Universiteit Leiden
Governance and Global Affairs

THE STATE OF OPEN SCIENCE AT FGGA

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Feedback by
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Use of AI
During the preparation of this report, the authors used ChatGPT 5.1 and 5.2 for minor language editing and support during data analysis. All content was subsequently reviewed and revised by the authors, who take full responsibility for the integrity and accuracy of the final result.

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1 What is the Open Science movement?

Making research transparent, accessible, and accountable

The open science (hereafter, OS) movement represents an international effort to increase the transparency, accessibility, and accountability of research and education. It is grounded in the principle that scientific knowledge should be shared as widely as possible, allowing others to verify, reproduce, and build upon it (Munafò et al., 2017; The Royal Society, 2012). Through practices such as open access publishing, data sharing, preregistration, and open peer review, the movement aims to address long-standing concerns about research credibility and the efficiency of scientific knowledge production. The so-called “replication crisis,” which exposed the difficulty of reproducing results in several disciplines (Ioannidis, 2005; Open Science Collaboration, 2015; Vazire, 2018), gave new momentum to this reform. In response, funders, publishers, and universities have sought to integrate openness into the structures that govern scientific work.

In the Netherlands, the Dutch Research Council (NWO) has played a central role in advancing these reforms. Since 2009, NWO has implemented policies to ensure that all university-funded publications are made open access and that data are managed in line with FAIR principles—findable, accessible, interoperable, and reusable. These developments align with broader European efforts, including the Declaration on Research Assessment (DORA), Plan S, and the UNESCO Recommendation on Open Science (UNESCO, 2021), all of which call for a transition from a culture of competition and opacity to one of collaboration and transparency. Dutch universities, including Leiden University, are now expected to operationalize these ambitions through institutional policy and professional support.

At the same time, research shows that translating OS principles and standards into everyday academic practice is not always straightforward. Although attitudes towards OS are broadly positive (Christensen et al., 2020; Ferguson et al., 2023), adoption rates remain uneven across disciplines, universities, faculties, departments and career stages. Studies in the social sciences indicate that researchers tend to support openness in principle but often face barriers related to time, technical skills, costs, and misaligned professional reward structures (Committee on Toward an Open Science Enterprise et al., 2018; Nosek et al., 2015, 2022). Early-career scholars may feel pressured to prioritize conventional outputs over open practices, while qualitative researchers often express concerns about confidentiality, ownership, and ethical implications of data sharing (DuBois et al., 2023; Mozersky et al., 2021).

The gap between principled commitment to and implementatio of OS is particularly visible in fields with diverse disciplinary orientations and epistemological traditions. As shown by Moneva et al. (2025), even in institutes with strong institutional support for OS, adoption remains selective and it is shaped by disciplinary norms. Their study revealed broad enthusiasm for practices such as open access publishing and the use of open-source software, and identified numerous structural and cultural barriers—from limited incentives to privacy concerns and fears of misinterpretation of shared data. The authors' findings showed that ensuring and promoting OS requires technical infrastructure, organization culture change, and ongoing dialogue within research communities.

FGGA interest in Open Science

Leiden University's Faculty of Governance and Global Affairs (FGGA) offers a unique environment to examine and act on these dynamics. The faculty encompasses three institutes— the Institute of Public Administration (BSK), the Institute of Security and Global Affairs (ISGA), and Leiden University College (LUC)—each with distinct research and teaching traditions. These range from qualitative case-based inquiry to quantitative modeling and interdisciplinary education. Understanding how scholars and staff across these institutes perceive and practice OS is therefore crucial for identifying shared opportunities and institute-specific challenges.

Due to this interest, the FGGA Academia in Motion advisory group (FAiM) conducted a survey to capture the current level of awareness, attitudes, and engagement with open science among faculty members and affiliates.

2 The Open Science survey at FGGA

The survey was produced by **members of our FAiM team**, and is partly based on earlier OS surveys designed by colleagues from CWTS (Leiden). While national and institutional frameworks increasingly promote openness as a standard of good research, their success depends on how researchers themselves understand and integrate these principles in their daily work. OS survey conducted at FGGA was designed to provide an **evidence-based understanding of how staff and affiliates perceive, interpret, and engage with OS practices**. We assess familiarity, adoption, and perceived barriers to evaluate FGGA's readiness for the cultural and organizational changes that OS entails.

The study contributes to broader efforts within Leiden University to **promote a responsible, transparent, and inclusive research culture**. The results aim to inform faculty-level strategies on training, infrastructure, and incentives that can help identify and/or embed open science practices more effectively in our everyday academic work.

Therefore, the primary objective of the survey is to **identify the current stage of OS awareness, implementation and barriers across FGGA's three institutes**. It also aims to capture the diversity of perspectives and OS preferences within the faculty, shaped by differences in disciplinary traditions, methodological orientations, and professional roles.

Specifically, the survey seeks to:

1. Measure the level of familiarity and engagement with OS among FGGA staff.
2. Identify which OS practices are currently implemented, and which ones respondents intend to adopt in the future.
3. Explore perceived benefits, barriers, and facilitating conditions that influence the adoption of open science practices.
4. Examine how OS-related attitudes and experiences vary across institutes, career stages, and methodological preferences.
5. Generate insights that can inform faculty-level strategies for training, infrastructure, and incentives to support a sustainable OS culture.

The methodology of the survey is explained at the end of the report.

