Swiss Personalized Health Network (SPHN)

Annual report 2025

A project of

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Table of content

1 Executive Summary

2025 marked a transformative year for the Swiss Personalized Health Network (SPHN). Building on nine years of national investment, SPHN today provides a mature, interoperable, and secure health data infrastructure that enables multi-center collaborative research at a scale and quality previously impossible in Switzerland. With the ERI Dispatch 2025-2028 recognizing SPHN as a national competence and coordination center, SPHN is transitioning from a time-limited initiative into a sustainable, service-oriented research infrastructure for trustworthy secondary use of health data.

Why SPHN Matters

Switzerland's health system is digitalizing, and research increasingly depends on the ability to access, combine, and reuse high-quality data across institutions. SPHN provides the national framework and coordination that makes this possible: shared semantic standards, secure and interoperable data integration platforms, a trusted research environment (BioMedIT), and aligned governance. By the end of 2025, infrastructures and services were ready for researchers to explore harmonized clinical data, request data access, and to collaborate securely across institutions.

Headline Metrics (End of 2025)

- **800,000+** patients who have consented to the reuse of their data for research included in the SPHN Federated Clinical Routine Dataset
- **12'500'000'000** machine-readable data statements (RDF triples) mapped to 125 SPHN semantic concepts
- **6 university hospitals, 5 cantonal hospitals and Swiss Cancer Institute (SCI)** connected to SPHN and BioMedIT infrastructures, poised to share data for cutting-edge research

Top 10 Achievements 2025

1. A uniquely rich, harmonized national clinical dataset

The SPHN Federated Clinical Routine Dataset reached unprecedented scale and semantic consistency, covering demographics, diagnoses, procedures, medications, labs, vital signs, ICU and oncology data, and more — all mapped to internationally recognized terminologies such as SNOMED CT and LOINC.

2. Four vivid National Data Streams

All National Data Streams (NDS) funded by SPHN and PHRT in 2022 have successfully built highly valuable data assets integrating clinical data with omics data or patient-reported outcomes. They continue as national, interdisciplinary consortia, producing insights from research to improve care of patients in the years ahead.

3. A unified metadata ecosystem

The SPHN Metadata Catalog expanded to include all reusable datasets generated in SPHN, adding the SPHN Federated Clinical Routine Dataset and eight datasets from Demonstrator projects. It is aligned with

the international metadata formats DCAT and HealthDCAT and harvestable by the national I14Y catalog of the Federal Statistical Office.

4. A comprehensive semantic interoperability framework

The SPHN Semantic Interoperability Framework expanded coverage of oncology-related diseases, genomic variants, and — for the first time — medical imaging. SPHN co-developed 50 new SNOMED CT codes and integrated ICD-O, Oncotree, and DICOM into its terminology services. The SPHN RDF Schema continued to gain international recognition and adoption.

5. A mature Trusted Research Environment (BioMedIT)

In 2025, BioMedIT added 11 new data-providing institutions, bringing the total number to 47 and has meanwhile supported more than 120 projects. A white paper described how the BioMedIT national Trusted Reasearch Environment network provides a national solution enabling researchers to work with sensitive personal data while ensuring legal compliance, security, and ethical standards. BioMedIT offers the security, computational resources and user support needed for complex collaborative projects. It thus serves as a model for versatile and federated Trusted Research Environments.

6. Growing the network

Five cantonal hospitals and the Swiss Cancer Institute were technically onboarded to SPHN in 2025 and are now ready to contribute clinical data to multi-site research projects in personalized medicine. The hospitals in Aarau, Baden, Lucerne, Bellinzona, St. Gallen, and the Swiss Cancer Institute deployed the core infrastructure, initiated the implementation of SNOMED-CT and LOINC terminologies, and successfully transferred data to BioMedIT.

7. An honest broker for collaboration with industry

A first pilot project for the trustful collaboration with the private sector was successfully completed in 2025. In collaboration with Novartis, SPHN enabled the analysis of a risk factor for cardiovascular disease with data from two Swiss hospitals. With this new framework for public-private collaborations, pharmaceutical companies can better understand medical needs and answer simple research questions without direct access to personal health data.

8. A responsible guide for researchers and research institutions

Sharing information about the health of people comes with high ethical, legal, and social responsibilities. Genomic human data are particularly sensitive. This is why SPHN published a comprehensive guidance paper on the further use of human genomic data for research purposes in 2025. Other new resources support the risk-based de-identification of sensitive data or provide practical information for setting up contractual frameworks for multi-center data-driven health research.

9. Robust governance and national alignment

In view of the new mandate 2025-2028, SPHN adapted its organizational structure to fit the need for a robust governance and alignment between all relevant stakeholders across Switzerland. A new Steering Board shapes the strategy and allocates responsibilities, supported by an Executive Board facilitating

implementation. A broad-based Sounding Board ensures that the needs of the community are heard, while the NDS Board gives a voice to researchers. In March 2025, Dr. Davide Chiarugi (SIB Swiss Institute of Bioinformatics) took up his new role at the SPHN Data Coordination Center as Technical Director SPHN.

10. An interdisciplinary community

"From Technology to Treatment" was the theme of our conference, co-organized by SPHN and PHRT, that showed how personalized medicine can improve patient care. More than 300 participants exemplified the interdisciplinary community we built around personalized and data-driven health over the past years.

2 Building the National Data Infrastructure

2.1 SPHN Semantic Interoperability Framework

The **2025.1 release of the SPHN Semantic Interoperability Framework** includes blueprints, templates, tools, and services designed to enable FAIR research data. It builds on the 2024 version, incorporating refinements to several value sets, utilizing SNOMED CT more extensively, integrating the International Classification of Diseases for Oncology (ICD-O) and Oncotree standard terminologies for depicting and classifying oncology-related diseases, and expanding the range of concepts for representing genomic variants. For example, SPHN collaborated closely with eHealth Suisse and SNOMED CT international to introduce 50 new SNOMED CT codes, which are included in the 2025.1 release. In addition, the scientific publication describing the SPHN RDF Schema has reached significant visibility, with nearly 9000 accesses and 46 citations in peer-reviewed articles within four years.

The **2025.2 release of the SPHN Semantic Interoperability Framework** includes a dedicated set of Medical Imaging concepts - modular, structured components designed to represent key aspects of imaging data. The 2025.2 release covers imaging modalities, datasets, pseudonymized metadata, imaging devices, reagents, and involves widely used imaging standards such as DICOM. In addition to the imaging-focused developments, the new version 2025.2 features and evolves core elements of the SPHN Semantic Interoperability Framework:

- SPHN Dataset & RDF Schema: Medical imaging concepts integrated seamlessly into the existing SPHN data model.
- SPHN Terminology Service: DICOM standard is provided in RDF
- Templates and Tools: Updated to support the new imaging domain, including SPHN Schema Scope, the interactive schema visualization platform.

