

ANNUAL REPORT 2022

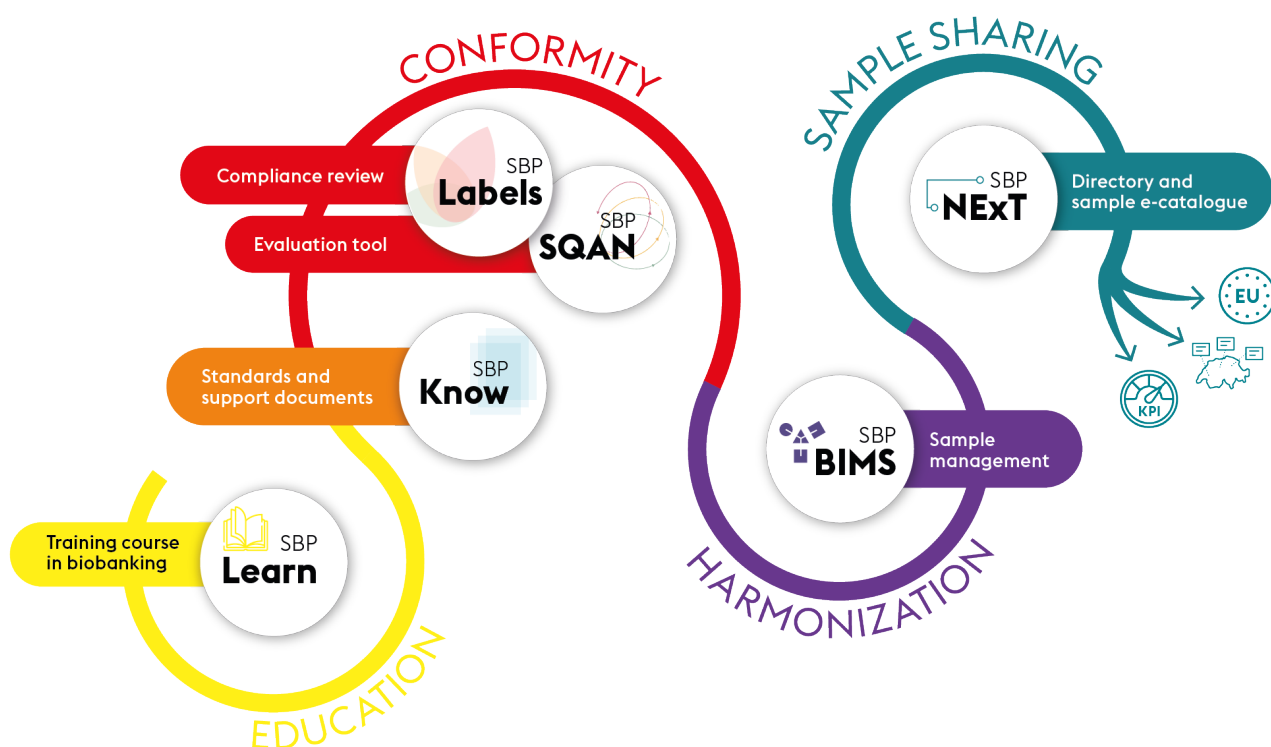
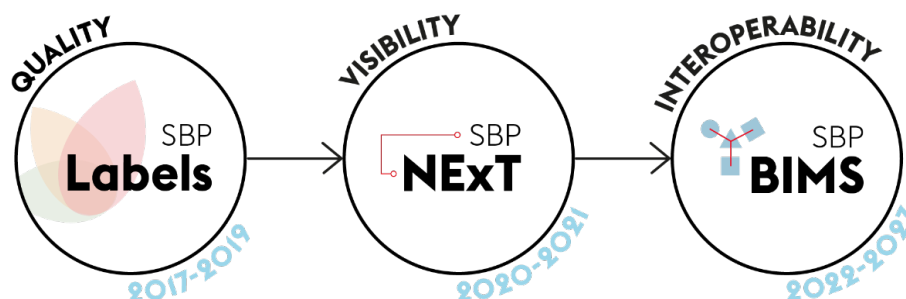


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INTRODUCTION

Swiss Biobanking Platform made some significant progress with our service portfolio. Based on three pillars, we developed tools to serve a growing network of biobanks and researchers.



Swiss Biobanking Platform (SBP) is the national coordination platform for biobanks from the human and non-human biobanking fields. It is an initiative of the Swiss National Science Foundation (SNSF), which responds to the increasing needs of researchers in biomedical and biological sciences in terms of quality, access, transparency and interconnectedness of biobanks for research purposes.