Sample and timeline

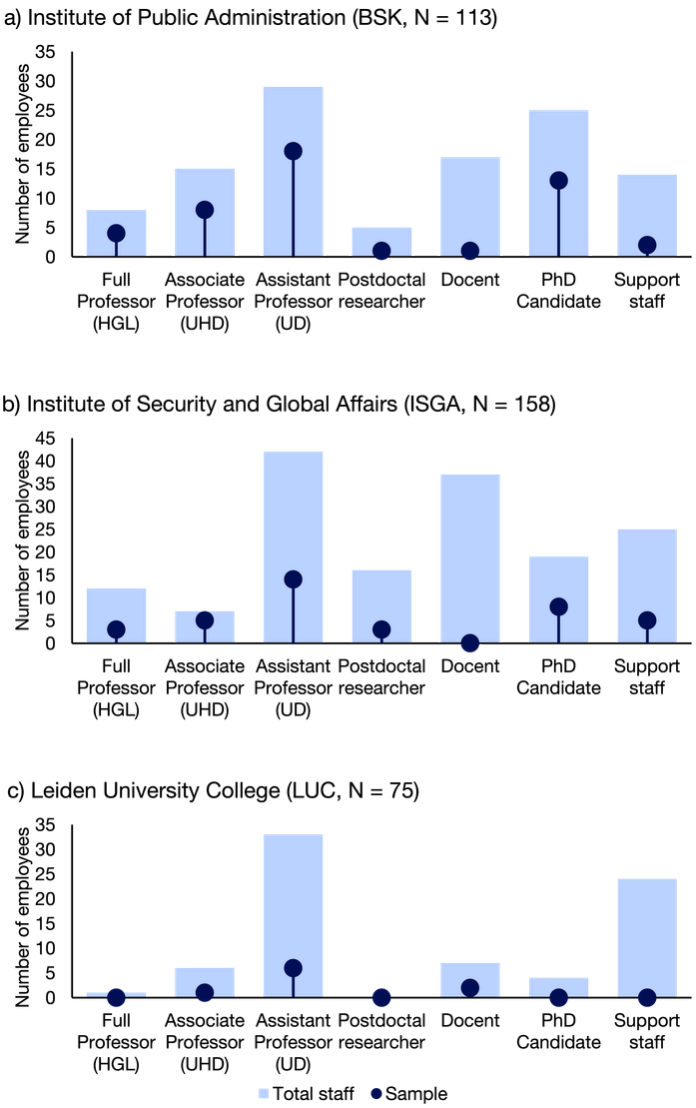
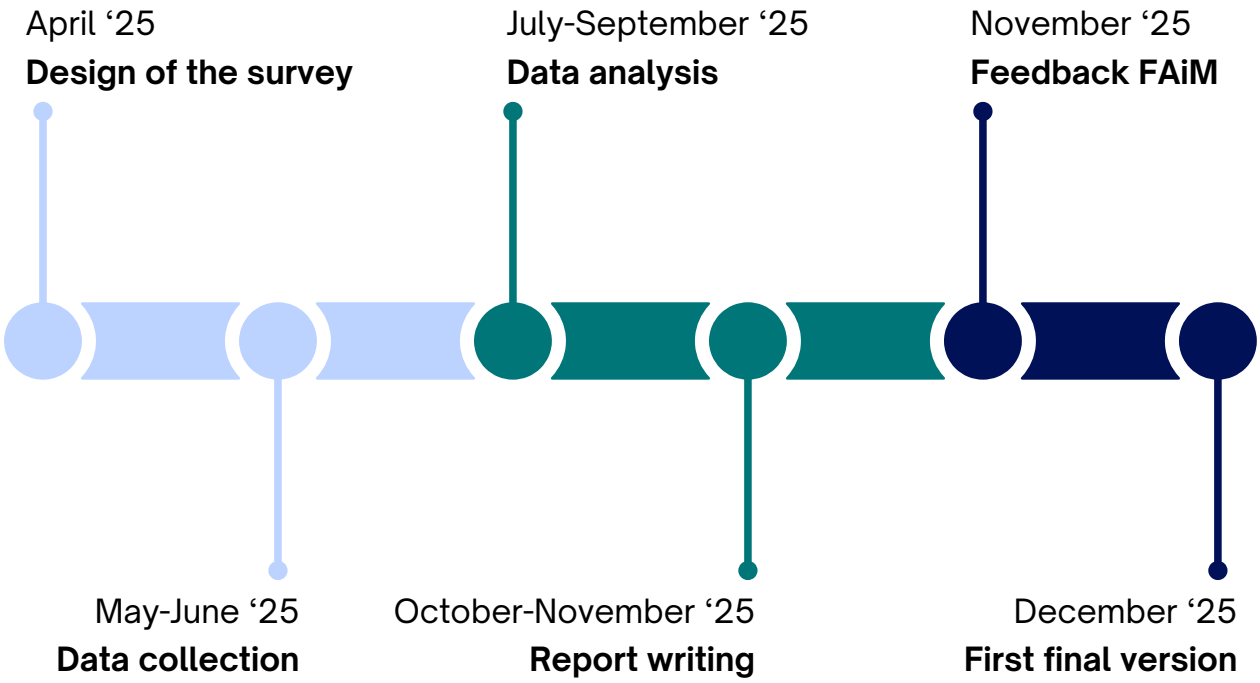


Figure 1. Number of respondents in the survey compared to the total number of employees per category.

A total of 346 people across FGGA were invited to complete the survey in May-June 2025. We received 132 responses (37% response rate), out of which 23 did not complete the first block and were therefore removed from the dataset, ending up with a final sample of 109 respondents (31% response rate). Figure 1 shows the distribution of respondents per institute and position.

For more information on the sample composition and demographics, see Appendix 1.



3 Main results

3.1 Awareness of Open Science

Awareness of OS practices (hereafter, OSP) was measured with the question "How familiar are you with the concept of Open Science on a scale of 1 (Not at all familiar) to 7 (Very familiar)?" and the question "How often did you attend a training on Open Science Practices in the past?"

Open Science goes beyond open access

For the first question, respondents reported a moderated familiarity (Min. = 1, M = 4.68, SD = 1.69, Max. = 7). Participants from BSK scored the highest in familiarity (Min. = 1, M = 4.87, SD = 1.78, Max. = 7), followed by ISGA (Min. = 1, M = 4.61, SD = 1.70, Max. = 7) and the LUC (Min. = 1, M = 3.56, SD = 1.51, Max. = 7). Regarding the position of the participant within the institute, the group most familiar with OSP are the full professors, followed by assistant professors, and postdoctoral fellows (see Figure 2).

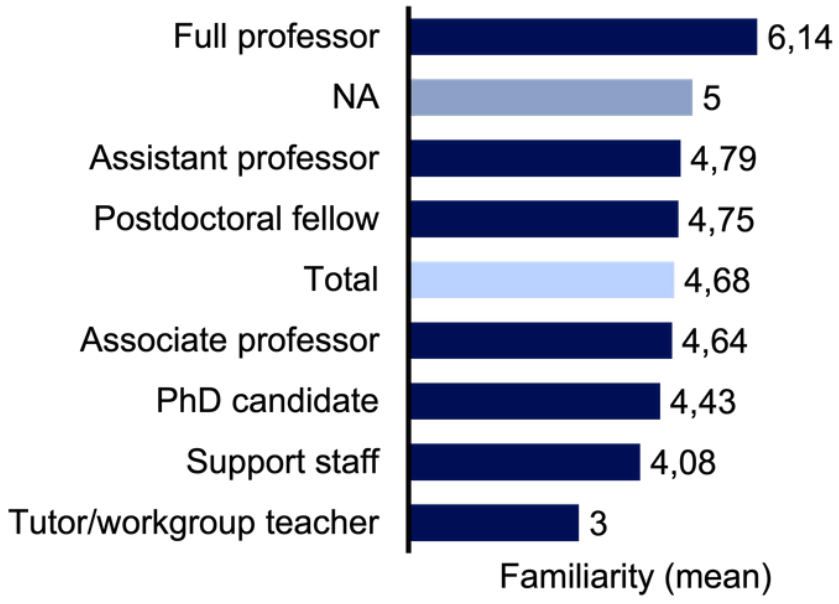


Figure 2. Familiarity with OS practices per position (measured on a 7-points scale).

The group less aware of OSP are tutors and teaching assistants. Scientific staff (M = 4.79, SD = 1.72) is more familiar with OSP than the non-scientific staff (M = 3.87, SD 1.55). None of these differences in familiarity with OS, however, were statistically significant (p-value > 0.05).

The thematic coding of the question “Could you name up to three ideas or practices that come to mind when you think about Open Science” resulted in five themes: (1) Opening access to research outputs, which includes access to publications and educational resources, and open data, code, and infrastructure; (2) transparency and reproducibility of the research process; (3) collaboration and participation in knowledge production; (4) public engagement and societal impact; and (5) reforming the scholarly communication system and defending academic values.

All five themes are strongly represented, but with different frequencies. Opening access to research outputs is the most salient idea: 41% of all responses refer either to free access of publications and teaching materials or to sharing data and code. Collaboration and participation account for about 1/5 of responses, as do public engagement and transparency and reproducibility. Explicit statements about reforming the publication system and defending academic values appear less often, around 5% of all answers, but they form a distinctive cluster.

→ Topic 1: Access and availability

The largest share of responses frames OS as a question of access and availability. In the subtheme on *access to publications and educational resources*, respondents describe open science as “scientific papers in public database”, “accessible published research”, “no paywalls”, or “science accessible for all”. Several answers emphasise that research results should be free “for the public” or for the “studied population”, and some extend this logic to teaching materials through references to “open access to educational inputs/outputs” and “open lectures”. Across these answers, openness is primarily about removing financial and technical barriers so that anyone can read and use scholarly work. The second subtheme concerns *open data, code, and infrastructure*. Respondents often use concrete formulations such as “making data publicly available so that other researchers could do research”, “sharing meta data”, “data repositories for reusing data”, “replication packages”, “sharing analysis code”, and “Open Science Framework”. Here OS is associated with practical arrangements that allow others to inspect, reuse, and recombine research materials. In comparison with the previous subtheme focused on publication, these responses stress reusability and technical interoperability rather than access alone. Taken together, these two subthemes show that FGGA staff primarily associate OS with access to what research produces, both in article form and in data and software.

