swissuniversities

Project applications of the call for proposals (221) – Deadline 31.05.2022

Primary Action line	ID	Short title	Leading institution	Partner institution(s)	Project Manager	Total costs & funds requested (CHF)	Decision DelOS
Research Assessment	221-001	Openness Score → Abstract	FHGR	SWITCH, UNIFR	Ana Petrus	778' 920 (100%) 389'460 (50%)	**Approval with conditions**
Setting up of shared services & e-infrastructure	221-002	JourRec → Abstract	ETH Library, ETH Zurich	n/a	Mahmoud Hemila	320'500 (100%) 158'630 (49%)	**Refusal**
Research Assessment	222-003	OPENQUA → Abstract	CHESS – Center for Higher Education and Science Studies	n/a	Rüdiger Mutz	50'000 (100%) 25'000 (50%)	**Refusal**
Participation to international initiatives	221-004	SWOK → Abstract	ETH Library, ETH Zurich	University Library Bern, Uniba, UNIL, UNINE, HSG	David Johann	243'694 (100%) 73'691 (30%)	**Refusal**
Research Assessment	221-005	SYoS → Abstract	ETH Library, ETH Zurich	n/a	David Johann	131'600 (100%) 64'100 (49%)	**Approval with conditions**

Primary Action line	ID	Short title	Leading institution	Partner institution(s)	Project Manager	Total costs & funds requested	Decision DelOS
Research Assessment	221-006	SODCoM → Abstract	FHGR	n/a	Karsten Schuldt	60'000 (100%) 30'000 (50%)	**Refusal**
Research Assessment	221-007	TOBI → Abstract	ETH Library, ETH Zurich	n/a	Teresa Kubacka	293'100 (100%) 146'400 (50%)	**Approval with conditions**

Openness Score (221-001)

Measuring how many resources are published in open access is crucial to assess the diffusion of new publishing models in the research landscape. However, it is also highly important to know how many open resources (publications, datasets, audiovisual materials, databases, software, etc.) are effectively used in the course of the research process. To this end, by collecting information on the licences of resources exploited by research outputs, this project aims to create a new metric, the Openness Score (OS). This will make it possible to assess the openness of the resources used in a given contribution, adding a diachronic and systemic perspective to the OA concept. In the long term, the Openness Score will contribute to the development of the FAIR metrics that are being developed to assess data quality, which is also a goal of the EOSC Association at the international level. Furthermore, assessing the ease of accessibility of data and tools used in a specific research contribution is ultimately a first and fundamental piece of information for assessing the overall verifiability of the scientific results, and thus its reproducibility. Finally, through the aggregation of the Openness Scores from various research outputs, it will be possible to better measure the role of openness in individual careers, research projects, and universities, and a task of the project will be the establishment of consultancy and statistical services for different stakeholders in the scientific field (e.g., researchers, funders, science politicians, managers of scientific institutions, journalists of scientific topics). Those services will form the basis of the business plan for the post-project funding period.

The first part of the project is dedicated to a community-based conceptualization of the Openness Score, critically examining issues related to its representativeness and assessing the impact of its implementation through interviews and workshops with researchers, publishers, policymakers, librarians, and data stewards. In a second step, the project partners will develop technological solutions to collect the required metadata and create a transparent algorithm for calculating the OS. The project will build on top of already established bibliometric procedures.

Afterwards, the project activities will focus on developing solutions to visualise the OS. To this end, the project will create a) a dashboard for the OS of scientific contributions, individual researchers, research projects, and research institutes; b) an API for exporting openness information by other platforms; c) badges and certified reports for institutions interested in monitoring and reporting on the quality of their own research activities; d) develop the aforementioned consulting services.

Finally, the project consortium will identify the conditions for the long-term sustainability of the service, establishing its operations through a mixed revenue system based on memberships and fees for providing openness information to research institutions and research evaluation organisations.

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JourRec (221-002)

Journal recommender - Web application for evaluating suitable journals to submit a publication

Researchers are constantly faced with the question of which media (scientific journals) they should best choose to publish the results of their research. When selecting a suitable publication outlet, researchers often look at the scientific impact of the journal, the expected time between submission and publication, and the publication fees. Whether articles will be published as Open Access (OA) – and if so, what type of OA – may also play a role in the researchers' decisions (for an overview of researcher strategies for selecting appropriate publication outlets, see David Johann, Jörg Neufeld, Kathrin Thomas, Justus Rathmann, and Heiko Rauhut (2022): Reputation, open access, mother tongue: How researchers' perceived pressure affects their publishing strategies.

