

GENDER IN RESEARCH

Evaluation and knowledge production

Edited by

Laurence Guyard, Magalie Lesueur-Jannoyer and Angela Zeller



Gender in research

Evaluation
and knowledge production

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Introduction

Laurence Guyard, Magalie Lesueur-Jannoyer, Angela Zeller

In France, disparities between men and women are still prevalent in higher education and research, to a similar extent as that observed at the European level (Ministry of Higher Education and Research, 2023). The gendered structure of our societies is reflected at every level of the social organization and the academic system is no exception. The general observation is that there are fewer and fewer women the higher up the academic ladder one goes. This phenomenon can be explained by long-standing stereotypes, the invisibility of women's work in the academia, the 'boy's club' mentality of male-dominated networks and the fact that work-life balance is more complex for women, since domestic work still weighing more heavily on them than on men. Despite the emergence of various fields of research on gender—their goal being to deconstruct the ideas and preconceptions underpinning 'masculine' and 'feminine' identities, as well as the social roles that women and men are expected to play, which legitimise the domination of men over women and are justified by an inevitable biological and psychological determinism (Löwy and Marry, 2007)—stereotypes and inequalities persist. There is still a strong tendency to essentialize differences between women and men, perpetuating a (re) production of gender relations justified by a 'natural' distinction between women and men and introducing 'ideological' biases into the production of knowledge (Mathevon and Viennot, 2017). However, these differences cannot be reduced to a simple dichotomy between men and women: they should be seen as a complex and dynamic interaction between sex and gender (Springer *et al.*, 2012). The use of gender as a methodological and interdisciplinary tool counteracts these ideological biases and enriches research by creating a meeting space between different scholarly realms. However, aside from the social sciences, most of the research community is still reluctant, even sceptical, about using the concept of gender (Mathevon and Viennot, 2017) as a 'heuristic' (Marry, 2011) and methodological tool, even though calls to take gender and/or sex into account in research have been multiplying since the 1960s.¹

Research into these issues remains challenging insofar as it questions our social organisation based on domination. Suspicions about the intentions of the researchers involved in these processes, such as those that sparked a debate in France in 2020, bear witness and underline the need to reaffirm the importance of social sciences founded on epistemological and methodological principles in terms of the insights they provide on society and its complexities (Jacquot and Ledoux, 2021).

1. <http://genderedinnovations.stanford.edu/policy/timeline.html>

Filling this knowledge gap is all the more pressing because the above inequalities persist, despite all the dedicated public policies implemented at national and European levels over the past twenty years or so. In the field of research and higher education, the French Act of 22 July 2013² was consolidated by the publication of an agreement on professional equality between men and women in the civil service in 2018, followed by the 2019 Act³ relating to the transformation of the civil service, and Decree no. 2020-256 of March 2020 implementing Article 80 of that same Act. The goal of this legislation is to make it compulsory and binding for each institution to set up Gender Equality plans—with specific, purposeful actions and a proactive schedule—covering human resources management, the prevention of gender-based and sexual violence (GBSV) and the inclusion of sex and/or gender in research. These legislative measures are consistent with the policies and actions implemented by the European Union over the last two decades. To make its policies more effective, the European Commission has gradually shifted from gender equality to gender mainstreaming. This consists of institutionalising the incorporation of gender into public policy-making, as the notion of gender reveals the hierarchy between women and men more effectively.

In line with this gender mainstreaming approach and funded by the Horizon 2020 research and innovation programme, the Gender-SMART project, coordinated by the CIRAD⁴ (French Agricultural Research Centre for International Development) and in which the French National Research Agency (ANR) was a partner alongside seven other European institutions, involved the development and implementation of Gender Equality Plans in research and funding organizations. The aim of these plans was to bring about lasting cultural and institutional changes in favour of gender equality, and to encourage scientific communities to take the sex and/or gender dimension into account in their research. For the ANR and the CIRAD, participating in this project was an opportunity to benefit from a structural framework and the support of technical partners with expertise in gender sociology (Institute of Sociology, Czech Academy of Sciences, ISAS, Czech Republic) and institutional change (Yellow Window, Belgium), in order to meet French statutory obligations. Following a self-assessment phase at each partner institution, action plans were drawn up and implemented. Guidelines on how to institutionalize gender equality in a sustainable way were also drawn up and published. During the course of the project, the potential for gender bias in the conduct of research and in its assessment not only emerged as an issue needing to be addressed through the future plans, but also highlighted the need for concerted action between the various stakeholders involved in research, to ensure coherence and thereby greater efficiency. This is how the ANR and the CIRAD came up with the idea of creating a space for scientists and funding bodies to exchange ideas and debate on this issue. The existence of gender biases in evaluation processes has already been demonstrated, whether for recruitment, promotion or funding allocation purposes and regardless of the scientific field (see Wennerås and Wold, 1997; Régner *et al.*, 2019). These biases highlight the gendered division of the academic world and contribute to perpetuating and reinforcing inequalities between men and women.