The SPHN RDF Schema is also gaining international recognition and is being adopted by multiple consortia and projects beyond Switzerland, e.g., AIDAVA, Semantifying Genomic Variant Data, and NeuroVasc.

2.2 FAIR Data

2.2.1 SPHN Federated Clinical Routine Dataset

The **SPHN Federated Clinical Routine Dataset** is one of the most comprehensive harmonized clinical datasets ever created in Switzerland. It is one of SPHN's key outputs to maximize clinical data available for multi-centric research and marks a significant step toward a more connected and interoperable Swiss health data ecosystem.

As of December 2025, the SPHN Federated Clinical Routine Dataset included:

- 800,000+ patients who have consented to the reuse of their data for research
- 6 university hospitals: Basel, Bern, Geneva, Lausanne, Zurich (adult and children's hospitals)
- Clinical data with cases from 2018 to today
- 12.5 billion machine-readable data statements (RDF triples) mapped to 125 SPHN semantic concepts, covering:
    - Demographics
    - Diagnoses and procedures
    - Medications
    - Laboratory tests, including microbiology
    - Vital signs and clinical scores
    - Allergies
    - Intensive care and oncology data
    - Biological samples
    - And more

Participating hospitals map their data to internationally recognized terminologies, using e.g., 6,500+ distinct SNOMED CT codes and 3,700+ distinct LOINC codes.

The key accomplishment of this uniquely rich dataset is the large-scale semantic standardization of clinical data across institutions, with all data and metadata fully adhering to the FAIR principles. This impressive achievement reflects years of close collaboration within SPHN, notably of the university hospitals and SPHN's FAIR data specialists.

2.2.2 Einstein

Einstein is a FAIR data management solution for hospitals which enables them to store their SPHN-compliant data in a knowledge graph. First developed in 2025, it is installed locally and forms the backbone for the SPHN Data Explorer. Einstein hosts data produced by the SPHN connector and makes that data queryable via an API interface.

Einstein's performance is optimal with SPHN-compliant data and a key component of Einstein is the checking of consent status of each patient during data loading. This ensures that only data from consenting

patients can be sent to SPHN infrastructure. As of end 2025, Einstein was successfully installed in CHUV, HUG, Insel Group, USB, USZ and KISPI and hosts the SPHN Federated Clinical Routine Dataset.

2.2.3 SPHN Connector

The **SPHN Connector** is an open-source tool that hospitals can install locally, enabling them to convert data in various formats into SPHN-compliant RDF data. In addition, hospitals can de-identify data and perform quality checks with this tool. The SPHN Connector was developed by the DCC and University Hospital Zurich (USZ).

Interfaces between the SPHN Connector and the data managing solution Einstein of the SPHN Data Explorer were initially developed in 2024. In 2025, the connectivity to Einstein was improved, tested and put in production in all university hospitals. In 2025 additional technical improvements as well as security updates were done. Researchers in NDS projects process non-hospital data, including omics data, with the SPHN Connector. Moreover, five cantonal hospitals and the Swiss Cancer Institute (SCI) have installed and used the SPHN Connector as part of the cantonal hospital onboarding program.

2.3 Finding and Exploring Data in SPHN

2.3.1 SPHN Metadata Catalog

In 2024, the pilot of the **SPHN Metadata Catalog** was published to improve the visibility of the datasets produced in the realm of SPHN. Initially, it hosted descriptive metadata of NDS and Demonstrator projects in general on a FAIR data point, as well as visualizations of the corresponding project schemas in the **SPHN Schema Scope**.

The SPHN Metadata Catalog Schema was built in alignment with international standards such as the Data Catalog Vocabulary (DCAT) and the HealthDCAT Application Profile. This work supports the harmonized representation of SPHN datasets' metadata and facilitates its integration and harvesting within the I14Y national metadata catalog of the Federal Office of Statistics.

In 2025, the descriptive metadata about the SPHN Federated Clinical Routine Dataset was added to the SPHN Metadata Catalog, publicly showcasing one of the many impressive achievements of SPHN. In addition, metadata records for eight datasets gathered by five Demonstrator projects have been added to the SPHN Metadata Catalog in 2025, complementing and extending the more general Demonstrator-records from 2024. Furthermore, the SPO-NDS and the SwissPedHealth lighthouse project MOMIC have provided datasets for preliminary sub cohorts.

Qualitative and quantitative metadata for all datasets represented on the SPHN Metadata Catalog was made available via the SPHN FAIR Data Point and interactively explorable by SPHN **Schema Scope**.

2.3.2 SPHN Data Explorer

The **SPHN Data Explorer** (previously referred to as "Data Exploration and Analysis System", DEAS) will enable authorized researchers to conduct feasibility studies, assessing whether sufficient generally consented data is available for a specific research question at the participating hospitals. It is the successor of the SPHN Federated Query System (FQS) that was discontinued at the end of 2024. The SPHN Data Explorer is based on the SPHN Semantic Interoperability Framework to allow seamless integration into the hospitals' infrastructure via the SPHN Connector and Einstein data management solution. Patients' privacy is ensured through multiple privacy preserving methods such as homomorphic encryption, secure multi-party computation and k-anonymity provided via the technical platform of the EPFL spin-off Tune Insight.

The pilot project, originally planned for 2024, had been cost-neutrally extended into 2025. Participating hospitals are the CHUV, HUG, Insel Group, USB, USZ, and the University Children's Hospital Zurich (KISPI). At the end of 2025, all of them have installed the system and have loaded data from over 800'000 patients who signed the general consent.[1] The FAIR Data Team of SPHN developed patterns to be implemented in the SPHN Data Explorer, reducing query times in the low second range for simple queries and lower minute range for more complex queries (e.g. distributions).[2] With respect to the underlying contractual framework, the SAMS has now formally joined the FQS consortium and the licensing conditions with Tune Insight for the use of the software were agreed on.

In 2026, a minimal viable product including user interface and SPARQL improvements will be made available for researchers at participating university hospitals once the contractual framework of the SPHN Data Explorer has been signed by all parties.

2.4 User and Support Layer

2.4.1 SPHN Support Portal

The DCC has always been instrumental in providing operational support for all SPHN and BioMedIT topics. To deliver this support at scale, the **SPHN Support Portal** was established in 2025. With the new Jira Service Management, SPHN centralised and structured support into a system with dedicated support lines for BioMedIT, FAIR Data, and ELSI topics. This streamlined request routing significantly improved overall user experience in the context of SPHN

[1] Conference paper: Armida, J., Touré. V., Krauss, P., et al. Semantic Interoperability at National Scale: The SPHN Federated Clinical Routine Dataset, Research Square, doi: https://dx.doi.org/10.21203/rs.3.rs-8250886/v1, peer-reviewd and accepted for SWAT4LS 2026

[2] Conference paper: Brites Marto, A., Krauss, P., Kalt, K., et al. Efficient Querying of Federated Large-Scale Clinical RDF Knowledge Graphs in the Swiss Personalized Health Network, Preprints, doi: https://doi.org/10.20944/preprints202512.1909.v1, peer-reviewed and accepted for SWAT4LS 2026

2.4.2 SPHN Schema Forge

The **SPHN Schema Forge** web service empowers researchers to generate semantic artifacts from an Excel file in minutes. In 2025, the tool was further improved based on user feedback to enhance performance, maintainability and user experience.

