

## An Open Letter from Researchers to European Funding Agencies, Academies, Universities, Research Institutions, and Decision Makers

Dear Editor:

We support open access (OA) and Plan S is probably written with good intentions. However, Plan S<sup>1</sup>, as currently presented by the EU (and several national funding agencies) goes too far, is unfair for the scientists involved and is too risky for science in general. Plan S has far-reaching consequences, takes insufficient care of the desires and wishes of the individual scientists and creates a range of unworkable and undesirable situations:

**The complete ban on hybrid (society) journals of high quality is a big problem, especially for chemistry.** Apart from the fact that we won't be allowed to publish in these journals anymore, the direct effect of Plan S and the way in which some national funding agencies and academic/research institutions seem to want to manage costs may eventually even lead to a situation where we won't even be able to legally read the most important (society) journals of for example the ACS, RSC and ChemPubSoc anymore. Note that in their announcement of Plan S, the Dutch funding organisation NWO (for example) wrote that they expect to cover the high article processing charges (APCs) associated with the desired Gold OA publishing model from money freed by disappearing or stopped subscriptions to existing journals<sup>2</sup>. As such, Plan S may (eventually) forbid scientists access to (and publishing in) >85% of the existing and highly valued (society) journals! So effectively Plan S would block access to exactly those journals that work with a valuable and rigorous peer-review system of high quality. As a second note on this aspect: In the Netherlands, already for more than 6 months, researchers don't have

legal access to most RSC journals<sup>3</sup>. Fully banning even more society journals is completely unacceptable and unworkable.

**We expect that a large part of the world will not (fully) tie in with Plan S.** The USA, China and the rest of Asia highly value the existing (society) journals, in particular (for chemistry) the ACS journals and (for physics) the APS journals. Germany and Switzerland already indicated they will not conform to the plans as currently formulated. Belgium will also not join-in and independently introduced a different OA policy. Spain is also out, at least for the time being. A transition period for the rest of the world will surely take a long time, and a total global ban on hybrid (society) journals being taken up as a global initiative seems very improbable. Therefore, Plan S has the risk of splitting the global scientific community into two separate systems: cOAlition S grantees vs. the rest of the world, with all associated negative consequences. If that happens, this will have a strong negative effect on collaborations between the cOAlition S countries and the rest of the world, because joint publications in the highest quality selective journals, based on rigorous peer review and quality control procedures, with the highest standing in the community, won't be possible anymore (*e.g.* JACS, Science, Nature, Nature Chemistry, ACS Catalysis and Angewandte Chemie are all forbidden under Plan S!). This will also have a strong negative impact on the internationalization of PhD students and postdocs. Why would someone with academic ambitions come to *e.g.* the Netherlands or Sweden to obtain a PhD or obtain

<sup>1</sup> <https://www.scienceeurope.org/coalition-s/>

<sup>2</sup> <https://www.folia.nl/actueel/123528/volledig-open-access-in-2020-6-vragen-en-antwoorden>

<sup>3</sup> [https://vsnu.nl/en\\_GB/news-items/nieuwsbericht/394-no-agreement-with-the-royal-society-of-chemistry-publishing%C2%A0.html](https://vsnu.nl/en_GB/news-items/nieuwsbericht/394-no-agreement-with-the-royal-society-of-chemistry-publishing%C2%A0.html)

Las cartas al editor no requieren invitación y deben enviarse directamente a Miguel Á. Sierra: [sierraor@ucm.es](mailto:sierraor@ucm.es)

postdoc experience if they are not allowed to publish in journals that are important for their career progression, on the international landscape, and would make them therefore uncompetitive if they want to leave cOAlition S countries? Students in our universities are already starting to wonder if it is wise to do a PhD in a cOAlition S country, or rather move to another country to increase their chances of a successful (academic) career. Furthermore, if Plan S succeeds in splitting the global research system, it puts the willingness of scientists to do something for anyone in “the other system”, such as acting as a peer reviewer for manuscripts and research proposals, under pressure. These are all highly undesirable developments that will hurt science as a whole.

