



NCN SURVEY

USE OF GENAI
IN CALLS
FOR RESEARCH
PROJECTS



The 2025 survey showed that, although the majority of the NCN applicants surveyed had not previously used GenAI tools, the prevailing view is that they should be permissible in the application process. There is broad acceptance of features of a technical and editorial nature, whereas firm opposition is expressed regarding the generation of substantive content. The responses gathered point to three regulatory approaches in this area: full responsibility on the part of the researcher, a complete ban, and a “middle way” based on the controlled admission of GenAI and mandatory transparency. Respondents unanimously emphasise the importance of protecting data confidentiality and the need to use secure environments, preferably of the on-premises type. In the evaluation of proposals, there is unequivocal opposition to the use of GenAI, with possible admission only of formal support, while preserving the full control of the expert. Taken together, the results indicate the need for balanced regulations combining security, accountability and transparency, while at the same time enabling limited and secure use of GenAI.

Artificial intelligence (AI) significantly affects the functioning of contemporary societies, and is also changing the approach to designing and conducting scientific research, including the process of preparing grant proposals. The National Science Centre, like other entities operating in the science sector¹, is adapting its regulations to the dynamic development of technology. In May 2025, the agency published its position on the use of generative artificial intelligence (GenAI) tools in the process of preparing and evaluating research proposals². GenAI is understood as a form of artificial intelligence capable of generating text, images and other content on the basis of the data on which it has been trained.

The guidelines formulated in this respect allow for the use of generative artificial intelligence as an auxiliary tool in preparing selected elements of proposals submitted in NCN calls, in particular for tasks such as abstracts, schematic illustrations, translations and language editing. At the same time, the need to verify content generated by AI was emphasised, along with the full responsibility of the author for the final version of the proposal. In line with this position, NCN explicitly prohibits the use of GenAI tools in the substantive evaluation of proposals. Reviewers are required to sign confidentiality declarations, meaning that they may not transfer proposal content to external tools, including those based on AI. The evaluation of a project must remain the result of their independent work.

¹ An example of good practice in regulating the use of GenAI in research work is provided by the rules in force at COPE (Committee on Publication Ethics) and Nature. These organisations have introduced clear provisions regarding the use of artificial intelligence in scientific publications. Under those rules, GenAI may not be the author of a text, the use of artificial intelligence in the process of preparing it must be disclosed, and full responsibility for the entirety of the content rests with the author. An appeals procedure has also been introduced for cases in which reviews have been prepared covertly using GenAI. The European Commission, together with the Member States of the European Research Area (ERA), has in turn drawn up a set of guidelines and recommendations aimed at ensuring the ethical, transparent and responsible use of GenAI tools in the research process. The recommendations contained in the document Responsible Use of Generative AI in Research place emphasis on transparency in the use of GenAI, on author accountability, on data security, on quality control of content, and on comprehensive education in the responsible use of AI tools by researchers applying for funding and by reviewers. Another example is the German funding agency DFG, which has imposed on applicants the requirement to submit a declaration where GenAI has been used for data analysis or for the generation of research hypotheses. There is no obligation to make such a declaration when carrying out language editing, although transparency is recommended throughout the process of preparing the proposal. In the United Kingdom (the UKRI agency), guidelines have been developed concerning the ethical use of GenAI in research. Training on the responsible use of AI in grant processes is being promoted. The American NSF has, in turn, prepared recommendations regarding the protection of data confidentiality and the verification of content generated by AI. Mechanisms for auditing the quality of reviews are being implemented. Scientific journals (Elsevier, Springer) impose on authors the obligation to disclose the use of GenAI in the process of preparing publications. It is forbidden to generate substantive content without verification by the author. Drawing up institutional policies in this area is becoming increasingly common. Universities are introducing rules defining the permissible uses of AI (such as language editing, translations) and prohibiting the generation of substantive content without verification. A requirement for transparency in the evaluation process is being introduced. Reviewers are required to disclose whether they have used AI and to what extent. Some universities in the United States and the European Union, as well as funding agencies, are implementing LLMs running on institutional servers to ensure data confidentiality without the risk of leaks to commercial models.

² The full text of the position is available on the NCN website at: <https://www.ncn.gov.pl/sites/default/files/pliki/2025-stanowisko-NCN-genSI.pdf>

The use of GenAI as technical support in proposal preparation does not raise major concerns. It is essential, however, that authors carefully verify the content generated and remain aware of the potential risks, particularly in the area of research integrity, copyright and ethical principles.

The planned monitoring of GenAI developments in the context of scientific activity prompted NCN to conduct a survey among applicants in NCN calls. Its aim was to identify the scale of the phenomenon and to provide a starting point for work on future NCN regulations. In October 2025, principal investigators who had submitted proposals in selected types of NCN calls concluded over the past two years — OPUS 26, 27 and 28, SONATA 19 and 20, and PRELUDIUM 23 — were invited to take part in a short, voluntary and anonymous questionnaire survey. The invitation was sent by email and included a direct link to the questionnaire, which covered, among other things: the use of GenAI in proposal preparation, acceptable uses of GenAI tools in future efforts to obtain research funding, the types of tools used, and views on the use of GenAI in proposal evaluation. Responses were automatically coded to prevent identification of individual principal investigators, while enabling statistical comparison between the responses of applicants whose proposals received funding and those whose proposals were rejected.

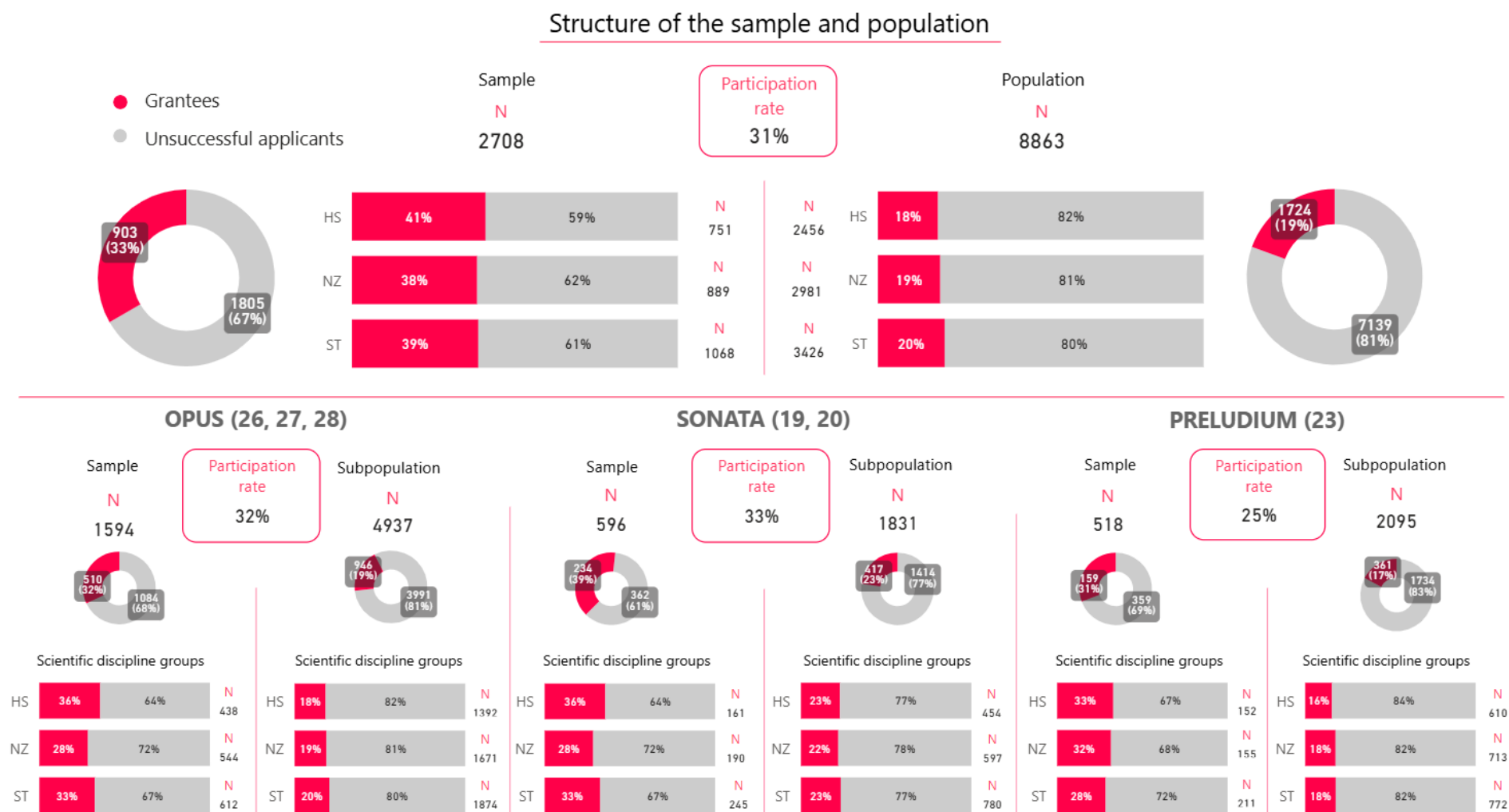
Out of 8,863 invited participants, 2,708 researchers provided responses, resulting in a participation rate of 31%. Among respondents, 33% were grantees in NCN calls and 67% were researchers whose proposals did not receive funding (Fig. 1). An analysis of the response rates broken down by call type shows the participation rate to be relatively stable. In the OPUS and SONATA calls it stood at 32% and 33% respectively, whereas in PRELUDIUM it was lower, reaching 25%. When broken down by scientific discipline groups, no significant differences in the propensity to take part in the survey were recorded, which indicates a relatively uniform level of interest in the survey within the scientific community. However, grantees are overrepresented among respondents compared to their share in the overall population of researchers invited to participate in the survey. This is relevant for interpreting the results, since the structure of respondents may, to some extent, reflect the experiences of more successful applicants within the NCN grant system.

