also be reflected in financing agreements.	Done §9. <i>Winners and beneficiaries should strive to present the results of their research in a manner understandable to persons who are not specialists in their field and make efforts to promote an understanding of the role of science in society and build its social prestige.</i>
	Obliging beneficiaries to conduct activities encouraging public understanding of the role of research. The agreements concluded with laureates of all FNP programmes will oblige them to comply with the Code (in the extended version), and in particular to conduct activities encouraging public understanding of the role of research.	Done
	Active promotion of the idea of public understanding of science through information on the FNP website, in the Foundation's newsletter and during the ceremony of granting stipends and awards.	Done/ongoing: <ul style="list-style-type: none"> • Public discussions based on FNP Monographs • Occasional publications on FNP laureates and their research • Promotion of selected research achievements on FNP's website • Radio broadcasts (<i>People of Science; Treasury of Polish Science</i>) • Supporting participation of FNP laureates at conferences and meetings encouraging public outreach, e.g. the European

		Forum for New Ideas, Innovative Europe, and Science: Polish Perspectives)
	Introduction of an honorary award for actions aimed at increasing the understanding of science in the society.	Done. The <i>Prof. Maciej Grabski Honorary Distinction</i> was introduced in 2016. This distinction is awarded for achievements related to public understanding of science and its role in the society.
	Further support for researchers in their efforts to communicate science to people who are not experts in the given area. This task is mainly fulfilled by the <i>SKILLS</i> project: its participants take part in training on communicating scientific achievements in a non-scientific environment. The training events are open to research workers and doctoral students from all over Poland.	The <i>SKILLS</i> project was co-funded from the European Social Fund 2007–2013 and was closed by the end of 2015. The impact of the <i>SKILLS</i> project has been evaluated, which should help to identify best practices and eventually develop new initiatives (depending on the level of funding).
	Active promotion of scientists' public engagement. Under the <i>SKILLS</i> project, the Foundation organises the following competitions: <ul style="list-style-type: none"> • <i>eNgage</i> (The aim of the competition is the development of skills in popularisation of science and presentation of the results of scientific research for various non-scientist target groups, especially young people and students. The competition offers funding for innovative popularisation ideas. The competition encompasses all areas of science.) • <i>INTER</i> (whose objective is to promote interdisciplinary research and to develop science popularisation abilities). 	See above. FNP supports initiatives undertaken by other organisations/institutions with the aim of empowering researchers to present their research to non-scientific audiences.
Relations with supervisors + Supervision	The <i>MISTRZ</i> programme, which awards researchers who are able to effectively combine research with training of younger staff, is directly aimed at the promotion of good practices related to academic tutoring. One of the criteria for the assessment of candidates in the competition is the candidates' involvement in educating young academic staff and their achievements in this area so far.	The programme has been suspended (due to limited funds and coexistence with similar programmes).