SBP's vision is to foster research by facilitating access and optimal usage to high-quality and harmonized samples and sample related data while our mission is to create a network of biobanks promoting FAIR (findable, accessible, interoperable and reusable) samples. SBP has been created to respond to the needs of the Swiss research community facing these challenges following defined values to reach its objectives. **Independence** is an asset to foster collaboration between partners



for a **common good** perspective/aim by treating them in an equitable way (**equity**). BP aims at developing specific and professional **expertise** in the domain with innovative tools (**innovation**) helping partners to adhere to the standards. SBP is positioning its role as a **reliable** service provider to biobanks.

With these values at the center of the collaboration, SBP shall attain the following goals as stated in the agreement for the period 2021-2024 between the SNSF and SBP.:

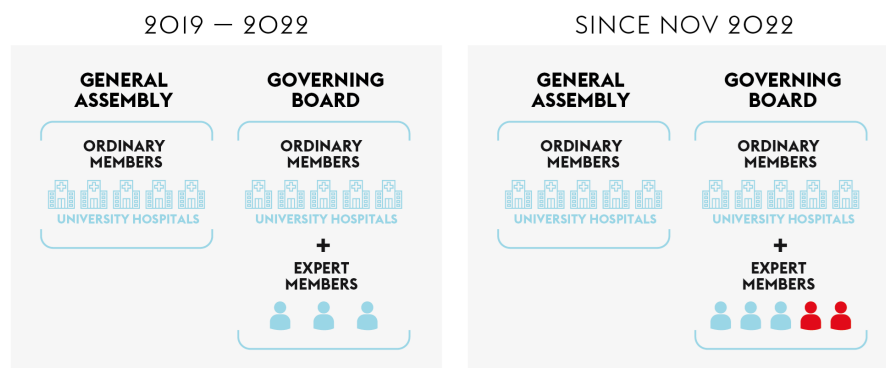
1. SBP promotes a quality strategy for biobanks that serves both quality management issues and sample quality.
2. SBP develops guidelines to facilitate access to biobanking samples by establishing a Swiss biospecimen catalogue at the sample level. SBP provides advice in IT systems for quality and networked biobanks.
3. SBP drives the quality management of biobanking activities.
4. SBP consolidates the collaboration with the European networks of biobanks.
5. SBP provides a concept for its sustainable funding.

Based on the previous SBP achievements since 2015, this agreement aims at consolidating SBP's position providing additional tools and services to fulfill the needs of the human biobanking community. It has also the objective of extending and adapting them to the non-human biobanking activities. A budget of 4 Mio for four years has been allocated to reach these objectives.

This report covers the activity period 2022 as delineated in the agreement 2021-2024.

GOVERNANCE

Swiss Biobanking Platform (SBP) is an independent association initiated by Swiss National Science Foundation (SNSF) in 2016. Since September 2019, a new SBP governance structure is in place and defined in the bylaws. SBP governance is composed of ordinary and expert members from non-profit and publicly funded institutions active in the biobanking field. The ordinary members constitute the SBP General Assembly. The expert members are individuals highly recognized in three specific biobanking domains (liquid, tissue and non-human biobanking). (<https://swissbiobanking.ch/about-us/>)



Main achievements

- SBP governance met three times this year : on 25th November 2021, 17th February and 22nd September 2022 with the annual General Assembly on 17th February 2022.
- 22nd September 2022 : SBP Governing board validates the addition of **new expert members** in biobanking fields of interest in the non-human domain (microbiology and natural history museums) for the next period 2022 to 2025.
 - A change in the bylaws is planned to be approved on 17th November 2022 during an extraordinary General Assembly to give the ordinary members the task to decide on the relevant number of expert members to join the SBP governance.
- SBP has been invited to participate in the White Paper as well as in the National Coordination Platform Clinical Research as an Important partner to build the future of publicly funded clinical research.
- SBP executive office is diversifying its team to respond to the needs of biobanks and researchers in terms of interoperability and quality of biobanking

Future developments

- New Advisory Board
 - Identify and invite volunteered SBP network biobanks and european partners within BBMRI to join the Board.
 - Give them the mandate to evaluate Swiss Biobanking Platform developments until June 2023.
- Bylaws : integration of additional expert members representing relevant fields of biobanking in the non-human domain.
- Election of SBP association members planned 17th November 2022.
- SBP will become a member of BBMRI-ERIC to consolidate its position and provide access in international projects to the Swiss biobanking community.