We would like to thank all researchers who participated in the survey. The opinions provided constitute a valuable source of knowledge that genuinely broadens our understanding of the scale and scope of the use of GenAI technology in the NCN grant system. The engagement of survey participants also makes it possible to identify the threats, benefits and challenges associated with the development of GenAI technology from the perspective of principal investigators, contributing to the design of future NCN regulations in this area.

The conclusions presented in the following section are organised into two thematic areas: the use of GenAI in grant proposal preparation, and its use in the evaluation process. The analysis covers all responses collected, presenting quantitative data to illustrate the scale of the phenomenon, followed by an interpretation of respondents' comments to capture the context of their answers.

Before proceeding to the conclusions, and in line with a suggestion from one of the participants, we invite a moment of reflection on the following question: *"Do we really believe that the current trajectory of science, based primarily on increasing the volume of analyses, leads to real added value and to what we describe as 'scientific excellence'? GenAI undoubtedly supports this trajectory. Yet it seems that true scarcity lies in reflection — and in this respect GenAI, despite bold claims by technology corporations reaching record market valuations, may hinder rather than support it."*

Figure 1 Structure of the sample and population of applicants in selected NCN calls covered by the survey



Source: Compiled by the NCN Analysis and Evaluation Team

Use of GenAI in the preparation of grant proposals

The researchers surveyed provided information on their previous use of GenAI tools and their views on whether their use should be permitted in the NCN grant system (Fig. 2). The responses given indicate that the majority — nearly 60% of respondents — had not used GenAI tools when preparing proposals submitted to NCN, whereas slightly more than 40% declared that they had used them. Looking ahead, the picture is more clear-cut: around 60% believe that NCN should allow the use of GenAI in preparing research projects. No significant differences were observed across discipline groups or call outcomes, although grantees were slightly more likely to support the use of GenAI than principal investigators whose proposals did not receive funding (a difference of 5 pp).

The results clearly indicate growing interest in GenAI tools and an increasing readiness within the scientific community to incorporate them into the standard practice of research work.

Among the survey participants, differences are noticeable in the use of GenAI tools depending on the type of call in which they had submitted their proposals. Applicants in calls addressed to early-career researchers were slightly more likely to report using GenAI in proposal preparation: 49% in SONATA and 45% in PRELUDIUM. In the OPUS call, open to researchers at all career stages, this share was lower, at 37% (Fig. 3).

The analysis of respondents' answers also reveals differences between grantees and unsuccessful applicants. In the SONATA and PRELUDIUM calls, the use of GenAI was reported more often by applicants who did not receive funding (by 8 and 5 percentage points, respectively). In OPUS, the pattern is reversed: grantees more often reported using GenAI than unsuccessful applicants (a difference of 6 pp).

When broken down by call type, respondents' opinions on whether NCN should permit the use of GenAI tools in grant proposal preparation are broadly consistent with the overall survey results. Support is highest among participants in calls addressed to early-career researchers: 64% in SONATA and 61% in PRELUDIUM. The lowest share of supporters was recorded in the OPUS group (56%), which may be linked to the greater diversity of career stages among principal investigators. Grantees in the OPUS and PRELUDIUM calls are slightly more likely to support the use of GenAI than applicants without funding (by 6 pp and 5 pp, respectively). In the SONATA call the evaluation outcome does not differentiate opinions: 64% of both grantees and unsuccessful applicants support allowing GenAI. When broken down by discipline groups, the level of acceptance of the use of GenAI remains broadly similar.

Figure 2 Use of GenAI in the preparation of proposals submitted in NCN calls and assessment of its acceptability: overall, among grantees and among unsuccessful applicants
Source: Compiled by the Analysis and Evaluation Team