Topic 2: Transparent research

The second theme concerns the transparency of how studies are designed and conducted. Respondents refer to “methods transparency”, “commitment to transparency about methods”, “controllability”, and “facilitating validation of results”. Many answers mention specific practices that operationalise this ideal (e.g.,“preregistration of research design”, “preregistration of studies”, “registered reports”, and “pre analysis plans”). Others focus on outcomes, using terms like “ensuring reproducibility”, “replicability”, and “reproducibility”. These responses treat OS as a set of methodological safeguards that reduce selective reporting and make it easier for others to evaluate or reproduce findings. This theme overlaps with access to data and code, since reproducibility often depends on sharing materials. However, respondents clearly distinguish between making research outputs available (i.e., focus on the product) and making the decision process about how the research was conducted visible (i.e., focus on the process). The emphasis on preregistration and registered reports indicates familiarity with contemporary debates about research credibility in several fields.

Topic 3: Collaboration

A third theme presents OS as inherently collaborative. Many responses refer to “collaboration” in general terms, but others specify the actors and settings involved. Some highlight citizen and stakeholder involvement, for instance “citizen science”, “citizens/residents help gather data”, “stakeholder participation”, and “inclusion of the subjects of research in the project”. Others stress cross sector collaboration such as “collaboration with NGOs/think tanks”, “collaboration with practitioners”, and “collaboration with societal partners”. Several responses point to disciplinary and epistemic diversity through phrases like “interdisciplinary collaboration”, “transdisciplinary research”, and “learning from other research fields”. Across these codes, OS is pictured as a joint endeavour among researchers, practitioners, and lay participants. The focus is not only on sharing outputs but also on involving more actors in the design and execution of research, from data collection to interpretation.

Topic 4: Communication and responsibility with the society

The fourth theme centres on communication with, and responsibility toward, non academic audiences. Respondents describe OS as “public engagement”, “presenting findings to communities it is relevant to”, and “public facing explanations”. They mention concrete channels (“writing blog pieces easy to read for people outside academia”, “media performance”, “public communication”, and “science communication”). Participants link OS to societal impact and duty, for example “impact as a core task of universities”, “science for policy”, “knowledge exchange”, “knowledge utilization”, “give back to community”, and “public duty”. These responses frame openness as an obligation to share insights beyond scholarly circles and to ensure that research informs practice and policy. While collaboration and participation also relate to actors outside academia, the focus here lies on communication, outreach, and use rather than the coproduction of knowledge.

Topic 5: Activist positions

The final theme, although less frequent, reflects strong activist positions. Respondents associate OS with explicit critiques of commercial publishing and calls for structural change, using expressions such as “Boycott Elsevier”, “Sci hub”, “move beyond subscription model journals”, and “the necessary and justified extermination of for profit academic publishing”. Others highlight general values like “openness”, “academic freedom”, and “streamline scientific practices”, sometimes adding more charged labels such as “vigilante behaviour”. These answers position OS as part of a broader struggle over control of scientific knowledge and the conditions of academic work. They suggest that some staff understand OS not only as a collection of practices but also as a political project that challenges existing power relations in scholarly communication.

Training supports awareness of Open Science

Regarding *training* through OSP attendance, 38.5% (n=42) of the respondents never attended an OS training, 28.4% (n=31) is not aware of the trainings, and 21.1% (n=23) have attended one training. 12 participants (11%) have attended between 2 and 3 OS trainings, and only one respondent attended OS trainings more than 5 times. As expected, those participants who attended at least once to a training in OSP report higher familiarity than those who never attended trainings or are not aware of the trainings, $F(3, 104) = 3.63$, p-value = 0.008, $\eta^2 = 0.12$.

We compared the attendance to OSP trainings reports across institutes and positions. Figure 3 shows the results of the affiliation and the attendance to trainings. Similar to awareness responses, participants from BSK report higher attendance to OSP trainings compared to participants from ISGA and LUC. Figure 3 also shows that attendance at OS trainings remains limited across FGGA roles. Most respondents have never participated in such trainings, including two thirds of tutors and one third of PhD candidates. Engagement is somewhat higher among assistant and associate professors, of whom about a third report attending once or a few times. Postdoctoral fellows show the highest participation rate, while full professors and support staff also reported low attendance. Overall, awareness and training involvement appear modest, with mid-career researchers slightly more engaged than other groups.

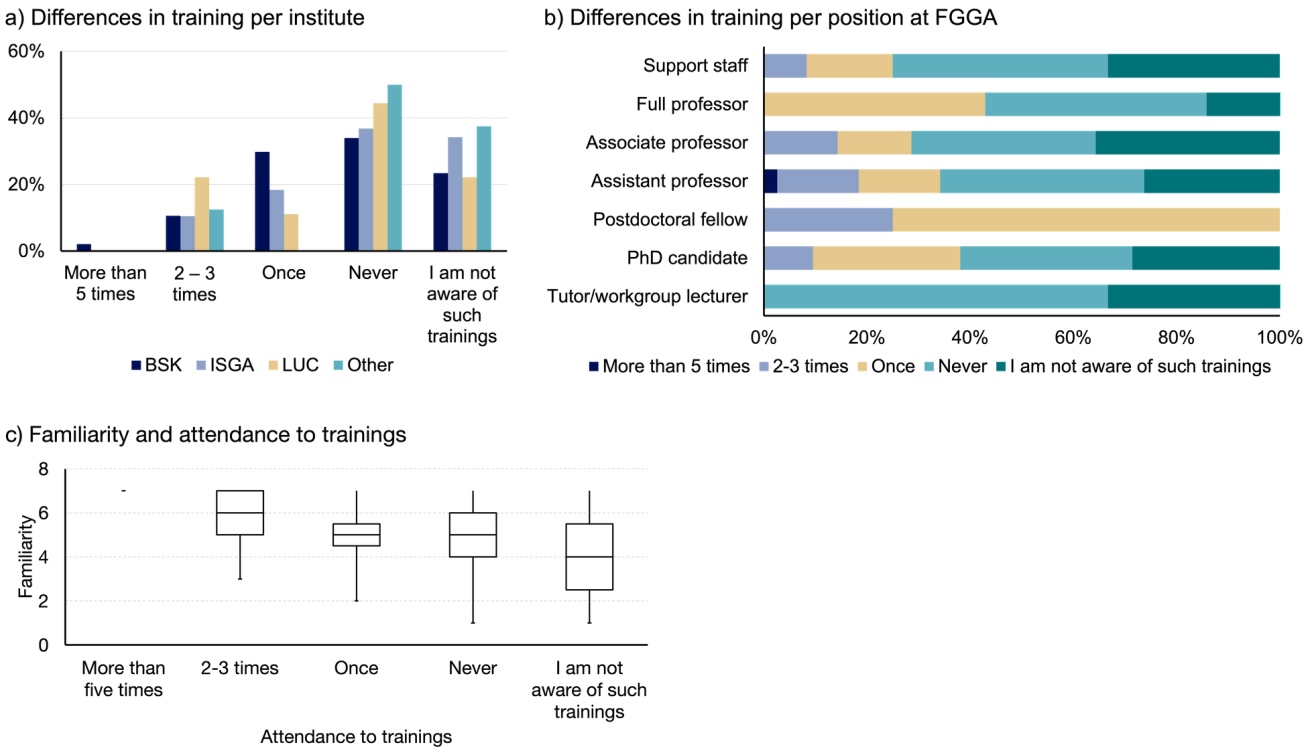


Figure 3. Training in OS, including attendance to OSP trainings across institutes (a) and position (b), as well as a boxplot comparing familiarity and attendance to trainings (c).

Figure 3 also displays the boxplot with the attendance to trainings and familiarity. We observe that the participant who reported having attended more than 5 times to OSP trainings reported the maximum level of familiarity, while the less participation in the trainings is associated with more variability in the participants responses. These results suggests that while trainings are not the main source of knowledge about OSP, it does impact the familiarity of the participants.