COMMUNICATION

2022 has been favorable for the development of the notoriety and the promotion of our tools and services. The audience engaged on social media, visiting SBP website and registering in our database, has allowed us to better target the needs of our various partners and tailor our communication as well as our tools, on one side the biobanks and on the other the researchers.

For the biobanks, the enlargement of our audience and the useful information collected, now allow us to personalize our messages and offers. The goals are to get more registrations in our tools to expand our network, and to make the platform data rich and therefore attractive for research.

To target the researchers, the approach is made through specific communication on our website, via factsheets, newsletters, events, etc. as well as through partnerships and the creation of close links with important actors of the research world. (prescribers).

LINKEDIN	TWITTER
475 → 715	343 → 381
+51%	+11%

Main achievements

- Newsletters : 12 newsletters sent in 4 languages to 846 subscribers
- LinkedIn subscriptions since November 2021 = + 51%
- Twitter subscriptions since November 2021 = +11 %
- What's new ?
 - Did you Know : 8 posts
 - Q&A : 5 posts
 - Testimonials : 5 posts
 - Label awards : 23 posts

Future developments

- Organisation of an international conference in 2023 which was not possible during the Covid pandemic and is now an opportunity to provide the Swiss biobanking community a sharing of experience with european experts

EDUCATION

Training course
in biobanking



To reach its objectives, SBP realized that education is the cornerstone of Biobanking. In 2022, SBP was asked to develop the "Biobanking" module in the Easy-Guide for Clinical Studies (Easy-GCS) launched by the Swiss Clinical Trial Organization (SCTO). In parallel, together with Geneva University, Institut Pasteur and Health Sciences eTraining Foundation (HSeT), SBP developed the concept for a Certificate of Advanced Studies (CAS) in Biobanking that was approved by Geneva University in June 2022.

With those projects, SBP will develop a new service, SBP Learn, to help creating bridges between Swiss biobanks, researchers, other national research infrastructures, ethics committees and society.

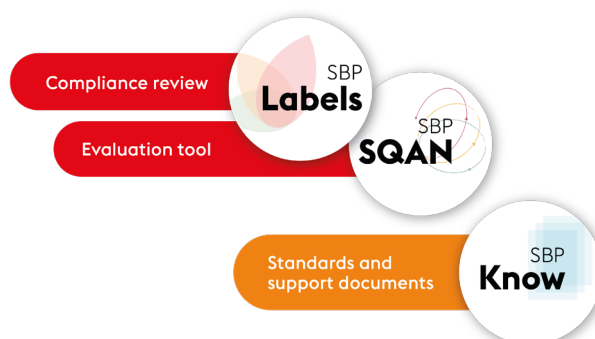
Main achievements

- Easy-GCS :
 - Development of the biobanking module in the Easy-GCS tool provided by SCTO
 - Content to be released in December 2022
- CAS in Biobanking
 - Market analysis on
 - Development of a concept for the CAS aligned with SBP strategy based on three modules helping biobanks to integrate knowledge progressively
 - Targeting different audiences to make the biobanking education as large (diffuse) as possible
 - Successful funding request at the Loterie Romande (90K CHF) to specifically coordinate the CAS development
 - Negotiation of the collaboration agreement

Future developments

- Easy-GCS :
 - Final revision of the content and release planned in December 2022
- CAS in Biobanking
 - Signing the collaboration agreement with the other three partners
 - Development of the module 1
 - Identify key experts to integrate in the module 1

QUALITY



In terms of quality, SBP is offering different services to support biobanks in the development of a state-of-the-art practice. SBP Know provides a set of standardized support documents available in the website. the compliance tool SBP SQAN delivers quality labels to biobanks and provide them a proof of conformity on distinct requirements being the mandatory step to enter the Swiss and European network of biobanks.

Main achievements

- A quality manual template and a risk management SOP to assist biobanks implementing their quality strategy
- A service Level Agreement (SLA) to satisfy a requirement from ISO 20387 on biobanking regarding subcontractors
- Revision of the MTA template aligned with the SPHN DTUA and Consortium Agreement (Schedule 4)
- Creation of two Working Groups on biobanking in the context of industry-sponsored clinical trials and on the development of a cost-calculator for University hospitals' Biobank Infrastructures.