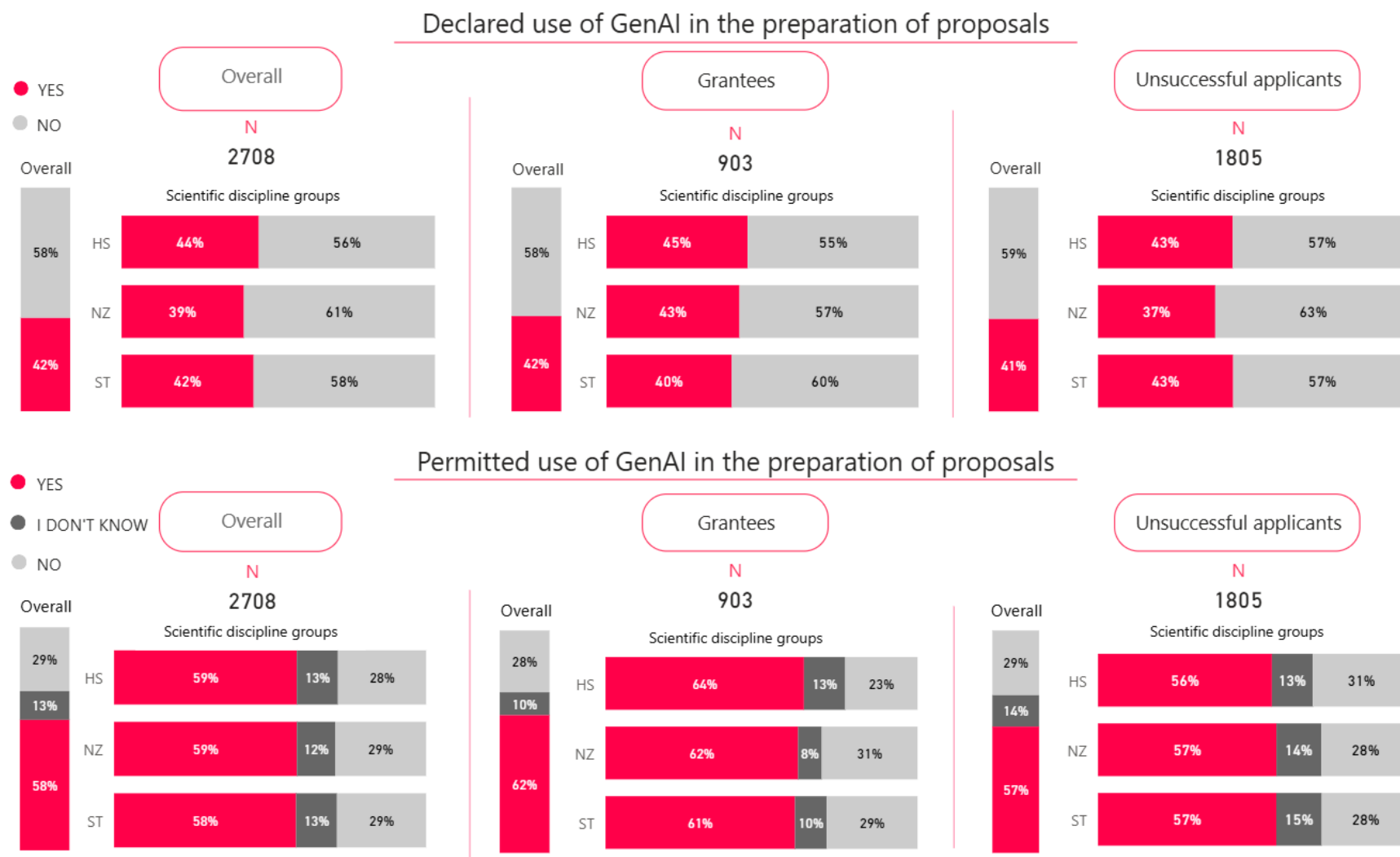
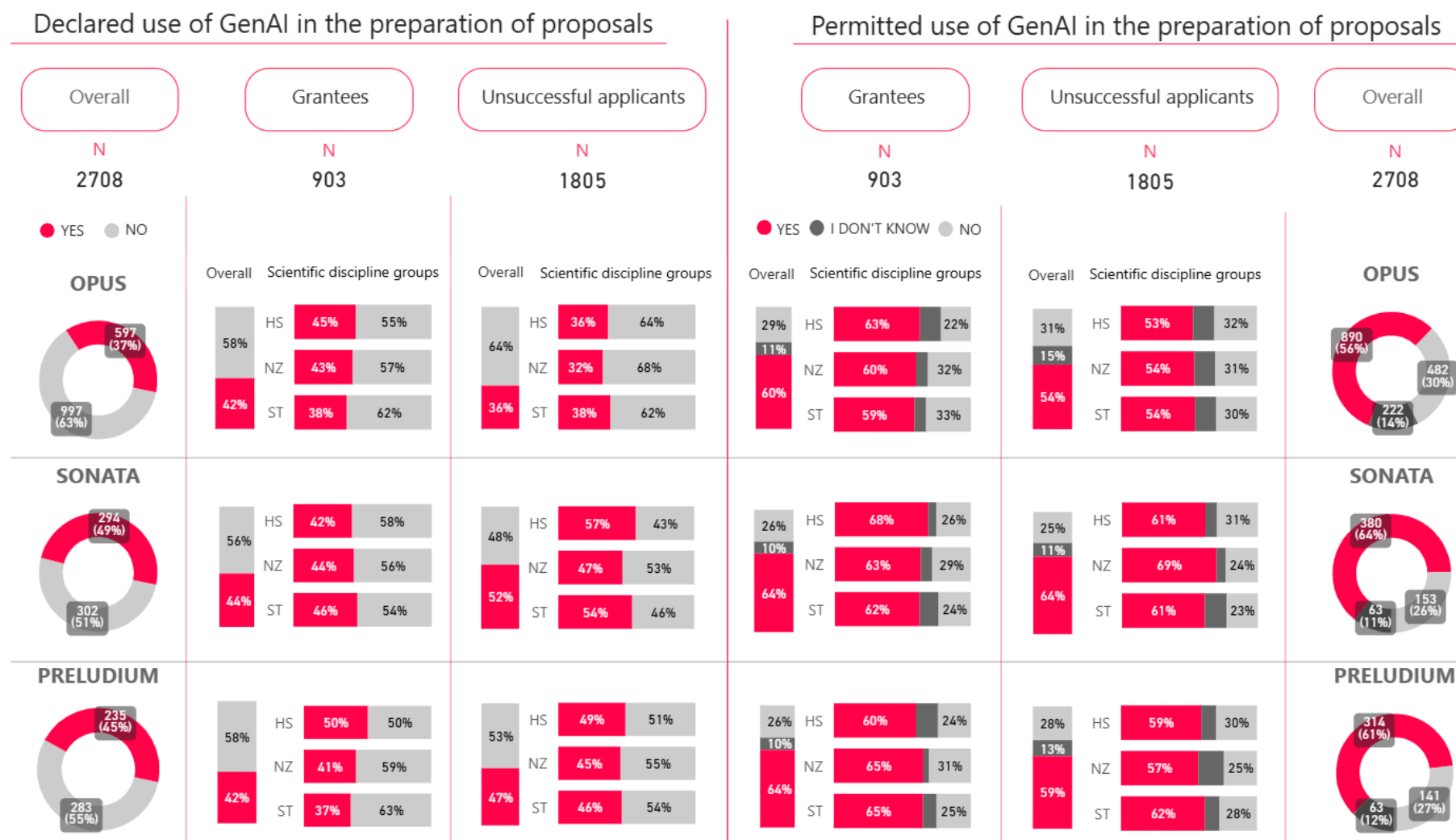


Figure 3 Use of GenAI in the preparation of proposals submitted in NCN calls and the assessment of its acceptability broken down by call type: overall, among grantees and among unsuccessful applicants



Source: Compiled by the Analysis and Evaluation Team

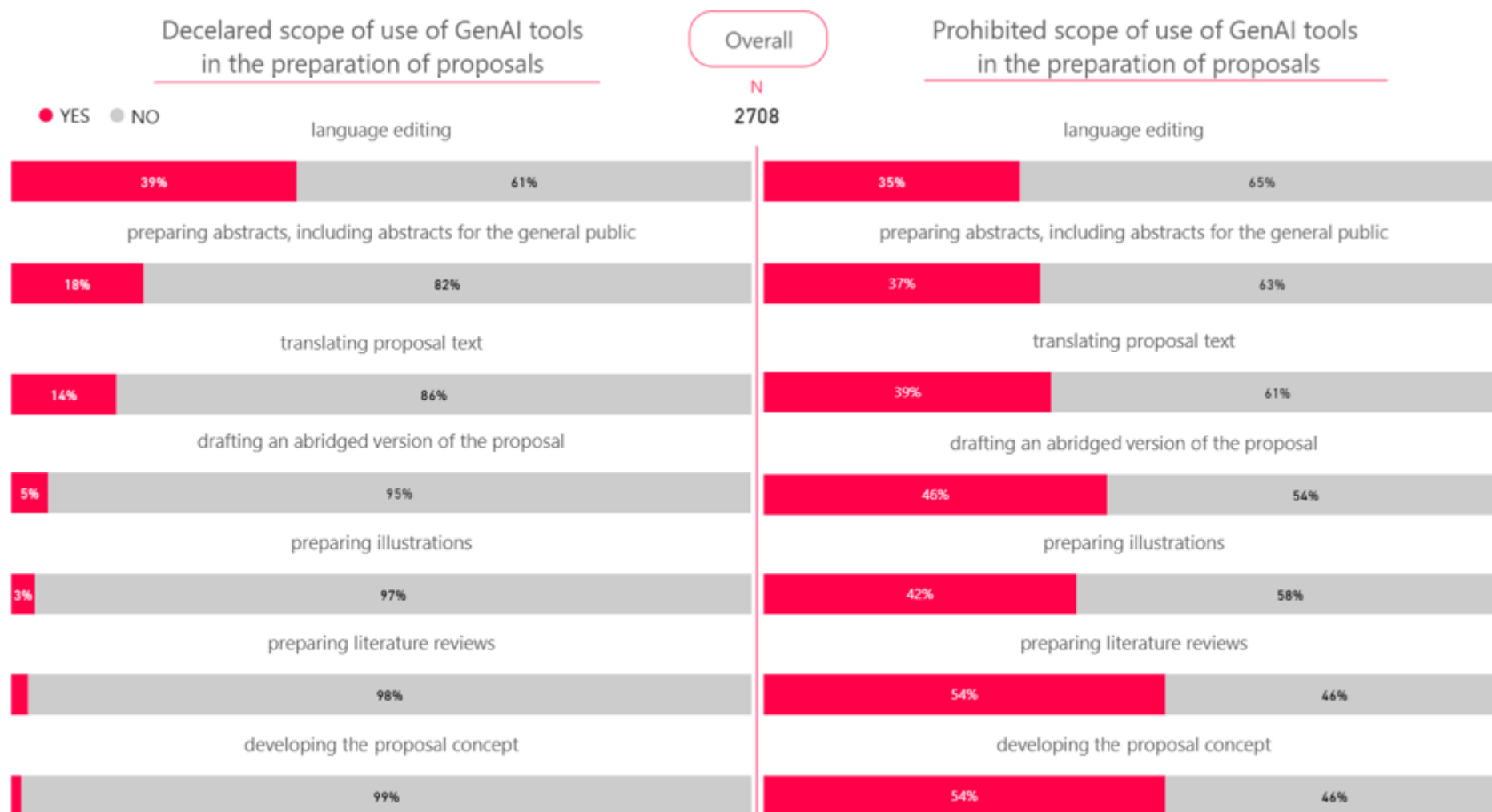
In addition to assessing the scale of AI tools use in preparing application documentation, the survey also examined specific tasks in which applicants used GenAI, as well as those they believe should be restricted in the future. The most common uses to date include language editing (39% of responses), preparing abstracts, including abstracts for the general public (18%), and translating proposal text (14%) (Fig. 4).