	<p>Further promotion of good practices related to supervision and relations between young researchers and their supervisors.</p>	<p>Research teams, and proper supervision and training of researchers, are at the core of almost all current FNP programmes. The overall aim of the programmes is to improve the human potential in the R&D sector. Achievements and development of junior researchers are the main objective of the programmes. The Foundation not only finances team projects pursued by outstanding scientists from all over the world, but also actively promotes the idea of responsibility of senior researchers/supervisors for doctoral students and postdocs.</p> <p>The structure of the team and appropriate supervision are taken into account at the project selection stage. Training and supervision opportunities are also considered when foreign and commercial partnerships are assessed.</p> <p>All doctoral students in FNP-funded teams must be enrolled in formal doctoral training. They must also be provided with a mentor—besides their supervisor—from a different research institution.</p> <p>Development of junior researchers (team members) was an important criterion when major FNP programmes were evaluated in 2015. One of the recommendations from this evaluation was for the Foundation to dedicate more effort to the quality of PhD training under the supervision of grant holders.</p> <p>In 2017 a special survey was conducted with the aim of evaluating doctoral training in FNP-funded teams.</p>
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	<p>Under the <i>SKILLS</i> project, the Foundation offers fellowships and mentoring support to researchers and doctoral students from all over Poland. The objective of the programme is to enable the participants (young researchers working in Poland) to establish relationships and mentoring co-operation with experienced researchers with a recognised academic background. The programme supports work in pairs (one-to-one mentoring). This approach enables the participants to learn good practices in managing research teams and mentoring young researchers.</p>	<p>The <i>SKILLS</i> project was co-funded from the European Social Fund 2007–2013 and closed by the end of 2015.</p> <p>The impact of the <i>SKILLS</i> project has been evaluated, which should help to identify best practices and eventually develop new initiatives (depending on the level of funding).</p>
	<p>The Foundation also supports mentoring relationships in the case of laureates of the <i>HOMING PLUS</i> programme (whose objective is to encourage young Polish scientists to return to Poland and to encourage foreign researchers to complete postdoctoral fellowships in Poland). The mentors should be scientists of recognised standing in a field of science corresponding to the interests of the candidate, and with an established reputation in the academic community. The task of the mentor is to support the laureate by providing information about the system of financing scientific research in Poland and facilitating contact with the Polish academic community, in particular with leading research institutions and teams as well as the best scientists conducting research in the given area of science.</p>	<p>The <i>HOMING PLUS</i> programme was co-financed by structural funds (Innovative Economy Operational Programme 2007–2013). It came to an end in 2015. A similar programme (<i>HOMING</i>) was created within the Smart Growth Operational Programme 2014–2020. The laureates are no longer required to have mentors. The experiences of the <i>HOMING PLUS</i> programme proved that this obligation was treated by researchers as a pure formality and rarely resulted in a true mentoring relationship.</p>

<p>Access to research training and continuous development</p>	<p>The Foundation offers researchers various forms of support for their professional development: mentoring, coaching, fellowships and training (the <i>SKILLS</i> project). This support is provided for researchers from all over Poland, at all stages of their careers, representing all fields of science.</p> <p>The <i>Mentoring</i> programme enables participants to establish relationships and mentoring co-operation with experienced researchers with a recognised academic background. The <i>Coaching</i> programme enables researchers to work under the supervision of an experienced coach. Its objective is to provide support to researchers in tackling professional challenges and moving forward with their scientific careers, in terms of decision-making and solving the problems that arise in their work.</p> <p>The <i>Fellowship</i> programme is aimed at improving qualifications related to managing scientific research, managing research teams, interdisciplinary co-operation, commercialisation of research outcomes, and entrepreneurship, within a fellowship at a foreign research unit or company.</p> <p><i>Training</i> offered by the Foundation covers skills related to managing scientific research, technology transfer and entrepreneurship, scientific communication and the popularisation of science. The development of the two latter skills is also fostered by two competitions organised by the Foundation: <i>eNgage</i> (supporting innovative science popularisation ideas) and <i>INTER</i> (promoting interdisciplinary research and development of science popularisation skills).</p>	<p>The <i>SKILLS</i> project was co-funded from the European Social Fund 2007–2013 and was completed by the end of 2015.</p> <p>The impact of the <i>SKILLS</i> project has been evaluated, which should help to identify best practices and eventually develop new initiatives (depending on the level of funding).</p>
		<p>In 2017 FNP conducted an analysis of the training needs of its laureates and introduced its first training events accordingly.</p>

		Up to 30% of FNP grants can be dedicated to research training, according to individual needs (the analysis mentioned above indicated that laureates' training needs are very diversified and thus difficult to meet with a standard set of courses/workshops).
		Training opportunities for researchers are taken into consideration when partnership is assessed in grant proposals. Project partners (foreign, commercial, etc) are expected to contribute significantly to the development of researchers.
	Since 2012 the Foundation has also supported the development of laureates of the <i>MISTRZ</i> programme (for scientists at advanced stages of their careers) by financing their sabbatical leave at recognised academic centres (the <i>Foreign Research Stipends</i> programme).	This programme has been suspended (due to limited funds and coexistence with similar programmes). However, FNP still funds Sabbatical Fellowships for <i>MISTRZ</i> winners. At this point, there is a discussion at the Foundation whether these fellowships should not be extended to other senior researchers.
		The Foundation continues to nominate talented young researchers who are invited to participate in the Lindau Nobel Laureate Meetings (with their costs of participation covered by FNP and the organisers).
		FNP takes action to encourage its laureates to share experiences and seek new opportunities in collaborative projects (through dedicated conferences and additional funding).
		FNP supports its laureates' participation in selected training events (e.g. <i>Leadership Academy</i> , <i>Standing up for Science</i>).

