



ANNUAL REPORT
2025

Contents

Part **01**

ABOUT BBMRI-ERIC Page 2

EXECUTIVE SUMMARY Page 4

WORK PROGRAMME IMPLEMENTATION Page 6

SO1 Optimise the interconnection of human, animal and environmental health research Page 8

SO2 Accelerate datafication to enable trustworthy, fit-for-purpose data for high-quality research Page 10

SO3 Foster green biobanking and research infrastructure operations Page 13

SO4 Secure infrastructural scalability, sustainability and service excellence Page 16

SO5 Strengthen the national node and biobank community within member states Page 19

SO6 Educate, train & build capacity Page 20

SO7 Strengthen stakeholder engagement and awareness Page 22

SO8 Advance a global biobanking community Page 24



Participants of EBW25 in Bologna, Italy

Part 02

SERVICE ACHIEVEMENTS FOR 2025

Biobanking Development

ELSI

Quality Management

IT

Public Affairs

Outreach, Education and Communications

Finance, Project Management and HR

Central office

EOSC

Service KPIs summary 2025

Page 26

Page 27

Page 29

Page 32

Page 35

Page 38

Page 41

Page 43

Page 45

Page 46

Page 47

Part 03

FINANCIAL INFORMATION

Page 49

Part 04

PROJECTS

Projects launched in 2025

Projects active in 2025

Page 52

Page 54

Page 56

Part 05

NATIONAL NODES

Austria

Page 59

Belgium

Page 60

Bulgaria

Page 61

Cyprus

Page 62

Czech Republic

Page 63

Denmark

Page 64

Estonia

Page 65

Finland

Page 66

Germany

Page 67

Greece

Page 68

Hungary

Page 69

IARC/WHO

Page 70

Italy

Page 71

Latvia

Page 72

Lithuania

Page 73

Malta

Page 74

The Netherlands

Page 75

Norway

Page 76

Poland

Page 77

Qatar

Page 78

Slovakia

Page 79

Slovenia

Page 80

Spain

Page 81

Sweden

Page 82

Switzerland

Page 83

Türkiye

Page 84

Part 06

ADDITIONAL INFORMATION

BBMRI-ERIC National Node Directors & HQ team

Abbreviations

Acknowledgements

Legal Notice

Appendix: Auditor’s Report

Page 85

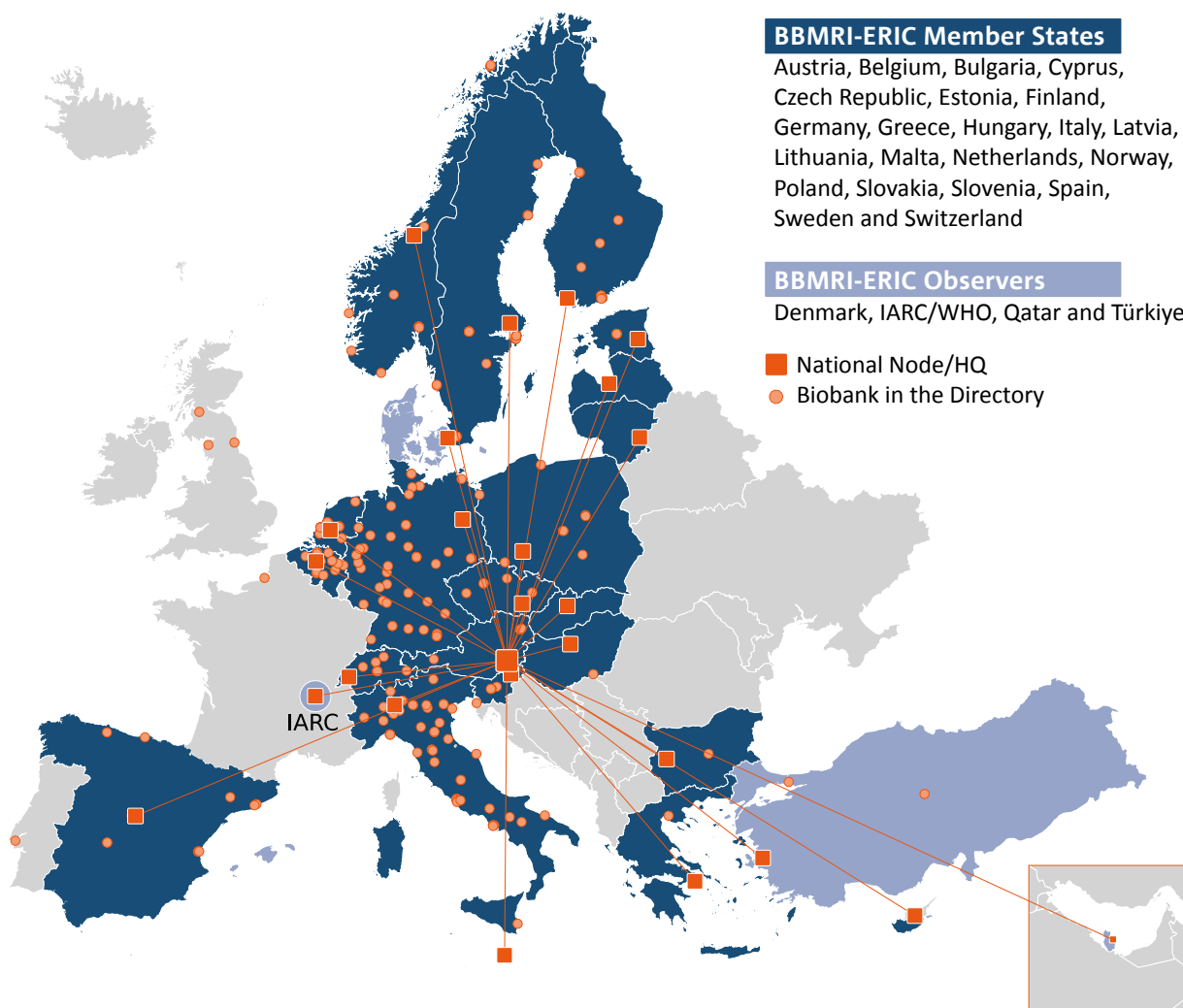
Page 86

Page 88

Page 89

Page 90

Page 91



BBMRI-ERIC Members & Observers

About BBMRI-ERIC

BBMRI-ERIC is the European research infrastructure (RI) for biobanking and biomolecular resources, one of the largest RIs in the health and life sciences. Set up in 2013, its membership includes around **500 biobanks** and **26 National Nodes** from 25 Member countries plus the **global organisation IARC/WHO** by the end of 2025.

A distributed research infrastructure, BBMRI-ERIC successfully develops multidisciplinary expertise and implements cutting edge services for the biobanking community that includes clinicians, researchers, biobankers, industry, patients and citizens.