2.4.3 SPHN Mocker

The **SPHN Mocker** generates mock data based on the SPHN RDF Schema. It was developed in 2024 and provides a way for users to see how data might appear when compliant with the SPHN RDF Schema. This helps data providing institutions to test SPHN tools without sharing sensitive data. In 2025, the tool was further optimized and adjusted to support the latest SPHN schema version.

2.4.4 SPHN Terminology Service

The **SPHN Terminology Service** was developed to distribute external terminologies in RDF format without external dependencies and in compliance with the copyright statements of each of these terminologies. Available terminologies can be found in the individual project spaces on the BioMedIT nodes. In 2025, the SPHN Terminology Service expanded its offerings with the widely used imaging standard DICOM, ICD-O and Oncotree to support oncology projects.

2.5 Funding Activities

2.5.1 General

In line with the new mandate for 2025-2028, the funding instruments of SPHN were adapted in 2025. SPHN's core financing from the ERI Dispatch 2025-2028 covers the SPHN Data Coordination Center (SPHN DCC) and the essential core services and infrastructures of the federated network components at hospitals, BioMedIT nodes, and national repositories. All additional activities, such as hosting new projects, upscaling and further development of the network, will need to be financed with additional income. As during the past years, matching funds are generally required when institutions receive financial contributions from SPHN.

SPHN continues to support the NDS research consortia with in-kind services from the SPHN DCC, university hospitals, and BioMedIT nodes, to maintain the NDS' data assets for personalized health research. This support is conditional on making the assembled data available to the research community, in line with Open Research Data practices. Other national projects may receive similar in-kind support from SPHN, if they ensure that their data can be accessed and reused under the same principles.

2.5.2 National Data Streams (NDS)

Co-funded by SPHN and PHRT with up to CHF 5 million per project, four NDS projects were launched in September 2022 in the disciplines 1) infectious diseases in intensive care, 2) oncology, 3) pediatrics, and 4) quality of care research. Each NDS comprises a Switzerland-wide multidisciplinary consortium that invests in

the development of sustainable data infrastructures for high-end data-driven personalized health research. Unique is the requirement to enable third-party data reuse beyond the runtime of the project (i.e., from 2026 onwards).

In 2025, the NDS have made significant progress in all their activities. Most NDS achieved most of their milestones by the end of the SPHN-funded project phase by 31 December 2025. Thanks to a second cost-neutral extension of the PHRT funds, the NDS can continue their research work in 2026, while SPHN supports the NDS in-kind where possible, for instance to maintain the built data infrastructures and to keep the data deliveries from the hospitals to the NDS going.

All NDS report a significant learning curve on Patient and Public Involvement and Engagement (PPIE). Patient partners have considerably contributed to, among other activities, communication, outreach, and decisions on the direction of the research. For example, SwissPedHealth has developed a pediatric PPI toolkit, allowing other organizations to meaningfully involve pediatric patients and their caretakers in research and governance activities. SPHN is demonstrating the importance of involving patient partners for clinical research on all levels.

One important requirement for the NDS is to allow third parties to reuse the NDS data. The NDS have developed Standard Operating Procedures (SOPs) for this, and multiple parties have shown interest in NDS data, leading to at least one concrete data reuse case already (for LUCID). However, several hurdles have been identified, such as long data governance processes requiring resources from the NDS as well as from the third party.

A NDS Workshop was held in November 2025 to discuss the NDS-authored white paper "Creating value in the SPHN-PHRT infrastructure" which addressed challenges in SPHN's infrastructure and the value the NDS can create in terms of scientific output, quality improvement of care, third-party data reuse, and public trust. One concrete result of the workshop was to establish a NDS Board for NDS representation at the governance level.

Completing their SPHN-funded project period on 31 December 2025, the four NDS will constitute important pillars of the SPHN health research data ecosystem and the PHRT research platforms. In the long term, they shall serve as models and crystallization points for future research programs and clinical applications of personalized health.

2.5.3 Demonstrator Projects

The aim of the SPHN Demonstrator projects is to test the infrastructures, processes, and data resources established in the realm of SPHN, to demonstrate their added value for the network, and to identify remaining gaps. Launched in spring 2023, one project was completed in September 2024; the remaining 10 were extended until March 2025.

All Demonstrator project teams collaborated closely with the DCC and provided semi-yearly progress reports. By October 2025, the Steering Board had officially approved final reports of all Demonstrator projects. SPHN has continued to support some Demonstrator projects in-kind by providing BioMedIT B-Spaces, where the Demonstrator data is stored and analyzed, allowing the Demonstrator researchers to continue using the data.

Main feedback from the Demonstrator projects included that the complexity of real-world data is high and quality (fit for research purpose) generally low. Hence, a lot of hands-on support by the DCC was needed and will influence the scope of future SPHN projects. Eight datasets gathered by five Demonstrator projects were included in the SPHN Metadata Catalog, making the Demonstrator data findable for external researchers, too.

3 Trust, Governance and Compliance

3.1 Governance of SPHN

In 2025, SPHN governance was adjusted to ensure alignment with the mandate 2025-2028 from the Confederation.

3.1.1 Steering Board

As of January 2025, the Steering Board is the highest governing body of SPHN, replacing the previous National Steering Board. Its size has been reduced to emphasize SPHN's increased strategic focus. It now consists of eight members representing the key stakeholder groups of health research, plus the federal administration as observers. The Steering Board is responsible for SPHN's overall strategy, allocation of resources, and for maintaining contact with the political authorities.

In December 2025, the Steering Board approved the updated Rules of Procedure with the three new SPHN bodies, namely the Executive Board, Sounding Board, and the National Data Streams (NDS) Board.

3.1.2 Executive Board

The new SPHN Executive Board is responsible for supervising the implementation of the Steering Board's strategy and decisions, monitoring progress, preparing and advancing activities in the network, and enabling a more effective management of SPHN. The Executive Board is composed of the Steering Board chairperson and vice-chairperson, the chairpersons of the Sounding Board, the HIT-STAG, the ELSIag, the DGWG, the BioMedIT Board, the NDS Board, and the SPHN Managing and Technical Directors.

The Executive Board held its inaugural meeting on 02 April 2026.

3.1.3 Sounding Board

The new SPHN Sounding Board brings together representatives from the full breadth of Switzerland's health, research, and policy landscape. The Sounding Board is tasked with reflecting on SPHN's strategy, guidelines, and implementation plans. It can also propose and endorse projects and working groups that strengthen SPHN's embedding in the national health research environment and ensure seamless interfaces with all relevant partners.