2. Act no. 2013-660 of 22 July 2013 on higher education and research.

3. Act no. 2019-828 of 6 August 2019 on the transformation of the civil service.

4. All the French acronyms are kept because they are known as such by the international and French communities.

While training and awareness-raising are decisive in countering gender bias, they are not sufficient. Indeed, potential gender biases in evaluation processes as well as the source of such biases still need to be systematically identified and measured. Given the complexity of the phenomena that can lead to unfair or discriminatory evaluation, the question of methodological approaches and tools is essential. However, it is important to remember that if these gender biases brought about by embedded and subconscious gendered representations can interfere in evaluation processes, they can also determine and influence scientific approaches.

Inspired by all these issues, the ANR and the CIRAD organized a symposium on *Gender in Research* in December 2020, with the aim of establishing a dialogue between scientists, funding agencies and research project evaluators. For the ANR, this event was also an opportunity to showcase the projects it funds on the topic of gender issues in evaluation and knowledge production processes, as well as to provide a platform for the scientists involved in its evaluation processes to share their experiences as chairpersons of the ANR assessment committees.

After an opening address by the French Minister for Higher Education and Research and an introduction by the ANR and the CIRAD management teams, the day began with morning presentations on gender issues in evaluation processes, followed by a round-table discussion with assessment committee chairpersons. The afternoon presentations focused on gender bias in knowledge production and were followed by a round-table discussion with other committee chairpersons.

Initially planned as a face-to-face event, the Covid-19 pandemic meant that the symposium had to be reorganized and held remotely. It brought together 500 people over the course of the day. The attendees, mostly women (80%), included scientists from a wide variety of disciplines and institutions, research support and communication professionals, journalists and politicians. In view of the interest generated by this symposium and the wealth of conference papers, all of which filled gaps in the literature and expertly demonstrated the complexity of the mechanisms leading to the (re)production of inequalities. Therefore, it quickly became clear that we needed to gather these works and thoughts into a single publication to keep the momentum going and communicate beyond the event. Unfortunately, not all papers could be included in this book, as they have already been published elsewhere or are forthcoming.⁵ However, additional contributions have been added to provide further food for thought.

This book is novel in that it brings together contributions from both scientists and funding agencies to reaffirm the importance of coherent action and, above all, the idea that everyone involved in research can address gender issues. We have organized the contributions into three parts, which was not an easy task given their diverse nature. Indeed, as the contributions come from scientists as well as funding bodies, there is a wide variety of contexts, registers and analyses. Nevertheless, a common thread remains in that they all bear witness to the complexity of the subject of inequalities. In the first part, two funding agencies and a research project address the issue of gender bias in

5. Delphine Martinot, *Pourquoi la meilleure réussite scolaire des filles ne se traduit-elle pas par une meilleure représentation des femmes dans les disciplines universitaires et les carrières socialement prestigieuses ?* ANR GENIM project, Régner *et al.*, 2019; Michal Raz, *Les Transformations des savoirs et des pratiques biomédicales autour de l'intersexuation en France*, EHESS.

assessment processes. The second part contains a researcher's contribution on gender studies in the field of development, another one recounting an experiment conducted at the ANR and a last one exploring resistance within the context of a research project. All three analyse the obstacles to including a sex and/or gender dimension in research, while reaffirming its necessity as a means of preventing gender bias in the production of knowledge. The third and last part consists of three research projects, one showing the scientific discoveries that can be made by introducing the question of sex determination, and two others, based on reflexive feedback, discussing what is at play when this question is introduced in the field of agriculture and food.

► Bibliographical references

Jacquot S., Ledoux C., 2021. Prendre en compte le genre et l'intersectionnalité. *Politique européenne*, (74), 8-9.

Löwy I., Marry C., 2007. *Pour en finir avec la domination masculine. De A à Z*, Paris, Les Empêcheurs de penser en rond/Le Seuil.

