## About the implementation of Plan S by cOAlition S over Open Access (OA)

I support the idea that scientific research – financed by public means – should be broadly accessible worldwide. After all, the ambition of any scientist is to be read as broadly as possible. In Mathematics and Computer Science, already since many years, the norm is that authors post their research papers (pre- and/or post-prints) at open platforms (of which arXiv is a prime example) and at their personal and/or institutional webpages. So in a sense they already mostly do fulfill the 'green' OA route (though possibly without keeping the copyright).

But I foresee big difficulties with the planned quick implementation of Plan S (01/01/2020), stipulating that research funded by a national funding agency (like NWO - the Netherlands Organization for Scientific Research – in the Netherlands) should be exclusively published in OA journals. For the following reasons:

## Too few available quality OA journals

Each scientific field has a recognized network of high quality journals, hosted by 'learned societies' (such as SIAM, AMS, INFORMS, etc.) and publishers (Springer, etc.). These journals function well, thanks to a strong editorial board and a network of scientists who work hard to get a good review process thus ensuring the quality of the journal.

But, at the moment, the number of OA journals with a recognized quality level is way too small and, in some fields, it can even be zero. It is therefore simply not possible on short term to publish all research in quality OA outlets.

Even if one succeeds in quickly 'flipping' some quality journals to an OA format, this cannot possibly lead in such a short time to a sufficiently rich range of OA journals offering the needed variety of publishing options to researchers.

## 'Gap' between research groups, risk of 'legging behind', risk of losing quality

Researchers work in collaboration with colleagues in other institutions nationally and worldwide. So they will have to face the situation where part of the authors needs to fulfill the OA requirement while the other part does not need to. Agreeing on the selection of the best outlet journal where to publish the work may become a very tricky issue! This can put the researchers who need to apply Plan S at a disadvantage compared to their colleagues in countries that are not part of Plan S (like US, Germany, etc.).

This issue is especially important for young researchers who need to build their CV and may lag behind, when competing for jobs in countries that are not part of Plan S. They will be compared to other candidates having no Plan S obligation.

Another consequence can be that scientific positions in countries that apply Plan S become less attractive to the international community, in the event that the obligation of OA publishing would be so quickly and so strictly implemented.

The goal of achieving 100% OA should not go at the cost of quality. A worry is indeed whether this quick forced transition may not harm on the long term the quality of publication. The new goal: replace "pay to read" by "pay to publish", may induce the wrong incentives: this incentives publishing more, and thus may induce being less careful about the quality of papers.

## What now?

Pushing each editorial board of a scientific journal to 'flip' is an impossible endeavor and an enormous waste of time and energy. While this can possibly locally succeed this cannot be the overall solution. The only reasonable route is that the partners/policymakers of cOAlition S negotiate with the existing publishers (learned societies, commercial) a broad change in publishing practices. In addition they should try to win the support from other countries worldwide that did not yet sign Plan S (in America and Asia).

Every effort should be made to allow the "green route" to be easily implemented by scientists. If cOAlition S succeeds in getting journals to leave the copyright with the authors then the "green route"

would allow a large group of scientists to realize OA. As said above it is already the common practice within large groups of scientists to routinely post all their work online.

The current requirements about compliant platforms are possibly too strict, like format of posted data and no embargo at all (what about allowing a short embargo? That could ease the discussion with publishers).

In addition, the cOAlition S partners could think about setting up platforms supporting new OA initiatives (or high quality journals wishing to `flip') and they should offer substantial long-term material and financial means to support this process.

Give the whole process much more time. The current time horizon is putting researchers in an impossible situation. There should be a much longer transition period (to the minimum five years) so that sufficiently many high quality OA journals can be created, from which researchers can choose to publish their work.