

CoARA Action Plan 2024-2027 Bilim Akademisi - Science Academy, Türkiye

October, 2024



CoARA Action Plan

Bilim Akademisi - Science Academy Turkiye (BA) was established in 2011, in Istanbul as an independent non-governmental organization supported by public and national foundations to promote, practice, and uphold the principles of scientific merit, freedom and integrity.

Like any esteemed science academy, we are here to bring together the most accomplished scientists of Turkiye to promote and preserve scientific excellence, methods, and traditions as well as to voice opinions on scientific freedom and integrity. In brief, BA was established to represent and sustain the spirit of science in Turkiye.

BA aims to recognize and encourage the best scientific and scholarly achievements and talent in Turkiye; to promote the public understanding of science, research, and scholarship; to encourage the young generation for careers in research; to defend academic freedom for conducting research and publishing results; and to define, promote and defend academic responsibilities and ethics and the principles of academic honesty. BA organizes all its activities with a low budget since it is only supported by individual contributors, and several NGOs which provide its independence.

BA pays particular attention to equality, diversity and inclusion (EDI) and has a zero tolerance policy in this regard. BA recognizes that everyone has the same opportunity and nobody should face discrimination due to their personal characteristics. Therefore, BA upholds the following policies:

- Merit: Scientists should be assessed based on scientific excellence and merit only.
- **Freedom:** Scientists should be free to announce the results that were obtained using proper scientific methods.
- **Integrity:** Scientists should publicize their findings clearly and present their sources and references.

BA has 210 members each of whom must sign the "Declaration of Academic Merit, Freedom and Integrity" upon membership.

Being a member of the <u>Coalition for Advancing Research Assessment</u> (CoARA) and a signatory to the <u>Agreement on Reforming Research Assessment</u>, which "sets a shared direction for changes in assessment practices for research, researchers and research performing organisations, with the overarching goal to



maximise the quality and impact of research" BA is keen in adopting the following commitments proposed in the agreement:

- 1. Recognise the diversity of contributions to, and careers in, research in accordance with the needs and nature of the research.
- 2. Base research assessment primarily on qualitative evaluation for which peer review is central, supported by responsible use of quantitative indicators.
- 3. Abandon inappropriate uses in research assessment of journal- and publication-based metrics, in particular inappropriate uses of Journal Impact Factor (JIF) and h-index.
- 4. Avoid the use of rankings of research organisations in research assessment.
- 5. Commit resources to reforming research assessment as is needed to achieve the organisational changes committed to.
- 6. Review and develop research assessment criteria, tools and processes.
- 7. Raise awareness of research assessment reform and provide transparent communication, guidance, and training on assessment criteria and processes as well as their use.
- 8. Exchange practices and experiences to enable mutual learning within and beyond the Coalition.
- 9. Communicate progress made on adherence to the Principles and implementation of the Commitments.
- 10. Evaluate practices, criteria and tools based on solid evidence and the state-of-the-art in research on research, and make data openly available for evidence gathering and research.



CoARA Action Plan of Bilim Akademisi – Science Academy, Türkiye

The cultural climate in Turkiye is, to a large extent, devoid of informed discussions and scholarly/expert evaluation of problems. There remains a hierarchical structure in universities and in the higher education system. Moreover, science and technology policies are not systematic, and they do not display continuity, but rather change in accordance with the political climate. Research is under-funded and constitutes only a small fraction of the GDP. Qualitative standards, academic freedoms and standards of integrity leave much to be desired. It is in this climate that most of the 208 Universities in Türkiye rely abundantly on quantitative measures to assess research and researhers.

In this climate Bilim Akademisi – Science Academy, Türkiye BA was established on November 25, 2011 in Istanbul as an independent non-governmental organization to promote, practice and uphold the principles of scientific merit, freedom and integrity. As all such academies across the world, BA is an institution which defends the principles of scientific merit, freedom and integrity independent of government policies. Like any esteemed science academy, we strive to bring together the most accomplished scientists of the country to promote and preserve scientific excellence, scientific methods, traditions and procedures, as well as to voice opinions on scientific freedom and integrity. In brief, BA has been established to represent and sustain the spirit of science in Türkiye.

The goals and objectives of BA are to recognize and encourage the best scientific and scholarly achievements and talent in Türkiye; to promote the public understanding of science, research, and scholarship; to encourage the young generation for careers in research while fostering inclusiveness at all levels; to defend academic freedoms for conducting research and publishing results; and to define, promote and defend academic responsibilities and ethics and the principles of academic honesty. BA is the first signatory of CoARA from Türkiye, and it is important to emphasize that as a recently established forward-thinking society, BA had already implemented the processes for qualitative and merit-based assessment in the two main areas where such assessments are part of our activities: Its new member election process, and its young scientist awards program, BAGEP. Below we summarize our stand and our aspirations regarding the focus points of CoARA:



1. Election of new members: The primary purpose of the BA is to function as an independent science academy in Türkiye, promoting high standards of academic merit, academic freedom and integrity. To uphold these goals, <u>BA relies on its member base in all its activities</u>, which is made up of the leading scientists and scholars of international standing who are elected as members solely based on their academic merits as outlined in <u>our declaration</u> which all members are expected to sign.