3.2 Attitudes towards Open Science

Figure 4 displays the perceived benefits of OS among FGGA respondents. The most frequently identified advantage was the improvement of research integrity and reproducibility, mentioned by over half of participants. This was followed by increased public engagement and societal benefits, and greater visibility and impact of individual research. Respondents also valued the enhanced reputation of academic institutions and better educational opportunities associated with OS. In contrast, relatively few participants highlighted compliance with funders' requirements, influence on public policy, or other niche motivations such as reducing publisher monopolies or promoting non-elitist science. Only a small minority stated that they did not see any clear benefits.

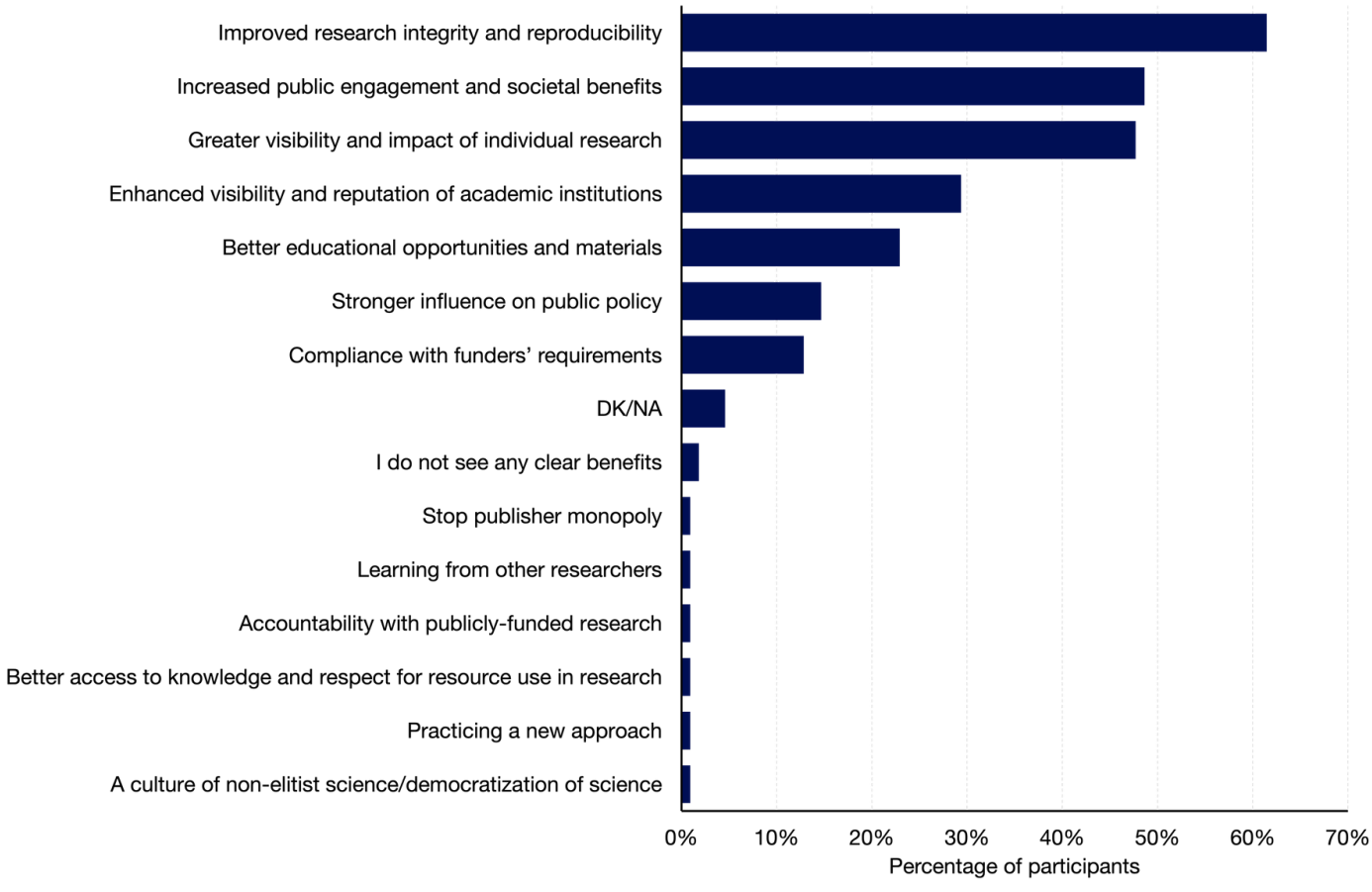


Figure 4. Perceived benefits of OSP among FGGA respondents.

3.3 Adoption and future adoption

Figure 5 below shows the extent to which different OS practices have been adopted and are intended for future adoption among FGGA respondents. The most widespread current practice is Open Access research, implemented by 81.9% of participants, followed by Science Communication activities at 63.8%. Transparent research processes, FAIR Data, and Commissioned Research have been adopted by roughly one third of respondents. Citizen Science and Open Education show lower current uptake, at 20 and 17.1 % respectively, but both appear as priorities for future implementation, with nearly half of respondents expressing interest in Citizen Science and a third in Open Education. Only a small share (9.5 %) reported not having adopted any Open Science practice, and an even smaller proportion (8.7 %) indicated no intention to adopt further ones. The findings suggest that while traditional forms of openness such as Open Access and communication are already embedded, more collaborative and participatory approaches represent emerging areas of interest.

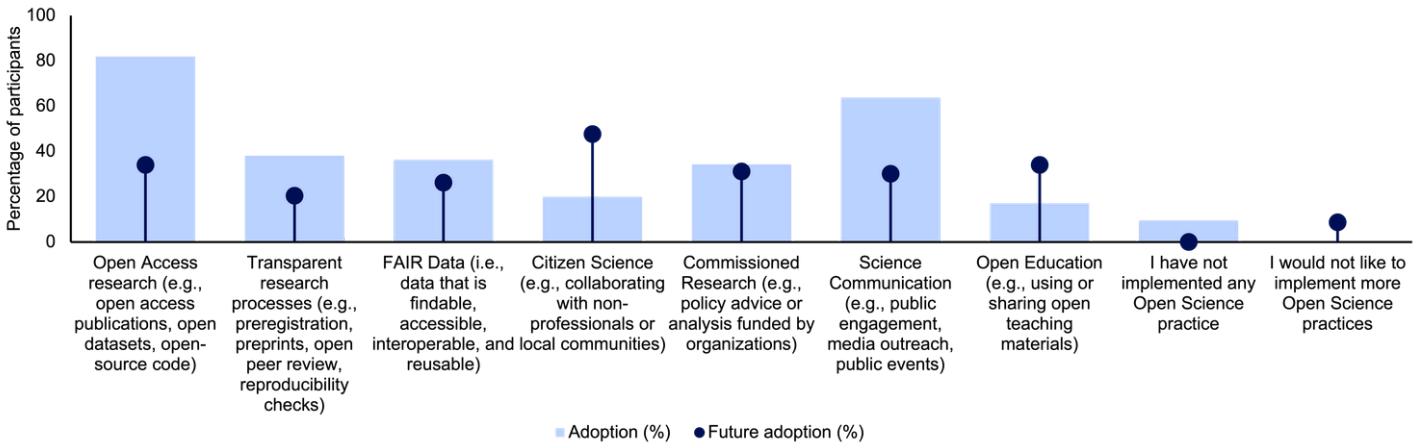


Figure 5. Stage of FGGA responded per adoption and future adoption of open science practices.

Figure 6 illustrates participants' answers concerning the adoption of OSP across the three FGGA institutes. Open Access research is the most widespread practice in all institutes, with particularly high adoption among LUC respondents. Science Communication and Commissioned Research also show notable uptake, especially at the Institute of Public Administration. In contrast, practices such as Citizen Science and Open Education are less common overall, but appear relatively more developed at LUC. Transparent research processes and FAIR Data practices show moderate and similar levels of implementation across institutes, with participants from the Institute of Public Administration being the one with higher adoption. Only a small proportion of respondents in each institute reported not having implemented any Open Science practice.