The core services for, and provided by, the biobanking community are **IT infrastructure, biobanking development support, quality management excellence and ethical, legal and societal implications (ELSI)** expertise. These services facilitate access to high-quality samples, linked data and medical information through expertise in research, ethics, quality, datafication, imaging, AI and biobanking development. The aim is to achieve the core mission of facilitating access to samples, data and biomolecular resources for public benefit.

Governance

BBMRI-ERIC is governed by the **Assembly of Members (AoM)** which comprises delegates from our Member States who take collective decisions on matters relating to BBMRI-ERIC. This is supported by the **Finance Committee**, made up of Member States, to provide fiscal oversight to BBMRI-ERIC's operations.

The Assembly also receives assistance from the **Steering Committee** who are responsible for guiding and monitoring the activities of BBMRI-ERIC between the sessions of the Assembly of Members. This committee, reporting to the Assembly of Members, oversees implementing their decisions, including the Roadmap, the Work Programme and the budget.

BBMRI-ERIC's vision is that 'by unlocking the potential of biobanking and biomolecular resources, BBMRI-ERIC inspires the best research to benefit patients, the public and the planet.' This is simplified as: '**Biobanking for a Healthier World**'.

BBMRI-ERIC takes a **leading or key role** in EU Horizon projects that cover cancer, rare diseases, paediatrics, COVID-19 and other infectious diseases, genomics, sensitive health data, AI, federated platforms, European Health Data Space (EHDS), European Open Science Cloud (EOSC), personalised medicine and One Health.

BBMRI-ERIC in 2025

Members States:

Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Estonia, Finland, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Malta, Netherlands, Norway, Poland, Slovakia, Slovenia, Spain, Sweden & Switzerland.

Observers:

Denmark, IARC/WHO, Qatar & Türkiye.

The **Management Committee (MC)** comprises National Node (NN) Directors and coordinators who support Work Programme and budget development and implementation. The **Stakeholder Forum**, with Pillars Patient and Citizens, Industry and Scientific Societies, exists with the aim to build a sustainable, egalitarian relationship between the biobank community and its stakeholders.