General	<p>The Foundation is planning to create a system of independent, international certification of academic institutions operating in Poland, within which a “quality mark” will be granted to those that meet the criteria of scientific excellence, demonstrate courage in taking up breakthrough subjects of research, and represent the highest standards of research. This initiative will contribute to the creation of a certain benchmark for scientific research by distinguishing practices that deserve recognition and promotion also with respect to the principles of the Charter and Code. The Foundation is the author of the provision in the <i>Smart Growth Operational Programme</i> concerning granting of a “quality mark” to institutions that meet conditions of scientific excellence, understood as so-called centres of excellence. Apart from scientific excellence, such institutions will have to demonstrate that they comply with international standards for management and recruitment of researchers, and the process will be evaluated by an international body.</p>	<p>The idea of international certification of academic institutions in Poland led to the <i>International Research Agendas</i> programme. This programme enables creation of research organisations (scientific units) led by scientists with considerable experience in science management as well as their own area of expertise, who will attract international teams of renowned scientists from different fields in order to solve a specific global scientific challenge.</p> <p>The grant in this programme should lead to the creation of highly specialised, world-class research centres applying the best international practices with regards to:</p> <ul style="list-style-type: none"> • HR policy • R&D management • Commercialisation of R&D results.
	<p>Stimulating public debate on the science system in Poland, including the mechanisms of science funding, assessment of achievements and research projects, scientific career models, and social communication of science.</p>	<p>The Foundation plays an active role in the debate on reform of the science system in Poland. It is represented in the National Congress of Science (https://nkn.gov.pl/en/) and the National Programme for the Development of Humanities (http://www.nauka.gov.pl/en/polish-science-news/national-programme-for-the-development-of-humanities-in-the-revised-formula.html).</p> <p>FNP organises and hosts public discussions (e.g. “Do Polish Universities Have a Future?”) as well as conducts research concerned with Polish science and the grant system (e.g. “How Do Polish Professors Perceive the Grant System?”; “Poland in the Perspective of Foreign Researchers”).</p>

Other activities related to the Charter and Code

Implementation of the C&C has made the Foundation much more sensitive to the issues included in both documents. The concern for high standards was there before, but C&C (and participation in the second cohort of the Institutional HR Strategy group) added momentum and many new ideas to this process. It is not about fulfilment of a formal obligation, but rather a constant attentiveness to how the institution treats researchers and influences their careers and lives. Thus, apart from the actions foreseen in the Action Plan, the Foundation has pursued many other initiatives.

- **Public engagement/Dissemination and exploitation of results/Accountability/
Social responsibility of researchers**

To enhance public engagement and social responsibility of researchers, a new criterion was introduced in FNP competitions. At the final stage of grant competitions (IRA, TEAM, TEAM-TECH, FIRST TEAM, HOMING and POWROTY/REINTEGRATION programmes), panels assess whether “the project will achieve a wider influence on the understanding of the role of science in the economic and social development of Poland.” All final beneficiaries of the programmes must foresee in their projects the manner of popularisation of their achievements and knowledge in the society, in particular among young generations of scientists and the public opinion, by pointing to the essential role of science in social and economic development.

In FNP competitions, scientific quality is the most crucial factor for project selection. But in recent years this criterion has been supplemented by the socio-economic impact of the research. The social and economic relevance of the project is analysed at the first stage of the competition (Scientific and Economic Panel). This panel itself is a new feature for the organisation. Before 2016, panels consisted of academics. The idea of the Scientific and Economic Panel also involves practitioners (e.g. physicians, engineers, pharmacists, managers, etc) in the selection process. The panel evaluates, among other things, whether “the project meets the objectives of the programme in terms of importance for the socio-economic development of Poland and increasing the transfer of research results into commercial products.” After the written review stage, which is focused on the scientific value of the projects, the final stage of the competition also entails assessment of whether “the project has a positive influence on sustainable development, in particular environmental protection.” The applicant’s declaration in the application form concerning the positive influence of the project on environmental protection is subject to evaluation, along with the project’s predicted outcomes for new solutions (products, technologies or services) with a positive impact on the environment, as well as the dissemination of research results, e.g. patents, publications or information in the media, in the eco-innovation sector.