Unpublished Paper). In addition, publishers often impose various copyright restrictions on the publication of pre- or postprints in an institutional repository. This can also be a factor in the complex process of selecting a journal for submission by researchers. Against this background, our project aims at developing an open, free, AI-supported web application for researchers at Swiss universities that serves as a journal recommender. What is the benefit of the application, especially for researchers? First, the application – with recourse to Natural Language Processing (NLP) – recommends journals based on the research topic, using content keywords and abstracts. Second, journal metadata, such as scientific impact, publication fees and restrictions of public access, will be collected in one place. Third, since many OA journals have high scientific impact, but are less known than established journals with restricted access, our online web application will promote OA outlets with reliable peer review.

OPENQUA (221-003)

Quality Assurance and Open Scholarship in Switzerland – Mapping and Scenarios

Open Science or better Open Scholarship refers to a variety of activities that are associated with a cultural change in science towards more openness and transparency, as Open Access, FAIR, Citizen Science and Replication. However, Open Scholarship (OS) also requires a modified form of research assessment. While Open Access (publications, data) creates the digital preconditions for OS, changes in research assessment can play a central role in the implementation of OS, which is also envisaged by the Swiss National Strategy of Open Access. The central impetus for change in an institution of higher education (HEI) at the level of research units is the respective institutional quality assurance system (QUA). The OPENQUA project aims to initiate a movement to consider Open Scholarship principles in quality assurance systems of HEIs in Switzerland. The overall goal of the project is to develop and to evaluate evidence-based scenarios of evaluation practices considering OS principles in quality assurance. In order to achieve this goal, firstly, beside a literature review a comprehensive overview on evaluation practices in Switzerland is necessary, similarly – although within a smaller dimension – to the recently published EUA survey studies on evaluation practices of European universities (whose data will be reanalysed with regard to Swiss circumstances). Secondly, the Open Science Career Assessment Matrix (OSCAM) as a central conceptual framework for research assessment will be operationalized by qualitative (e.g., guidelines) and quantitative information (e.g., bibliometrics and nextgeneration metrics), which is intended to support Swiss HEI in their quality assurance procedures. The use and selection of information is the responsibility of the HEIs, which pursue specific objectives with their evaluation procedures in the area of tension between peer review and bibliometrics. Thirdly, implementation scenarios will be discussed in interviews with those responsible either for quality assurance or for bibliometric issues in libraries at partner HEIs and other selected stakeholders in Switzerland.

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SWOK (221-004)

The Swiss Case for Open Knowledge Maps

The number of scientific publications has increased exponentially in recent years, with an encouragingly rapid increase in the proportion of open access publications. This overwhelming mass of publications makes it increasingly difficult for many researchers, students and practitioners to keep track of the current state of research. Against this background, innovative search engines for scientific literature based on artificial intelligence (AI) are gaining in importance. One example of such a search engine is Open Knowledge Maps (OKMaps). OKMaps is a highly innovative open-source tool for literature search that offers researchers and students, as well as librarians and practitioners, a new perspective on a topic. In contrast to classical search engine results OKMaps presents visual overviews of the search results, socalled knowledge maps. OKMaps thus enables users to quickly identify relevant resources, especially those that are openly accessible. The underlying search algorithm and the visualization of the results bring to light relevant works that may not be easily found otherwise.

The proposed project will harness the full potential of OKMaps for Swiss HEIs. It will support researchers, students, librarians and practitioners in their literature search, while also increasing the visibility and discoverability of research results of Swiss HEIs by offering additional and attractive access points. The plan is to offer an attractive discovery tool of Swiss research results, especially in open access by (a) establishing a Swiss group of existing OKMaps members. All Swiss HEIs will be invited to participate and become OKMaps members. (b) integrating data mainly from repositories but also other suitable platforms (e.g. e-periodica) of Swiss HEIs into OKMaps and (c) realizing use-cases on local, regional and national levels to integrate OKMaps into Swiss literature discovery systems (e.g. swisscovery by SLSP) as well as various platforms (e.g. repositories, digitized content/objects) and HEI websites.