Finally, the **Scientific and Ethical Advisory Board (SEAB)**, made up from distinguished scientists and experts, provides guidance to the Assembly of Members with regard to overall implementation and future developments of BBMRI-ERIC.

Executive Summary

Welcome to **BBMRI-ERIC's 2025 Annual Report**, which introduces a new structure for presenting our activities and achievements over the past year. This refreshed approach reflects the 2025–2027 Work Programme, marking the first year of implementation of our 10-Year Roadmap. At the heart of the Roadmap is the One Health approach which recognises the interdependence of human, animal and environmental health and guides our strategic priorities for the future.

Scaling up co-creation

Activities in 2025 contributed to rising awareness of **BBMRI's wide portfolio of scientific affairs** in IT, Biobanking Development, Ethical, Legal and Societal Implications (ELSI) and Quality Management. This was underpinned by integral support provided by the functions of Finance and Project Management, Public Affairs, Outreach, Education and Communications and Central Office to provide support for the multitude of stakeholders. These essential functions of the research infrastructure were also central for supporting the Work Programme strategic objectives.

The following section of the Annual Report provides **substantial evidence of the success of our Research Infrastructure-wide strategy**, built around collaboratively developed and shared strategic objectives. These objectives address key priorities including One Health, datafication, the Green Deal, scalability, sustaina-

bility, service excellence, empowered biobanks and National Nodes, the BBMRI-ERIC Academy, stronger stakeholder relationships and advancing the global biobanking community.

This significant **expansion of co-creation** enables us to leverage expertise and resources across the research infrastructure, fostering synergies, knowledge exchange and accelerated progress. The scale of this collaborative effort is reflected in the eight strategic objectives (SOs), which are translated into 30 operational goals. These goals are co-led by 50 National Node representatives and supported by 230 contributors from across our Member States' communities, demonstrating the strength and impact of our co-creation model.

Community growth and sustainability

The intensive work undertaken across our strategic objectives has made a significant contribution to BBMRI-ERIC's **scalability and long-term sustainability**. In 2025, we were pleased to welcome two new Member States, with both Spain and Slovakia joining as full Members. This growth strengthens our network of around 500 biobanks and by now 26 National Nodes, enabling closer alignment with the objectives of the 2025–2027 Work Programme.

The **impact of this strengthened collaboration** is also evident in initiatives such as BBMRI wide

preparations for increased industry collaborations, which demonstrate the value of our services and partnerships. Together, these developments enhance the capacity of the entire research infrastructure to respond to emerging opportunities and priorities arising from the expanding policies addressing European competitiveness, changing research demands, as well as societal and economic importance of the One Health approach.

None of this would be possible without the **strength and commitment of the BBMRI-ERIC community**. This was exemplified by another highly successful Europe Biobank Week, held in Bologna, Italy, from 13–16 May 2025. As our flagship event, organised in partnership with the European, Middle Eastern and African Society for Biobanking (ESBB), Europe Biobank Week promotes and showcases excellence in scientific research, education and facilitates networking across the global biobanking community.

The congress brought together **more than 800 delegates from 47 countries**, including representatives of public and patient organisations, clinicians, researchers, biobank professionals, policymakers and industry. Their participation reflects the diversity, expertise and collective energy that continues to drive advances in biobanking and biomolecular resources.

Structuring ERA

The highly collaborative strategy adopted in 2025 has **further strengthened** **BBMRI-ERIC's value proposition within the European Research Area**. This is demonstrated through our contribution to shaping policy discussions for the forthcoming Framework Programme 10 (FP10), as well as our leadership and active participation in key Cancer Mission initiatives, including [UNCAN-Connect](#) (building the European Understanding Cancer Platform being piloted through various use cases); [CANDLE](#) (conceptualising the National Cancer Data nodes connectivity to UNCAN); [PERIFORMANCE](#), a project aiming to identify, optimise and promote innovative stakeholder engagement in cancer research by addressing the ethical, legal and societal implications; and [EU-CiP](#), (building the European Cancer Patient Portal). These activities highlight BBMRI-ERIC's role not only in developing the essential infrastructure needed to support Europe's future research capabilities, but also in enhancing services that deliver tangible benefits for patients and society.

