

Feedback from IST Austria

Members of IST Austria have been following the development of the Plan S initiative with great interest and we are grateful for the opportunity to give our feedbacks.

We understand that scientific publishing is facing fundamental changes in the following years and we strongly support pro-active initiatives on behalf of scientific and funding organisations to shape this process. In particular, we are concerned with the ever increasing total costs of publications, while the digital revolution should actually have reduced the costs as communication, editing and printing have all become much cheaper. Open Access as a general guiding principle seems to be the right one. However, proper implementation details, time frames and adjustments to the needs of very different scientific cultures of various disciplines are key elements to gain support for this complex transition process among scientists and eventually make it a success. In particular, it is very unclear whether the goal to implement “full and immediate Open Access” in this short timeframe is a realistic one.

Despite our positive attitude to the proposed changes we are seriously concerned about several key points of Plan S in its current format. While the document on “Guidance on the implementation of Plan S” has alleviated some worries, it did not adequately address to many important points that we wish to outline below. In general, we feel that the process is intentionally made too quick, hoping to achieve a “point of no return” where all parties have no other choice than comply with the rules and possibly correct policy and implementation errors later in some revision phase. While this might be a right tactic for the final goal (we have doubts), the transition process in the current form will seriously disrupt scientific activities. It also puts an unfair burden on the scientists themselves since the main risk of the possible failure of this initiative is carried by the scientists. Finally, without having built up a sufficiently broad support, it risks the final success of the entire endeavour.

In the following we outline our main concerns. They relate to both questions Plan S asked us; in fact the question about missing or unclear items in the guidelines and the question about further mechanisms to consider are essentially the same.

1. Several key funding agencies (German, Swiss, US, Israeli) as well as major learned and professional societies (e.g. AMS, SIAM, ACM, and IEEE) must participate in the plan before it gets implemented in Austria. Else it creates a serious competitive disadvantage for scientists funded by cOAlition S members, moreover, it will not have sufficient pressure to push through the changes according to its blueprint.
2. Currently most prestige journals in general (Science, Nature) and also the key journals in some fields (math, physics & computer science) are not considered compliant and at the moment no transitional contracts with these publishers are in place. Therefore scientists from these fields would not be able to publish in the leading journals in their area which is a serious competitive disadvantage in every career stage, and it would especially adversely affect young scientists before tenure. It is an unrealistic expectation of Plan S that these key journals can be quickly replaced with new ones; their reputations have been built up over decades. No funding agency or any coalition thereof with whatever strong will or even legal backing can create a reputed journal in a year, in the worst case it can only destroy it. Therefore, Plan S can be implemented only after at least a large majority of premium journals in each field are compliant.
3. The plan does not properly take into account very different publishing cultures across scientific domains: it pushes for a “one-size-fits-all” approach. Open Access can be achieved in many different ways and various scientific domains have experimented different models. Plan S interprets OA in the strictest possible form and focuses exclusively on the “gold route”. We think this narrow-mindedness is a mistake that seriously undermines the final goal as it alienates other efforts with the same goal.
4. As a prominent example for other efforts from Item 3 is the ArXiv preprint server that has been serving the mathematics, CS, physics (and nowadays even part of biology) community with a great success. It does not replace peer-reviewed journals, but it perfectly serves one of the main stated goals of Plan S: a free access to research output. Our faculty was baffled by the

stipulation of Plan S that would make ArXiv non-compliant instead of actually supporting it; in an apparent contradiction to its stated goals. We think that ArXiv should be accepted as compliant with Plan S in the current form without any extra complication about the format. Authors may be required to update the latest version of their manuscript.

5. From the “one-size-fits-all” attitude, Plan S and the implementation guidelines stay unclear in several important issues, such as:
 - a. Status of the conference proceedings (especially vital in computer science). There are no gold OA solutions available in this area and it is unclear if publishers wish to comply at all. These publication forums are currently irreplaceable, especially in CS.
 - b. Collaboration with not Plan S-funded authors who prefer to publish in prestige journals will be difficult. The plan will clearly discourage international collaboration, especially if entire geographical areas (US) do not participate.
 - c. The publishers of many learned and professional societies that work essentially non-profit or work with acceptable subscription fees and return their profit to the scientific community will be jeopardised. Members of these societies are rightfully proud of their model and may not be willing to pay large OA fees to be able to publish in “their own” journals.
6. Premature implementation of Plan S without guaranteeing a smooth transition and continuous access to the overwhelming majority of current well established publication venues will make countries unilaterally signing up for Plan S less attractive to international scientists. If the main national funding agency of Austria will not fund research in top journals, no matter for what reason and intention, then Austria as a scientific centre will suffer.
7. Faculty members of IST Austria are especially concerned about the impact of an APC based model on scientists based in less wealthy institutions or countries that will not be able to afford the high OA publication fees. While high subscription prices are already prohibitive for many colleagues and their institutions, high publication fees will have a much more dramatic effect. The system may run into the danger of practically creating first and second class scientific communities, further increasing the gap between “rich” and “poor” and greatly reducing mobility of talent. Such system may only be introduced if a broad range of waivers are available with clear and fair criteria and with accountable normative controls.
8. In an OA based system there will be the risk that publishers excessively raise APCs prices as they did with subscription based prices. Only defining APC caps would not solve the problem, it will put even more pressure on scientists. Members of the cOAlition S should work together with library consortiums to define a common strategy against price increases of APCs, as in the subscription market, before increasing the pressure on scientist without an alternative option.
9. The technical requirements for the repositories are unreasonably high. Despite the fact, that PDF alone is not fulfilling the needs for good machine-readable documents, the proposed format would require a workflow, which would be equal to the workflow of publishers. This would significantly change the repository system, as they are available at the moment. An alternative would be to make the sources (Word, LaTeX files) available. This would be an easier step to implement and open the opportunity for better processing. If a format beside PDF should be supported, the established and more standardised EPUB format would be more suitable. If the JATS format should really become the standard, the cOAlition S should provide funding to integrate the necessary functions at least in the most common repository systems used by libraries. In general, instead of standardising and prescribing one particular format, Plan S should accept and even encourage several parallel formats for compliance to facilitate the transition and reduce the burden of scientists and supporting libraries.

In summary, the proposed way of pushing high impact journals towards new business models is too ambitious both in its goals and in the time frame. Much more flexibility is necessary that properly takes into account the needs and existing scientific cultures of various scientific domains and well established practices. Plan S should first build up more support from other funding agencies as well as from main publishers and learned and professional societies, furthermore it should adequately address concerns listed above before it can be implemented, otherwise it will cause major disruptions and long term damages; moreover it is prone to fail. Instead of insisting on the current, unrealistically short implementation time frame, it should give more time to scientific societies, publishers and libraries to negotiate and develop new business models along the main idea but flexibly allowing them to adjust their model to the traditions and needs of the actual community.