We have succeeded in raising our membership from 52 to 210 in 10 years; this has been achieved by conducting a meticulous evaluation process involving all our membership base. The election process is transparent and is available on our website both in Turkish and in English.

Main ingredients of the nomination process include the following and the referee form also emphasizes these dimensions:

- Not to include citation counts and other numerical indices when making the case for the candidate's most important original contributions to science or scholarship.
- Quoting important comments on and citations to the candidate's work which go beyond routine references, and evaluating them.
- The candidate's contributions to the development of science in Türkiye.

The nomination process itself requires that three BA members who satisfy certain criteria for conflicts of interest to act as nominators; collection of at least three referee reports from prominent scientists who are not members of BA; internal roll-call vote amongst BA members who are in fields related to that of the candidate; final voting process that takes place at the General Assembly when each member has access to anonymized forms, reports and results.

The key challenge in the process continues to be the unwillingness of some members to forego numerical metrics as the main assessment criterion. This is understandable in light of the fact that our members publish in high impact factor journals, and they have large h-indices. The insistence of moving away from such metrics may sometimes lead the member to reflect on their own credentials to take this non-quantitative approach as a threat. Our continuous efforts to reach out to our community of members and emphasize the causality being in the direction of good science leading to large metrics, and not necessarily the other way around. BA puts this issue as a discussion point in its biannual general assembly meetings, as regular articles in its popular science outlet sarkac.org (see item 3 below), and every time voting instructions are distributed to the members.



2. Young Scientist Awards Program (BAGEP) selection process: A top priority for BA is to increase the visibility of young scientists in Türkiye who engage in exceptional science through the BAGEP awards. To choose and reward the best young academics and to support them in conducting new studies, an award program was initiated in 2013; as of 2024, BA has awarded 475 BAGEP prizes.

The evaluation process for BAGEP awards require extensive academic refereeing and evaluation. These are conducted by expert panels formed by our members and former BAGEP awardees. In 2024, 248 referees in 34 panels evaluated 252 applications with a final award number of 42. The referees are asked not to take publication metrics such as the Journal Impact Factor during the assessment process into direct account during their evaluations. The evaluations are based on three dimensions:

- Research output (publications, citations, awards, etc. commensurate with the norms in the corresponding field). Note that in the instructions for referees, there is a specification that the candidate's research output be *qualitatively* pioneering in its field. The applications where the research output is quantitatively high but qualitatively average are instructed to be scored lower.
- Capacity to conduct independent research (to be assessed by taking into account the period after completing postdoctoral research during which the candidate gained the ability to conduct independent research). Top candidates are expected to display outputs co-authored with their students and/or new research partners during their time as independent researchers and show evidence for having established a high quality research group/program.
- · A research plan whereby the topic has the potential to significantly enhance their field, is well-written, and the resource needs are compatible with the infrastructure that the researcher has access to.

A copy of the application form (in Turkish) and the evaluation criterion rubric is attached.

The key challenge in the process is to convey our position to all applicants. Unfortunately, the research scene today is marred with quantitative metrics, and most young scientists come from environments where these metrics are put forth as goals towards success. Our evaluation process does not include feedback to the candidates since it is beyond the capacity of BA to prepare well-curated reports to all applicants. As a result, some of the candidates who do not get the award publicly voice their discontent by comparing their metrics to awardees in **similar fields**



and claim 'justice.' We think that it is within the duties of BA to react to young/aspiring scientists and to convey the perspective of why one should focus on quality of research output in terms of short- and long-term impacts.

Starting from the 2025 Awards cycle, applicants will be explicitly asked NOT to include publication-based metrics in their publication list.

Another challenge has been to deal with the increasing number of review articles that appear in the publication lists of applicants. In some fields, this has become a big problem as some scientists write reviews that amass large number of citations and obscure the judgement of the reviewer as to the original contributions of the candidate.

Starting from the 2025 Awards cycle, applicants will be explicitly asked NOT to include review articles in their list of publications, and the referees NOT to take them into account during the evaluation process. The latter is a move away from our previous instructions to the referees to mark down candidates whose publication list is dominated by review articles. These explicit changes are expected to more strongly signal the research community at large on the value of doing original and cutting-edge science.

Compared to the election of new members, the unwillingness of some referees to forego numerical metrics as the main assessment criterion is less of a problem in the BAGEP evaluations. We ascribe this to, (i) the more focused instructions for BAGEP scoring in light of the narrower scope of the awards; (ii) the evaluator pool also including young scientists who are more exposed to being evaluated by CoARA-like criteria in the past few years; (iii) the unlikeliness that the evaluators taking the process less personally since they are not electing peers but deciding on awards to their juniors. Nevertheless, BA will continue to monitor the quality of the evaluation by tracking the record of past awardees. To improve the evaluation process, BA will start sending surveys to collect feedback from the applicants and the referees after the 2025 cycle. A copy of these surveys will be included in the next round of the CoARA action plan.