In recent years the Foundation has intensified its efforts to communicate and explain the research it funds. Projects and achievements of grantees are described and promoted on the Foundation’s website and in other publications in a manner that is approachable for non-academic audiences. Another form of public engagement is open discussions organised by FNP on topics addressed by books published by its laureates (funded under the *FNP MONOGRAPHS* programme) (e.g. “Linguistic and Cultural Practices of Young Activists from Language Minorities”).

The Foundation supports participation of its laureates in conferences encouraging public outreach, e.g. the European Forum for New Ideas (<http://efni.pl/en/idea-of-efni/>), Innovative Europe (<http://www.fm2mars.com/en/>) and Science: Polish Perspectives (<https://www.sciencepolishperspectives.org/>).

In 2014–2016 the Foundation for Polish Science participated in **RRI Tools**, a European Commission-funded project with the objective to foster a new model for the relation between Science and Society in Europe. The project was focused on the way research is conducted (as opposed to a perspective limited only to outcomes). It emphasised the responsibility of researchers and other stakeholders directly or indirectly involved in research and its impacts. Apart from FNP, 25 other organisations from EU member states took part in the initiative, which resulted in launch of the internet portal [RRI Toolkit](#), with numerous tools, expert literature, reports, guidelines and training materials helping to understand and implement principles of responsible research and innovation.

- **Open science**

In 2015, the *Academica digital loan system for scientific publications* was established as an FNP initiative. Thanks to this electronic loan system, unique in Poland, readers at even the smallest libraries in Poland have easier access to scientific content: books, journals and articles, including items that are usually hard to come by:

http://www.fnp.org.pl/assets/FNP_Annual_Report_2014_ENG.pdf;
<http://scienceinpoland.pap.pl/en/news/news,403259,the-academica-system-is-online---national-library-opened-its-collections.html>).

The Foundation continues to finance open access publications (the cost can be included in the grant), and in 2017 a special agreement was signed with the publishing house that publishes the MONOGRAPH series (financed by FNP) with regard to free access to the books. In the year of publication, one chapter of the book becomes available (free of charge) online—and two years after publication, the whole book.

- **Recruitment**

Recruitment of team members by FNP is of fundamental importance for the Foundation. A principal objective of the majority of its programmes is to improve the human potential in the R&D sector, to enable junior researchers to work on excellent research projects and benefit from high-grade supervision. For a number of years (2008–2013) the recruitment strategy was described by candidates in their applications and assessed during the competition. This approach was abandoned because in practice there was little variation in the recruitment procedures described in the applications, particularly since FNP published its expectations in this regard. Since 2008, recruitment in FNP-funded teams has been monitored by the Foundation. Programme officers have participated in recruitment commissions and approved recruitment protocols. Since 2016 each laureate has obtained detailed instructions regarding the recruitment process, including templates for advertising positions. These instructions provide information on where the positions should be advertised (e.g. Euraxess or the FNP website). The actual advertisement has to be approved by the Foundation before publication. Laureates are obliged to notify the Foundation of the recruitment

calendar, so the programme officer can participate in recruitment interviews. Recruitment protocols have to be accepted by the Foundation prior to engagement of new team members.

The Foundation's impact on the recruitment of research teams is not limited to procedures. In recent years FNP has moved from providing money for salaries in research grants toward funding full employment of the researchers (covering social and health insurance). This has very meaningful consequences for the individual researchers and research institutions. Researchers are offered full employment on the financial conditions provided by FNP. In order to comply with FNP procedures, research institutions have to introduce transparent ground rules for paying researchers.

Moreover, the Foundation exercises an influence over the working conditions of researchers. The programme documentation indicates the suggested levels of salary (and stipends in the case of PhD students), which are definitely high by Polish standards, and guarantees all recruited researchers adequate salaries/stipends. This also helps to promote good practices on a broader scale, beyond the directly funded teams.