Such progress is achieved through **strong partnerships and collaborative action**. During 2025, BBMRI-ERIC established and strengthened several strategic collaborations, including with the Global Genome Biodiversity Network ([GGBN](#)), advancing shared objectives within the One Health framework; [EMPAIA International e.V.](#), working together to standardise the use of AI applications in clinical pathology; the

International Society of Oncology and Biomarkers ([ISOBM](#)), strengthening biomarker discovery and validation; European InfraRucturE for human Exposure ([EIRENE](#)), strengthening research on how environmental exposures impact human health; and the Italian National Research Centre in High-Performance Computing, Big Data and Quantum Computing ([ICSC](#)), enhancing trusted processing environments and advanced data services.

In parallel, BBMRI-ERIC **supported the build-up phase of the European Open Science Cloud (EOSC) Federation** by becoming one of its 13 founding Nodes and the primary Node focused on sensitive health data. This milestone was formally recognised in autumn 2025 through the presentation of the BBMRI-ERIC's successful use case on using AI on whole slide images to support prostate cancer screening ([MC-VAL use case](#)) at the inaugural EOSC Federation Symposium.

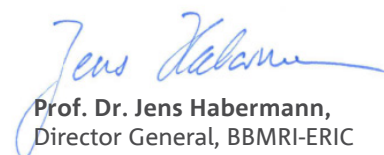
This strategic positioning complements **BBMRI-ERIC's broader leadership activities**, including its role coordinating the [ERIC Forum project](#), which promotes the sustainability and long-term impact of European research infrastructures. It also includes support for BBMRI.no's scientific leadership of [INTEGRATE LMedC](#), advancing the development of large medical cohorts and continuing coordination of [canSERV](#), enabling researchers across Europe to generate innovative cancer research outcomes through access to

cutting-edge research infrastructure services and expertise.

Such achievements are built on BBMRI-ERIC's **long-standing and expanding federated access and analysis platform** connecting around 500 biobanks and 26 National Nodes across 32 countries with representation of over 7 Mio. citizens characterised by OMOP variables including clinical phenotype data. This comprises biochemical data, genomes and other OMICs related data, radiology and pathology imaging data as well as links to patient reported outcomes and survival registries along with various clinical sample types. This data conforms to FAIR principles and in a fully GDPR compliant manner to the highest technical readiness level (TRL9).

It is thus with some pride that we present our key achievements from 2025.




Prof. Dr. Jens Habermann,
Director General, BBMRI-ERIC

PART 1
**Work Programme
Implementation**

Work Programme Implementation in 2025

BBMRI-ERIC's **Work Programme 2025–2027** entered its first year of implementation in 2025, marking the transition from strategic planning to coordinated execution across the infrastructure.

Implementation began with a joint kick-off meeting in February 2025, bringing together National Node Directors and Assembly of Members (AoM) delegates. This provided a platform to **present, discuss and validate the Strategic Objectives**, ensuring a shared understanding of priorities, expectations and the overall direction of activities.

An operational framework was established to support implementation, defining governance structures, roles and responsibilities, as well as reporting and communication lines. **National Nodes subsequently nominated experts to act as co-leads and contributors based on national priorities.** In March 2025, initial alignment meetings were held with co-leads per Strategic Objective to define the scope, content and leadership of activities.

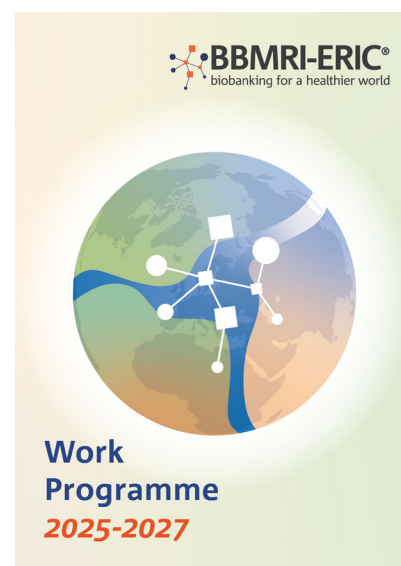
This led to the **formation of dedicated working groups for each Operational Goal**, enabling cross-node collaboration, knowledge exchange and coordinated delivery. Throughout the year, structured review meetings were organised per Strategic Objective, including two main cycles in June and October. These meetings

supported progress monitoring, alignment of activities and provided a platform to address challenges and coordinate interdependencies.

Overall, **implementation progressed well across all Strategic Objectives**, supported by strong engagement from National Nodes and active participation of contributors within established working groups. While the in-kind nature of contributions may present occasional resource constraints, these were addressed through targeted support and, where necessary, adjustments in leadership. In the first year, such adjustments were minimal, reflecting the overall stability of the implementation.