3. Outreach activities: Our outreach and support programs include summer schools geared towards graduate students, conferences organized, and the establishment of the popular science platform sarkac.org. Through these media, we reach a wide audience, including students, academics and science enthusiasts. We have a growing presence on several social media platforms (X (Twitter) > 100 K, YouTube > 80K Instagram~ 17K, Facebook~17 K followers)



As of 2024, BA has organized more than 100 monthly conferences, and a *Conference of the Year* since 2016. Students exceeding 1000 in number attend our Summer Schools and on average 2500 people view Sarkac.org every day. We also send two monthly newsletters, one to our members, and the other to 6500 subscribers.

Furthermore, BA publishes <u>Annual Reports on Academic Freedoms</u>. These reports are translated into English and are distributed to a wide readership through our membership in the international science societies, ALLEA (All European Academies) and ISC (International Science Council). The reports are also widely quoted in local media outlets.

Having a rich platform like sarkac.org in the Turkish language provides the opportunity to convey science policy issues to a wide range of science enthusiasts and scientists. We have been

publishing articles on <u>science ethics</u>, <u>scientific methodology</u>, and the past and the future of the <u>research/university</u> settings (links are to the collection of articles in Turkish). There are many articles in sarkac.org, which address the problems of measuring research performance with metrics and suggesting new perspectives on the issue. We will continue to utilize these platforms to enhance the impact of the ideas we develop on these issues.

Our members, including those with positions abroad such as the recent Nobel laureate Daron Acemoglu, actively contribute to our outreach activities. As public figures, they frequently promote the idea of the importance of science as a thought process and call attention to the perils of metrics-based promotion of scientists. They are active in voicing opinions on problems faced by young researchers and reaching out to the public whenever the opportunity arises, e.g., through TEDx talks, TV interviews, public talks on science and society. They touch base with the least privileged students who are interested in science by making appearances in a plethora of public engagement activities.

We are also active in conveying the research perspectives, the hardships and differences in doing science in countries with similar scenes to Turkiye internationally. We cease opportunities to assess the strategic issues of importance such as free circulation, research inequalities and widening participation. This, we can achieve from the perspective of Western way of doing science while being able to bring up hardships faced by academicians in emerging economies. Moreover, we can make truly positive contributions by transferring the knowledge of creative solutions developed in Turkiye to emanate them into other similar research settings. One example is the inclusion of our member Mete Atature on the Working Group European Research Area – ERA of ALLEA, which is actively involved in drafting the position papers of ALLEA



that emphasize the need for the reform of the assessment system for research, researchers and institutions.

Due to the stand BA has taken in supporting academic freedoms in Türkiye, the University upper management's shy away from directly engaging in activities with BA. However, we believe our rich access to the best scientific minds in Turkiye will allow the emerging ideas in the assessment of science and scientists to percolate to the university/research environment from the bottom-up.

Evaluations of Bilim Akademisi

One important assessment is the member elections of BA. To be eligible for membership, significant and valuable contributions to science must have been made. Reports demonstrating the scientific importance of candidates' work are based not solely on quantitative measures and simple formulas, but on qualitative assessments of the contributions made and their impacts. Newly elected members must not exhibit behaviors that violate the principles outlined and improved in the Academic Merit, Freedom, and Integrity declaration signed by all members of the BA.

Another program where the assessment is used is the Young Scientist Awards Program (BAGEP). BAGEP is providing research support to young scientists only with the financial support of individuals and NGOs. Evaluations are made according to the candidate's competence in terms of curriculum vitae, quality of publications and especially the content of the work; the list of publications takes into account the main contributions to science and prioritizes original articles (review articles are supportive;



maximum) and originality and realism of the scientific research program. During the evaluations the research assessments have been taken into account.

Action Plan 2024-2027

Short Term Goals Long Term Goals

Resource Allocation

- Identify necessary resources: laboratory equipment, textbooks, technology.
- Budget planning for materials, staffing, and facility upgrades.
- Seek funding through grants, donations, and partnerships.

5. Staff Recruitment and Training

- Recruit passionate educators with a strong background in science.
- Implement ongoing professional development programs.
- Encourage collaboration among staff for sharing best practices.

Actively participate in CoARA Community and activities.

Governance and monitoring

https://coara.eu/agreement/action-plan/

Timeframe Overview



- The signatories of this agreement agree to share with each other and with their community how their organisation has started the process of reviewing or developing criteria, tools and processes in line with the core commitments and according to an Action Plan with defined milestones, by the end of 2023 or within one year of signing the agreement*.
- Signatories of this agreement agree to regularly demonstrate progress towards reviewing, developing and evaluating criteria, tools and processes that fulfil the core commitments, with a touch point at end of 2027 or within five years of signing the agreement, by which time they will have worked through at least one cycle of review and development of their assessment criteria, tools and processes.

Please note: organisations have full freedom in the development of their Action Plan, following the request of several CoARA signatories that a light-touch guide would be helpful to support this process, this has been established. Signatories that are not assessing research projects, researchers, research units or research performing organisations commit to contribute to the reform and share progress with each other and the community respecting the same timeframe.