Results of the projects submitted by January, 15 2021

| Primary Action line | ID | Short & full title | Leading institution | Partner institution(s) | Project Manager | Total cost & Funds requested | Decision Open Science delegation |
|---|---------|-----------------------|------------------------|--|---------------------------------------|--------------------------------------|--|
| Setting up of shared services and e- Infrastructure | 211-001 | SOAP2 → Abstract | UNIFR | UNIL HSLU / ZHB Luzern UNINE HEP Vaud | <u>Thomas Henkel</u> | 329'250 (100 %) 164'400 (43.93 %) | Approval with conditions |
| Setting up of shared services and e-infrastructures | 211-002 | Open-SPSP → Abstract | UNIBASEL | n/a | <u>Adrian Egli</u> | 190'000 (100 %) 95'000 (50 %) | Approval |
| Setting up of shared services | 211-003 | DOI3 → Abstract | ETH Library | n/a | Samantha Foulger / Davor Kupresak | 149'400 (100 %) 74'700 (50 %) | Approval with conditions |
| Research assessment | 211-004 | HI-FRAME → Abstract | UZH | n/a | Mihaela Falub / Karin Gilland Lutz | 100'000 (100 %) 50'000 (50 %) | Approval |
| Setting up of shared services and e-infrastructures | 211-005 | SMONTOA → Abstract | UZH | n/a | Rüdiger Mutz | 58'515 (100 %) 29'257 (50 %) | Rejection |

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swissuniversities

| Primary Action line | ID | Short & full title | Leading institution | Partner institution(s) | Project Manager | Total cost & Funds requested | Decision Open Science delegation |
|--|---------|--------------------------|-----------------------------|--|---------------------------------------|--------------------------------------|--|
| Setting up of shared services and e- infrastructures | 211-006 | inseri.swiss → Abstract | UZH | UNIBASEL UNIBE Foundation Archives Jean Piaget ZB UZH EnhanceR | Jan Clemens Stoffregen | 531'000 (100 %) 263'000 (49.53 %) | Approval |
| Setting up of shared services | 211-007 | SNOAP → Abstract | University Library Basel | HBZ UZH University Library Bern University Geneva Library | Silke Bellanger | 732'000 (100 %) 368'000 (50.27 %) | Rejection |
| Setting up of shared services and e-infrastructures | 211-008 | e-BioDiv → Abstract | HES-SO | BFH | Patrick Ruch | 426'750 (100 %) 213'375 (50 %) | Approval |
| Setting up of shared services and e-infrastructures | 211-009 | TOAST → Abstract | HES-SO (HEG Genève) | FHGR UNIBE EnhanceR | René Schneider | 459'185 (100 %) 224'592 (48.91 %) | Rejection |
| Alternative Forms of Publications | 211-010 | OS-CISS → Abstract | UNIBE | The Swiss Society of Sport Science Swiss Federal Institute of Sports Magglingen | <u>Claudio Nigg</u> | 56'000 (100 %) 28'000 (50 %) | Will be decided on 24.09.2021 |
| Research assessment | 211-011 | NOSA → Abstract | UZH | EPFL UNIBE | Manuela Höfler / Katherine Hermans | 311'300 (100 %) 155'750 (50.03 %) | Rejection |

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SOAP2 (211-001)

Shared Open Access Publishing Platform

The goal of the Shared Open Access Publishing Platform (SOAP2) project is the setup of a shared publishing platform and especially the operation of this platform and the development of services around it. The platform consists in an OJS3 installation, the most commonly used open source journal publishing system.

To concentrate the efforts on the services and on populating the platform, the technical support of the latter is delegated to an external service provider. This setting allows the project partners to acquire the necessary technical expertise regarding the use of the platform without having to manage and maintain a platform, which exceeds the capabilities of many higher educational institutions. A shared platform reduces costs for the participating institutions and enables a more extensive support network than it would be possible for each individual institution. Such a service network will include technical advice as well as support in Open Access publishing. Support includes the setup of the journal and the workflows in OJS, advice of the editors concerning the organization of their work and implementation of Open Access standards, help in the case of minor issues with the platform and document treatment. Support can be extended to services such as indexing in DOAJ and specific databases or advice in developing business models. The platform will allow the institutions also to showcase their journals separately.