Looking ahead, the strongest opposition concerns the use of GenAI for developing the proposal concept and preparing literature reviews (54% in both cases), as well as for drafting an abridged version of the proposal (46%) (Fig. 4). At the same time, more than 60% of respondents accept technical support in the form of language editing, translation and preparing abstracts, including abstracts for the general public — that is, the areas most frequently indicated as having previously been prepared with the use of GenAI — received the approval of more than 60% of those surveyed.

The most frequently used GenAI tools remain: ChatGPT (32%), Grammarly (16%) and DeepL (13%) (Fig. 5).

The non-specific profile of the use of GenAI tools in the process of preparing grant proposals is confirmed by the low level of differentiation in respondents' declarations, both with regard to the scope of use of these tools and the proposed limitations on that use. The responses obtained do not reveal any significant differences either by call outcome (grantees vs. unsuccessful applicants) or by the discipline group within which research is conducted. This consistency suggests that GenAI tools are already embedded in research practice as widespread solutions, used in a similar manner regardless of the academic profile of the applicants.

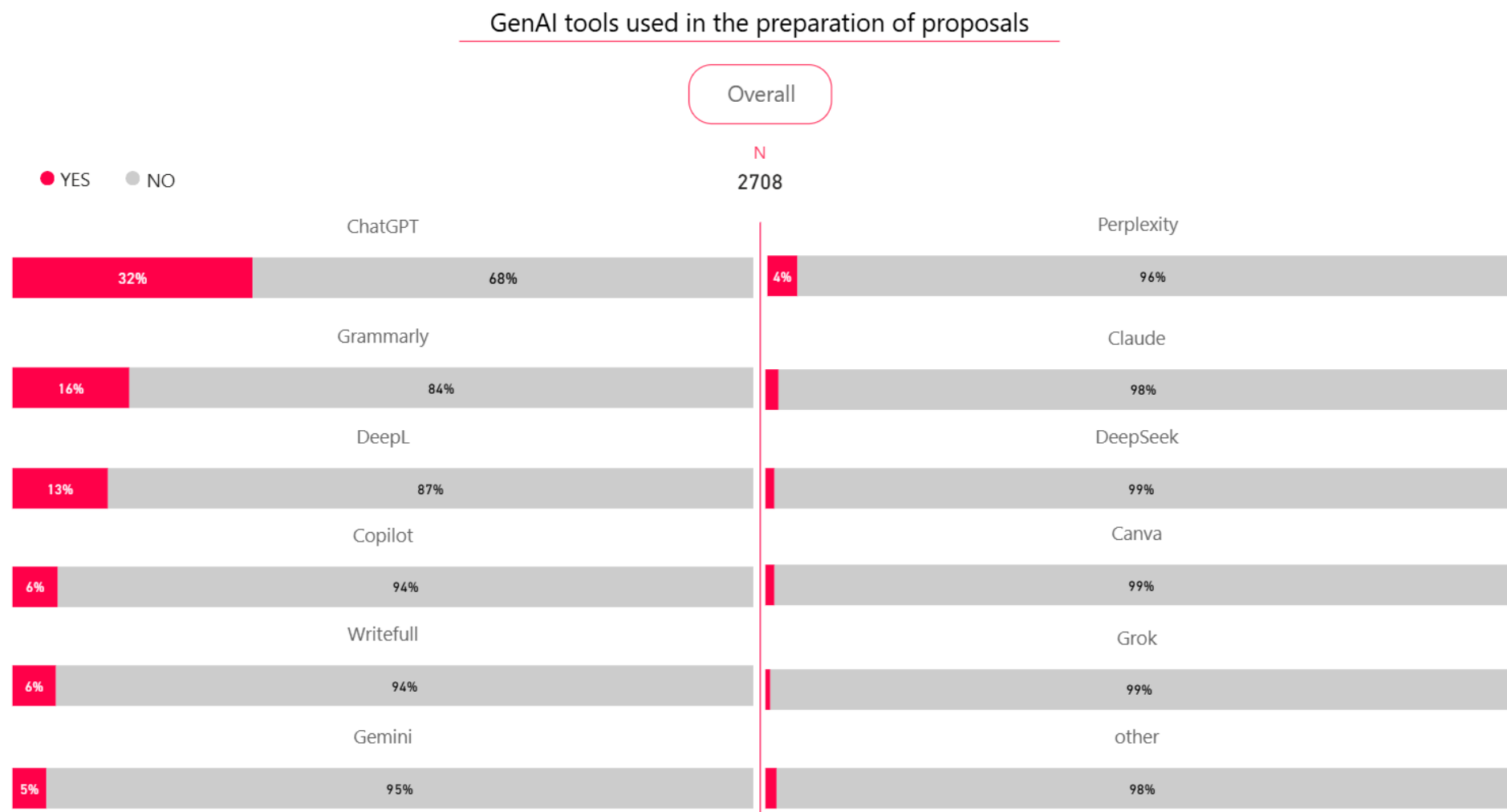
Figure 4 Declared and prohibited scope of use of GenAI tools in the preparation of proposals submitted in NCN calls (overall*)



* multiple responses possible

Source: Compiled by the Analysis and Evaluation Team

Figure 5 GenAI tools used in the preparation of proposals submitted in NCN calls (overall*)



* multiple responses possible

Source: Compiled by the Analysis and Evaluation Team

Analysis of respondents' comments helps to reconstruct the reasoning behind their answers.

Across all groups, principal investigators consistently describe the use of GenAI in proposal preparation as widespread and increasingly unavoidable. They also expect this trend to intensify, driven by rapid development of GenAI technology and the growing availability of these tools. Differences between groups relate mainly to how responsibility for the use of these technologies should be assigned. The statements presented the full spectrum of positions: from full responsibility resting with the researcher, through proposals to shift it to funding institutions, to hybrid solutions combining both approaches.