In 2025, **regular online coordination meetings between the lead and contributors** for each strategic objective ensured coherence and follow-up on action points throughout the year. Regular updates on the Work Programme were provided to the Management Committee (MC), alongside broader communication and outreach activities aimed at increasing awareness and engagement across the BBMRI-ERIC community, e.g. through the newly launched BBMRI Community Webinar series.

We thank the co-leads of the strategic objectives and operational goals as well as all contributors who have provided the following updates of the Work Programme



implementation achievements in 2025.

SO1 - Optimise the interconnection of human, animal and environmental health research

Milestone SO1: Showcasing how BBMRI-ERIC has integrated One Health into different aspects of its infrastructure by a workshop with Member States and key stakeholders (Q4 2027).

BBMRI-ERIC will focus on optimising the interconnection of human, animal and environmental health research by exploring opportunities based on the One Health paradigm.

Operational Goals

1.1 Engage with different Member State ministries

Lead: HQ-PA (Johanna Kostenzer)

Contributions NN: MT

Contributions HQ: BBD

BBMRI-ERIC intensified engagement with Member State ministries to strengthen alignment between national priorities and BBMRI's strategic outline and operational framework. Targeted country visits to Hungary, Latvia, Norway and Poland enabled direct dialogue with ministerial representatives and national stakeholders, fostering cross-ministerial exchange in the context of One Health and reinforcing national anchoring of BBMRI-ERIC activities. In parallel, exploratory discussions were advanced with European and associated countries — including Croatia, Ireland, France, Montenegro, Portugal, Romania and Serbia — to assess opportunities for closer cooperation and future integration.

At the European level, BBMRI-ERIC further consolidated its policy engagement through continued bilateral exchanges with key European Commission departments and active participation in the [ERIC Forum](#), including the Annual Meeting in November 2025. Strategic advocacy focused on embedding a One Health and sustainability perspective in [Framework Programme 10](#) and the future European Research Area framework, including a formal response to the Call for Evidence for the [ERA Act](#). Visibility and policy outreach were reinforced through participation in major European and international fora, strengthening BBMRI-ERIC's positioning within health, biodiversity and research infrastructure policy discussions.

1.2 Scale up interactions and alliances with other research infrastructures and initiatives

Co-leads: CH (Joséphine Uldry & Christine Joye), IT (Marialuisa Lavitrano & Monica Forni)

Contributions NN: AT, BE, BG, CZ, ES, GR, IARC/WHO, LT, LV, NL, SI

Contributions HQ: PA, BBD, ELSI, QM, HQ-IT

A survey was launched among the contributors in collaboration with SO1.3 to map non-human networks and research infrastructures, with participation from six countries. The mapping identified key domains across national and EU landscapes, including data and bioinformatics, infectious disease and microbial resources, environmental and ecosystem research, veterinary and animal health, and social sciences. It confirmed the existence of a

broad but fragmented One Health ecosystem and revealed substantial expertise within the BBMRI network. Survey responses indicated that reported links between non-human initiatives and biobanking are primarily project-based, with limited structural integration, particularly in environmental and biodiversity domains, providing important insights for future strategic development.

1.3 Interconnect with viral, microbial, environmental, animal and/or plant collections

Co-leads: AT (Ingrid Walter & Cornelia Stumptner & Monika Wieser), NO (Kristian Hveem)

Contributions NN: BE, CH, DE, ES, GR, IT, LV, NL, SI

Contributions HQ: QM, BBD, HQ-IT

This collaboration delivered a joint mapping strategy and a practical toolset: an Excel-based online table to capture essential information on non-human sample and data resources (collection/biobank/database name, contact details, sample types, species and associated data). To ensure clarity across domains, we agreed to use “sample collections” alongside “biobanks,” acknowledging that “biobank” is not yet universally adopted in the non-human context.

Consistent with the One Health approach, the initial mapping phase was broadly inclusive — covering all non-human collections within BBMRI members without prioritisation. An Austrian pilot mapping was completed and embedded as an example to guide contributors. The joint SO1.3+SO1.2 survey was sent out, and by mid-March 2026, seven nodes (AT, BE, CH, ES, GR, IT, LV) had entered data, registering 55 non-human biobanks/sample collections/databases.