Marry C., 2011. Le genre passeur de frontières. In : *Les Catégories sociales et leurs frontières* (A. Degenne, C. Marry, S. Moulin, dir.), Presses de l'université Laval, Québec, 161-191.

Mathevon N., Viennot É. (dir.), 2017. *La Différence des sexes : questions scientifiques, pièges idéologiques*, Paris, Belin.

Ministère de l'Enseignement supérieur et de la Recherche, 2023. *Vers l'égalité femmes-hommes ? Chiffres clés 2023*.

Régner I., Thinus-Blanc C., Netter A., Schmader T., Huguet P., 2019. Committees with implicit biases promote fewer women when they do not believe gender bias exists. *Nature Human Behaviour*, 3, 1171-1179.

Springer K., Mager Stellman J., Jordan-Young R., 2012. Beyond a catalogue of differences: A theoretical frame and good practice guidelines for researching sex/gender in human health. *Social Science and Medicine*, 74, 1817-1824.

Wennerås C., Wold A., 1997. Nepotism and sexism in peer-review. *Nature*, 387, 341-343.

Part I

Assessment
and potential gender bias

For over twenty years, studies have shown the presence of persistent gender biases in the academic world in general and, more specifically, in evaluation processes, whether for research funding allocation, recruitment or promotion (see Wennerås and Wold, 1997; Régner *et al.*, 2019). These biases can have a lasting effect on the careers of female researchers. That's why, as key players in the research landscape, in that they organize funding allocation processes through peer review, funding agencies are increasingly introducing measures to remove potential gender biases from their processes. Among other things, these measures are consistent with commitments made and formalized in action plans or charters. In practice, they lead to the defining and publishing of qualitative assessment criteria, as well as the analysis of application and selection data, the goal being to identify and measure these biases to then implement measures to correct them.

The first two chapters of this part illustrate these commitments and present the results of analyses carried out initially by the French National Research Agency (ANR), and then by the FRS-FNRS, the funding agency in French-speaking Belgium. The third chapter details the findings of the GIGA project, which analysed each stage of the assessment process for the EUROCORES (European Collaborative Research Scheme) programmes, to identify precisely where, when, by whom and according to which criteria gender bias may be introduced into the process.

► Bibliographical references

Régner I., Thinus-Blanc C., Netter A., Schmader T., Huguet P., 2019. Committees with implicit biases promote fewer women when they do not believe gender bias exists. *Nature Human Behaviour*, 3, 1171-1179.

Wennerås C., Wold A., 1997. Nepotism and sexism in peer-review. *Nature*, 387, 341-343.

Chapter 1

Gender and assessment of project-based research: the ANR's commitments and measures

Laurence Guyard

►► Project-based research funding and assessment issues

The science policies rolled out since the beginning of the twentieth century have made science strategically important and defined the systems for allocating resources to researchers for their work. From the outset, countries such as the United Kingdom, the United States, Germany and Japan opted for project-based research funding, with the creation of funding agencies.

In France, as the founding of the CNRS (National Centre for Scientific Research) in 1939 shows, the decision was taken to set up organizations that would finance their research laboratories and pay the salaries of their researchers (Gingras, 2014). Things only began to change in the 2000s, in the wake of the Lisbon Strategy and its goal of making the European Union the most dynamic and competitive knowledge-based economy in the world by setting research and innovation spending at 3% of GDP for every Member State. At the time, France created institutional mechanisms such as the competitiveness clusters of 2004. However, the real turning point came with the creation of the French National Research Agency (ANR) in 2005, which placed project-based research funding at the heart of the French system.

According to the French decree of the 1st August 2006, amended on the 24th March 2014, the role of the ANR is to support excellence in French research, whether fundamental or 'targeted' (aimed at supporting public policy-making), conducted within a national, European or international public-private set-up. It has therefore become a major player in the French research system and a privileged observatory of project-based research practices, on which it has a duty to report. The agency has a specific budget dedicated to funding the research projects selected. Initially set at 669 million euros in 2005, this budget rose to 834 million in 2008 before gradually falling to 527 million by 2015, calling into question the very existence of the agency in view of the low project selection rate. Subsequently, a new phase of growth brought the budget to 780 million by 2020. This growth then accelerated with the passing of the 2020 Research Programming Act and the release of a stimulus package in the same year, bringing the budget to 1.1 billion