In this way, the project will support both existing Open Access journals and the flipping of Closed Access journals to Open Access, or even the creation and setup of new Open Access Journals, although priority will be given to already established journals during the first phase of the project.

At first, the service will be available to the participating institutions. In the last phase of the project, the platform and its services will be opened to all swiss hhigher education institutions (HEI), and possibly even small publishers, wishing to host their journals on the shared platform.

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Open-SPSP (211-002)

A Swiss-wide platform to open viral and bacterial sequences and clinical/epidemiological data to researchers world-wide, while preserving patient privacy

To respond efficiently to outbreaks and pandemics such as Covid-19, open and rapid access of researchers to sequencing data produced at clinical centers is essential, as exemplified by the UK mutation uncovered in December. Currently, national SARS-CoV-2 data hubs organise the flow of viral sequences coming from laboratories all over Europe to a central European portal via the European Nucleotide Archive (ENA). These open resources allow reusing and analyzing the data to researchers world-wide. Unfortunately, Switzerland does not have such a national data hub that facilitates Open sharing of data, likely explaining that less than 600 sequences were published on the Covid-19 portal so far. In order to enable Swiss clinical laboratories to submit in a few clicks, in real-time, their sequences to ENA, we propose to extend the existing "Swiss Pathogen Surveillance Platform", a secure online platform for pathogen sequencing data and their associated sensitive clinical/epidemiological metadata. This will not only allow incorporating Swiss data in research projects worldwide, it will also bring Switzerland within the network of national data hubs for future strategic developments. With this project, we will in particular (i) facilitate the data upload to SPSP to foster near real-time data submissions with optimized e-accessibility. (ii) Develop a module to automatically publish to ENA genomic data and their associated, non-sensitive, metadata. Reciprocally, we will also import into SPSP the genomes available on NCBI/ENA with their limited metadata to enable Swiss researchers to address research questions using the rich metadata on Swiss strains alongside strains collected elsewhere. (iii) Setup a secure computation server with analysis tools, for users with ethical approvals to address research questions on SPSP sensitive data that could not be published on ENA. Altogether, our project will make SPSP data Open when possible, and FAIR where patient-privacy issues apply.

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DOI3 (211-003)

A new software environment for the registration of DOIs

ETH Zurich's DOI Desk, administered by ETH-Library and hosted by ETH Zurich's IT services, has been registering DOIs for Swiss universities, research institutes, libraries and similar non-profit organizations for over 10 years. The aim of this project is to set up a new application for harvesting DOIs from an OAI-PMH interface and registering them with DataCite, one of the two main DOI registration agencies in Europe. The system is an alternative to the registration directly via a DOI agency, and simplifies the process. We feel it is important to make DOI registration available in more than just one way. Through a different, easier registration process, we enable more parties to use DOIs for their research output. Persistent Identifiers in general and DOIs in particular, play a key role in OA publications. They are part of the FAIR principles and requested by e.g. the SNF Data Management Plan Guidelines. With DOIs, research output in its various forms can be cited and traced over a long period of time. Furthermore, relations between different Persistent Identifiers (such as DOIs, ORCIDs, ROR) for different objects (such as research data, researchers, affiliations) can be shown and accessed easily, e.g. made discoverable. The software to be developed in this project enables Swiss libraries and research institutions to register DOIs for their open access publications as well as other digital objects and research output. As such, the registered research objects can easily become part in the international network of digital objects that Persistent Identifiers form. Ultimately, the project therefore contributes to making Swiss research output more discoverable, thus also enabling more citations of research produced in Switzerland, as well as further interdisciplinary collaboration. The above proposed way of DOI registration differs from the one offered by DataCite in several aspects: The DOI Desk system harvests the data on a daily basis, therefore the customers make their metadata available as an xml with a time stamp on their OAI interface. The customers can use the format Dublin Core Simple instead of the DataCite MetadataSchema. The DOI Desk system then converts the metadata into the DataCite MetadataSchema and sends this to DataCite for registration. Moreover, the error monitoring is much clearer with the DOI system because it provides a list of all DOIs that could not be registered or caused problems. The new system is going to be based on the current system used by the DOI Desk in its general structure, but will add new possibilities, (especially concerning the bulk export to DataCite) and guarantee a good performance and usability. It is going to use the REST API recommended by DataCite to ensure sustainability over a long period of time. After the project ends, the new DOI application will again be part of the existing product "DOI Desk" at ETH Library. The project will be a cooperation between ETH Library and ETH IT services, with ETH Library being responsible for the overall lead. .