We fully appreciate and agree with ongoing concerns about the exploding costs of journal subscriptions. However, **with its strong focus on the Gold OA publication model, in which researchers pay high APCs for each publication, the total costs of scholarly dissemination will likely rise instead of reduce under Plan S.** Furthermore, it will not eliminate the so-called publication “paywall”, but rather simply shifts it from reading to publishing. Tying in with this, the strong focus of Plan S to support in particular for-profit Gold OA-journals (at the expense of high quality non-profit Society journals<sup>4</sup>) has a serious risk that it leads to a surplus of papers of low quality/originality/newsworthiness and that research groups are confronted with high APCs. After all, this system is coupled to perverse financial incentives: Stimulate accepting as many papers as possible—regardless of their quality—and keep increasing the already high APCs in more selective journals.

**Plan S ignores the existence of large differences between different research fields.** Plan S has (probably) a much larger negative effect on chemistry than on some other fields. A one-size-fits-all approach, as presented in Plan S, is therefore a bad idea. The “mountain of feathers” effect that Plan S can trigger will likely quickly result in lower international ranking and standing of individual cOAlition S researchers, most certainly if little changes elsewhere.

Taken together, **Plan S is a serious violation of academic freedom:** Strongly reduced access to (and possibilities to publish in) suitable scientific journals of high quality, with a direct consequence that it also strongly restricts our choice of countries with which we can conveniently collaborate with or sustain lasting exchange programs. There are also issues with the copyright model (CC-BY) demanded by Plan S. A full ban on publishing in hybrid journals with imposed sanctions also feels as a serious degradation of existing rights. Most problematically, less radical and cheaper solu-

tions are certainly possible. See for example the suggestions presented here:<sup>5</sup>. In addition, more and more journals (for example, JACS<sup>6</sup> and Elsevier<sup>7</sup> journals) are allowing researchers to not only deposit preprints of their work but also updating with each round of peer review until the decision letter is issued such that the research becomes immediately available via the pre-print server. However, as currently framed, Plan S sees such modes of dissemination as only being of archival value and this type of Green OA publishing is non-compliant under the current 10 rules of Plan S.

**Researchers should have the freedom to choose publication venue, and while complying with Open Access mandates to also choose how papers are made Open Access, in a way that contributes to minimal increased costs for the publishing system while not impinging on academic freedom or jeopardizing internationalization in research and higher education.** We call on both funding agencies who are already part of cOAlition S and those who have not (yet?) signed up, to take into account the full landscape of ways that papers can be made Open Access, and not just the very narrow definition provided by Plan S (including the hybrid ban, and the fact that peer reviewed pre-prints such as allowed by the ACS are currently not an obvious compliant solution). In addition, we demand that cOAlition S signatories take responsibility for the implications and risks Plan S may have for the European research landscape, and to therefore take every possible action in the implementation stage to prevent these potential and unintended consequences.

## Abbreviations

ACS: American Chemical Society.

APC: Article Processing Charge.

APS: American Physical Society.

ChemPubSoc: Partnership of 16 continental European chemical societies nurturing a family of high-quality chemistry journals

EU: European Union.

JACS: Journal of the American Chemical Society.

NWO: Netherlands Organisation for Scientific Research.

OA: Open Access (no costs for reading).

Gold OA: OA model where the publications are immediately available from the publisher, usually upon author payment of an APC fee to get their paper published.

Green OA: Subscription journals accepting depositing a pre- or post-print in a repository. Platinum OA: Fully free to publish and read.

RSC: Royal Society of Chemistry.

VSNU: Vereniging van Samenwerkende Nederlandse Universiteiten.

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<sup>4</sup> <https://www.timeshighereducation.com/news/plan-s-could-prove-fatal-learned-societies>

<sup>5</sup> <https://forbeterscience.com/2018/09/11/response-to-plan-s-from-academic-researchers-unethical-too-risky/>

<sup>6</sup> <https://pubs.acs.org/page/jacsat/submission/prior.html>

<sup>7</sup> <https://www.elsevier.com/about/policies/sharing#preprint>