The establishment of the Sounding Board reflects SPHN's commitment to including the needs and perspectives of all stakeholders and partner institutions in the network's strategic development. The Sounding Board reinforces SPHN's inclusive governance model and commitment to transparent, collaborative development of national research data infrastructures. The Sounding Board's work will play a key role in ensuring that SPHN continues to evolve in accordance with scientific, clinical, and societal expectations.

The Sounding Board held its inaugural meeting on 04 March 2026.

3.1.4 National Data Streams (NDS) Board

The new NDS Board is tasked with optimizing collaboration between the four NDS consortia (supported by SPHN and Personalized Health and Related Technologies (PHRT) from the ETH Domain) and the SPHN infrastructures (DCC, university hospitals, BioMedIT), This is done by identifying common challenges and opportunities for mutual support, aligning on strategic priorities, and elaborating solutions for shared problems. In addition, the NDS Board acts in an advisory role to the SB and the entire SPHN on researchers' needs.

The NDS Board is further tasked with ensuring cross-NDS alignment and agreement on topics such as sustainable operation of the NDS for data-driven multicenter research and a learning health system, end-to-end processes for reuse of NDS data by third parties, value definition of the four NDS for data-providing institutions and society as well as financing opportunities for NDS research, infrastructures, and other activities.

Members of the NDS Board will be one senior representative (Principal Investigator) per NDS and a patient partner. Guests will be representatives from the HIT-STAG, SPHN DCC, BioMedIT nodes and further consortium members as needed.

The NDS Board held its inaugural meeting on 20 May 2026.

3.2 Data Governance Frameworks

To further streamline processes related to the contractual framework setup and data sharing approval for multi-site large scaling projects, the SPHN DGWG examines data governance structures at Swiss university hospitals situating their oversight function within the broader regulatory landscape. The ongoing work aims to understand how data access is governed at the institutional level and which system-level frictions affect data access. A first outline was published in 2025, summarizing governance practices at Swiss university hospitals. The outline highlights the need to strengthen equitable access to health data, improve coordination among stakeholders across the regulatory landscape, and to continue the development of harmonizing institutional data access governance in Switzerland.

To improve governance over sensitive data across Switzerland, the ELSI Advisory Group (ELSIag) published a comprehensive guidance paper on the further use of human genomic data for research purposes in early 2025. The guidance paper addresses the unique challenges posed by human genomic data, particularly regarding autonomous decision-making and the responsible communication of genetic findings, privacy protection, and data access conditions for genomic data. It also emphasizes the importance of active participation of patients and citizens in genomic research. The document builds on established guidelines, adapting them to the specific legal and social context of Switzerland. The guidance paper promotes a harmonized national approach to genomic data governance, enabling both national and international collaboration while strengthening public trust in genomic research.

As its next mandate, the ELSIag has begun, together with field experts, to investigate the public value of health data and aims to provide recommendations on how to facilitate data reuse in the interest of the public.

3.3 SPHN Legal Agreement Templates

SPHN has designed a harmonized contractual framework in collaboration with Swiss university hospitals and research institutions, namely with the SPHN Data Governance Working Group (SPHN DGWG). The contractual framework offers standardized legal agreement templates that facilitate data sharing in multi-center research projects across Swiss institutions, while remaining flexible enough to accommodate diverse collaboration models, including international partnerships. The contractual framework and its SPHN Legal Agreement Templates are based on the core data protection principles – lawfulness, fairness, transparency, purpose limitation, accountability, and security – and are designed to balance legal compliance with research needs. The templates offer solutions for often controversially discussed topics such as rules for data reuse and data governance and intellectual property. Through the continuing efforts by the SPHN DGWG, the contractual framework offers a scalable model for enabling secure, ethical and collaborative health research.

SPHN's ELSI team provides guidance and offers consultancy services to navigate through the SPHN contractual framework respectively to set up similar research related contracts that involve data sharing across multiple institutions.

3.4 Data De-Identification Guidance

The Data De-Identification Guidance on how to de-identify data in compliance with Swiss legislation and data protection regulations was published in 2024. In 2025, it was further developed seeking for close alignment with swissethics. The template provides hands-on guidance for assessing the re-identification risk and documenting the process of de-identification as requested in the revised Human Research Ordinance and cantonal ethics committees.

3.5 Registry Regulation Template

In 2025 SPHN published a Registry Regulation Template developed through the initiative of swissethics and the combined expertise of several key partners. The purpose of the template is to serve as guidance for the creation and management of health-related registries that aim to facilitate multiple and FAIR use of registry data. The Registry Regulation Template provides a comprehensive framework addressing key aspects like purpose, governance, data access protocols, and quality management systems, ensuring compliance with ethical principles.

3.6 ELSI Consultancy Services

Based on its experiences and framework developments for responsible data sharing across multiple institutions, the SPHN ELSI Team continued its support for researchers and other network partners in various ELSI related aspects in 2025. This includes the set-up of legal agreements for data driven projects with multiple partners but also an overall revision of a registry's contractual framework to regulate reuse by third parties, for which SPHN started to provide its services in 2025. Overall in 2025, the templates managed by SPHN

are still widely recognized as valuable tools that enable data-driven projects at a national scale, while its overarching governance framework is acknowledged and respected in international forums.

4 BioMedIT Trusted Research Environment

4.1 General

Connecting researchers from across Switzerland with sensitive biomedical data to foster personalized health: this is the aim of the national Trusted Research Environment (TRE) network BioMedIT, operated by the SIB Swiss Institute of Bioinformatics in close collaboration with ETH Zurich, the University of Basel and the University of Lausanne.

To date, BioMedIT is the only operational TRE in Switzerland accessible to all researchers. It connects 47 different data providing institutions including all university hospitals, major cantonal hospitals, research institutions, and private and specialised clinics and clinical networks within Switzerland. During the SPHN initiative, more than 120 national and international projects have been hosted on BioMedIT.

In 2025, the SPHN DCC continued ensuring that researchers have access to national TRE services that remain compliant with evolving Swiss data protection legislations. Efforts are also underway to improve the user experience while maintaining strict data protection and security requirements. Remaining gaps include the high cost of implementing and operating the required security controls. In the context of reduced SPHN funding, a significant portion of these security-related operational costs may need to be passed on to researchers in the future, which could affect accessibility and uptake of TRE services in Switzerland.

4.2 Key Activities

4.2.1 SPHN Information Security Management

4.2.1.1 Information Security Policy

In collaboration with key stakeholders, the DCC revised and published an updated version of the SPHN Information Security Policy in 2025. With the revision, definitive responsibilities of different stakeholders and streamlined role definitions were clarified to align with the General Data Protection Regulation (GDPR) terminology as well as to improve uptake and comprehension of roles and responsibilities across institutions operating within the SPHN ecosystem.