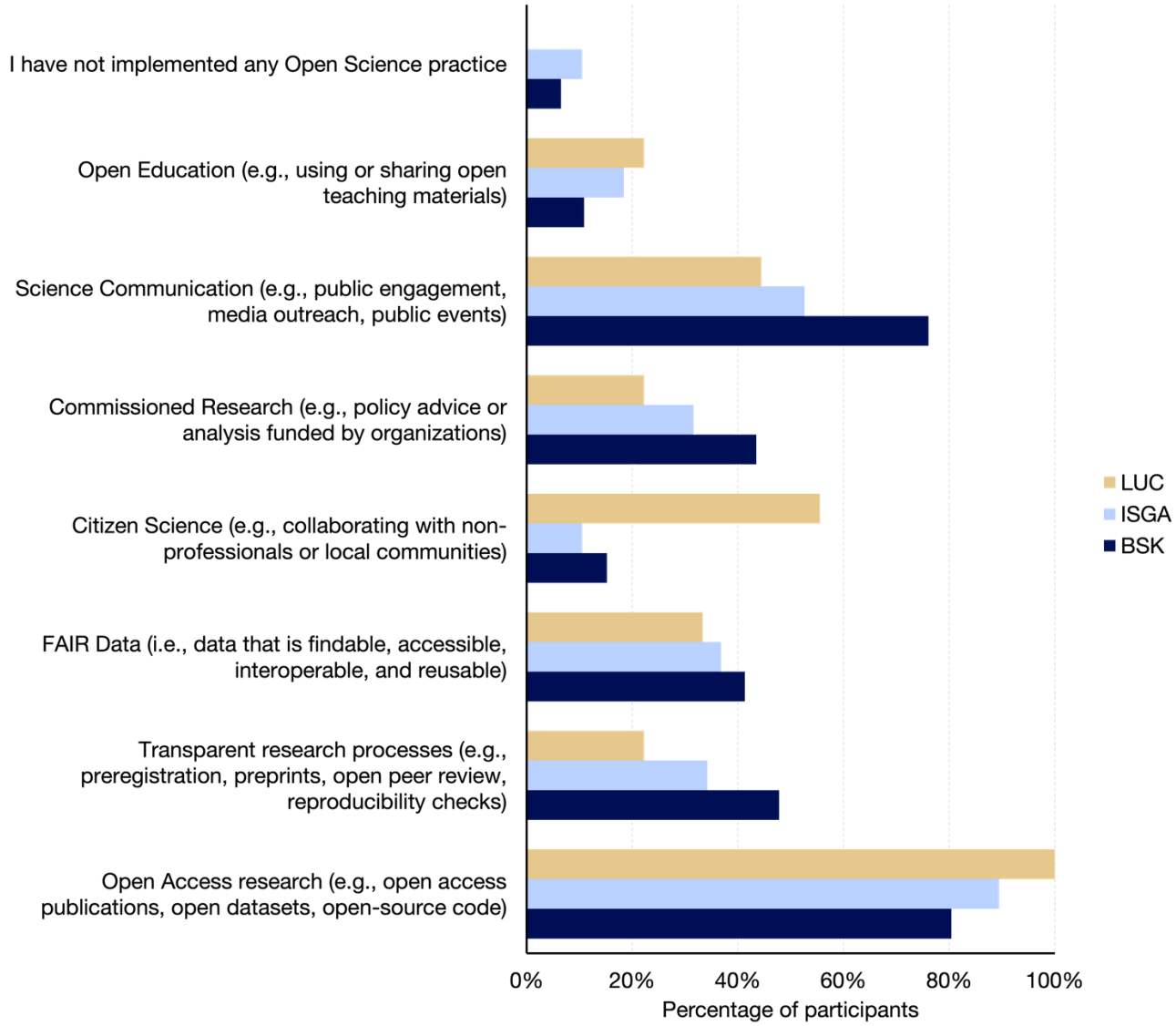


Figure 6. Adoption of OSP across FGGA Institutes.

Priorities for future adoption of Open Science

We obtained 96 unique responses for the question “When asked which Open Science practices you would like to implement more. Could you elaborate which specific activities you had in mind?” The thematic coding produced five main priorities for future adoption of OS practices among FGGA staff.

Priority 1: Co-producing research with communities and practitioners

The most frequent theme concerns a desire to conduct more participatory and collaborative research with people outside academia. Roughly 1/3 of responses refer in some way to citizen science, community engagement, or collaboration with practitioners. Some respondents describe full co-production, for example “coproducing research with the community, from formulating research questions, to design, and sessions on how to implement findings”.

Others emphasise specific stages such as “interviews with citizens or experts in the working field” or “involving communities in development of research questions relevant to them and in data collection”. Several answers call for stronger links with local organisations, for instance “work with local stakeholders and organizations on research about the importance of biodiversity” or “collaborate with local communities through participatory research”. A related line of reasoning highlights the aim of rebuilding trust, mentioning that citizen science could help “restore or increase trust in science” in a context marked by scepticism toward academic work. Respondents portray OS as a relational effort that deepens engagement with communities and decision makers, not only as a technical change in publication practices.

Priority 2: Communicating research for policy, practice, and public debate

A second theme focuses on communicating research more actively beyond academic circles. Around 1/4 of respondents describe intentions to translate findings into more accessible or policy relevant outputs. Examples include “writing more policy reports based on my research findings”, “research sharing with public policy purposes”, “wider communication and transfer of my research findings to practitioners”, and “work together with institutions to improve policy”. These statements frame OS as a way to ensure that research informs concrete decisions and organisational practices. A related subtheme centres on public communication and visibility. Respondents express interest in formats such as “engage with the general public by developing a survey instrument or designing an information campaign”, “make research available at festivals”, “participate more in podcasts”, “broader publication strategies beyond academic outlets”, and “gain more visibility outside the scientific community in order to inform the public about the processes and the results of our research”. Here OS is associated with creative public facing formats and a more proactive attitude toward media and outreach activities.

Priority 3: Open education

Several respondents situate their aspirations in the classroom. About 1/8 answers mention open education directly or describe practices that fall under this heading. Several wish to “make syllabi available” or “share syllabi” more broadly, while others aim to “share teaching materials with other educators” or to engage in “sharing and accessing teaching materials”.

Some responses emphasise student involvement in open practices; for example, one respondent plans to use “open access datasets to ask students to reproduce findings”, while another wants to develop “open access courses”. A particularly rich answer expresses interest in “training our students and researchers more in communicating their research, getting the skills to use multiple media platforms”. Another respondent hopes to develop a master course on OS themes in collaboration with public institutions. These answers suggest that staff see teaching as a strategic space where OS principles can be modelled and learned, both through open resources and through pedagogical design

Priority 4: Data sharing, code sharing, and transparent workflows

The next priority focuses on technical and procedural aspects of openness. Around 1/5 of respondents mention some form of data or code sharing. Typical statements include “depositing metadata in online archives”, “making the data we collect and use for our analyses public, as far as possible because it is sensitive data”, “sharing case study material or simulations in a data repository so that we can reuse them instead of reinventing the wheel”, “sharing datasets with other researchers”, “creating datasets that are shareable and openly accessible”, and “sharing the code used in data analysis”. Some explicitly connect this to the FAIR principles, for instance “make my data more FAIR” or “data registration”. These responses show an ambition to normalise the use of repositories, structured documentation, and reusable materials, while also recognising constraints linked to sensitive data. A related set of responses focuses on transparent and reproducible workflows. Several respondents refer to preregistration as a practice they would like to adopt more systematically, using phrases such as “systematic preregistration for all research projects, also unfunded ones”, “start with a preregistration process as a standard”, “pre register hypotheses and anticipated results”, “preregistration of experimental studies”, and “preregistration on surveys”. Others mention “registering changes throughout the whole research”, “have more open peer review”, or a broader wish for research to be “as accessible and reproducible as possible”. Together, these aspirations reflect a certain desire to adopt the full cycle of transparency practices, from planning and documenting research decisions to sharing underlying materials.