- **Variations in the chronological order of CVs**

As stated in the self-assessment of the Implementation of the Action Plan (2014), the Foundation fulfilled the actions declared in respect to this principle of the Charter and Code. Instructions for reviewers and panellists were elaborated so they better understand that applicants' achievements must be assessed in the context of their careers (e.g. career stage, career breaks, non-academic work). Also, the request for publications from the last 3–5 years (as a basis for candidates' assessment) was replaced by a request for the three best publications selected by the candidates (regardless of date).

In 2016 FNP introduced a new programme, *POWROTY/REINTEGRATION*, which provides funds for projects of young PhD's (who have held a doctorate for not longer than 5 years) who are returning to scientific research after a break lasting at least 9 months (e.g. caused by working in other sectors or connected with parenthood). This is a major step in supporting researchers in the transition phase of their career.

A new, broader understanding of a researcher's career has been encompassed in the project selection criteria. At the first stage of the competition, instead of asking panellists whether the applicant has an outstanding scientific record, FNP asks whether "the applicant guarantees that the objectives of the programme will be met"; this encourages a broad interpretation of his/her expertise and skills. Also, the new construction of the Scientific and Economic Panel allows for a broader perspective in assessing applicants' track record.

- **Refining competition procedures**

The Foundation builds its position in the Polish research funding system on the quality of its competitions and project selection. To enhance this quality, FNP has made huge efforts to make its procedures transparent, increase and diversify the pool of reviewers (in 2016 applications were assessed by 742 reviewers, 80% of them foreign), calibrate the criteria, define conflicts of interest, raise the value of reviews, provide applicants with adequate feedback, and introduce

appeal/complaint procedures. For the last year FNP has done a lot to familiarise researchers with its programmes and procedures and support them in the application process (info days, webinars).

The C&C principles have been at the core of these changes. To ensure their implementation, the panels are monitored (by programme analyses and evaluation teams, independent of the programme section). The purpose of this monitoring is to ensure high standards of selection procedures and make sure they are compliant with the Charter and Code as well as the Foundation's Ethical Codes.

Since 2016 the Foundation has collected feedback from panellists in regard to their opinions of the selection process. In 2017 researchers applying to FNP programmes have been asked about their experience and perception of the competitions (see p. 7). Out of 650 researchers, 246 responded to the survey, sharing their thoughts and suggestions about the transparency of the process, feedback from the Foundation about the outcome of the competition, the merits level of the reviews, and the panellists' comments. The analysis of the results considered such variables as gender, career stage and country of origin of the applicant, as well as their success in the competition. While the overall evaluation of FNP competitions by the applicants is rather satisfactory, the survey indicated significant variance according to the success in the competitions. Taking into account that only about 15% of applicants get funded, that leaves 85% who do not get funded and whom FNP should probably pay more attention to, primarily by providing them with helpful information about the strengths and weaknesses of their applications.

The main obstacle in this endeavour is time limitations (and the number of applications). In the *IRA* programme, where there are relatively few applications and very complex projects, panellists take several hours of the panel's time to formulate comments and suggestions for applicants (both successful and unsuccessful) in order to help them develop and foster their project/research.

- **Appeals/complaints**

In accordance with the original Action Plan of 2012, an appeal procedure became part of most FNP programmes (with a few exceptions explained in the self-assessment of 2014).

The Appeals Committee exclusively reviews procedural matters relevant for each of the stages of application evaluation and selection. Appeals concerning procedural issues at the stage of formal evaluation are examined by the Appeals Committee consisting of a lawyer and two FNP employees who were not involved in the evaluation of the application. Appeals concerning procedural issues at the stage of the substantive evaluation are examined by a committee consisting of two third-party experts who were not involved in the evaluation of the application in question and an FNP employee who was not involved in the evaluation of the application. The final opinion is adopted by a vote. After examining the committee's opinion, the Executive Board of the Foundation decides whether the application should be re-examined (by the expert panel or a reviewer) or dismissed. The decision of the Executive Board is final.