Future developments

- MTA 3.0 with a scheme to help researchers fill in the document (November 2022)
- SOP's on Data Quality
- A cost calculator for biobank infrastructures
- A set of mandatory requirements for sample transfer that are harmonized across all Swiss University hospital

INTEROPERABILITY

Sample
management



Interoperability in the biobanking field is a generic wording aiming at promoting exchange and use of biological samples. Once the sample-related data from different biobanks are comparable and searchable, researchers can assess the samples suitability for their projects.

SBP strategy is to document relevant sample data needs in a standardized way to become comparable and searchable. To that end, SBP works on different types of Datasets to agree on at a Swiss level and in parallel in the integration of them into a pre-configured Biobank Information Management System (BIMS) that SBP will provide to biobanks as an adaptive and interoperable solution.

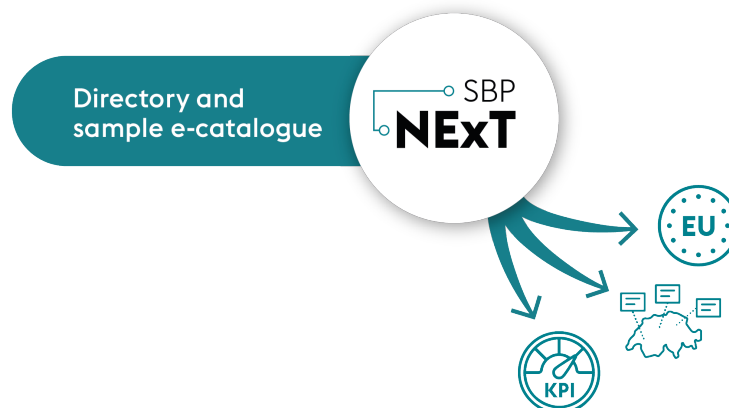
Main achievements

- SBP Datasets :
 - Revision of the SBP Datasets for tissue, liquid and bacteria during a SBP Workshop organized at SNSF 2nd May 2022.
 - Publication of SBP Core Datasets corresponding to the minimal data any biobank should document to characterize a sample.
- SBP Ecosystem: Putting in place a federated user management system is critical to ensure a strong security foundation and enhance user experience with the use of Keycloak already used in SPHN Ecosystem.
- Biobank Information Management System (BIMS)
 - Official Public tender process completed.
 - Evaluation of the candidates by an independant Swiss committee to end up with the choice of DiData.
 - Definition of the SBP BIMS concept with a Sample Management Platform containing different BIMS specific environments.
 - Definition and negotiation of a 6-month "Proof-of-Concept" with DiData.

Future developments

- SBP Datasets :
 - Revision of the Core Datasets for liquid and tissue veterinarian biobanks
 - Revision and publication of the SBP Extended Datasets
 - Integration of the Core Datasets in the VITA label requirements and the Extended Datasets in the NORMA requirements
- SBP BIMS :
 - Proof of Concept with key features to be developed and implemented for the SBP BIMS instances
 - Regular workshops
 - Development of the SBP BIMS business model and negotiation with DiData around Intellectual Property rights

VISIBILITY



One of the biggest challenge biobanks face is the under-used banked samples. To overcome this challenge and to respond to the increasing demand for sample visibility, SBP has developed a Swiss directory that offers a shared platform for biobanks and the possibility for researchers to find samples and their related data.

A concept for an electronic catalogue (e-catalogue) at the sample level has then been developed to maximize visibility through a network, where connections between biobanks and researchers are enabled not only on a national level but throughout Europe via the BBMRI Directory.

Implementing Key Performance Indicators is also a way to help biobanks get aware of sample reuse and efficiency through a collaboration with BBMRI.

Main achievements











- The NExT (Network exploration tool) is operational to search biobanks within the SBP Network of biobanks, and is still under construction to access samples data.
- A risk analysis to ensure biobanks could import their samples data in compliance with data protection requirements was achieved in collaboration with the CHUV using the SPHN template.
- A list of Key Performance Indicators, approved by BBMRI, will have to be reported by BBMRI Headquarters, national nodes and biobanks within each node from 2023 as a mandatory process.

Future developments

- Communication on the risk analysis performed for the biobanks hosted on a BioMedIT node and those that are hosted on any other server.
- Active collaboration with the biobanks to help them report on the BBMRI KPIs from January 2023.
- Interconnection of the NExT with the SPHN Federated Query System.