euros by 2022. While some agencies carry out their own research programming, the Ministry of Higher Education and Research has the final say on the ANR's research programme, which is drawn up based on National Research Strategy (SNR) guidelines, in conjunction with European and international research funding initiatives. Programme Steering Committees (CPPs) provide guidance for drawing up the ANR's annual Action Plan, which is structured around four key areas—each with their own budget—, funding instruments and calls for proposals. The generic call for proposals (AAPG) is the agency's main call, mobilizing five funding instruments to support individual research projects led by young researchers (JCJC), ambitious research projects led by a team (PRME), collaborative research projects between public entities in a national (PRC) or international (PRCI) context, and collaborative research projects between public and private entities creating a bridge to the business world (PRCE). The policies pursued over the past fifteen years have sought to bring public and private research closer together, encouraged researchers to set up businesses around innovations resulting from public research, and supported the development of local research and innovation ecosystems (Damerval, 2022). The ANR's Action Plan also includes specific calls to support such partnerships. Others are geared towards Europe and the rest of the world, as part of multilateral programmes and strategic bilateral partnerships.

The researchers targeted by these calls respond by submitting a research project proposal individually or as part of a consortium. These proposals are then submitted for peer review by scientific assessment committees, with additional expert opinions provided by peers in the fields concerned by the proposals and external to the committee.

Peer review plays a key role in this system. It was originally set up to guarantee an assessment process that was independent from the institutions employing scientists, as recommended by Polanyi as early as 1962 in his *Republic of Science*. Now, it is internationally recognized and accepted as an integral part of the scientific production process and a way of guaranteeing research integrity (Biagioli, 2002). Introduced in the seventeenth century by the academies of science to manage the publication system independently, away from socio-political interests, peer review as a principle has developed and adapted to the needs of science, becoming a co-product of the social organization of science (Zuckerman and Merton, 1971). Peer review creates a continuous loop, enabling peers to build on each other's work. Those being evaluated benefit from the reports and opinions of the evaluators to take their work to the next level. As for evaluators, by learning about the creative ideas of their peers, they can improve their own work and become more creative themselves. In a sort of virtuous circle of scientific emulation, peer review enables the highest levels to be attained (Zuckerman and Merton, 1971). It acts somewhat as a disciplinary system disciplining disciplines in the Foucauldian sense, with researchers disciplining each other in turn (Biagioli, 2002). However, if this assessment process is not sufficiently supervised, it can be highly arbitrary, as shown by the potential or actual abuses described in numerous studies. The main risk comes from imprecise or undefined assessment criteria, which lead to interpretative bias. A quantitative assessment has been introduced in funding agencies, where figures have long been regarded as objective, to keep exchanges in check and progress more rapidly towards a collective decision. Otherwise, following the example of the National Science Foundation (NSF, USA), bibliometrics was used from the early 1970s to ensure that selected projects were led by the best scientists (Gingras, 2014). Diverted from their

original purpose to provide supposed objectivity, bibliometric indicators and their use in the evaluation process have transformed 'the pressure to publish into a strict imperative' (Stengers and Drumm, 2017).

In addition, the notion of excellence driven by managerial culture (new public management) encourages researchers to be hyper-productive. They need to be ever more prolific, especially in terms of publication, ever more internationally mobile and ever more competitive in the race for research credits (Dubois-Shaik *et al.*, 2019). Scientists are caught up in a paradoxical situation where they need to perform as individual researchers, but are also assessed on their ability to join networks and take part in prestigious collaborative research projects (Jouvenet, 2011). Institutional pressure on researchers was already high in the last century, with 'greedy institutions' (Coser, 1974) expecting total commitment and involvement from researchers. It is intensified now that that institutions have entered a battle for positioning in the research area and that laboratories have begun a competition for funding. If researchers want to meet the criteria for excellence, they must provide evidence of their performance, which includes scientific production, awards, funding, mobility and participation in collaborative projects at national and, above all, international levels.

