

## "Prospective en science ouverte" conference: address by Frédérique Vidal

On Tuesday April 2<sup>nd</sup> 2019, Frédérique Vidal, the French Minister of Higher Education, Research and Innovation, sent a message to the conference "Prospective en science ouverte" ("Foresight in Open Science")

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### ONLY THE ADDRESS AS MADE CAN BE CONSIDERED VALID

Unfortunately, I cannot be with you today, but I would like to say a few words to you on the occasion of this conference on open science.

This subject has particular significance in this place which has been carrying out two essential missions for 5 centuries – **disseminating knowledge and protecting the spirit of research.**

For both these missions, open science represents a tremendous opportunity and is even a necessity. We cannot hope to keep the temple of knowledge in the present without opening its doors wide.

How can we be satisfied with a world where lies spread further, faster and sometimes deeper than the truth? How can we be satisfied with a world where the results of publicly funded research are mainly unavailable for citizens? How can we be satisfied with a world where inequalities in access to scientific publications are widening between universities in the South and universities in the North, between SMEs and large corporations? How can we be satisfied with a world where research production is still too often confined to a narrow circle, even though we have never needed knowledge to take up new challenges in the history of humanity so much?

It is this world that the movement for open science proposes to change by reactivating a principle dear to humanists and the *Lumières*: **science is a common good that must benefit everyone.** Opening science wide enables it to revitalize public debate and the democratic process, irrigate the process of innovation and stimulate economic activity. **Thus this movement serves society but above all primarily serves science itself.**

I am convinced that open science is an opportunity for scientific excellence and integrity. Open science is **an even more effective science** that avoids duplication, does not unknowingly redo experiments already carried out elsewhere, **is an even more fertile science** that feeds on all knowledge created all over the world. In a word it is a **truly enlightened science**, a self-aware science that ignores nothing about what it produces. And it is not and **it is never a science that gives up on self-criticism.** Quite the contrary.

Opening science means exposing it to more critical scrutiny, refutations and comments, whether these are expressed spontaneously in open archives such as HAL or systematically in open access peer-reviewed journals. Of course it is a question of reducing costs but **the**

**aim is not to do without peer reviewing** but to reinvent a virtuous publishing ecosystem around this inalterable principle.

**An open world is not a deregulated or unstructured world.** It is not enough to open and break down barriers, it is necessary to build new landmarks, practices and rules of the game. It is up to the scientific community to invent them and make them in their own way and I have launched a national plan for open science precisely to give science the means to engage in this project, which is a project in favour of its own freedom.

This plan has a clear and firm ambition. All articles and books resulting from publicly funded research - as well as data where regulations allow - must now be published in open access. The aim of the plan is not to insensitively impose an obligation likely to upset habits but rather to **accompany the scientific community step by step** in getting used to this new paradigm, in the search for ethical solutions and in the evolution of the publishing system.

Open science requires **new scientific practices**. An "open science" flash call was therefore launched last Thursday by the ANR (French National Research Agency) to help the community to manage research data differently, to think about its structuring, reuse, interoperability, in a word its future and sustainability.

Open science also requires **new publishing practices** that combine the added critical and technical value of scientific publishing and the accessibility of scientific products which cannot remain confined behind prohibitive paywalls. Therefore **a new economic model of scientific publishing needs to be invented**, a model that cannot be based on a single solution because research is resolutely manifold in its objects of study as well as in its needs and practices in terms of publication. A national fund for open science will therefore be created by the summer and a call for expressions of interest will be launched shortly thereafter to encourage innovative publishing initiatives and bring this bibliodiversity to life.

Moreover, as we know, we will not be able to move the defining lines of the current publishing landscape until we have moved researchers' evaluation criteria towards an assessment that gives more room for a qualitative approach, in the wake of the San Francisco Declaration on Research Assessment (DORA). Publishing and assessment are today intertwined in a sometimes Faustian pact. **The race to publish and the famous diktat of "publish or perish" have made research the hostage of a system that has developed** by taking advantage of this unbalanced power relationship. Open science is also an opportunity for the scientific community to **take back control of its destiny and redefine what makes its value**.

Let us not be naive, open science also has its flaws and gaps which predatory journals regularly try to exploit. **This is why it is important to mark out this new world of reliable landmarks and references that clearly distinguish open edition from its counterfeits.** The **DOAJ and DOAB** databases, which identify peer-reviewed and freely accessible scientific journals and books, are important milestones in the topography of open science. This is why, in compliance with the plan announced on July 4<sup>th</sup> 2018, France and the Netherlands have decided to jointly set up and lead a foundation entirely dedicated to DOAB whose legal creation has just been finalized. It will make it possible to guarantee long-term **international** certification of the quality of scientific works in open access.

**Because it is of course on the scale of Europe and of the world, that we must think and organize these open practices if we want to give them real transformative power.**

This is why France is actively contributing to structuring the international open science landscape by supporting Plan S which promotes the open access publication of publicly funded research, by participating in the European scientific cloud project EOSC, and by joining the GO FAIR initiative led by France, Germany and the Netherlands the aim of which is to make data Findable, Accessible, Interoperable, and Reusable.

A profound cultural change driven by the open science movement has begun. It is an opportunity for Europe to reaffirm its identity and unity around the free circulation of knowledge, it is an opportunity for France to defend its commitment to the democratization of knowledge and the diversity of scientific practices and it is an opportunity for researchers to regain control over the future of their productions.

There are several ways of taking control of these issues: science would not be science if it did not constantly manage to facilitate the debate which underpins action.