Priority 5: Open access publishing and supportive structures for openness

Finally, a smaller but distinctive set of responses concerns publication formats and the conditions that enable open practices. Around 1/10 respondents simply state “open access publications” or “open access publishing” as activities they would like to pursue more. Some mention specific formats, such as “just publish in an online format”, “broader publication strategies beyond academic outlets”, “more open access books”, or “open access courses”. Several answers highlight the need for organisational and financial support. Respondents refer to “better alignment with grant requirements”, “find funding for more open access”, “more support for publishing open access books”, and “more support to get commissioned research”. These comments underline that aspirations to publish openly are constrained by funding rules, processing charges, and institutional incentives. For these respondents, deeper engagement with open science depends not only on individual commitment but also on institutional conditions (barriers or facilitators) at FGGA. The next sub-section focuses specifically on these barriers and facilitators.

3.4 Barriers and facilitators

We asked participants about the main barriers they confront in adopting OSP from a list of eight barrier types. The results are shown in Figure 7. The biggest barrier for the participants is the lack of time and other resources (61%). Next, 34.7% of participants also showed express that concerns about data privacy and security was one of the barriers to adopt OSP, followed by costs of open access publishing, insufficient institutional support from the university, unclear career benefits, and nature of open access platforms at Leiden University.

We also asked respondents to select institutional conditions that are important for encouraging wider adoption of OS practices at FGGA. The strongest incentives are the availability of supporting IT infrastructure and the presence of professional incentives that recognise and reward OS, both selected by 45.9 % of participants. Collaboration with peers and user-friendly interfaces also feature prominently, with 38.8 % and 37.8 % respectively indicating that these factors would facilitate their engagement. Policies that formally integrate OS into professional expectations attract support from 30.6 % of our respondents. A smaller group (17.3 %) reported not knowing which incentives would make a difference.

These findings suggest that both technical support and recognition structures are central to creating an environment in which OS can be more consistently practiced.

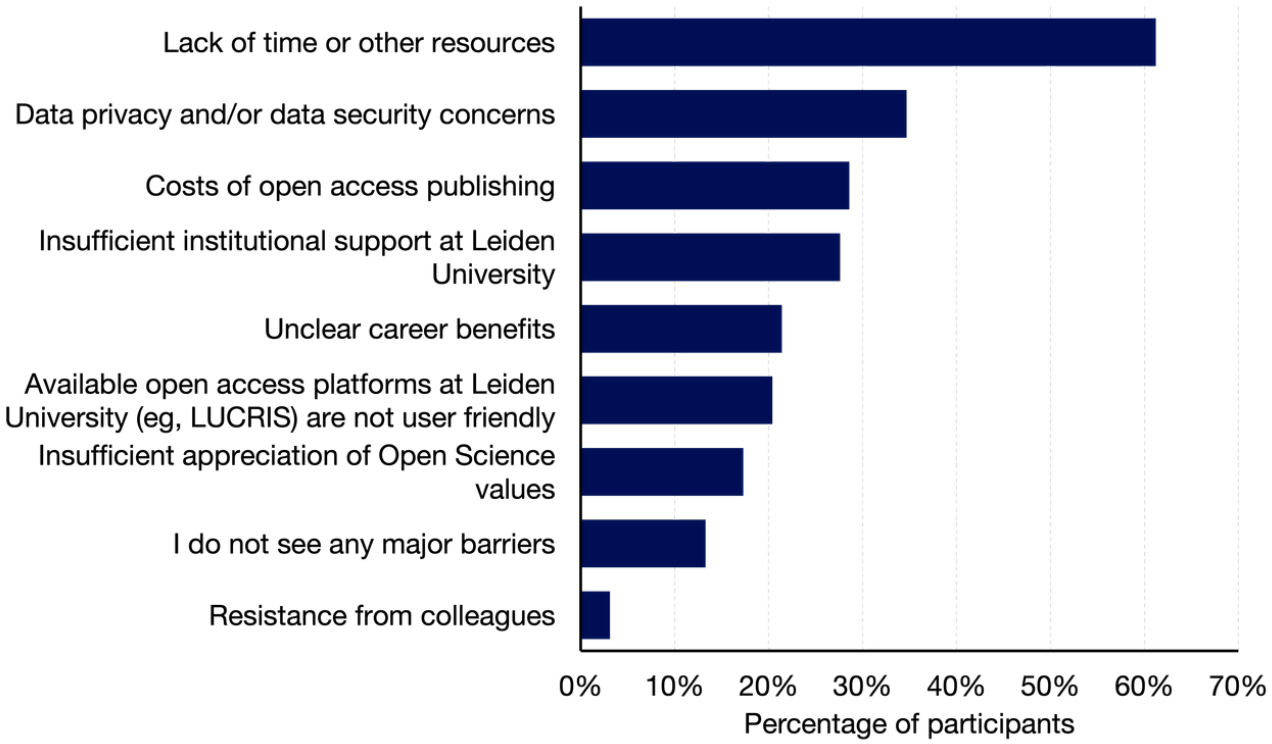


Figure 7. Barriers for the adoption of OSP among FGGA repondents.

4 Recommendations

Based on the survey results, our FAiM team puts forward the following recommendations:

1 | Prioritise strategic development in Open Education and Citizen Science

The survey shows strong interest in expanding activities in these two domains, which together represent significant opportunities for strengthening the faculty's OS profile.

→ Open Education

We recommend that educational managers, in coordination with the vice deans, organise dedicated discussions on how to support and scale up or transfer Open Education practices. This should include identifying barriers, mapping existing initiatives, and fostering the exchange of materials and approaches across institutes.

→ Citizen Science

Each institute should produce an overview of existing Citizen Science projects, partnerships, and initiatives. To increase visibility and shared learning, we also recommend showcasing current or recently completed Citizen Science work through faculty-wide testimony sessions facilitated by FAiM. Such activities can help colleagues understand practical models, challenges, and benefits of participatory research.

2 | Strengthen and systematise Open Science training across FGGA

The survey indicates an apparent association between participation in OS trainings and higher familiarity with OS practices. Although the data do not allow for a causal inference, the pattern suggests that more regular exposure to training can support a more confident and informed research culture. We recommend that the faculty establish a baseline number of OS training opportunities each academic year. These sessions should be open to all FGGA staff and affiliates, with particular attention to early career researchers who tend to benefit most from structured guidance. Training provision could be embedded in existing formats such as graduate seminars and PhD supervision courses, or delivered through additional sessions developed in collaboration with internal expertise, most relevantly from CWTS (Leiden).

3 | Investigate the persistence of publication cost barriers

A notable share of respondents experience open access publishing as difficult. While publication costs are an important constraint, colleagues also point to publisher policies and the concentration of academic publishing in a small number of commercial actors as additional barriers. These include restrictions on self archiving, embargo periods, limited journal coverage within institutional agreements, and uncertainty about authors' rights. We therefore recommend that the faculty conduct a targeted inquiry into the sources of this barrier, including awareness of available arrangements, remaining gaps in coverage, discipline specific publication requirements, and the practical implications of publisher rules. Such an assessment would help identify where clearer guidance, communication, negotiation support, or financial assistance may be required to make open access publishing a realistic and accessible option for FGGA researchers.

4 | Align professional incentives with Open Science practices

The results show that many colleagues do not perceive OS practices as meaningfully recognised within current promotion and evaluation structures. To address this, each institute should review the alignment between OS activities and career progression criteria. This requires careful consideration to avoid creating unintended internal competition or overburdening individual researchers. We recommend that the Faculty and institute leadership jointly articulate how OS practices contribute to academic quality and identify how a balanced distribution of OS activities can be encouraged. Not all colleagues need to engage in all OS practices. Instead, the objective should be that the faculty collectively covers a diverse and complementary portfolio of OS contributions across institutes and career stages.