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HI-FRAME (211-004)

Measure what really matters: a framework for Open Science professorial hiring

HI-FRAME is an innovative project that promotes Open Science culture change at the University of Zurich (UZH). The overarching objective is to develop and pilot a tailor-made and flexible framework incorporating Open Science activities for evaluating candidates in professorial hiring. Excellence in research remains key in hiring and the framework duly recognizes the implications that the current incremental transition to Open Science in Switzerland and beyond has for how to make hiring decisions driven by a concern with research excellence. In this vein, the hiring framework relies on UZH's commitment to the San Francisco Declaration on Research Assessment (DORA) as well as evidence-based aspects of optimal process design from the perspective of gender equality. Moreover, built on best practice examples from other research-performing organizations, the hiring framework is developed in close cooperation with participating UZH units willing to pilot the hiring framework in a number of hiring processes.

Integrating Open Science activities into research assessment matters because if career disadvantages follow from Open Science activities, researchers - especially early-career researchers - are not incentivized to participate in Open Science activities. This represents an obstacle to Open Science in general, including the realization of Swiss and European policy goals relating to Open Science.

The hiring framework is embedded in European and Swiss national policy on Open Science as well as in institutional strategy and policy and practice at UZH-level. It is envisaged that the hiring framework may be expanded from UZH to the national level during and/or after the project duration (September 2021 - August 2023).

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SMONTOA (211-005)

Development of a Bibliometric Monitoring Tool for the Swiss National Strategy of Open Access

The goal of this project is to create a prototype of a science-based bibliometric monitoring system for "Open Access" documents from Switzerland based on bibliographic databases with Natural and Life Sciences and Social Sciences (Economy, Psychology) as examples for information, research and evaluation purposes. The unit of measurements are documents and their metadata, as they are stored in bibliographic databases (e.g., Scopus, Web of Science, Dimensions), which have a citation index. A citation index combines a single publication with its citing and citing references. Citations are important for the analysis of OA, since publications that are cited also have a certain significance within the scientific community and are therefore one measure of importance. Bibliometric analyses are hardly used in Switzerland in comparison to other countries (e.9. "Center of Science and Technology Studies", CWTS, The Netherlands). The challenges of the project are (a) to handle and merge bibliographic data from different databases, (b) to deal with the incompleteness of bibliographic metadata, (c) to adequately address licensing issues (ETH library's responsibility), and (d) to find meaningful indicators. The project has four goals to meet these challenges: 1) Collection of bibliometric raw data and establishing bibliographic raw data bases; 2) Developing of a logic model of OA based on a literature review; 3) Developing of a set of bibliometric, altmetric and OA indictors and statistical data analyses, and 4) Development of services for users. In close collaboration with the ETH library, metadata of worldwide publications with mainly Swiss affiliations of different bibliographic databases (e.9., Scopus, Web of Science, Dimensions, Paywall) will be analyzed and a set of indicators (bibliom, etric, altmetric, OA) for monitoring purposes will be developed. The Paywall database allows to identify the OA status of publications with digital object identifier (doi). After the end of the project the monitoring system will be offered as a further service of the "Swiss Competence Center of Scientometrics" initiated by ETH library.