Not all participants are on an equal footing in this competitive arena, for women the game is much tougher, as the criteria for excellence are still much more favourable to men. Women may find it much harder to meet expectations in terms of scientific production and mobility at the right time, especially internationally, due to maternity and the unequal division of domestic work, which still weighs more heavily on women than on men (Puech, 2005). The recent Covid-19 health crisis has been a powerful example of these inequalities, even as it reinforced them (Chasserio and Bollaert, 2020). Furthermore, and for the same reasons, women find it more difficult to take part in conferences, which accentuates the invisibility of their work and hinders their ability to network. However, the fact that there are fewer and fewer women the higher up the academic ladder one goes is not solely linked to these objective individual constraints. Social influences are also at play—with motherhood more or less seen as duty—as are gender stereotypes more generally. For example, the image of the 'good' mother totally devoted to the care and education of her children suggests that being a mother and having a career, especially in a profession that is above all a 'passion', in a 'greedy' sector like research, is incompatible, if not impossible. Such images not only lead many women to forgo having children (Marry and Jonas, 2005), but also result in biases in the assessment of female candidates, as women are considered as mothers by default and therefore potentially less available. For those who have had children early in their careers, motherhood may have had an impact on their scientific output, which means they are often considered less productive and, consequently, less successful. These stereotypes are abundant. Youth is another good example. It is seen as a sign of vigour and ambition in a man, whereas in a woman, it is associated with weakness and immaturity. The real issue is that these stereotypes are often unconscious, and that is why they can interfere with selection processes. Although relative gender parity is systematically sought in assessment committees, it does not mean that gender bias is absent. Indeed, the absence of gender bias is primarily correlated with the degree of belief in the existence of such biases (Régner *et al.*, 2019), regardless of the gender of committee members.

►► The ANR's commitments and programmes

In light of the literature on the challenges of evaluation processes, and at a time when the spotlight is on scientific integrity and the social responsibility of sciences, funding agencies—including the ANR—that have joined European and international collectives, such as Science Europe,⁶ CoARA⁷ (Coalition on Advancing Research Assessment) and The Global Research Council⁸ (GRC), have set the ball rolling to think about how to update research evaluation processes, especially by defining more qualitative and inclusive criteria. The signing of the San Francisco Declaration (DORA) by the ANR in 2018 is proof of its commitment to stop using bibliometric indicators to evaluate the research proposals it receives. However, to guarantee the robustness of these processes, since its creation, the agency has progressively defined and enriched a general framework of principles, and rolled out a set of measures to guide it in fulfilling its commitments.

Controlled and certified selection processes

To guarantee the effectiveness of its actions and the quality of project selection, quality control measures have been applied by the ANR since 2007. As part of this approach, the agency has received an ISO 9001 certification for its selection processes. Awarded in 2008, this certification has since been renewed. It covers all stages of the selection and monitoring process, from the submission of projects in response to a call for proposals, to selection, contracting and project closure. This certification also guarantees that the selection process complies with international selection principles: impartiality, fair treatment, confidentiality, ethics and transparency. These principles are also enshrined in the agency's code of ethics, which was revised in 2018 to include scientific integrity and gender equality. This charter sets out the general purpose, the principles and the rules guiding the action and behaviour of internal and external staff taking part in its activities. Each project evaluator undertakes to respect them and to declare any relationship which, depending on its nature and strength, could constitute a conflict of interest in the context of the evaluation. The ANR pays particular attention to these conflicts of interest and carries out a systematic check for any potential relationships before soliciting peers, since such conflicts are a major source of bias and unfair treatment. To communicate more clearly on the coherence of its policy on ethics, scientific integrity and professional conduct, the ANR published a reference document in 2023, setting out the principles and procedures for implementing them. The document includes a detailed description of the procedure for managing conflicts of interest.

Assessment committees are set up and operate in keeping with a certified procedure. Committees are made up of a board, comprising a chairperson recruited through a call for candidates, and vice-chairpersons appointed by the ANR based on proposals made by the chairperson. French or foreign scholars complete the panel to cover the research fields associated with the committee. Their names are put forward by the board and they are appointed by the ANR. The term of office for all committee members is one year, renewable twice. When setting up these committees, care is taken to ensure a balance

6. <https://scienceeurope.org/>

7. <https://coara.eu/>

8. <https://globalresearchcouncil.org/>

in terms of affiliation, geographic origin and parity. To carry out the evaluation, the committees also call on external French or foreign experts who are specialists in the fields concerned by the projects. Their names are put forward by committee members and they are invited to participate by the agency, provided there is no conflict of interest. These experts review projects independently, without discussing them with the committee. Since the 2019 edition of the AAPG, these expert assessments have been sent to project sponsors, who have the right to reply and point out any factual errors they may contain to the committee. Evaluation committees meet in plenary sessions to examine projects on a collegial basis, drawing on the assessments made by two committee members, the external expert reports and, where appropriate, any responses to the expert reports. Tools for managing these plenary sessions are used to monitor the time allocated to each project, manage conflicts of interest and view the score curves for each evaluator.