In practice the appeal procedure presents a challenge for the Foundation, since procedural issues are not always easy to distinguish from assessment of the merits (e.g. issue of the competences or objectivity of a reviewer). The Appeals Committee receives all the complaints, regardless of their nature, and then decides whether the complaint raises any violation in the procedure and whether

it is justified. However, in its recommendation to the Executive Board, the committee not only states its view on the procedural issues, but also gives its opinions in regard to the appropriateness of the situation described in the complaint.

In some instances, even though there is no procedural basis for re-examination of the application, the Executive Board, after analysis by the committee, takes a decision in favour of the appellant, taking into account that he or she might have indeed been wronged by the original decision.

- **Ethical principles**

Ethical principles were not recognised the Foundation in the original Internal Gap Analysis (2012) as a challenge requiring new actions. By this time, FNP had two codes of ethics: the FNP Ethical Code (binding on the Foundation staff and authorities) and the FNP Code of Ethics for Competition Winners and Beneficiaries. The Foundation was taking efforts to eliminate conflicts of interest in competitions.

Since 2012 the awareness of this challenge has increased and more advanced measures have been introduced. Conflict of interest has been defined, and the system requires reviewers/panellists to give a statement on their potential conflicts of interest before receiving access to the application. There is also a clear policy on how to deal with a potential conflict of interest on the panellist's side (in such case the panellist not only must withdraw from the evaluation, but must leave the room while the project is discussed). Reviewers and panellists are given a statement that their "consent to review an application submitted for a Foundation competition is equivalent to that reviewer agreeing to treat as confidential any and all information received, including the applicant's name and other data contained in the application. Treating the data as confidential also means that the contents of the application may not be used for any other purpose than the evaluation of the proposal." They are obliged to "evaluate the application impartially and compare it with the highest scientific standards in a given field" and informed that "withdrawal from an evaluation does not free the reviewer/panellist from the obligation to maintain confidentiality of information."

In 2016 the FNP Code of Ethics for Competition Winners and Beneficiaries was updated. Not only was a new clause emphasising the reputation and understanding of science in the society introduced, as promised in the 2014 Action Plan, but also other sections not previously provided for:

1. In response to ethical challenges related to potential modifications of human embryos, the following clauses were added to the Code.

§17

The Foundation does not finance research on human embryos or research creating a demand for cell lines recently obtained from human embryos, that is, lines obtained after the Foundation's adoption of this point, i.e. later than December 2010.

§18

The Foundation does not finance research on modifications (including editing) of the genome of human gametes or embryonic cells conducted for clinical or therapeutic purposes.

2. In order to clarify principles of authorship of scientific publications and intellectual property rights, notions of plagiarism and self-plagiarism have been defined in the Code.

In 2017 a new detailed procedure was introduced at the Foundation in regard to violation of the codes of ethics. The procedure is not only a tool for handling situations of this sort, but also a statement of FNP's adherence to fundamental ethical principles, including relations between junior researchers and their supervisors.

Internal HR at FNP

The human resources strategy at FNP is based on the assumption that the employees are the principal assets of the organisation, because their knowledge, skills and involvement determine the Foundation's performance.

FNP human resources strategy – main principles	
Policy	Implementation
Recruitment	<p>The recruitment process at FNP is based on:</p> <ul style="list-style-type: none"> • Open competition • Clear criteria identified in job advertisements • Recruitment teams including at least two FNP employees (excluding persons with a potential conflict of interest) • Three-stage procedure with the aim of long-term employment.
Continuous development of employees	<p>The Foundation supports its employees by:</p> <ul style="list-style-type: none"> • Funding or co-funding training, courses, etc • Granting training leave to employees who take training to raise their professional qualifications • English language courses (stationary and distance learning) • Regular (weekly) all-staff meetings dedicated to knowledge sharing • Involving employees in decision-making processes.
Job assessment	<p>Employees' performance appraisal takes the form of a periodic (annual) discussion addressing the following issues:</p> <ul style="list-style-type: none"> • Execution of the previously set plans • Priorities and plans for the next year • Plans for the employee's individual development. <p>Employees are provided with feedback about their performance. They are also informed about overall and specific FNP goals (set by the Executive Board).</p>
Non-discrimination and equal treatment	<p>FNP observes the principle of equal treatment and non-discrimination. In recent years a special anti-mobbing and anti-discrimination policy has been introduced, which aims at preventing these behaviours and facilitates the investigation process.</p>