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inseri.swiss (211-006)

inseri.swiss - connecting data repositories, research methods, and researchers

"inseri.swiss" targets the large unsaturated demand for a service that enables the national and also the international academic research communities to publish scientific software online in an open, executable and citable way for the effortless re-use by any researcher. In addition, this project enables users to combine published software of various sorts alongside interfaces to global data repositories, which can all be performed using a web-based graphical user interface.

The existing inseri technology has been developed by the University of Zurich, the University of Basel and the University of Bern. It was originally created for historical - critical editions as part of the NIE-INE project and provides the base functionality needed to build up such an online publishing environment for other scientific disciplines. In tandem with conventional publications (e.g., pdf files), a service based on inseri will simplify the publishing of and the open access to alternative types of online content.

When the Science IT unit of the University of Zurich began offering internal services using the inseri technology, a Swiss-wide demand quickly evolved. Here we propose to set up a national service "inseri.swiss" for the online publishing of scientific software in an open, executable and citable way. The proposed project includes the development of both a business plan and the necessary software extensions to run an inseri.swiss service sustainably. Furthermore, the project includes the creation of a production environment that allows the shared service to be operated and maintained in a reliable, future-proof way that scales based on demand.

inseri.swiss has the potential to provide an invaluable resource to researchers who would like to publish and re-use online research methods and it strives for becoming a sustainable, long-term national and international service.

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SNOAP (211-007)

Swiss Network for Open Access Publishing

The proposed project "Swiss Network for Open Access Publishing" (Lead UB Basel) will build a network for Open Access (OA) publishing services using OJS to ensure the coordinated development of services for editors across Switzerland. In order to guarantee the reuse of existing experiences and best practices, the network will cooperate with the German OJS network OJS-de.net, the committees and interest groups of PKP (https://pkp.sfu.ca/committees-interest-groups/) and international initiatives such as Redalyc (https://www.redalyc.org/home.oa), the exemplary network of scientific journals and non-profit academy-owned OA network in Latin America.

At the end of the project, a network of publication services and editors, active in scholar-led OA, will be established, information and support services for publishing will be available to editors and there will be clarity about the necessary further development of the scholar-led journals, in particular OJS, and any further needed aggregation or publishing platforms.

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e-BioDiv (211-008)

e-BioDiv

The Earth's scholarly knowledge about species diversity (biodiversity) is included in a corpus of several hundred million pages of publications spanning over 250 years, with an arbitrary starting point of 1753 for plants and 1758 for animals. Each year an estimated 19,000 animal and plant species and a multiple of augmentations of data are added to the already approximately known 1.9M species. The data about each species are included in highly structured taxonomic treatments and figures. Increasingly these treatments include implicit links to the data used to describe and augment it, such as-omic and digitized specimen data produced by SwissBioCollection. Because of its structure, this data can be extracted automatically to a high degree, bidirectionally linked from the literature to the cited resources and vice versa, made FAIR, and immediately reused by data aggregators such as GBIF and other researchers.

The proposed e-BiodDiv will on the one hand provide a service for Swiss biodiversity scientists to access and disseminate their research data about species in legacy and prospective publications, provide access to data about their collections, scientists and specimens. It will complement the recently funded SwissBioCollection program and genomic data. On the other hand, importing treatments into the Swiss Institute of Bioinformatics Literature Services (SIBiLS) and Europe PMC (ePMC) opens them for text and data mining through SIBiLS dedicated tools, and by the life science community.

To a large extent, this customized service is based on existing services such as the Biodiversity Literature Repository (BLR), Plazi TreatmentBank (TB), and Zenodo.

The long term goal is to integrate this service in the portfolio of SIBiLS linking the biodiversity research data infrastructure in Switzerland with the -omics infrastructure.

This project will complement and make use of the Horizon 2020 funded research infrastructure (BiCIKL) development by providing the specific annotation services for the Swiss based scientists, and make a production level import of taxonomic treatments into SIBiLS. In addition to Patrick Ruch's team at HES-SO and SIB (Swiss Institute of Bioinformatics) and Beat Esterman's team at BFH, the project is built on the direct contribution of Plazi and the Natural History Museum of Bern (NMBE).