Evaluation is carried out based on criteria defined, specified and revised by the researchers themselves—who are employed by the ANR—in consultation with committee members, through surveys systematically carried out with them at the end of the selection process, and with committee chairpersons as part of a feedback process formalised by an annual meeting before the next call process begins. These three criteria are designed to assess the relevance and epistemic rigour of the proposed research, its innovative nature from a scientific point of view, the skills of the researchers who propose to carry it out and the social responsibility aspect—its social, economic or environmental impact. These criteria are published in a guide for evaluators and potential candidates. This instructional guide specifies what is expected for each of these criteria, breaking them down into sub-criteria. This is in keeping with DORA guidelines on transparency. In addition, the guide reminds applicants and evaluators that the evaluation is carried out strictly on the basis of the documents submitted and the information provided on the proposal submission website by the closing date and time for the call. Committee members are thereby presented with a research proposal—with the number of pages varying depending on the call or the stage of the selection process—as well as the accompanying résumés (CVs) completed online. In line with DORA, these résumés can only list five publications, which applicants must comment so that the evaluators can make a qualitative assessment. However, tabs are available to indicate any other form of scientific production, as well as administrative and teaching responsibilities and career breaks.

Like other funding agencies, the ANR has set up a system for observing committee plenary sessions to ensure that the process is robust and its rules and principles are respected, if necessary, areas of improvement are identified and corrective actions taken.

In order to provide the best possible support for scientists taking part in the evaluation process, they are given training on the operational details of the process as well as on the rules and principles governing evaluation, which they undertake to respect.

Quality, transparency and fairness are therefore of primary concern for the ANR. They are the three values that characterize the agency and should constantly guide its actions according to the self-assessment process carried out for the HCERES (High Council for the Evaluation of Research and Higher Education) in 2019. Clearly set out in its target and performance agreement, these three values are all equally important in the agency's commitment to professional equality between men and women.

A Gender Equality Plan

In keeping with its letter of commitment to equality sent to the office of the Minister for National Education, Higher Education and Research in December 2016, the ANR included its commitment to gender equality in its action plan in 2017. It then added it to its Deontology and Scientific Integrity Charter in 2018, as one of its fundamental principles. A gender equality officer was also appointed with the task of implementing a Gender Equality Plan within the agency.

To comply with changes in national legislation and the Civil Service Transformation Act adopted in 2019, the agency drew up its first Gender Equality Plan, for the 2020–2023 period. To this end, the agency benefited from the support of the European GenderSmart project,⁹ of which it was a partner. Following an appraisal of the situation carried out in the first half of 2019, the plan, structured around three pillars, was an opportunity to formalize the ANR's commitment in a clear way.

A monitoring committee bringing together all the management teams involved was set up during the second half of 2019 to implement and monitor the actions included in the plan.

At the time, the agency also started working towards obtaining the Professional Equality label from Afnor¹⁰ (a French certifying organisation) to boost the implementation of actions and sustain its commitment, gain recognition for its drive and commitment to meeting current statutory requirements in terms of equality, and retain its employees and attract new talent. The label was awarded to the ANR in May 2023.

While the aim of this Gender Equality Plan is to spread a culture of equality within the agency itself, its purpose is also to make an active contribution to reducing inequalities between men and women in higher education and research. Actions have therefore been defined and included in a section dedicated to research funding in the plan. These actions complement and reinforce the general framework of rules and principles described above, to guarantee the inclusive and fair nature of the selection process, as well as to encourage more women to respond to calls for proposals and participate in the agency's assessment activities. However, they also aim to give greater visibility to women in science and promote their work. In support of this, the ANR makes the most of the International Day of Women and Girls in Science on the 11th of February and International Women's Rights Day on the 8th of March to communicate about the women who have participated in selection processes as chairwomen or have received ANR funding. To mark the occasion, the agency has created a collection of portraits of these women, which is enriched each year and available on its website and on YouTube.

Following the training received by the agency's executive committee from Yellow Window (a GenderSmart project partner) on potential gender bias in the drafting of calls for proposals and in assessment criteria for research projects, one of the first initiatives taken was to revise the wording of calls to ensure that they target both men and women and that the latter feel concerned by these calls and feel as legitimate in responding to them as men. To support and accompany the agency's staff in their drafting work and, more broadly, in other forms of communication, a guide to inclusive communication without gender stereotypes has been published (ANR, 2022).

9. Presented in the introduction to the book. Project website: <http://gender-smart.eu/>

10. <https://www.afnor.org/>