Work/life balance	<ul style="list-style-type: none"> • Flexible working hours (employees can individually choose their work hours in the range of 7 am – 6 pm) • Employees returning from parental leave are entitled to remote work (telework) for a certain amount of the time • Remote working is available to people in life crisis situations • The Executive Board supports employees' initiatives (e.g. charity, volunteering)
Other	<ul style="list-style-type: none"> • Special allowances for employees in difficult life situations • Social Benefits Fund • Staff pension scheme • Access to group life insurance and medical care • “Open door” policy which allows for direct dialogue between staff and the Executive Board. Employees also participate in regular surveys on various aspects of their working conditions.

Open, Transparent, Merit-Based Recruitment

FNP entered the HRS4R process prior to the publication of the OTM-R toolkit and recommendations by the European Commission. As the Foundation does not employ and recruit researchers, it does not directly implement OTM-R principles. At the same time, it recognises the importance of those principle in the research system and is dedicated to pursuing them [see p. 16].

Special attention is given to the equal treatment of candidates from abroad.

In 2017 FNP conducted an evaluation study of the recruitment processes of its laureates in regard to their compliance with C&C and OTM-R principles.

Also, when its own employees (not researchers) are involved, the Foundation endeavours to provide Open, Transparent, Merit-Based Recruitment rules [see above]. There are templates for advertising positions, including detailed requirements and job descriptions; advertisements are widely published and there are a number of people involved in the recruitment (including interviews with candidates).

NEW CHALLENGES AND ACTION PLAN

- **Gender balance.** Female researchers are underrepresented among FNP laureates. They apply in fewer numbers and are less frequently selected as laureates. In 2016–17 competitions, women represented 35% of the candidates and 27% of the laureates. A similar pattern has been observed for many years, with considerable variance by career stage, age and scientific discipline. Those numbers have been closely monitored for many years with growing concern. As stated in the original Action Plan (2012), the Foundation advocated that funding decisions be based on competition and merit criteria. Gender balance has not been a priority, and has not been given precedence over the criteria of quality, competence, and

impartiality. For these reasons, the issue of gender balance is not mentioned in either the FNP Code of Ethics or the Code of Ethics for Competition Winners and Beneficiaries of the Foundation for Polish Science (both codes include the principle of non-discrimination).

This is not to say that the Foundation downplays the problem. In order to promote gender balance in research, certain measures have been gradually introduced, including different eligibility limits. In 2014 FNP launched a special programme, *PARENT/BRIDGE*, dedicated to supporting parents returning to research work. The evaluation of the programme results proved that it had a definite positive effect on the careers of female laureates. In 2016 a new programme, *POWROTY/REINTEGRATION*, was introduced with a similar intention.

FNP takes efforts to actively promote female scientists in its publications. Since 2012 it has been a member of AcademiaNet, an international portal with profiles of excellent women academics. The initiative has been run since 2010 by Robert Bosch Stiftung (foundation) in cooperation with the magazines *Nature* and *Spektrum der Wissenschaft*. The goal is to promote successful female researchers and raise their representation in leadership positions and scientific bodies. The partners (e.g. FNP) are asked to suggest women scientists who should be included in the portal. Up to 2017, FNP nominated 33 women to be part of the project.

In recent years the Foundation has also started to monitor the number of women among its reviewers, panellists responsible for assessing applications, as well as researchers who nominate candidates for the FNP Prize. In 2012–2016 women constituted 19% of reviewers. Among researchers who nominate candidates for the FNP Prize, in 2011–2017 women accounted for 19%. In 2016–2017, 25% of panel members were female.