Entries span animals, plants, microorganisms (including viruses), environmental samples (e.g., soil, water), human-related and fungi, with 16 resources reporting multi-species materials. Key priorities for 2026 are to secure input from more nodes; re-evaluate and gap-analyse the data; elaborate an interconnection concept (defining interaction areas and mutual benefits); contact selected biobanks/collections; and initiate an engagement event. These achievements lay the groundwork for a comprehensive, interoperable view of non-human resources and advance SO1.3 goals.

SO2 - Accelerate datafication to enable trustworthy, fit-for-purpose data for high-quality research

Milestone SO2: Support for non-human data available in the discovery and access pipeline (Q4 2026).

Accelerating datafication by applying FAIR-Health principles¹ will enable reproducible advance-

ments in science. search by exploring opportunities based on the One Health paradigm.

Operational Goals

2.1 Datafication at source

Co-leads: IT (Matteo Pallocca), NO (Kristian Hveem)

Contributions NN: AT, BG, CY, CZ, DE, GR, HU, LT, LV

Contributions HQ: HQ-IT, QM, ELSI

The 2025-2026 SO2 survey was released with a subset of datafication-specific questions. Even if biased towards a specific sub-group of National Nodes, results show that linkage with radiology is challenging and possible only for a few biobanks, while Whole Slide Imaging (WSI) and Digital Pathology profiles are more spread in the biobank

network and a more realistic data enrichment objective. Regarding omics profiles, almost half of biobanks have access to sequencing, but with a level of vendor/local heterogeneity bias, while other profiles, such as metabolomics and proteomics, are quite rare.

2.2 Enable reproducible research through good data traceability and quality management

Co-leads: CH (Joséphine Uldry & Flavien Delhaes), PL (Agnieszka Matera-Witkiewicz & Błażej Marciniak)

Contributions NN: AT, BG, CY, CZ, DE, GR, HU, LT, LV

Contributions HQ: HQ-IT, QM, ELSI

A comprehensive status analysis was conducted to assess readiness levels among National Nodes and affiliated biobanks regarding sample and data traceability, provenance implementation and quality management (QM) maturity. Individual readiness scores were calculated for each biobank, enabling the development of a landscape overview reflecting traceability capacity and QM maturity across participating countries. A key activity was the identification of biobanks suitable for piloting a provenance infrastructure under the EvolveBBMRI framework. Ten advanced biobanks

from six countries were evaluated with strong digital capacity and quality management alignment. Major achievements include the identification of key bottlenecks, such as limited linkage across data type and limited automation and IT system integration and the definition of concrete priorities for 2026. The structured, maturity-based approach to provenance implementation and the selection of pilot biobanks represent significant progress toward a harmonised and digital biobanking across Europe.

¹ Holub P et al. Enhancing Reuse of Data and Biological Material in Medical Research: From FAIR to FAIR-Health. Biopreserv Biobank. 2018 Apr;16(2):97-105. doi: [10.1089/bio.2017.0110](https://doi.org/10.1089/bio.2017.0110). Epub 2018 Jan 23. PMID: 29359962; PMCID: PMC5906729.

2.3 Ensure international interoperable connectivity with (local, national and international) medical data ecosystems

Co-leads: AT (Georg Göbel & Volodymyr Shekhovtsov), NO (Therese Haugdahl Nøst)

Contributions NN: CZ, DE, ES, GR, HU, IT, LV, MT, NL, SI

Contributions HQ: HQ-IT, BBD

The group also contributed to the SO2 survey, focusing on challenges with regards to interoperability. We have compiled background materials on identified gaps for interoperability in large cohorts from deliverables in the [Integrate-LMedC](#) project, and guidelines and strategic documents under the developments of [EOSC](#) and [EHDS](#). Contact was

also established with the EOSC Health Data Task Force. This will together with the results of the SO2 survey and continued discussions in the meeting series, form our groundwork for SO2.3.

2.4 Expand the Federated Platform

Co-leads: CZ (Zdenka Dudova & Radoslava Kacová), SE (Tomas Snäckerström & Peter Hedman).

Contributions NN: AT, CY, DE, ES, GR, IT, LT, PL

Contributions HQ: HQ-IT, BBD

During 2025 the objective of exploring challenges faced by biobanks when onboarding was part of ongoing work in the group. The topic was presented and discussed by the participating nodes and

summarised in a brief report. In addition, one additional biobank (Biobank Hradec Kralove) was onboarded onto the Federated Platform in 2025.