Reference list

- Christensen, G., Wang, Z., Levy Paluck, E., Swanson, N., Birke, D., Miguel, E., & Littman, R. (2020). *Open Science Practices are on the Rise: The State of Social Science (3S) Survey* (Working Paper Series No. 106; p. 64). University of California. https://escholarship.org/uc/item/0hx0207r
- Committee on Toward an Open Science Enterprise, Board on Research Data and Information, Policy and Global Affairs, & National Academies of Sciences, Engineering, and Medicine. (2018). *Open Science by Design: Realizing a Vision for 21st Century Research* (p. 25116). National Academies Press. https://doi.org/10.17226/25116
- DuBois, J. M., Mozersky, J., Parsons, M., Walsh, H. A., Friedrich, A., & Pienta, A. (2023). Exchanging words: Engaging the challenges of sharing qualitative research data. *Proceedings of the National Academy of Sciences*, 120(43), e2206981120. https://doi.org/10.1073/pnas.2206981120
- Ferguson, J., Littman, R., Christensen, G., Paluck, E. L., Swanson, N., Wang, Z., Miguel, E., Birke, D., & Pezzuto, J.-H. (2023). Survey of open science practices and attitudes in the social sciences. *Nature Communications*, 14(1), 5401. https://doi.org/10.1038/s41467-023-41111-1
- Ioannidis, J. P. A. (2005). Why Most Published Research Findings Are False. *PLoS Medicine*, 2(8), e124. https://doi.org/10.1371/journal.pmed.0020124
- Moneva, A., Bernasco, W., Van De Weijer, S., Volker, B., & Nivette, A. (2025). Attitudes and barriers to open science practices: A mixed-methods analysis at a criminological research institute. *Open Science Framework*. https://doi.org/10.31219/osf.io/6gb58_v1
- Mozersky, J., McIntosh, T., Walsh, H. A., Parsons, M. V., Goodman, M., & DuBois, J. M. (2021). Barriers and facilitators to qualitative data sharing in the United States: A survey of qualitative researchers. *PLOS ONE, 16*(12), e0261719. https://doi.org/10.1371/journal.pone.0261719
- Munafò, M. R., Nosek, B. A., Bishop, D. V. M., Button, K. S., Chambers, C. D., Percie Du Sert, N., Simonsohn, U., Wagenmakers, E.-J., Ware, J. J., & Ioannidis, J. P. A. (2017). A manifesto for reproducible science. Nature *Human Behaviour, 1*(1), 0021. https://doi.org/10.1038/s41562-016-0021
- Nosek, B. A., Alter, G., Banks, G. C., Borsboom, D., Bowman, S. D., Breckler, S. J., Buck, S., Chambers, C. D., Chin, G., Christensen, G., Contestabile, M., Dafoe, A., Eich, E., Freese, J., Glennerster, R., Goroff, D., Green, D. P., Hesse, B., Humphreys, M., … Yarkoni, T. (2015). Promoting an open research culture. *Science, 348*(6242), 1422–1425. https://doi.org/10.1126/science.aab2374

- Nosek, B. A., Hardwicke, T. E., Moshontz, H., Allard, A., Corker, K. S., Dreber, A., Fidler, F., Hilgard, J., Kline Struhl, M., Nuijten, M. B., Rohrer, J. M., Romero, F., Scheel, A. M., Scherer, L. D., Schönbrodt, F. D., & Vazire, S. (2022). Replicability, Robustness, and Reproducibility in Psychological Science. *Annual Review of Psychology, 73*(1), 719–748. https://doi.org/10.1146/annurev-psych-020821-114157
- Open Science Collaboration. (2015). Estimating the reproducibility of psychological science. *Science, 349*(6251), aac4716. https://doi.org/10.1126/science.aac4716
- The Royal Society (Ed.). (2012). S*cience as an open enterprise: Open data for open science*. The Royal Society.
- UNESCO. (2021). *UNESCO Recommendation on Open Science.* UNESCO. https://doi.org/10.54677/MNMH8546
- Vazire, S. (2018). Implications of the Credibility Revolution for Productivity, Creativity, and Progress. *Perspectives on Psychological Science, 13*(4), 411–417. https://doi.org/10.1177/1745691617751884

Appendix 1. Methodology

Sample (extended)

The target sample of this study consisted of FGGA staff, including the Institute of Security and Global Affairs (ISGA), the Institute of Public Administration (BSK), and the Leiden University College (LUC). In total, 113 staff members from BSK, 158 from ISGA, and 75 from LUC[1] were invited through email to participate in an online survey on May 23, 2025. Three reminders to complete the questionnaire were sent on May 28, June 5, and June 18. The survey closed on June 19. Out of the 132 responses collected, 23 did not complete the first block and were therefore removed from the dataset. Thus, our final sample is composed by 109 respondents.

Position. 84 respondents (77.1% of the final sample) were scientific staff. This category includes PhD candidates (n = 21, 19.3%), postdoctoral fellows (n = 4, 3.7%), assistant professors (n = 38, 34.9%), associate professors (n = 14, 12.8%), and full professors (n = 7, 6.4%). 15 respondents were tutors/workgroup teachers (n = 3, 2.8%), and support staff (n = 12, 11%). 10 respondents did not report their position (from this latter sub-set, 2 respondents argued confidentiality issues).

Affiliation. Within FGGA, 43.1% (n=47) of respondents belong to the Institute of Public Administration (BSK), 34.9 (n=38) to ISGA, and nine respondents (7.3%) to LUC. Figure 1 in the main text of the report showed the number of respondents compared to the total number of employees per position within each institute. We observed a better representativeness among the members of BSK across all different positions compared to ISGA and LUC. In the next phase of the focus groups, we will explore this difference in engagement with the survey among institutes. We also got responses from the Faculty Office (n=2, 1.8%), Central Administration Department (n=1, 0.9%), and two respondents decided not to share due to confidentiality reasons (1.8%).

[1] Data was provided by Administration and Central Services from Leiden University on 07/11/2025.

Methods. 33.9% (n=37) of respondents use mostly qualitative methods for their research and/or teaching, 20.2% (n=22) use quantitative methods, 23.9% (n=26) both qualitative and quantitative methods, 8.3% (n=9) interdisciplinary methods, and 2.8% (n=3) do not use any research methods. We also obtained 5 respondents who did not answer this question (4.6%).

Teaching. Most of our respondents (n=35, 32.1%) teach at both Bachelor and Master levels. 24.8% (n=27) of respondents teach mostly at Master level, while 19.3% (n=21) teach mostly at Bachelor level. 17 respondents (15.6%) do not teach, and two respondents refused to answer.

Instrument

Participants completed an online questionnaire that they could access through a link in the invitation mail. The survey opens with a clear information and consent page that explains purpose, expected duration, confidentiality, and voluntary participation. It then moves through a sequence of targeted questions. First, respondents rate their familiarity with the concept, list ideas they associate with it, indicate specific practices they link to OS, and report how often they join related trainings. Next, they select the benefits they consider most relevant for their work and teaching. The instrument then asks about concrete practices they already use, practices they plan to adopt, and examples of intended future actions. A further section identifies obstacles and enabling conditions by asking respondents to choose from predefined options and add further remarks. The final part gathers basic institutional information, including the faculty unit, position, disciplinary and methodological background, and teaching responsibilities.The full questionnaire can be found in Appendix 2.

Analytical strategy

The analysis proceeded in several steps to ensure data quality and to generate clear and interpretable results. First, all submitted questionnaires were screened for completeness. Because some respondents opened the survey but did not engage with the substantive items, I created a variable that captured the total number of selected perceived benefits. Respondents with a score of zero were classified as having not completed the first block and were removed from the dataset. This resulted in 109 valid cases out of the 132 initial responses. The final sample is therefore not fully representative of the entire FGGA population, yet it offers a meaningful overview of the range of views present within the faculty and provides substantially more insight than what was previously available.