AIMS AND MILESTONES 2021 - 2024

Aims	Measures and deliverables 2019-2020	Milestone	Deliverables	Status
1. SBP promotes a quality strategy for biobanks that serves both quality management issues and sample quality.	1.1 — Provide biobanks with guidelines, support documentations and consulting services to improve their preanalytical process	10.2021	SOPs, a quality manual and specific trainings are developed	✓
	1.2 — Enlarge the SBP national network of biobanks to other hospitals, universities, public or private research organizations.	10.2021	Biobanks from University Hospitals are the main SBP partners	✓
		10.2022	Biobanks from Universities are part of the network	✓
		10.2023	Interest of other research partners is encountered	↻
		10.2024	Interest of private industries is considered and evaluated	↻
	1.3 — Develop and update guidance, know-how and consulting services in terms of quality on a regular basis	10.2022	The Biobank SQAN and its related labels are updated	↻
		10.2024	The Biobank SQAN and its related labels are updated	↻
	1.4 — Provide biobanks with guidance, support and consulting services to prepare the ISO accreditation	10.2022	Interest and needs of biobanks getting accredited by ISO norm is evaluated	↻
	1.5 — Develop and coordinate peer-review audits on specific fields of biobanking by SBP experts	10.2024	An expert panel is created and guidelines for audits are developed	
2. The SBP develop guidelines to facilitate access to biobanking samples by establishing a Swiss biospecimen catalogue at the sample level. The SBP provides advice in IT systems for quality and networked biobanks.	2.1 — Provide biobanks with solutions to implement SBP datasets promoting interoperability and ensuring quality documentation	10.2021	Datasets are endorsed by SBP partners and implemented in most biobanks	✓
	2.2 — Develop a ready-to-use Biobank Information Management System (BIMS) for biobanks in Switzerland and abroad	10.2021	SBP BIMS concept is developed with a business plan	✓
		10.2023	SBP BIMS is developed and implemented in interested biobanks	
	2.3 — Develop a catalogue at the sample level facilitating search, usage and turnover of samples for research purposes aligned to the Swiss Personalized Health Network Strategy (SPHN)	10.2022	SBP e-catalogue development is operational and its efficiency evaluated on a regular basis	↻
	2.4 — Setup counselling services and tools to facilitate national and cross border exchange	10.2022	Guidelines and services are developed and provided by an ELSI helpdesk	↻
	2.5 — Facilitate access to samples for researchers through the development of	10.2023	Tools and processes such as a sample negotiator are developed	

	guidelines, access policies and a defined process promoting efficient usage of biobanks		with a one-stop-shop approach to efficiently connect researchers and biobanks	
3. The SBP drives the quality management of biobanking activities.	3.1 — Adapt SBP quality labels with minimal quality and interoperability requirements to the non-human biobanks needs	10.2022	Non-human biobanks' specificities are integrated in the minimal requirements of the different labels	
	3.2 — Identify an international non-human biobanking consortium or initiative to network Swiss biobanks as BBMRI for the human biobank	10.2022	The consortium or initiative is identified and the collaboration is defined	
	3.3 — Analyze the needs for services and guidelines to be developed for bacteria/virus and veterinary biobanking field as well as for other animal, plant and other organisms, if applicable	10.2023	A list of services and guidelines are proposed and prioritized	
	3.4 — Develop a concept or non-human biobanking in terms of processing and storage infrastructures based on the information gathered under 3.2 and 3.3	05.2024	A concept for the development of specific non-human biobank infrastructures is validated (type of storage, specific	
4. SBP consolidates the collaboration with the european networks of biobanks	4.1 — Participate in BBMRI as well as ESBB and ISBER development and inform on a regular basis the Swiss biobanking community on the important achievements in biobanking	10.2022	Regular newsletters and analysis are provided to SBP partners	
	4.2 — Provide a list of SBP services that could be developed for the European community or other interested stakeholders (Biobank SQAN, support documents,...) as paying services	10.2024	Interested services are provided and a price is calculated for each	
	4.3 — Organize regular national and international conferences to promote knowledge-sharing on different biobanking aspects aligned with european guidance	10.2021	a national conference is organized	
		10.2022	an international conference is organized	
		10.2023	a national conference is organized	
		10.2024	an international conference is organized	
5. SBP provides a concept for its sustainable funding	5.1 — Maintain a coherent and efficient collaboration between research infrastructures of national importance in Switzerland by creating and intensifying synergies with other infrastructures (SPHN, SCTO, Swissethics,...)	10.2024		
	5.2 — Develop a concept to be integrated in the SERI list of research infrastructures of national importance	10.2023		
	5.3 — Develop a business plan with financing measures	10.2023		