4.2.1.2 Information Security Planning

In 2025, further thorough security planning was carried out in preparation for the launch of Swiss FEGA and the coordinated Data Export services

4.2.1.3 Information Security Controls

Furthermore, new security controls were implemented across the BioMedIT network in 2025 to strengthen compliance with evolving regulations and as well as the changing information security threat landscape.

4.2.1.4 Information Security Assessment

Additionally, an independent security assessment of the BioMedIT network was conducted by an independent professional security agency. The goal of the external assessment was to identify any potential gaps in the BioMedIT`s security posture.

4.2.2 BioMedIT: Consolidation

In 2025, as the result of reduced funding, the DCC initiated a consolidation phase of activities across the BioMedIT network to ensure the efficient delivery of base services the projects requiring sophisticated TRE set-ups. Together with BioMedIT nodes, the DCC developed a comprehensive set of critical requirements that all BioMedIT nodes must fulfil, ensuring security standards and regulatory compliances are maintained across the BioMedIT network. To further safeguard service continuity, the DCC also consolidated knowledge and responsibilities from BioMedIT working groups internally, ensuring that national TRE services could be sustained despite reduced node participation in those working groups.

4.2.3 Onboarding of New Data Providers

The DCC plays a key role in establishing and maintaining secure data transfer pipelines between BioMedIT nodes and Data Providers. In 2025, the DCC onboarded 11 new Data Providers, including Cantonal Hospitals, research institutions, and private and specialised clinics and clinical networks to BioMedIT .

4.2.4 New TRE Collaborations

The DCC continued advising and supporting new regional TRE collaborations that are in discussion to be set up in the Romandie part of Switzerland (SENSA 2.0: UNIL, SIB, SWITCH, SDSC, EPFL & CHUV), and in the Bern region Forschungsplattform Standort Bern (FpBe) with UniBE, Inselspital & SWITCH.

4.2.5 Infrastructure Advancement

The core infrastructure across BioMedIT nodes was further enhanced to meet the evolving computing needs of the research community. Key improvements included expanding researcher access to GPU and high-memory machines to support AI/machine-learning workflows, as well as the introduction of a managed Kubernetes service, enabling more flexible and scalable workload management within the secure TRE environment.

4.2.6 Coordinated Data Export Project

The SPHN DCC also started new project on Coordinated Data Export with the aim to setup a streamlined, secure and regulated data export channel across three BioMedIT nodes. Once implemented, users nominated by the Principal Investigators of the projects will be able to export high/medium/low risk data from their B-Spaces to outside BioMedIT.

4.3 BioMedIT Services & Tools

4.3.1 B-Spaces

BioMedIT B-Spaces are secure research project spaces where sensitive health data can be accessed and analysed at one of the three BioMedIT nodes. These turn-key environments are each specific to a single research project, which allows project members to collaborate from multiple institutions, but also maintains the security of the data imported for the project. B-Spaces are operated by BioMedIT nodes in consultation with DCC. In 2025, B-Space services were further enhanced by introducing newer research software suites, access to GPU machines and Kubernetes.

4.3.2 Secure Encryption And Transfer Tool (SETT)

The **BioMedIT SETT** tool enables users to package and move their data within the BioMedIT network in a safe and legally compliant way. In 2025, the SETT tool was further developed to improve its performance. A major development included the development of a new user interface based on the Terminal User Interface (TUI) and support for signing GNU Privacy Guard (GPG) keys with SETT. The SETT tool is used by all 47 data providing institutions in SPHN ecosystem to deliver data safely to users in BioMedIT B-Spaces.

4.3.3 BioMedIT Portal

The **BioMedIT Portal** serves as the single point of entry to the BioMedIT Network, providing role-based access to services within a secure web-based environment for users across the SPHN ecosystem. Using BioMedIT Portal, project teams get a consolidated view of their projects and resources, enabling them to manage the project team's members and access the project space. Data Providers and Data Managers can oversee, approve and monitor data transfers in real time; and the researchers gain access to BioMedIT services.

In 2025, the BioMedIT Portal was further developed to improve its user experience, and some major technical enhancements were done including Personal Access Token (PAT) based authentication, offsite backup capabilities, and the introduction of new portal APIs. By the end of 2025, the BioMedIT portal had more than 1000 registered users.

4.3.4 BioMedIT Identity And Access Management (IAM) System

The **BioMedIT Identity and Access Management (IAM)** system ensures that users accessing BioMedIT services are sufficiently authenticated and authorised. The system is used by both BioMedIT central services as well as BioMedIT nodes, enabling users to access services provided by different providers through a single account. Operated by the DCC, the BioMedIT IAM system leverages SWITCH edu-ID as the trusted researcher identity provider across BioMedIT services.

In 2025, new security controls were implemented within the IAM system to ensure compliance with the latest SPHN Information Security Policy.

4.3.5 SPHN DCC Container Registry

The **SPHN DCC Container Registry** provides a centralised registry to registered BioMedIT users for hosting, vulnerabilities scanning and sharing of OCI compatible container images. The service is maintained and administered by the SPHN DCC. In 2025, the service was successfully operated and maintained by the SPHN DCC.

4.3.6 SPHN DCC Git Service

The **SPHN DCC Git** service provides a centralised code repository to registered BioMedIT users to create, collaborate and share their application codes with other BioMedIT users. The service is maintained and administered by the SPHN DCC. In 2025, the service was successfully operated and maintained by the SPHN DCC.

4.3.7 BioMedIT Central Logging And Monitoring System

The **BioMedIT centralised logging and monitoring system** is a critical service provided by the SPHN DCC and BioMedIT nodes for access to sophisticated logs of BioMedIT users and their actions while using BioMedIT services for data transfers, permission management, etc. The service is maintained and administered by the SPHN DCC. In 2025, the service was successfully operated and maintained by the SPHN DCC.

5 Scaling the Network

5.1 Cantonal Hospital Onboarding Program

To extend the network, SPHN launched a proof-of-principle infrastructure implementation project in 2024, onboarding additional data providers to SPHN. Data providers were selected based on their IT readiness and their involvement in ongoing SPHN/PHRT projects or other collaborations.

The project includes the cantonal hospitals of Ticino (EOC), Aarau (KSA), Baden (KSB), St. Gallen (H-OCH), and Luzern (LUKS), and the Swiss Cancer Institute (SCI).

The institutions have worked on four work packages, including data coding to the standards LOINC and SNOMED CT, setting up the SPHN/BioMedIT toolstack in the hospitals, and transferring a test dataset of 50 de-identified patients in RDF format generated with the SPHN Connector to a specific BioMedIT B-space for quality control purposes. All institutions have been successfully integrated into the BioMedIT Network via the SCICORE+ node, with the required data provider entities and governance roles fully implemented on the BioMedIT Portal. The secure encryption and transfer tool (SETT) has been deployed across sites, ensuring reliable data exchange. The effectiveness of this infrastructure has been demonstrated through repeated successful data transfers, confirming its readiness to support secure data sharing across the network. To regulate the data sharing of personal data, a Data Transfer and Use Agreement was set up and signed with the EOC, KSA, LUKS and KSB in 2024, and for H-OCH in 2025.