The group of principal investigators emphasising the need to maintain the full responsibility of the researcher for the substantive content and quality of the proposals being prepared stressed that GenAI should remain a supporting tool and must not replace conceptual work or scientific judgement. They also argued that bans would be ineffective in practice, particularly in a globally competitive research environment, where these tools are becoming a standard supporting the work of researchers. Respondents expressed scepticism about the effectiveness of any control over the use of GenAI tools by research funding agencies. They warned that imposing bans or restrictions on GenAI without realistic enforcement mechanisms would lead to superficial solutions, offering only the illusion of regulatory compliance. Such measures not only fail to eliminate the risk of misuse, but may further weaken trust in the grant system and in the scientific community as a whole.

(...) NCN should permit the use of GenAI in proposal submission and evaluation. It should also not impose excessive restrictions, as it is simply a tool which, when used properly, can significantly improve the quality of researchers' work. As in any case, misuse may occur, but no restriction is capable of effectively detecting and preventing this.

Survey participant opinion

The use of GenAI in the preparation of grant proposals should not be restricted in any way, as in practice such restrictions cannot be enforced. It should be emphasised, however, that the principal investigator bears full responsibility for the proposal content, regardless of whether GenAI was used.

Survey participant opinion

It was emphasised that preparing grant proposals is a time-consuming and burdensome process, and that the use of GenAI may significantly streamline activities of an editorial and organisational nature. The most frequently indicated applications included: language editing and proofreading, translation, checking compliance with call regulations, and generating supporting materials such as graphics, charts, tables, abstracts and preliminary literature reviews.

At the same time, respondents in this group were sceptical of GenAI's ability to generate core substantive content, such as the project concept, research hypotheses, research plan and tasks or methodology. Attempts to use GenAI to draft a project description were perceived as ineffective, leading to incoherent and repetitive texts, requiring more work in editing than writing the content independently. Some responses allow for limited use of GenAI tools as support in refining the presentation of a research idea and also point to their inspirational potential arising from interaction with AI. It was emphasised, however, that such support should not replace the process of formulating key project decisions and assumptions by the researcher.

I consider using GenAI to write text a misguided idea, but using it to CHECK text or conduct an initial literature search would be acceptable; it facilitates work and reduces the time required.

Survey participant opinion

Delegating thinking to AI when writing is a bad idea. These tools can be useful for language editing, information retrieval, literature collection and generating summaries. Preparing a grant proposal, however, involves a substantial amount of original work that must be undertaken consciously. I doubt that NCN has the resources to verify proposals written using GenAI. The use of generative AI may

blur the boundary between the author's original contribution and platitudes generated automatically. Who is the actual author then? It does not matter. Platitudes will not succeed in competition.

Survey participant opinion

Among this group of respondents, there was a prevailing view that reliance on concepts generated by GenAI weakens the research proposal and undermines the credibility of the principal investigator, and consequently reduces the chances of obtaining funding. This is all the more likely given that the low success rates in NCN calls mean that even subtle differences in substantive quality and the originality of the research concept are crucial in expert evaluation. In such a highly competitive environment, proposals based on schematic, superficial inspirations generated by GenAI will be easy to distinguish from projects developed through genuine reflection and critical thinking. This distinction will not remain merely an academic observation. In practice, it will translate directly into the rejection of those proposals that show signs of excessive or uncritical reliance on GenAI tools. As a result, the mechanism of quality-based selection will be reinforced, and the grant system will undergo a gradual process of self-correction.

The quality of scientific content generated by GenAI (proposal sections, bibliographies, summaries, interpretations, literature reviews or visual materials) at its current stage of development is sufficiently low that, particularly in the natural sciences, such proposals may contain numerous substantive errors or evident gaps, or still require substantial manual completion. For this reason, I believe that the use of GenAI should not be prohibited, as those who use it thoughtlessly will be rejected by experts in the relevant field. The use of GenAI for language editing should not be prohibited, as it does not constitute a greater misuse than relying on professional translation services provided by native speakers. If GenAI were to be banned for language editing, then the use of proofreading services provided by professional translation agencies or freelancers would also have to be prohibited. What difference does it make, for the value of a proposal, whether corrections are made by GenAI or by a certified translator? GenAI poses a greater threat to society when used to generate so-called "fake news" than when used to produce scientific content.

Survey participant opinion

In my view, at its current stage of development, GenAI may be helpful in selecting and analysing scientific publications, but it does not teach critical thinking. Therefore, when writing proposals that are intended to succeed, it must be borne in mind that understanding the project topic and anticipating potential failures will depend primarily on one's own deep and independent engagement in its preparation.

Survey participant opinion

Statements from the second group of respondents present a position clearly opposed to the views of those who support limited use of GenAI tools. What stands out is the strongly worded nature of these assessments, expressing categorical opposition to any form of replacing human input with GenAI in the process of preparing grant proposals. In their view, the only appropriate solution is the introduction of a complete ban on the use of such technologies.

This position is grounded in ethical arguments. Respondents emphasised that the use of GenAI undermines the very purpose of grant calls and threatens academic integrity. In their view, a grant proposal constitutes evidence of a researcher's ability to plan and conduct research, and its preparation is an integral part of creative work. A research project should fully reflect the author's knowledge and competences, and the use of GenAI in this context was regarded as unfair. Respondents warned that excessive reliance on GenAI may lead to the erosion of critical thinking skills and, consequently, to the loss of the very point of conducting scientific research.

Projects submitted to NCN should be wholly the work of their authors, just as researchers should be guided by integrity in their work. I cannot imagine projects winning where the descriptions were written by GenAI to any extent.

Survey participant opinion

Developing a research concept and writing the proposal is a creative effort, intellectual work. In my view, the use of GenAI is cheating. Such a proposal does not reflect the capabilities of the team, does not constitute a work within the meaning the Act on Copyright and Related Rights, and is also unfair competition vis-à-vis other proposals prepared without GenAI tools.

Survey participant opinion

Athletes who engage in doping are excluded from competitions. Scientists should be treated in the same way.

Survey participant opinion

Respondents also clearly pointed to a deepening crisis of credibility in science, which, in their view, is linked not only to the growing use of GenAI tools in research practice, but also to an increasing departure by researchers themselves from the fundamental principles of the scientific method. It was argued that basing basic research ideas on GenAI models trained on historical data, whilst excluding unpublished data, may hinder innovation, limiting the originality of projects and their capacity to generate new solutions. The use of uncontrolled, publicly available GenAI technologies entails a serious risk of breaching data confidentiality, which respondents consider to be one of the key threats to research integrity. Data confidentiality, as the survey participants pointed out, is a foundation of the security of the scientific process. Its violation may lead to loss of participants' privacy, theft of intellectual property and manipulation of research results. Particularly concerning is the risk associated with public cloud-based tools, which may store input data and use it for further model training. Lack of control over data flows increases the likelihood of leaks of unpublished results, thereby undermining the competitive advantage of research projects.

GenAI is a statistical model of what is supposed to come next. It knows nothing and is incapable of thinking. I do not want proposals to be created or reviewed by something that has no knowledge whatsoever and fabricates information, regardless of how advanced it may appear. GenAI should be banned.

Survey participant opinion

(...) The use of GenAI in the process of preparing grant proposals is unfair towards researchers who consistently develop their research craft, who are creative, who have the knowledge and experience necessary to carry out the research proposed in their projects. In my view, using GenAI in proposal preparation is unfair, leads to the misuse of public funds and promotes opportunistic behaviour in science. Such researchers will then go on to generate publications using GenAI (as a manuscript reviewer I have already encountered such cases — so far involving students seeking to build a track record for doctoral school admission), obtain academic degrees and titles and hinder the development of honest and intelligent researchers at all stages of their careers — ultimately leading to a civilisational crisis.

Survey participant opinion

Representatives of this group were unanimous: the obligation to safeguard the integrity of the grant process rests with NCN, since the agency holds regulatory authority and must establish tightening mechanisms capable of detecting and preventing the use of GenAI in research projects. The principal investigators emphasised that effective oversight requires both advanced technical tools and clear sanctioning procedures, in order to avoid situations in which regulations become merely superficial. Without genuine and stringent sanctions on the part of NCN, there is a serious risk of a mass influx of proposals prepared with the use of GenAI tools. In the respondents' view, such a scenario would lead

to an erosion of the standards of scientific integrity consistently built by NCN over the past 15 years of its operation.