Second, all multiple response items were recoded into dichotomous variables to allow consistent descriptive analysis. This applied to the questions on perceived benefits, adoption, future adoption, barriers, and facilitators. Following data cleaning, descriptive statistics were produced for all awareness, attitude, adoption, and barrier measures, and comparisons were explored across institutes, positions, methodological orientations, and teaching profiles. These steps allowed the results to reflect both the overall distribution of views and relevant patterns across sub groups within the faculty.

The open-ended inputs that corresponded to existing answer categories were coded into those categories to preserve comparability across respondents. We conducted a semantic, inductive thematic analysis of the 160 answers to the question “Could you name up to three ideas or practices that come to mind when you think about Open Science,” and the 96 answers to the question “When asked which Open Science practices you would like to implement more, you selected [PRACTICE]. Could you elaborate which specific activities you had in mind?”. The three independent researchers read the full dataset several times, generated initial codes for each response, and then compared and clustered these codes into candidate themes. Because most answers were short noun phrases, each response was coded to one main idea.

Appendix 2. Online questionnaire

Welcome to the survey conducted by the Academia in Motion advisory group of the Faculty of Governance and Global Affairs! Please read the consent form below before you continue.

Aims of the survey
The survey aims to collect information about the views and ideas that FGGA employees and affiliates have about Open Science, and to identify professional opportunities and experiences that Open Science practices can open up for FGGA employees and affiliates.

Duration
The survey takes around 5-10 minutes to complete.

Anonymity
Your information remains anonymous. We do not ask for your name or any other individual identifying information. The data is stored safely and your answers cannot be linked to your name or otherwise be traced back to you.

Potential benefits
The results of this survey can help us gain more knowledge about how the FGGA community views Open Science, and the Open Science practices that can be carried out within FGGA. The results of the survey will be communicated by the FGGA Academia in Motion advisory group. Should you have any question about the survey, please send an email to Dr. Andrei Poama at a.poama@fgga.leidenuniv.nl or Dr. Cristina del Real at c.del.real@fgga.leidenuniv.nl

Potential risks
There are no expected risks of participation in this survey.

Right of revocation
Your participation in this survey is completely voluntary. You can withdraw from completing survey at any moment.

Consent
I am at least 18 years of age and participate voluntarily in the survey. I have received and read the consent form. I was informed about the nature, scope and aim of the survey and any possible side effects. I am informed that my participation will take about 5-10 minutes. I had enough time to decide for or against participating in this survey.

o I agree to participate in this survey
o I do not agree to participate in this survey

How familiar are you with the concept of Open Science on a scale of 1 (Not at all familiar) to 7 (Very familiar)?
o 1 (Not at all familiar) (1)
o 2 (2)
o 3 (3)
o 4 (4)
o 5 (5)
o 6 (6)
o 7 (Very familiar) (7)

Could you name maximum three ideas or practices that come to mind when you think about Open Science? Note: If no idea or practice come to your mind, please, leave the question blank.
o 1st idea/practice: (1) _____
o 2nd idea/practice: (2) _____
o 3rd idea/practice: (3) _____

How often did you attend a training on Open Science Practices in the past?
o More than 5 times (1)
o 4 – 5 times (2)
o 2 – 3 times (3)
o Once (4)
o Never (5)
o I am not aware of such trainings (6)

In your opinion, what are the main benefits of practicing Open Science? Please select up to 3 options.

☐Greater visibility and impact of individual research (1)
☐Enhanced visibility and reputation of academic institutions (2)
☐Improved research integrity and reproducibility (3)
☐Better educational opportunities and materials (4)
☐Stronger influence on public policy (5)
☐Increased public engagement and societal benefits (6)
☐Compliance with funders' requirements (7)
☐⊗I do not see any clear benefits (8)
☐Other (please specify) (9)_____

Which Open Science practices from the ones listed below have you implemented in your academic activities so far?

☐Open Access research (e.g., open access publications, open datasets, open-source code) (1)
☐Transparent research processes (e.g., preregistration, preprints, open peer review, reproducibility checks) (2)
☐FAIR Data (i.e., data that is findable, accessible, interoperable, and reusable) (3)
☐Citizen Science (e.g., collaborating with non-professionals or local communities) (4)
☐Commissioned Research (e.g., policy advice or analysis funded by organizations) (5)
☐Science Communication (e.g., public engagement, media outreach, public events) (6)
☐Open Education (e.g., using or sharing open teaching materials) (7)
☐⊗I have not implemented any Open Science practice (8)
☐Other (please, specify): (9)_____

Please select up to 3 Open Science practices from the ones listed below that you would like to implement more in your academic activities:
☐Open Access research (e.g., open access publications, open datasets, open-source code) (1)
☐Transparent research processes (e.g., preregistration, preprints, open peer review, reproducibility checks) (2)
☐FAIR Data (i.e., data that is findable, accessible, interoperable, and reusable) (3)
☐Citizen Science (e.g., collaborating with non-professionals or local communities) (4)
☐Commissioned Research (e.g., policy advice or analysis funded by organizations) (5)
☐Science Communication (e.g., public engagement, media outreach, public events) (6)
☐Open Education (e.g., using or sharing open teaching materials) (7)
☐⊗I would not like to implement more Open Science practices (8)
☐Other (please, specify): (9) _____

When asked which Open Science practices you would like to implement more, you selected ${future_adoption/ChoiceGroup/SelectedChoices}. Could you elaborate which specific activities you had in mind?

_____

_____

_____

What would you say are the main barriers for you to engage in Open Science practices? You can choose multiple answers in the list below.
☐Lack of time or other resources (1)
☐Insufficient institutional support at Leiden University (2)
☐Available open access platforms at Leiden University (eg, LUCRIS) are not user friendly(3)
☐Insufficient appreciation of Open Science values (4)
☐Unclear career benefits (5)
☐Data privacy and/or data security concerns (6)
☐Resistance from colleagues (7)
☐Costs of open access publishing (8)
☐⊗I do not see any major barriers (9)
☐Other (please, specify) (10) _____

What would help you implement more Open Science practices in your research activities at FGGA? You can choose multiple answers in the list below.

☐Supporting IT infrastructure that makes it possible to efficiently implement Open Science at Leiden University (1)
☐Professional incentives that reward Open Science practices (2)
☐User-friendly interfaces and assistance that make it easier to practice Open Science(3)
☐Collaboration and/or engagement with peers that make good Open Science practices more easily available (4)
☐Policies that make Open Science norms and practices professional requirements (5)
☐⊗I do not know (6)
☐Other (please specify) (7) _____

Finally, we kindly ask you to provide some brief background information about your role and affiliation. This will help us better understand the diverse perspectives within our faculty and support more tailored Open Science efforts at FGGA.

To which FGGA Institute or department are you affiliated?
o Institute of Public Administration (1)
o Institute of Security and Global Affairs (2)
o Leiden University College (3)
o Other (please specify) (4) _____

What is your position at FGGA?
o Tutor/workgroup teacher (1)
o PhD candidate (2)
o Postdoctoral fellow (3)
o Assistant professor (4)
o Associate professor (5)
o Full professor (6)
o Support staff (7)
o Other (please specify) (8) _____

What type of methods do you tend to use in your research and/or in your teaching activities?
o Mostly qualitative methods (1)
o Mostly quantitative methods (2)
o Qualitative and quantitative methods (roughly equally)(3)
o Neither quantitative nor qualitative methods (4)
o Interdisciplinary methods (5)
o Other (please specify) (6) _____

For your teaching activities, do you tend to teach:
o Mostly at BA level (1)
o Mostly at MA level (2)
o Both at BA and MA level (3)
o I do not teach (4)
o Other (please specify) (5) _____

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