The project has successfully established a fully operational data integration infrastructure across all participating institutions. The SPHN Connector is now deployed in production environments and maintained in a way that ensures long-term sustainability.

All participating institutions successfully delivered the majority of the SPHN concepts included in the minimal dataset. The participating institutions are now well positioned to act as data providers within the network.

5.2 Genome Of Switzerland (GoS)

The **Genome of Switzerland (GoS)** project is part of the Swiss Federated Genomics Network and mainly funded through PHRT, in collaboration with SPHN. It aims to demonstrate the feasibility of recruiting biosamples for Whole Genome Sequencing (WGS), producing standardized genomic data and sharing data for research purposes in Switzerland. The project is a driving force for the development of infrastructure and processes to help advance genomic research in Switzerland, in alignment with efforts at the European level under the 1+MG program and the European Genomic Data Infrastructure (GDI) project. The current pilot project is intended to lay the foundation for a later scale-up, in which – given additional funding can be recruited – up to 15’000 samples will be sequenced and a multi-omics project part is foreseen, thus creating direct added value for the research community.

EPFL is the sponsor of the GoS pilot project, with Prof. Didier Trono as the main PI. In early 2025, all 1000 samples from the CHUV biobank were received. Sequencing is expected to be completed in the first half of 2026 (first-line analysis). For data storage, the new Swiss FEGA repository is foreseen. The entire GoS pilot project is expected to be completed in 2026, and the project team is actively pursuing options to realize the subsequent scale-up for a full and representative GoS, comprising the sequencing of another 14’000 participants.

5.3 Swiss FEGA (Federated European Phenome-Genome Archive)

This project is setting up a Swiss node of the **Federated European Genome Archive (FEGA)** to provide a safe and legally compliant repository for genomic data used for research. It enables both publication through generating accession numbers for submission to journals and also supports reuse through ensuring datasets can be searched and access can be requested.

Following the successful proof-of-concept work in late 2023, a project plan was approved by the BioMedIT board in June 2024. The project includes SIB, ETH (thorough the Scientific IT Services/SIS and Nexus), SDSC, Health2030 Genome Centre and Switch. Due to a successful end-to-end demo in December 2024, Switzerland was formally invited to join FEGA in early 2025. In 2025, a minimum viable product of the FEGA node was developed and demonstrated as operational in staging environment in December 2025. For 2026, SPHN will support the operational phase of Swiss FEGA with CHF 350'000 and first datasets on the Swiss FEGA node are expected in June 2026.

6 Collaboration

6.1 Collaboration Agreements with University Hospitals

As the **Collaboration Agreements 2021-2024** with the five university hospitals (UHs) ended in June 2024, an extension was signed for the period 01.07.2024-31.12.2025, financed with provisioned funds from the period 2021-2024. The focused deliverables of the extension were preparing UHs for the next phase 2025-2028 to continue their activities. Alignment on milestones and deliverables between the UHs occurred monthly in the Hospital IT Strategy Alignment Group with leadership of the UH Clinical Data Platforms.

In 2025, the SPHN direction further held meetings with executives from four UHs (CHUV, HUG, USB, USZ) to discuss **Collaboration Agreements 2026-2028**. Widespread leadership changes on the side of UHs require SPHN to strengthen knowledge and understanding of SPHN within most UH directions anew. On 20.11.2025, unimedsuisse approved of the Collaboration Agreement 2026 and recommended the hospitals to sign the Collaboration Agreements 2026. By spring 2026, a follow-up assessment of the criteria of efficiency, scalability, and sustainability regarding the management of the interoperability framework and data access services is to be submitted by SPHN.

6.2 Public-Private Collaboration Framework

SPHN has developed a **public-private collaboration framework** to allow private partners to tap into the potential of real-world health data in a legally and ethically compliant way, while keeping the administrative burden for all parties low.

Thanks to the framework, private parties, such as industry partners, can answer simple research questions without directly accessing personal health data. SPHN acts as a de-facto contract research organization, requesting data from the participating hospitals. By sharing only summarized results with the private party, SPHN complies with its high ethical and legal standards as defined in the guidelines Ethical Health Data Sharing in Public-Private Partnerships, developed by the ELSIag and published in 2021.

The contractual set-up is as follows: Data providing institutions (DPIs) and SPHN (represented by SIB) have signed a Collaboration Agreement. This Agreement appoints SPHN as representative of the DPIs towards industry partners. The signing parties of the Collaboration Agreement are represented in an Executive

Board. The industry partner and SPHN, in turn, agree on their terms and conditions of the project in a service agreement.

The framework is also suitable for publicly funded entities who want to answer a question with health data but lack the expertise or the infrastructure to do so. The analysis tasks can also be delegated to a participating DPI; and the DPIs can opt in or out with each project request from a private partner.

By the end of 2025, a first pilot project was completed, answering a research question for Novartis with data from the Cantonal Hospital Aarau (KSA) and University Hospital Basel (USB). Several more pharma companies have expressed interest in collaborating with SPHN. Further pilots and an extension of the data-providing network are intended in the future.

6.3 National Collaborations

As part of SPHN's consolidation (2025-2028), key interfaces with unimedsuisse, swissuniversities, the ORD Strategy Council, the ETH domain and the emerging DigiSanté program, as well as many more collaborations were a focus in 2025.

6.3.1 DigiSanté

DigiSanté is a 10-year-program of the Federal Department of Home Affairs (FDHA) to create the standards and basic infrastructure for the digital transformation of the health system in Switzerland. An important goal of DigiSanté is to enable the secondary use of healthcare data for research, quality improvement, and policy making.

SPHN is a member of the DigiSanté Branchengremium, the board of stakeholders responsible for advising the program on priorities of projects and measurable outcomes. To this end, SPHN participated in the commissions for the Swiss Health Data Space (SwissHDS), semantic and other standards in DigiSanté, the Microdata Center (MDC) of the Federal Statistical Office for secondary use of data, and the National Surveillance and Response (NASURE) project. SPHN furthermore participated in the national Expert Group on Data Management in the Health System (Fachgruppe Datenmanagement im Gesundheitswesen FGDM) with experts from the Confederation, cantons, organizations and interest groups. The FGDM is tasked with creating a joint understanding of the architecture and recommendations for standards of health data.

6.3.2 Other national collaborations

- **Unimedsuisse & university hospitals:** SPHN met with the unimedsuisse Executive Board and several times with representatives from the university hospitals agreeing on the cornerstones of the further collaboration 2026-2028.
- **CPCR:** SPHN contributed to the mapping and visualization of services of the national research support organizations SCTO, SCI, and SBP. The CPCR Service finder was published in early 2026.
- **FOPH:** SPHN is part of the expert committee for the revision of the Human Research Act.