Within the expected mechanisms aimed at tightening the NCN's call procedures, the key issue is not only the control procedure itself, but above all the shaping of honest attitudes within the scientific community. Opponents of GenAI argued that NCN bears responsibility not only for the evaluation of the proposals submitted, but also for clearly defining the boundaries of acceptable practices. In their view, NCN plays an important educational role in preparing researchers, particularly those at an early stage of their careers, to draft grant proposals on their own, which is a crucial element in building scientific competences and enabling researchers to compete effectively within the grant system, including internationally. They also pointed to the need to raise awareness among reviewers, who should be prepared to identify dishonest practices related to the use of GenAI.

A grant agency such as NCN is responsible for setting the fundamental directions of research activity in Poland. In my view, proposals should not be written using GenAI, as this raises concerns about the extent to which the scientific community retains control over defining those directions (...).

Survey participant opinion

I believe that using GenAI to write any texts is a sign of low intellectual capacity on the part of the author and limits their development in formulating ideas, because such a person simply stops practising this skill. For this reason, I think the use of AI should be opposed at every possible stage within the scientific community, and I fully support NCN in counteracting it.

Survey participant opinion

I believe that GenAI should not be used at ANY stage related to the grant process. It is a tool that is socially and environmentally harmful, and ethically questionable in terms of how these algorithms are trained — particularly due to the lack of respect for copyright, which should be of fundamental importance to researchers. A person preparing a proposal using GenAI risks committing plagiarism and calls into question their actual scientific competences. When dealing with large amounts of funding and investment in science, these resources should go to researchers with knowledge, passion and skills that ensure the progress of science. GenAI may distort that picture. In addition, a public institution should not support or encourage the use of this technology given the risks it entails, including plagiarism, false information (so-called hallucinations) and the overall irresponsible use of resources. It is also worth pointing out to applicants that by using GenAI in their proposals, they are sharing their ideas and projects with corporate databases behind these tools and effectively consenting to the use of their work by entities far removed from scientific values.

Survey participant opinion

A synthesis of these opposing positions is the so-called “middle way”, which assumes a division of responsibility for the use of GenAI tools between the principal investigator and NCN. Respondents in this largest group argued that the key issue is the gradual and systematic development of awareness regarding the acceptable scope and forms of GenAI use in the preparation of grant proposals. In their view, research funding agencies should take the lead in educational activities that not only increase awareness of the risks associated with uncritical use of generative artificial intelligence, but also contribute to fostering a culture of responsibility and trust on both sides of the grant system. The foundation of this approach is transparency in the use of GenAI technologies, combined with oversight by NCN and limited permission for their use under conditions of full control and responsibility on the part of the principal investigator. A key element is that the researcher bears the consequences for the extent of GenAI use in the proposal, operating within clearly defined regulations and consciously accepting the applicable rules and sanctions. Such a solution is intended to ensure transparency, minimise the risk of misuse, and at the same time to enable the secure use of GenAI tools within a responsible grant system.

The starting point in this approach is the establishment of clear, pragmatic and enforceable rules for the use of GenAI tools. These regulations should be imposed by the funding agency, but their effectiveness requires that they be developed in dialogue with the scientific community. According to respondents, such a participatory approach increases acceptance and understanding of the rules, as illustrated by the survey itself. Principal investigators in this group emphasised the need for a clear distinction between GenAI tools, which create new content, and classical AI systems, which, for example, support data analysis or computational processes. The absence of such a distinction may lead to misunderstandings, misinterpretation of regulations and a risk of misuse. Clear definitions and transparent criteria for the use of both types of technologies are a foundation for their responsible application in scientific activity.

(...) all types of AI should be taken into account in regulations concerning the use of AI in the preparation and evaluation of proposals at NCN. While GenAI raises many controversies, the use of AI models designed for searching and extracting data and knowledge from the literature is rather widely accepted. In my opinion, GenAI in the proposal preparation phase should be allowed for creating schedules, budgets, illustrations and abstracts (and possibly even drafting the main text), provided that the applicant discloses the tool used and the extent of its use. The applicant should be required to fully review the proposal prepared in this way and bear full responsibility for its content (as has always been the case). I believe that a complete ban on the use of GenAI will have negative consequences for the future of the institution.

Survey participant opinion

Supporters of the „middle way”, similarly to respondents in the first group, indicated that AI tools may be used for non-substantive tasks during the preparation of a grant proposal. Provided that all content is subject to mandatory verification by the principal investigator, the use of GenAI is considered acceptable for activities such as language editing, translation, abridging content, preparing abstracts, schemes, diagrams, figures, schedules, improving structure, simple cost descriptions, and checking the coherence of the proposal and its compliance with call criteria. Respondents also accepted the preliminary preparation of a literature review, on condition of the subsequent obligatory reading and verification of sources by the author. At the same time, they clearly opposed the generation of entire substantive sections without an original base text and full editorial input from the proposal's author. In their view, the automatic generation of bibliographies should be prohibited, as this constitutes a key element of research responsibility.

Despite their acceptance of technical uses of GenAI tools, ethical, substantive and practical concerns outweigh the respondents' enthusiasm in this group. Principal investigators pointed to the risk of the mass use of GenAI, the emergence of a regulatory fiction, and, as a consequence, a sharp increase in the number of proposals lacking scientific value, the evaluation of which would place a significant burden on the NCN system, in a way analogous to the peer review crisis in academic journals. Unlike opponents of GenAI, this group does not reject the technology, but formulates a number of reservations that limit the scope of its acceptable use. In their view, the appropriate solution is the implementation by NCN of transparent, mandatory mechanisms for disclosing the scope of the use of GenAI by the researcher.

GenAI should be allowed only for the formal preparation of the proposal, without interfering with its substantive content. In science, GenAI should support and assist us, not replace us. Furthermore, transparency in the use of GenAI is also essential. Authors should indicate where AI has been used.

Survey participant opinion

I only learned about AI a few months ago, so I did not use it when preparing my previous grant proposals. At present, I believe that using AI to search for information sources on the Internet, to edit text and make stylistic corrections, translate, or create simple graphics in the preparation of scientific work or grant proposals is not harmful, but rather a sign of the times and a major benefit and facilitation of our work. Using AI is a process that requires strict supervision (otherwise it produces unusable output), and the prompting process is itself creative and determines the outcome. AI should therefore

be treated as a tool, similar to other tools used for years alongside the development of computer technology, such as online translators, search engines and academic databases. I do not consider it justified to restrict the use of GenAI in proposal preparation (in any case, how would this be enforced?), but authors could be asked to declare whether they used AI when preparing the proposal, which is already a practice in some journals.

Survey participant opinion

I think GenAI should be allowed to some extent. I cannot imagine that it would be acceptable for an entire proposal to be prepared by GenAI, but its participation as a 'co-contributor' to the process could be acceptable. It would be useful to indicate in the proposal what was created with the use of GenAI (e.g. this figure was generated using GenAI), provided that this is not stigmatised by reviewers. After all, this is a tool that we cannot avoid, so we need to find a way to manage it.

Survey participant opinion

A key element of transparency mechanisms for the use of GenAI would be the introduction of a mandatory "AI/GenAI use" section in the OSF system, in which the applicant could provide a "yes" or "no" declaration and add a brief description (within a character limit). The applicant should then select from a predefined list the functionalities used in preparing the proposal, such as language editing, translation, abridging content, preparing abstracts, schemes, figures, schedules, DMP documents, or other types of work.

Where GenAI has been used to generate or synthesise substantive content, a "substantial use" label should be applied, indicating that AI has produced or significantly transformed the substantive content, rather than merely improving language or structure. This category would include, among others, the generation of entire proposal sections, creation of bibliographies, proposing research hypotheses or methods, data analysis, and interpretation of results. In each case, it would be necessary to specify the tool used (name, version/model, mode: public vs. local) as well as the method of content verification by the author (e.g. manual fact-checking, reading of sources), including the retention of technical documentation for audit purposes (so-called user logs).

