Concept for the future financing of scientific journals

The following text is a synopsis of the discussion paper[1] *and the input from the symposium*[2] *. Background explanations (B) have been added to some paragraphs.*

The results of scientific research, especially when funded by public funds, are a common good. Responsibility for the quality and relevance of scientific publications must remain in the hands of the scientific community. Commercial or political interests must not influence this process (B1).

> B1: This opening statement already summarises the two key points: a return to a science-driven publication culture and a reduction in commercial influence. In view of the current threat to free science, it also includes the term "political".

Scientific publishing has become increasingly commercialised in recent decades. Oligopolies have developed in the segment of large commercial publishers, whose profit orientation has significant disadvantages for the public sector and scientific publishing. In addition to rising costs and a lack of competition for publishing services, this includes declining decision-making authority over the publication process, the collection of usage and metadata in private hands, and the controlling influence on the scientific evaluation system based on problematic metrics. Particularly critical is the increasing loss of scientific responsibility for publications and the obstruction of innovative publication models. To counteract these problems, a working group of the Leopoldina has proposed a new financing principle and held a symposium on the subject (B2).

> B2: This addresses the restrictions that are a consequence of commercialisation. Although spiralling costs are one of the problems, they have already been brought back into an improved framework through the DEAL agreements. However, the restrictions imposed by the commercial objectives of publishers, in particular the pressure to focus on quantity rather than quality caused by APCs, as well as "per article" billing, remain obstacles to innovative alternative concepts for scientific publishing.

A reform of scientific publishing along the concepts of "*scholar-led publishing*" is therefore urgently needed. In this publishing model, sole responsibility for scientific publications lies with the scientific community, which retains the rights to the published products. The content of a journal must be controlled by scientific editors and reviewers who are committed to their scientific community and act without commercial or political influence. This also makes scientific journals resilient to political appropriation as the decision-making structures cannot be centrally controlled (B3).

> B3: This is the first core point. In many journals, scientific editors have been replaced by publishing editors, and the direct influence of the scientific community (e.g. the professional associations that originally founded the journal) has been reduced. However, there are still

[1] Discussion paper: https://www.leopoldina.org/fileadmin/Daten/Publikationen/Dokumente/2025_Leo_Diskussionspapier_zur_Finanzierung_EN.pdf

[2] Symposium on 2–3 June 2025: https://www.leopoldina.org/ergebnisse-und-termine/veranstaltungen/detail/zukunft-der-finanzierung-wissenschaftlicher-publikationen

> professional associations and journal publishers where this is not yet the case and which maintain good cooperation with commercial publishers. Although there is no particular need for action on this point, they could also find their place in the new funding system, especially with regard to resilience aspects. Recent developments in the United States have made it clear how easy it is to exert political influence, either by putting pressure on large corporations, which include major publishing houses, or by attempting to shift the decision-making structures of journals to ministries. Only a consistently scientifically responsible system that is free from commercial constraints would be resilient to this. If journals are financed by central government funds, funding can be terminated for political reasons, but journals can also continue with alternative financing models as long as the decision-making structures remain in the hands of scientific actors.

In order to disentangle "*scholar-led publishing*" from commercial aspects, the technical operation of the journals should be based on the Diamond Open Access (DOA) model. This model stipulates that there are no fees for either publishing or reading. The financing of DOA journals should therefore be regarded as research infrastructure and follow the same principles as publicly funded research itself: A procedure should be developed whereby scientific actors can apply for funds, which are awarded in a peer-reviewed process. It is essential that funding can be extended as long as the journal is successfully operated and is demonstrably relevant to the professional community. This can be regularly reviewed through a suitable re-evaluation procedure (B4).

> B4: This is the second core point. It is intended to ensure commercial independence while maintaining scientific control. This implies that a permanent central funding source is needed to which applications can be submitted. However, this source is not explicitly named, as various options are possible. Several separate funds from different sources (e.g. federal funds, foundations, universities, large research institutions, etc.) are also conceivable, but these should be guided by the same general criteria.