- **FSO:** The SPHN DCC collaborated closely with the Federal Statistical Office to enable the harvesting of metadata from the SPHN Metadata Catalog into I14Y, the national metadata catalog. The harvesting was finalized in spring 2026.
- **Swiss Digital Pathology Initiative (SDPI):** A strategic collaboration between SPHN and the SDPI to share digital images across institutions. **Swiss Research Data Support Network (SRDSN)**: SPHN participates in the Sounding Board to align closely on the efforts for a sound research data management platform in Switzerland.
- **Swiss Transplant Cohort Study (STCS):** SPHN collaborates and provides services to the Swiss Transplant Cohort Study to facilitate responsible multiple reuses of collected data for quality assurance and research purposes
- **SwissNeoNet:** SPHN supported SwissNeoNet in the review of their contractual framework and provided services to further develop their responsible reuse of collected data from Swiss neonatology clinics.
- **Swiss Sepsis Program:** SPHN is a member of the Swiss Sepsis Program Advisory Board, a program sponsored by the Federal Quality Commission focussing on advocacy and education, the introduction of best practices for sepsis care and the establishment of a sepsis registry and benchmarks. These efforts are aimed at improving the quality of sepsis care in order to reduce the burden of sepsis in Switzerland.

6.4 International collaborations

- SPHN continued the collaboration with colleagues of the **Berlin Institute of Health** to work on SPHN FHIR profiles.
- SPHN collaborates with **HealthRI** and **NUM (Netzwerk Universitätsmedizin Germany)** on the alignment for metadata for health-related datasets.
- SPHN is strongly involved in the **SWAT4HCLS** (Semantic Web application and tools for healthcare and life science) and is actively contributing to the planning of the 2026 edition, with the FAIR Data team lead appointed as Scientific Chair for the event.
- SPHN engages with the **Federation of European Academies of Medicines** and committed to advancing data protection in the health sector through its participation in the **General Data Protection Regulation (GDPR) Working Group**.
- SPHN participates in the **National Initiatives Network** coordinated by SITRA strengthening secondary use of health and social data.

7 Events and Communications

7.1 Events

In 2025, SPHN and PHRT co-organized the **conference «From Technology to Treatment»,** demonstrating how personalized medicine can improve patient care. On 28-29 August 2025, more than 300 participants gathered at ETH Zurich. With 29 inspiring speakers from Switzerland and abroad, poster pitches, hands-on booths, and plenty of opportunities for exchange, the conference highlighted the power of collaboration between research, clinics, and data science.

SPHN furthermore was represented in a contributing role at the following national and international events:

- EnhanceR Seminar (Scientific IT Services, ETH Zurich): Webinar “Harmonizing health data in Switzerland for research. From semantics definition to real-world data implementation”
- European Institute for Innovation through Health Data (i~HD): Annual Conference
- Personalized Health Basel: Workshop “Democratizing the Health Data Ecosystem - From Challenges to Solutions”
- European Health Data Protection Congress
- BioTechX Europe
- Biomarkers as Game Changers in MS Treatment: Talk “The relevance of personalized medicine in the healthcare system"
- World of Data 2025
- Basel Computational Biology Conference [BC]²: Workshop “FAIR conceptual and technical infrastructures facilitating high quality health data access for research"
- Swiss Data Space Forum
- Dutch Symposium on Federated Learning
- Heidelberg Spring Symposium Medical Informatics: Talk “The SPHN Researcher Journey: Enabling Seamless Interoperability in Personalized Health Research”
- Life Science Zurich Impact «Precision Medicine and AI Innovations»
- BfArM im Dialog „D-A-CH-Anwenderforum SNOMED CT“
- Medical Informatics Europe 2025
- The RE(ACT) Congress and IRDiRC Conference
- SWAT4HCLS - Semantic Web Applications and Tools for Health Care and Life Sciences conference

7.2 Publications

SPHN released the following publications in 2025:

7.2.1 Scientific Papers

- PREPRINT: Witte, H., Unni, D., Krauss, P., et al. The SPHN Metadata Catalog: A platform for health data discovery and exploration based on FAIR principles, JMIR Preprints, doi: https://doi.org/10.2196/preprints.90146
- Conference paper: Brites Marto, A., Krauss, P., Kalt, K., et al. Efficient Querying of Federated Large-Scale Clinical RDF Knowledge Graphs in the Swiss Personalized Health Network, Preprints, doi: https://doi.org/10.20944/preprints202512.1909.v1, peer-reviewd and accepted for SWAT4LS 2026
- Conference paper: Armida, J., Touré. V., Krauss, P., et al. Semantic Interoperability at National Scale: The SPHN Federated Clinical Routine Dataset, Research Square, doi: https://dx.doi.org/10.21203/rs.3.rs-8250886/v1, , peer-reviewd and accepted for SWAT4LS 2026
- Conference paper: Touré, V., Unni, D., Witte, H., Armida, J., Österle, S., Five Years of the SPHN RDF Journey: FAIR Enough?, Preprints 2025, 2025101783. doi: https://www.preprints.org/manuscript/202510.1783, peer-reviewd and accepted for MIE 2026
- PREPRINT: Wodke, J. A. H., Gierend, K., Johns, M., et al. MIRAPIE: Proposing a Harmonising Framework as a Minimal Community Standard for Biomedical Provenance Documentation, Preprints with THE LANCET, doi: https://dx.doi.org/10.2139/ssrn.5327042
- PREPRINT: Bochud, M., El Bouzaïdi Tiali, S., Armida, J., Wissa, R., Österle, S. et al., Cohort Profile: Swiss Personalized Health Network Cohort Consortium, medRxiv 2025.10.10.25337504; doi: https://doi.org/10.1101/2025.10.10.25337504
- PREPRINT: Touré, V., Unni, D., Krauss, P., Marto, A.B., Kalt, K., Stoira, N., Pickl, M. and Österle, S., 2025. SPHN Connector-A scalable pipeline for generating validated knowledge graphs from federated and semantically enriched health data, Research Square, doi: https://doi.org/10.21203/rs.3.rs-7930982/v1 (paper published in 2026)
- Lerner-Ellis, Jordan P. Österle, Sabine. et al. The evolution of health data ecosystems: An international survey, The American Journal of Human Genetics, Volume 112, Issue 8, 1769 - 1777; doi: 10.1016/j.ajhg.2025.06.017
- Touré, V., Unni, D., Krauss, P. et al. The SPHN Schema Forge – transform healthcare semantics from human-readable to machine-readable by leveraging semantic web technologies. J Biomed Semant 16, 9 (2025). https://doi.org/10.1186/s13326-025-00330-9
- Lawless, D., Saadat, A., Oumelloul, A. M. et al., Application of qualifying variants for genomic analysis medRxiv 2025.05.09.25324975; doi: https://doi.org/10.1101/2025.05.09.25324975

Overall, SPHN's scientific publications were cited around 200 times by other researchers in 2025.