Respondents agreed that information about the use of GenAI should have an impact on the substantive evaluation of the proposal, which constitutes an important element of transparency in the grant system.

Proposed wording of the GenAI use declaration

GenAI was used in this proposal for: [language editing/translation/abstracts/diagrams/DMP/other].
Tools and mode: [name/model/version; on-premises/public*]. I
have verified the content and take full responsibility for it. * –
public model used only for non-confidential content.

Compiled on the basis of survey participants' opinions

Representatives of the "middle way" strongly emphasised the importance of using secure data processing infrastructure that protects confidentiality, intellectual property and ensures compliance with legal regulations. The analysed responses place strong emphasis on security mechanisms such as encryption, access control and isolation from public models. A key element of such solutions is GenAI models operating in an on-premises mode, deployed within the institution's local environment (e.g. on university or research organisation servers, at a research funding agency, or at the Ministry of Science and Higher Education), in order to ensure full control over data flow and storage. Respondents emphasised that the lack of such oversight in the case of public models creates a significant risk of confidentiality breaches.

Another important issue raised was data retention. Survey participants expressed a clear expectation that GenAI technologies should guarantee a "no data retention" policy, meaning no storage of data after

the session ends and no use of such data for further model training. Such guarantees, confirmed by the provider, were seen as a necessary condition for eliminating the risk of secondary use of confidential content, including grant proposals.

Other recommendations addressed to NCN included ensuring access to secure on-premises infrastructure and implementing mechanisms for auditing the trail of GenAI tool use, enabling the documentation and verification of the scope of their use.

According to this group of respondents, all applicants should be granted equal access to secure on-premises tools. They also pointed to the possibility of integrating GenAI functionalities into the OSF system in the form of an “NCN Assistant”. The proposed solution would include, among other features, the generation of editable abstracts, checking compliance with call criteria and the consistency of the text, automatic detection of character limits and identification of formal deficiencies. There was also a proposal for NCN to fund access to verified GenAI technologies recommended by NCN. At the same time, respondents noted that implementing an “NCN Assistant” would be a significant infrastructural challenge, requiring increased resources dedicated to the processing and storage of generated data.

I have concerns related to confidentiality: texts edited by GenAI may be processed by the providers of these services. In this way, innovative ideas of Polish researchers could be used by others. Perhaps the solution would be for NCN to provide dedicated GenAI tools? Tools over which NCN would have full control?

Survey participant opinion

(...) NCN could introduce a dedicated, voluntary AI tool to allow applicants to check a near-final proposal in formal terms, used by its author within a closed AI tool inside the NCN system. I believe such a solution would reduce the number of proposals rejected due to formal errors. Of course, NCN would also need to carry out such checks for proposals already submitted in the OSF system. In addition, NCN could, based on rankings and input from AI experts (preferably from non-governmental organisations), develop a list of recommended GenAI tools to be used in the process of drafting grant proposals in NCN calls.

Survey participant opinion

Supporters of the „middle way” also pointed to the need to conduct regular audits of the GenAI use trail in the proposal preparation process, which they considered a condition for maintaining trust in the grant system. This postulate includes introducing an obligation to record actions performed by the proposal's author using GenAI technologies, in line with the concept proposed by respondents: „10 steps for transparency in the use of GenAI tools to build a culture of accountability and trust”.

10 steps for transparency in the use of GenAI tools to build a culture of accountability and trust

1. Define the purpose of AI use. Specify what the tool is to be used for (e.g. language editing, abstract, diagram, other (please specify)).
2. Choose a secure environment. Use only on-premises tools, i.e. institutional tools or those with a “no data retention” policy. Avoid public AI models.
3. Record the tool and version. Record the name, version/model, mode (public vs. on-premises), and date of use.
4. Briefly describe the scope of use: editing, abridging, abstract, graphics, schedule, data analysis, other.
5. Record the prompt or context. Store the query (or its summary) to allow the process to be reconstructed.
6. Mark “substantial use” if AI generated substantive content or a synthesis of the literature. Indicate this in the declaration.
7. Verify quality. Describe how correctness was checked: manual fact-check, reading of sources, comparison of versions before and after.
8. Record decisions on what was accepted and what was rejected from AI outputs (in notes or in the system).
9. Complete the “AI disclosure” section in the proposal form: scope, tools, mode, verification method, and statement of responsibility.
10. Archive the trail. Store logs in a secure repository (university/NCN), available in case of audit.

Compiled on the basis of survey participants' opinions

The trail-audit mechanism should enable random verification of the consistency between the applicant's declaration in the OSF system and the actual use of GenAI, by checking user logs in an on-premises environment. Respondents also recommended introducing a clear sanction pathway for breaches of confidentiality or inconsistencies in declarations. Proposed consequences for prohibited actions included: a warning, a temporary ban from future calls, and withdrawal of awarded funding in cases of serious breaches.

The final issue raised by this group of respondents was the need for NCN to organise training covering the critical use of GenAI tools, maintaining an audit trail, protection of confidentiality, and verification of the completeness and correctness of content generated using GenAI. At the same time, it was noted that users of local GenAI systems should be trained in prompt security, including resilience to prompt injection. This is a type of attack on artificial intelligence models that involves inserting additional instructions into a query, altering the model's behaviour in ways not intended by the user or administrator. This may lead to the disclosure of confidential data, bypassing safeguards, and manipulation of outputs. An example would be an instruction prompting the model to ignore prior rules and reveal an API key. This threat is particularly significant in environments where confidential content is processed, such as grant proposals. Protection against such attacks requires prompt validation, restricting access to sensitive system functions, and user training in the safe use of GenAI.

Use of GenAI in proposal evaluation

In addition to questions about the use of GenAI in proposal preparation, the survey also included a question on the possibility of its use in the evaluation of proposals submitted in NCN calls. The analysis of responses indicates a clear lack of acceptance for such a solution. A decisive majority of respondents expressed a negative opinion in this respect (Fig. 6). Taking into account the views of all respondents, 67% oppose the inclusion of GenAI in the proposal evaluation process, with an even higher share among grantees, at 72%. A breakdown of responses by scientific discipline does not reveal any significant differences. The position in this respect therefore remains consistent, indicating a broad consensus regarding the risks and undesirable consequences of automating substantive evaluation.

Analysis of survey participants' comments confirms a preference for expert evaluation of proposals submitted to NCN, based on the knowledge and experience of researchers. At the same time, the possibility of using GenAI tools as independent substantive reviewers was firmly rejected. Respondents referred to research findings (Rickman, *BMC Medical Informatics and Decision Making*, 2025) demonstrating that large language models may replicate biases and lead to the unequal treatment of individuals or groups. Algorithms tend to favour content aligned with their internal patterns, which is not necessarily content of scientific value. Consequently, there is a risk that the content of a proposal will be manipulated in order to tailor it to the evaluation algorithm — for example, through the use of hidden instructions (e.g. white text embedded in the document) or excessive use of keywords. Such practices may distort the very point of the evaluation, rewarding techniques optimised for artificial intelligence rather than the quality of the research itself.