The model thus focuses on competition and transparency. Scientific communities compete for funding and identify the publication outlets best suited to their needs in a science-led process. Infrastructures such as central state or specialist libraries, specialist information services and repositories or national research data infrastructures can be systematically integrated. Commercial publishers can continue to play a role – but no longer as exclusive rights holders of journal titles or publications, but as service providers on behalf of science, based on the principles of public sector financing. This promotes innovation and keeps profit margins within a market-driven framework (B5).

> B5: This is the consequence of the two core points. The paragraph also emphasises that privately organised publishers can continue to be part of the system, but on a basis that is based on the general rules of managing public funds. Until now, payment via subscriptions or APCs has not been subject to the rules of economical use of public funds, as publishers have a monopoly on their journal titles, which allows them to set prices themselves without any controls.

Access to scientific work can be provided via (subject-specific) data repositories. Ensuring the long-term availability of digital information is the responsibility of scientific libraries. In order to fulfil this task, the necessary resources and financial means must also be secured on a permanent basis.

Established structures for financing public research already exist. The system proposed here for financing scientific journals fits seamlessly into this landscape – it is a logical and necessary extension. The transition to such a model also makes economic sense: in the long term, costs should be saved, as the current system uses public funds to finance profits made by private companies that do not flow back into the scientific system (B6).

B6: This paragraph emphasises two further points: firstly, that science-led decision-making structures for the allocation of funds are well established and, secondly, that the new system also has the potential to save costs. However, the last point is somewhat vague, as we are not yet able to fully estimate the necessary costs of scientific publishing, including all the components mentioned in the discussion paper. In principle, however, public funds should flow back into the science system instead of financing private profits.

In recent years, a very active open access publishing culture has already developed without the direct involvement of commercial publishers. The new system can build on this. The proposal for longer-term financing would add an essential component to the developments already underway in the Diamond Open Access (DOA) sector. In addition to establishing pilot financing for individual journals based on the new financing principles, broader measures should also be developed to support the established DOA publication cultures (B7).

B7: This paragraph refers to one of the key points developed at the symposium. Publication cultures are already undergoing a radical change that also includes solutions beyond the involvement of commercial publishers.

Among the broader measures, a certification system should be developed to make the reputation criteria for journals more scientifically appropriate than is currently the case. Certification would provide independent confirmation of the scientific integrity of a journal's operations and classify its publication model (e.g. a journal with focus on data publication, a journal for subject-specific publications, or a journal for publications with interdisciplinary relevance). This could supplement metrics based on impact factors or similar indicators, or even replace them in the long term if certification can be established internationally. The possibility of certification should be open to all journals, regardless of their funding mechanisms. If publications in certified journals become the basis for performance assessments of scientists in the future, the system would also easily gain acceptance (B8).

B8: The concept of peer review of scientific journals is also suitable for strengthening their reputation. However, if peer review is only carried out in the context of possible funding, journals for which sufficient funds are not available at a given point in time are excluded, even if they would meet the general criteria. A science-led certification system could close this gap, making it possible to use this as a general criterion for performance assessment (instead of the IF of journals). Of course, this would only be possible if the criteria are internationally recognised and also used internationally. Such criteria could include:

- Operation of the journal in accordance with the scholar-led publishing principle and the COPE principles
- Declaration of the participating academic community and the publication model
- Open access with CC-BY licensing
- Depositing all associated research data in public repositories
- Accessibility of content for automated text search
- Ensuring long-term archiving

- Disclosure of funding

These criteria can be checked and validated with relatively little effort, meaning that they could also be certified by various institutions. In contrast, the scientific quality of a journal can only be assessed through a more in-depth evaluation, which would possibly go beyond the scope of pure certification, unless standardised criteria for the respective subjects could be developed.

The details of how to put this idea into action, including possible certification criteria, need to be worked out in a joint discussion process with everyone involved, keeping in mind the specific characteristics of each subject area and international standards.

The proposals presented here will help to ensure an open, fair and sustainable scientific culture in the service of the general public in the long term.