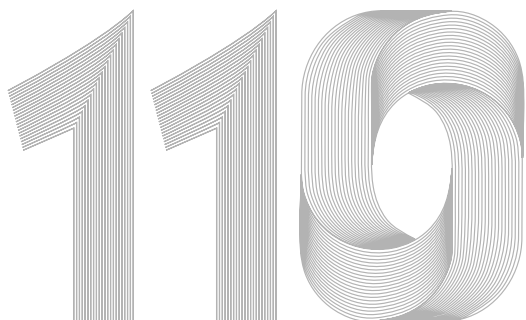




LETTER TO THE EDITOR

Beyond Metrics: Rebuilding Trust and Purpose in Brazil's Research Evaluation System

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The increasing reliance on quantitative indicators to evaluate scientific performance has shaped the Brazilian research ecosystem in ways that warrant reflection. Over the past two decades, metrics such as publication counts, impact factors, and citation indexes have become central to evaluation processes by funding agencies worldwide, including CAPES and CNPq. While these tools were originally introduced to ensure transparency and comparability, their overreliance has led to distortions that can undermine the broader purposes of science, such as creativity, collaboration, and societal impact. Those quantitative metrics remain dominant, despite recent reforms that have sought to incorporate qualitative components, self-assessment practices, and a stronger focus on program missions that still require time to mature.

This “metric-driven” culture favors short-term, easily measurable goals, encouraging quantity over quality, incremental over transformative research, and competition over cooperation (Hicks et al. 2015). The Brazilian system is mainly “performance-based”, which drives the post-graduated programs accreditations, the funding programs and the researchers behavior (Brasil & Trevisol 2025). Researchers often feel pressured to publish in high-impact journals rather than address locally relevant or interdisciplinary problems, creating what many describe as a “publish or perish” environment (Leite & Diele-Viegas 2021). In Brazil, where public investment in science remains constrained, this dynamic interacts with structural inequalities across disciplines and regions. Evaluation systems may struggle to adequately capture the diversity and relevance of Brazilian science, particularly in applied, interdisciplinary, and socially oriented fields.

The misalignment between evaluation and mission has produced unintended consequences. Many scholars now perceive evaluation processes as increasingly bureaucratic rather than developmental, and their emphasis on performance indicators as only partially aligned with the country's social and technological needs. The CAPES Qualis system, though designed to classify journals objectively, has been criticized for producing heterogeneous distortions across areas, in some cases privileging publication in international venues, and in others shielding domestic journals of limited visibility or variable quality, with uneven effects on excellence and innovation. Although the “new Qualis” signals a shift toward a more qualitative and contextualized discourse, its operational criteria and concrete use in evaluation processes have not yet fully clarified how qualitative judgment will effectively outweigh or replace long-standing quantitative incentives.

Lima (2025) advocates that the new proposal still carries part of the “older Qualis” logic, since it is based on standardization, percentiles and comparison. In addition, Martinez-Salgado (2025)

criticizes the extinction of old Qualis per se, instead of improving it, as it could weaken the criteria for an objective evaluation, being subjected to lobby and subjective interests. Therefore, there still is room for improvement in qualitative criteria, so the qualitative dimension does not become another “bureaucratic technicality” (Lima 2025) that does not capture the complexity of the Brazilian context. As a result, these dynamics may persist in practice, reinforcing tensions between international recognition and research addressing national challenges, from climate resilience in the Amazon to urban inequality (Fernandes & Manchini 2019). Moreover, the pursuit of performance indicators has intensified stress, competition, and individualism within academia (Soares et al. 2020). These pressures contribute to burnout across career stages, affecting early-career researchers, senior faculty, and program coordinators alike, particularly through cumulative evaluation demands and administrative overload. The resulting environment may also contribute, alongside chronic underfunding, career instability, and broader political and economic uncertainty, to the international mobility and loss of talented scientists. While metrics alone do not explain brain drain, they may reinforce short-term academic trajectories and discourage sustained institutional commitment (Cho & Hayter 2020).

The decline of exploratory and high-risk research is often attributed to evaluation practices focused on predictable outputs. This tendency is further reinforced by risk-averse funding strategies adopted under persistent resource scarcity, in which agencies distribute limited funds broadly rather than concentrating support on fewer, riskier projects. Together, these dynamics constrain the space for blue-sky research that is essential for long-term scientific and technological progress.

A transition from productivity-centered governance to a model rooted in relevance, diversity, and reflexivity is therefore needed. Rather than seeking to perfect existing metrics, Brazil could invest in experimental evaluation mechanisms. For example, establishing “living laboratories of evaluation” within universities and funding agencies would allow rotating assessment models that combine quantitative, qualitative, and collaborative indicators over fixed cycles, transforming evaluation itself into an object of scientific inquiry. Similarly, the development of a Scientific Maturity Index (SMI) could help assess institutional trajectories through indicators of collaboration density, thematic diversity, and engagement with high-risk or socially impactful research, encouraging cooperation rather than competition. These proposals face clear feasibility and governance challenges, but their experimental and incremental nature allows for testing without immediate system-wide adoption.

In addition, implementing inverted evaluation cycles, in which graduate programs and research groups periodically assess evaluation agencies themselves, could introduce greater accountability into the governance system. While recent reforms by CAPES and CNPq have begun to incorporate narratives of social impact, self-assessment, and alignment with national priorities, their coherence, effectiveness, and practical consequences remain open questions.

As presented, Brazil’s scientific governance stands at a crossroads. Metrics remain useful tools, but they are limited. Only by aligning evaluation systems with the broader missions and values of science can Brazil foster a culture of responsible research that builds trust, nurtures innovation, and sustains the public value of scientific activity.

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