2.5 Enable on-demand easily accessible data generation to advance biobanking

Co-leads: LT (Arvydas Laurinavičius & Dovilė Žilėnaitė-Petrulaitienė), HQ-IT (Heimo Müller)

Contributions NN: MT

Contributions HQ: HQ-IT, BBD

In 2025, SO2.5 pursued two complementary goals: (a) representing Whole Slide Imaging (WSI) datasets in the BBMRI-ERIC Directory and (b) exploring synthetic data generation for privacy-preserving digital pathology data sharing. To support these objectives, a survey was conducted among National Node representatives to map the current landscape of WSI data availability. Based on the findings, a core attribute list for WSI cohort description was developed in alignment with the [MIABIS](#) Digital Pathology component to enable

standardised representation of datasets in the Directory. A call-to-action document was prepared to invite institutions to join a pilot onboarding group, following a two-stage strategy: starting with a seed group of close collaborators, then scaling to the broader community. In parallel, the group reviewed existing approaches to synthetic data generation and privacy risk assessment for WSI data, laying the groundwork for proof-of-concept activities planned for 2026.

2.6 Increase capacities to host result data (Links to SO4)

Co-leads: CZ (Zdenka Dudova & Radoslava Kacova), HQ-IT (Andreas Türk)

Contributions NN: GR, LV

Contributions HQ: BBD

Key activities: The SO2.6 survey was designed and developed to capture the current state of returned data practices across the BBMRI-ERIC network, covering policy and workflow status, storage infrastructure, quality monitoring and perceived barriers. Following data collection from 79 respondents across Europe, responses were

systematically summarised and analysed, including cross-tabulation of key variables to map the relationship between policy maturity and practical experience with returned data.

SO3 - Foster green biobanking and Research Infrastructure operations

Milestone SO3: Guidelines towards green biobanking and Green Incentive published open access (Q4 2026).

By investigating and promoting the most sustainable and energy-efficient setup, BBMRI-ERIC will support a low carbon future for biobanks and

research infrastructure operations (National Nodes and Headquarters).

Operational Goals

3.1 Foster Greening for biobanking operations through mapping the challenges (Links to SO4)

Co-leads: AT (Monika Valjan & Veronika Perz & Sabrina Kral & Cornelia Stumptner), NL (Jörg Hamann)

Contributions NN: BE, CY, DE, DK, ES, FI, IARC/ WHO, IT, LT

Contributions HQ: BBD, OEC, ELSI

As part of the [EvolveBBMRI project](#), a survey on Green Biobanking Environmental Challenges and Best Practices was conducted to engage National Nodes and their associated biobanks in a comprehensive mapping exercise. SO3.1 aims to identify and assess key gaps and challenges in the implementation and long-term maintenance of environmentally sustainable biobanking practices. To support this objective, the National Nodes of Austria and the Netherlands expanded the survey, ensuring national coverage and meaningful outcomes. The results were presented during a

webinar held on January 28, 2026, organised by BBMRI-ERIC in collaboration with BBMRI.at (Biobank Graz) and BBMRI.nl (Amsterdam UMC Biobank). The webinar focused on how further analysis and strategic use of the survey results can strengthen our collective understanding of — and progress toward — greener biobanking practices, with particular interest in the reduction of energy consumption and waste production. The outcomes will also be presented at the Europe Biobank Week 2026 in Prague.

3.2 Achieve a Green biobanking approach, incl. Green Incentive and Green Label (Links to SO4)

Co-leads: BBD (Saba Abdulghani), IARC/WHO (Zisis Kozlakidis & Stephanie Villar)

Contributions NN: AT, CH, DK, ES, NL

Contributions HQ: QM, ELSI

Building on the mapping of environmental challenges and best practices under SO3.1, SO3.2 aims to translate these insights into practical mechanisms that support the adoption of greener biobanking practices across the network. The ac-

tivity focuses on the development of a structured Green Biobanking approach, including the exploration of a Green Incentive framework and the conceptualisation of a Green Label that could recognise biobanks implementing environmentally

sustainable practices. The Green Incentive framework will consider potential drivers that encourage biobanks to adopt greener operational models on a voluntary basis, such as recognition mecha-

nisms, visibility within the research infrastructure community and alignment with broader sustainability policies in research and healthcare.