7.2.2 Other Publications

- Egli, M., Baumgartner, M., Blonski, D., Gächter, T., Geiger, T., Haerry, D., Hendriks, M., Maurer, J., Röthlisberger, B., Driessen S. Guidance on Ethical, Legal and Social Challenges Related to the Further Use of Human Genomic Data for Research. Available from: https://sphn.ch/document/guidance-on-elsi-challenges-for-the-further-use-of-genomic-data/
- Egli, M., KissBlind, J., Maurer, J. The SPHN Legal Agreement Templates A Unified Contractual Framework for Data Sharing in Swiss Health Research. Available from: Legal agreement templates - reference document - SPHN
- Egli, M., KissBlind, J., Maurer, J. Exploring Data Governance for Data Sharing at the Swiss University Hospitals. Available from: Exploring Data Governance for Data Sharing at the Swiss University Hospitals - SPHN

7.3 Digital Communication Channels

In 2025, SPHN was active on the following digital communication channels:

- Website (www.sphn.ch)
- Social media (LinkedIn)
- SPHN newsletter (two editions)
- SAMS newsletters (seven editions) and SAMS Bulletin (four editions)
- SPHN YouTube channel (3 webinars and 1 training):
  - Representing Imaging Data FAIR - Insights on the new Medical Imaging extension of the SPHN Schema
  - SPHN Researcher Journey
  - SPHN Metadata Catalog
  - SPHN Connector de-identification of sensitive data
- Contributions to various CAS courses at ETH Zurich.

8 Milestones 2025

- SPHN and PHRT co-organized the conference “From Technology to Treatment” in Zurich with over 300 participants.
- First publication of the SPHN Federated Clinical Routine Dataset on the SPHN Metadata Catalog. As of 31.12.2025 it spans more than 12.5 billion RDF triples and more than 800'000 patients from six university hospitals.
- All four National Data Streams (NDS), funded by SPHN and PHRT, completed the infrastructure build-up and assembled interoperable clinical, omics, and PROMs data from approximately 500’000 patients across Switzerland. Data analysis and research activities are ongoing.

- The first pilot project with Novartis in the context of the SPHN Public-Private Collaboration Framework, involving data from KSA and USB, was successfully completed.
- Five cantonal hospitals and SCI have been technically onboarded to the SPHN infrastructure.
- The Swiss FEGA node successfully passed the end-to-end demonstration, and Switzerland became a full member of the FEGA federation.
- Two releases of the SPHN Semantic Interoperability Framework expanded coverage of oncology-related diseases, genomic variants, and medical imaging. SPHN co-developed 50 new SNOMED CT codes and integrated ICD-O, Oncotree, and DICOM into its terminology services.
- BioMedIT added 11 new data-providing institutions, bringing the total number to 47. A white paper on versatile and federated Trusted Research Environments was published and a security assessment of the BioMedIT network was conducted by an independent professional security agency.
- SPHN published a guidance paper on the further use of human genomic data for research purposes.
- SPHN published a report on data governance for data sharing at Swiss university hospitals which describes and analyses institutional practices.
- SPHN published guidance papers on setting up contractual frameworks for multi-center data-driven health research and on the risk-based de-identification of sensitive data. SPHN maintains the Registry Regulation template.
- SPHN adapted its organization structure and funding instruments to the mandate 2025-2028. A new Steering Board, an Executive Board, and a Sounding Board were created. The new Technical Director SPHN, Dr. Davide Chiarugi, joined SPHN in March 2025.

9 Finances

9.1 Financial Statement

9.1.1 Summary

According to the project plans, all initiatives funded during the 2021–2024 funding period were completed by the end of 2025.

Final instalments were disbursed for the Demonstrator projects, the SPHN Data Explorer pilot, and the onboarding of the cantonal hospitals. As both the extension of the Collaboration Agreements with the university hospitals and the National Data Streams concluded on 31 December 2025, provisions were made to release the remaining payments upon approval of the final reports by the SPHN Steering Board in spring 2026. These final reports are needed to proceed to the final financial statement of the entire initiative, and to determine the final usage of the SERI funds allocated between 2017–2024.

The Collaboration Agreement with SIB regarding ongoing support for SPHN stipulates that, from 2025 onward, the full amount of SERI funding is allocated to SAMS, with SIB's expenditures reimbursed by SAMS. As these reimbursements are based on the final financial statement, an appropriate provision has been made.

9.1.2 Funding Activities

Table 1 shows the reported project spendings during 2025. The numbers show that the institutions taking part in projects do not only match the funds provided by SPHN but overall invest more own contributions than SPHN funds received.

All funded projects ended by end of 2025. However, the support of university hospitals to maintain and improve the infrastructure will continue in the next three years.

Table 1 Spendings on SPHN funded projects

Total reported spendings on SPHN projects 2025

	SPHN funds	%	Own contributions	%	Total as of 31.12.2025	%
Collaboration agreements	3'894'553	48%	4'189'195	52%	8'083'748	35%
Demonstrator Projects	656'750	60%	434'688	40%	1'091'438	5%
Nationa Data Streams	4'843'945	45%	5'847'297	55%	10'691'242	46%
Onboarding Cantonal Hospitals	239'782	41%	350'282	59%	590'064	3%
FEGA	1'747'466	67%	852'974	33%	2'600'440	11%
Total funding activities	**11'382'496**	49%	**11'674'436**	51%	**23'056'933**	

9.1.3 Costs Data Coordination Center

Table 2 shows the costs incurred for the Data Coordination Center.

Table 2, DCC spendings

Spendings DCC	2025 in CHF
Personnel & running costs	3'138'145
Consultancy & BioMedIT costs	2'009'426
Bodies	29'992
Total DCC costs	**5'177'564**
From provisions	3'759'238

A large part of the spendings were paid with provisions from the previous funding period, as most of the tasks were related to the ongoing projects.

10 Outlook: SPHN 2026-2028

SPHN's mission for 2026-2028 is to provide and continuously improve a national framework of services that enable trustworthy secondary use of health data across institutional boundaries, support high-quality research and innovation, and strengthen Switzerland's position in the European health data landscape.

The ERI Dispatch 2025-2028 outlines a financial contribution by the Confederation of CHF 20.7 million over four years. While securing the maintenance of the core services and infrastructures of SPHN in the coming years is a major success, it is not sufficient to enable the sustainable and scalable expansion of the network for the future.

In 2026, the consolidation of all SPHN activities, engagements and overall strategy will be the focus of SPHN and its respective bodies. Besides, SPHN will continue to focus on strengthening the commitment of all partners for collaborating and sharing the responsibilities and benefits for the common goal.

11 Imprint

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