An analysis of the process of experts (reviewers, panellists and nominators) suggests that most programme officers responsible for this task are aware of the problem. They are dedicated to choosing experts on the basis of their expertise, experience and impartiality. The main obstacle seems to be connected with the lower number of female researchers in the database of reviewers. Especially in Poland, the R&D sector suffers from a considerable gender imbalance at the senior level, particularly in certain fields. In other words, according to programme officers, it is much easier to find a male reviewer. This factor plays a very important role when time pressure is taken into account. However, this obstacle will probably not disappear on its own accord in the near future. At the present stage, FNP is determined to increase the number of women among its experts. A goal of a 50% increase in 5 years has been set.

- **Conflict of interest management.** All experts involved in the assessment of applications have to give a statement on their potential conflicts of interest. In this document, FNP specifies situations (related to personal, professional or economic ties) requiring reporting in this category. However, the list can never be comprehensive and conclusive. And we expect experts to declare other situations when they feel their objectivity could be questioned (this is almost exclusively a challenge in the case of Polish panellists). In a way, this places the management of conflicts of interest in the hands of panellists, who—apart from obvious cases—decide whether they consider themselves to be in a conflict of interest

situation and how they propose to act in that situation (withdraw from the assessment, withdraw from the discussion, leave the room for the discussion, etc.). We feel that the Foundation should devise a clear procedure and code of conduct in regard to potential conflicts of interest.

- **Quality of reviews and feedback for applicants.** All applicants are entitled to their (anonymised) reviews as well as comments from the panellists if their applications do not get funded. The quality of this feedback is vital. It should help candidates to improve their applications and projects. On the other hand, providing candidates with useful feedback is not an easy task. Due to the very low success rates, the vast majority of applicants do not get funding, and this is not because of any major flaws in their applications but because of the relative rank of their applications in comparison with others. Moreover, neither the experts nor the Foundation is willing to take responsibility for actual changes in the project. Another factor is time pressure. Elaborating on comments for applicants takes time, which is a scarce resource. Nonetheless, we need to take into consideration the effort candidates take to apply, and provide them with well-disposed and respectful feedback. Improving the quality of reviews and comments from panellists is an ongoing process at the Foundation, but it is difficult to impose any clear indicators on this process. A specific action planned in this regard is to send complaints/appeals to the relevant reviewers/panellists whose work has been questioned (whose name is not known to the applicant). This will bear no influence on the competition outcomes, but hopefully may help their work in future.
- **Accountability.** The Foundation requires its beneficiaries to observe in their work the highest ethical standards, integrity and principles of best practice. These expectations are explicitly expressed in the Code of Ethics for Competition Winners and Beneficiaries of FNP. As stated there, “Primary research results must be secured and carefully stored, based on verifiable evidence and recorded in a form appropriate for the methodology of the given scientific discipline.” And as the code warns, “In the event of proceedings on allegations of scientific misconduct, the lack of such data will be regarded as an incriminating circumstance.”

So far, this has been the only measure taken by the Foundation to ensure sound documentation of the research conducted. The pressure on researchers to deliver results and publications is growing, though, and we want to further commit to the principle of research integrity. Laureates will be obliged to keep details of their research documented and subject them to occasional audit authorised by the Foundation.

- **Updating the English language website.** Transparency and openness to foreign stakeholders requires that the Foundation develop the English language website along with the Polish language version. FNP tries to ensure that the English website mirrors as accurately as possible the Polish one, while assuming that not every bit of information has to be translated into English. Update of the English website proves very difficult, as new information is dynamically added. To monitor the process, FNP will introduce a regular check of its English language website.

Action Plan			
Challenge	Action	Timeframe	Responsible Unit
Gender balance	50% increase in the number of panellists, reviewers and researchers who nominate candidates for FNP Prize.	2018-2022	Programme Division
Conflict of interest management	Establishing a clear procedure and code of conduct in regard to potential conflict of interest.	by 2018	Programme Division
Quality of reviews and feedback for applicants	Introducing a new procedure to send complaints/appeals to the relevant reviewers/panellists whose work has been questioned	by 2018	Programme Division
Accountability	Obliging laureates to keep details of their research documented and subject them to occasional audit authorised by the Foundation.	by 2019	Programme Division & External Audit Division
Transparency/ updating the English language website	introducing a regular check of FNP English language website to ensure to reflects as accurately as possible the Polish one	by 2019	Programme Promotion and Cooperation Section & Programme Evaluation and Analysis Section