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SYoS (221-005)

Swiss Year of Scientometrics SYoS

Whether one likes it or not, scientific indicators and analyses are undoubtedly important for evaluating the research performance of countries, institutions, institutes, research groups, and individual researchers. However, although their adequate use requires contextualization and interpretation, scientometric indicators are often used carelessly. For example, the use of tools such as Google Scholar, Web of Science, or Scopus is popular and widespread because it provides quick results, including bibliometric indicators such as the number of citations, the h-index, or the impact factor of journals. Ultimately, careless use of these tools can lead to uncritical interpretation of bibliometric indicators. In addition, university rankings receive a great deal of public attention, but the various methods and data sources used for university rankings are often not questioned.

The present project aims to provide an impetus for the responsible use of scientometrics in Switzerland, with a particular focus on what role scientometric analysis can play against the background of the increasing importance of Open Science. We argue that scientometrics, when used in the right context, has great potential to provide important insights into the impact of Swiss research. The ETH Library therefore proposes to organise a "Swiss Year of Scientometrics". In the course of a year, four lectures, each of them followed by a workshop and accompanied by blog posts, will be organised. The overall goal of the project is to bring stakeholders together for an in-depth discussion to encourage a broader audience to think about the responsible use of scientometrics (in the context of Open Science), and to derive actions and best practices based on the results of these activities.

(Complementary to this project, the ETH Library proposes another project on scientometrics: "Towards Open Bibliometric Indicators".)

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SODCoM (221-006)

SODCoM - Swiss Open Data Community Monitor

The aim of this project is the setup and long-term, sustainable establishment of a continuously updated directory "Swiss Open Data Community Monitor" (SODCoM). This "landscape directory" shall index all actors, infrastructures and projects in the field of Open Data and Open Science in this country. It will be presented as an open platform: Open to use, with open licences for the data collected and in the form of a dashboard as well as a well documented API. Additionally, an entity behind the landscape will be formed (and spin-off at the end of the project) which will perform and publish state of the art reports on this landscape as well as advisory service on a rolling basis, besides maintaining the landscape itself. This entity will finance itself by charging fees for its research and advisory services. The basis for this landscape was already laid out in a report for Swissuniversities.

Once established, SODCoM will profit different stakeholders. (1) It will give researchers and research supporting infrastructures like libraries a pervasive synopsis of the existing landscape of Open Data services and projects. This will help them to place their research data in existing repositories, connect with others to promote Open Science as well as locate themselves in the landscape. (2) For funders it will provide a current overview of the existing structures of the landscape, its development and thereby also the places needing intervention of assistance. (3) For the political sphere and the wider public, SODCoM will present not only the degree of Openness in Swiss science, but also possible starting points for access to scientific data. (4) SODCoM will enhance the visibility of the Swiss Open Science Landscape for the international audience.

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TOBI (221-007)

Towards Open Bibliometric Indicators

DORA Declaration Recommendations #11-#14 call for openness and transparency in datadriven research-assessment methods. Commercial bibliometric data sources (such as Web of Science or Scopus) come with very prohibitive licenses and proprietary methods of data curation; therefore, they do not fully conform with these recommendations, and open alternatives are needed. In recent years, new collections of open bibliometric data have been published. However, some quality characteristics of these datasets remain unclear, such as affiliation disambiguation, missing values, metadata availability, and bias towards particular research fields and geographic regions. This lack of knowledge limits the reliability and trustworthiness of bibliometric indicators that are calculated based on such data.

In Switzerland, there is a growing effort for establishing fair, DORA-compliant researchassessment indicators adapted for the Swiss community. However, for the reasons described above, this effort cannot fully succeed without open high-quality data that collect metadata on research outputs of Swiss HEIs. The present project aims to contribute to this effort by systematically evaluating existing open bibliometric and altmetric data sources in a subset related to Swiss HEIs. The analysis will help to identify critical gaps in data quality, while addressing the issue of deduplicating and merging of items, as well as improving the interpretability of scientometric indicators. The results of the project will be made publicly available and will show to which extent open bibliometric data could be a viable alternative to commercial bibliometric datasets for the Swiss research community. Additionally, associated open-source code will be made available in this project to empower institutions to try out and scrutinize classical and novel research-assessment indicators on their own. The project outcome will be relevant not only for the research output assessment of individual Swiss HEIs (e.g., for evaluating their strength and weaknesses), but also for accessible and transparent research-monitoring initiatives – e.g., of Open Access publishing, research funding, or technology transfer in Switzerland.

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