

Luxembourg and the National Infrastructure

In 2020, the Luxembourg National Research Fund (FNR), the National Library of Luxembourg (BnL), and ChronosHub joined forces and embarked on a collaborative journey to help address and resolve challenges emerging from OA developments in the research ecosystem.

In 2017, FNR introduced its first Open Access Policy and created an Open Access Fund to contribute to APC costs for publications resulting from FNR funded research. The Open Access Fund worked based on annual reports on FNR funded publications from Luxembourg-based research institutions.

The administrative burden for FNR and institutions in general was prominent in terms of collecting and encoding data, and the task of reviewing publications for eligibility was done manually. Ineligible requests kept coming in as researchers were often applying the wrong license, forgetting to acknowledge FNR as a funder, or simply were not paying attention to embargo periods; this caused a lot of painful processes that impacted the entire workflow.

Prompted to find a solution to enhance and improve the infrastructure and address these challenges, FNR and BnL entered a pilot with ChronosHub, a platform that offers a 360-degree approach to OA Management. The aim of the collaboration was to streamline OA publishing and all reporting processes. As of January 2021, FNR created a policy that is compliant with Plan S, and ChronosHub is supporting Luxembourg by integrating data, workflows, and systems between the publishers and the funder and institutions – ultimately to help unburden the researchers and foster a better end-to-end experience. Last year, the pilot phase ended and FNR, BnL, and ChronosHub moved on to sign a long-term operational agreement to streamline OA management on a national level which ties in all research institutions in the country.

Now, Luxembourg has a systematic approach to drive Open Access, FAIR data, and Open Science. As such, FNR has enabled direct Open Access through ChronosHub, and the authors can access the Journal Finder, powered by ChronosHub, that offers pre-submission compliance guidance by directly allowing authors to check if the journal is compliant to the FNR policy. As such, the Journal Finder comprises a database of thousands of journals where the author can filter easily on, for instance, subject, OA type, and license. The Journal Finder also confirms the amounts that FNR can fund.

ChronosHub assists BnL with OA agreement monitoring through automated data collection of articles that are covered by the selected publisher agreements. More elaborately, ChronosHub collects data on articles that are covered by the publisher agreements that BnL has and wish to monitor and BnL is able to access specific reports in ChronosHub which then enables continuous agreement monitoring.

This includes a filter for the agreements in the Insights Advanced reports as well as a separate column in the Article Report indicating the name of the agreement.

ChronosHub also offers post-acceptance compliance checking through approval flows on the approval dashboard. Here, it is possible to configure the eligibility criteria for funding APCs or approving articles as part of OA agreements. This gives a traffic-light visual overview of the status for each eligibility criteria, making the decision to approve, reject, or conditionally approve the article for payment quick and easy. Ultimately, this strengthens the automation of payments and minimizes the workload of having to process every payment manually – a valuable step toward greater efficiency.

As all important checks are made from the very beginning, the risk of human error has diminished tremendously. The author has the security of funding and can, if they wish, submit directly via ChronosHub. FNR can evaluate eligibility and, in case of a compliance error, request a modification.

The aim of the collaboration between ChronosHub and Luxembourg is to establish an optimized interplay and communication between FNR, publishers, institutions, and authors. Authors now get much-needed guidance to see compliant routes relative to FNR's policies and have a clear overview of the APCs based on their institution's agreement with the publisher. As the systems are integrated, the author can make seamless submissions, and data collection is automated both for article metadata and invoices. Ultimately, this means that it is possible to automate all other processes including approvals and compliance checks.

How to Navigate the Complexities

Ultimately, the partnership between ChronosHub and Luxembourg has led to a number of key learnings that can help all stakeholders in the scholarly community to navigate through the complexities of Open Access. The development of a clear OA strategy that caters for the author experience and proactively drives change is essential. As this case proves, collaboration in general is a key component as well. That applies both to internal collaborations, particularly between libraries and the research office, and external collaborations with third parties such as the OA Switchboard, CRIS, and IRs. It is also important to standardize the exchange of data, the different processes, and terminology in order to ensure that all parties share a common understanding in the different contexts of the scholarly community. Standardization does not exclude flexibility as it is essential to acknowledge that there is not "one model fits all". Ultimately, these aspects are considered prerequisites for automation – integrating with different systems such as submission systems is essential, but it is still necessary to make use

of persistent identifiers, so it is possible to ensure FAIR workflows and FAIR data upon inception and avoid the need for manual interference and validation.