The Swiss-based BLR and TB are the world's leading services of liberating biodiversity data imprisoned in PDFs (portable document format) and a major contributor to the Global Biodiversity Information Facility (GBIF) where the FAIR data is reused.

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TOAST (211-009)

Trainings for Open Access Services and Tools

Open Access is struggling to develop in Switzerland, and many players in scientific research do not understand the need for such a strategy, or are even reluctant to implement it. In Switzerland, some professionals are not aware of the basic principles of OA or consider it a waste of time despite the efforts to convince by the competent authorities since 2015. The Open Access principles and the actions to be taken to implement them are not simple. The integration and development of Open Access practices in Switzerland require increased efforts on access to information and pedagogy.

Our project consists of designing, developing and deploying the e-infrastructures required to create a training marketplace for Open Access tools and services. Some existing platforms present tools and services dedicated to Open Science. This is notably the case of <u>EOSC</u> (European Open Science Cloud), whose marketplace and catalogue enable project leaders to connect with their customers. Others choose to focus on trainings, such as the <u>Open NTS</u> project, which aims to centralize all training courses on Open Science, without necessarily linking them to a particular project, service or tool.

Our vision is to merge these approaches by combining a marketplace of Swiss tools and services dedicated to Open Science with Open Educational Resources. Our marketplace will therefore allow users to discover existing initiatives and understand how they work in a single place. The creation of Open Educational Resources in English, French, German and Italian will ensure the wide dissemination of the training tools that will be created and integrated into the marketplace. Our goal is to create a peer-to-peer training service, where each user can be both a consumer and a producer of content. We envision our marketplace as a hub for the exchange of information and skills rather than as a purely commercial service. Access to training contents will therefore be free and open in accordance with OER practices, which will not prevent us from developing several economic models to ensure the sustainability of the project (see section B of this document).

These training tools will take the form of microlearning, consisting of very short training units (from thirty seconds to two minutes). Often associated with mobile learning, this innovative training method provides more flexible access to content, directly from your smartphone or tablet. It is fully adaptable to the uses and availability of learners, whatever their profile (researchers, librarians, data scientists, citizens). This format will also facilitate the design and dissemination to a wide audience of the training tools thus created.

In order to avoid investing unnecessary efforts and resources in the design of our own platform, we will start by benchmarking existing Swiss Open Source platforms such as <u>Graasp</u>, designed by the EPFL. This service creates engaging training experiences while facilitating communication and collaboration between participants and project leaders. We will also join forces through a partnership with the Mathematical institute of the University of Bern which created <u>OpenNTS</u>. Our common goal is to develop and adapt their platform to create and distribute new engaging microlearning courses on innovative Swiss OA projects. <u>Back to top</u>

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OS-CISS (211-010)

Open Science proposal for Current Issues in Sport Science

This proposal is to facilitate platinum/diamond open access publication of Current Issues of Sport Science (CISS) - the official Journal of the Swiss and Austrian Societies of Sport Science (SGS and ÖSG). This funding will give the new editorial team time to identify and secure long-term sustainable financial support to be in place at the end of 2024. During this initial period of support from swissuniversities and other partners we will aim to obtain an impact factor, increase journal visibility, increase publication quantity and quality, apply to be included in numerous journal search engines and increase journal citations. Our vision driving this is for CISS to achieve an international reputation and visibility.

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NOSA (211-011)

National Open Science Award

The University of Zurich aims to set up together with other higher education institutions and national science organizations a National Open Science Award dedicated to the advancement of Open Science and to highlight pioneering work in the field of open research practice. The award will be geared to researchers and research teams who are currently based at or affiliated with a Swiss higher education institution or who were so at the time of their achievement concerning the award. One focus will be on early career researchers.

A national, annual Open Science Award shines the light on essential developments in Open Science and promotes necessary changes in research assessment. It awards researchers and especially research groups who dedicate their time to learn, adapt, invent and apply open research methods and collaboration. The Covid-crisis has shown once more how important this is.

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