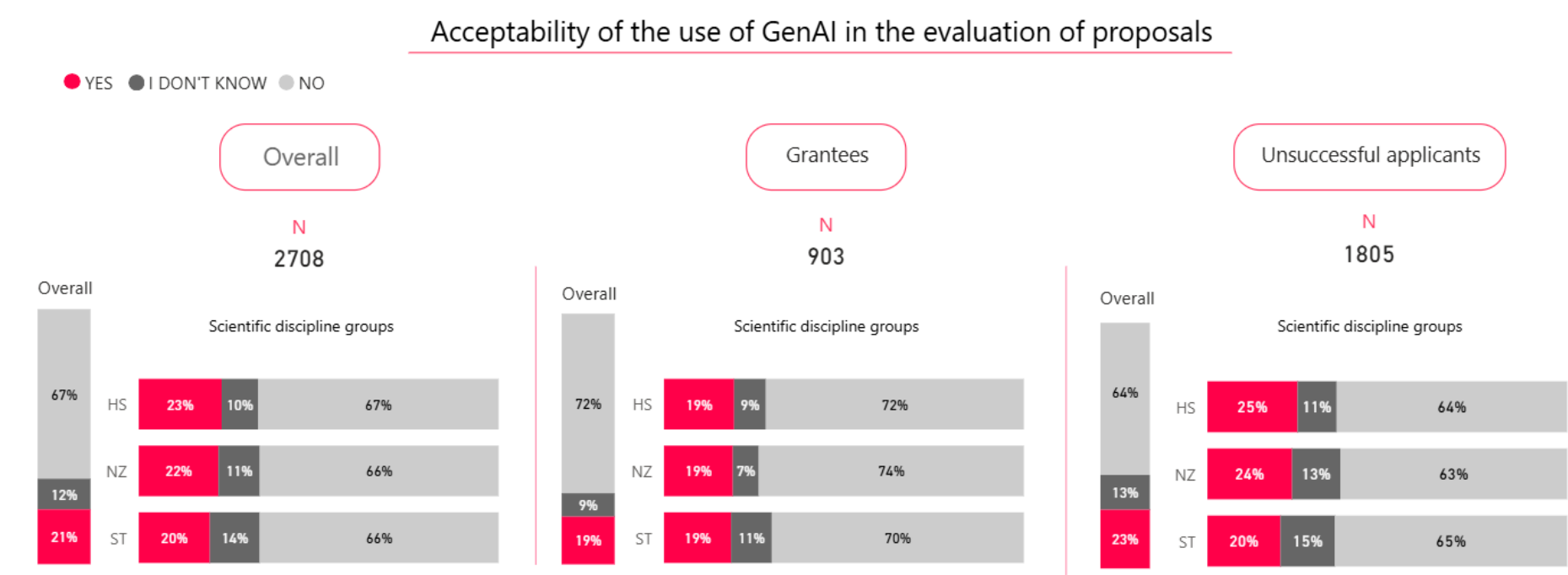
Granting research funding based on a photograph of the applicant and selecting them using children's counting-out rhymes would be more fair and reasonable than using a technology known for generating false information, built on the mass appropriation of intellectual property and requiring unimaginable amounts of energy. It is a disgrace that NCN is even seriously asking such questions.

Survey participant opinion

GenAI does not fundamentally provide expert knowledge. Objective studies conducted among radiologists have shown that the use of GenAI to "assist" image analysis actually lowers the diagnostic accuracy of specialists. Similar effects can be expected in the case of the use of AI by experts.

Survey participant opinion

Figure 6 Acceptability of the use of GenAI in the evaluation of proposals submitted to NCN calls: overall, among grantees and among unsuccessful applicants



Source: Compiled by the Analysis and Evaluation Team

The participants in the survey emphasised that a key element in building trust in the quality of the proposal evaluation process at NCN is the proper preparation of experts. In their view, training organised by NCN should cover issues related to the recognition of potential abuses, including the identification of the „generic style” characteristic of content generated by GenAI, the detection of inconsistencies in proposals, and unverified citations. In respondents' view, such training would raise the level of competence of reviewers in evaluating substantive quality and would limit the risk of the unauthorised use of GenAI technology in the application process.

Some respondents indicated that GenAI tools may support the work of an expert evaluating a proposal only to a limited extent, while observing strict rules on data security and confidentiality. It was emphasised that any use of these tools should concern only activities of a formal nature, such as the verification of the consistency and completeness of the proposal and its compliance with the criteria of the call and the limits of the form. It was also held to be acceptable to use GenAI to prepare summaries on the basis of the reviewer's own notes, and to analyse divergences in reviews within the work of the expert panel. In all such cases, the role of the tools remains exclusively supportive, not decision-making.

A key condition emphasised by the principal investigators is the use of GenAI exclusively in an isolated on-premises environment, ideally on NCN servers, with full control over the flow of information and a guarantee of no data retention. Such a solution minimises the risk of breaches of confidentiality and ensures compliance with the principles of ethics applicable in the proposal evaluation process.

Proposals and the evaluation process are confidential, and so it is unacceptable for reviewers to upload proposals into the public domain, and this should be very severely punished.

Survey participant opinion

By analogy with the recommendations regarding the preparation of proposals, the mechanism for disclosing the scope of the use of GenAI constitutes an integral element of the evaluation procedure. In the view of survey participants, every expert evaluating a proposal should be required to submit a brief declaration concerning any use of GenAI tools, together with an indication of the scope of their application and the environment. In order to ensure that declarations are consistent with actual practice, NCN should carry out random checks based on the analysis of user system logs. In their view, such a solution strengthens the transparency of the process and limits the risk of the unauthorised use of GenAI technology.

Proposed declaration for an expert evaluating a proposal using GenAI

Parts of this review have been prepared with the support of GenAI tools.

I have used GenAI exclusively in the institutional/*on-premises* environment within the following scope: [checklists, consistency, abridging notes].

The whole of the content has been verified, approved and accepted by me. I take full responsibility for the substantive side of the review and for its correctness.

Compiled on the basis of survey participants' opinions

In the view of those opposed to the use of GenAI tools by experts, this technology may contribute to the deepening of inequalities in the process of evaluating research proposals. Without an in-depth, independent analysis of the content of the proposal, there is a risk that the expert will take a decision on the basis of erroneously generated data from generative artificial intelligence. Respondents also emphasised the unethical nature of automating the evaluation process, and called for the introduction of an appeals procedure

in situations in which a review has been prepared using GenAI tools, that is, a so-called right of substantive reply.

The substantive reply procedure would enable the applicant to respond to the content of the review on the merits, rather than only formally. At present, in the NCN system, appeals are limited to procedural matters, with no possibility of correcting interpretative errors. In respondents' view, a reply makes it possible to point out misunderstandings, a lack of contextual understanding or an underestimation of the project's innovativeness by the expert, which is particularly important in the case of reviews prepared using GenAI.

GenAI should be strictly prohibited in drafting the justification/evaluation of a grant application. Reviewers should be able to use GenAI to verify data within a proposal, but they should not paste entire proposals into applications using GenAI and ask for them to be evaluated, precisely for the reason that, in my view, the level of advancement of GenAI does not enable the correct verification and interpretation of all scientific content (...). If certain data can be verified more quickly by GenAI than by reviewing 50 articles, then this is a justified use. If, however, reviewers reject a proposal by producing a 1–2-page explanation generated by GenAI, this should be prohibited, or there should be an appeals procedure making it possible to demonstrate that the reviewer was wrong.

Survey participant opinion

(...) The effects of cursory reviews carried out by AI are visible in the evaluations of proposals at NCBR (the National Centre for Research and Development); they have already been protested against by enterprises whose innovative concepts have not been "understood" by AI and were then unreflectively rejected by the experts as well.

Survey participant opinion

Among the respondents' proposals there was the idea of introducing a time window (7–14 days) for the preparation of a reply after receiving a review of a proposal. The scope of the response should be limited solely to the addressing of facts, literature and methods, in the form of a brief document (1–2 pages). The reply would then be passed to the expert panel, which could take the corrections presented into account in its final evaluation, or commission additional verification, for example in the form of a further scientific review. At the same time, the possibility of generating a reply by means of GenAI without disclosing this fact was excluded, in order to avoid an „AI vs. AI” situation and to ensure transparency in the process.

Supporters of this solution pointed out that this mechanism is consistent with European practice, including in the ERC and Horizon Europe programmes, where a „Rebuttal” procedure is in place. In the ERC, the applicant has 7 days to prepare a response to reviewers' comments after receiving the *Evaluation Summary Report (ESR)*. The document is brief (usually one page), contains only substantive corrections, and is prepared on the principle of: „reviewer's comment / response / proof (e.g. quotation from the proposal)”. Similar solutions are applied in some Horizon Europe calls. The aim and the rules are analogous: the correction of facts, no new content and a brief format of response.