3.3 Implement better waste management practices

Co-leads: BBD (Saba Abdulghani), GR (Sissy Kolyva)

Contributions NN: AT, BE, DE, ES, IARC/WHO, LT, NL

Contributions HQ: OEC

Waste management is a foundational priority for biobanks, essential for biosafety, regulatory compliance, environmental stewardship and the integrity of research data. The green biobanking survey highlighted waste management as a critical area where biobanks must invest effort to protect personnel, the surrounding community and the ecosystem, while also safeguarding the quality and reproducibility of biological samples. Effective waste handling touches every stage of biobanking operations—from generation and segregation of waste streams to storage, transport, treatment and ultimate disposal. By strengthening waste management, biobanks can reduce operational risks, minimise potential cross-contamination and ensure that waste practices align with evolving national and international regulations, industry standards and ethical expectations.

In response to these insights, we have undertaken a mapping exercise to identify and map the industries that provide robust waste management solutions. This effort covers the full spectrum of waste, including hazardous (e.g., chemical, biological, sharps or cytotoxic waste) and non-hazardous streams (e.g., general biomedical waste, packaging and office waste). Our goal is to highlight the landscape of trusted service and solution providers who can offer end-to-end support, from waste characterisation and segregation to compliant transport, treatment and disposal.

This extended mapping aims to empower biobanks to partner with the right experts, adopt best practices and implement sustainable, cost-efficient waste workflows across all stages of handling and disposal, thus enhancing safety, upholding regulatory standards and minimising environmental impact.

3.4 Promote green computing (Links to SO2)

Co-leads: BBD (Saba Abdulghani)

Contributions NN: AT, BE, CY, DE, ES, FI, IARC/WHO, LT, MT, NL, SI.

Contributions HQ: OEC, ELSI

In 2025, we began developing a workload inventory to support green computing outreach by identifying key biobank computing activities and their associated energy and data demands. The inventory maps major operational workloads according to their compute requirements (CPU/

GPU), input/output (I/O) storage behaviour and relative energy intensity. Key categories include sequencing data processing, image analysis, phenotypic data processing, LIMS/LIS operations and analytics and querying. Sequencing workflows — such as base calling, alignment, variant

calling and quality control — require sustained high CPU/GPU utilisation and extensive read/write operations of large FASTQ and BAM files. Image analysis of digital pathology and MRI/CT data produces very large files (e.g., TIFF and DICOM) and represents one of the most energy-intensive workloads. Phenotypic data analysis relies on GPU-driven machine learning and matrix operations, while analytics tasks are intermittent but

compute-intensive. Routine LIMS operations and backups have lower compute demands. Based on this assessment, green computing guidelines will be developed to optimise high-demand workflows, improve hardware allocation and reduce unnecessary data movement.

3.5 Develop an exchange platform for second use/exchange of technical equipment (Links to SO7)

Co-leads: BBD (Saba Abdulghani)

Contributions NN: AT, BE, DE, ES, FI, IARC/WHO, LT, MT, NL

Contributions HQ: OEC

We have developed an inventory with the aim to define clear categories that can be implemented on the BBMRI website as part of a robust equipment registry. These categories include Equipment ID, Technical specifications, Certification, maintenance and QA, Environmental and safety requirements. The platform's data backbone directly supports the circular economy in biobanking by enabling reuse, repair and recycling of equipment. With detailed, standardised re-

cords of capacity, energy use, environmental requirements and service histories, facilities can optimise asset utilisation, avoiding unnecessary purchases thus enhancing their environmental practices towards a reduced carbon footprint.

SO4 - Secure infrastructural scalability, sustainability and service excellence

Milestone SO4: Legal framework concept involving biobanks, National Nodes and BBMRI HQ to foster scalability and sustainability (Q4 2025).

To further enhance the infrastructural scalability, sustainability and service excellence, we seek to engage with universities, industry and private foundations to explore collaboration models such as support for specific visionary projects, in-kind

contribution, industry collaboration, public-private partnership as well as open innovation models. In parallel, the ambition is also to nurture close and high-value partnerships with associated and third countries.

Operational Goals

4.1 Explore and develop new services models

Co-leads: FI (Tom Southerington), CH (Sabine Bavamian & Khalil Roy & Lou Ferraton)

Contributions NN: AT, CZ, DE, ES, GR, SE

Contributions HQ: FPM, BBD, QM, ELSI, HQ-IT

In 2025, activities under SO4.1 focused on exploring and developing new service models to strengthen collaborations and improve service provision across the BBMRI-ERIC network. Two main objectives guided the work.

First, efforts were dedicated to developing a legal framework enabling collaborations across the BBMRI community (biobanks, National Nodes and HQ) and with external partners, particularly industry. A concept for a collaboration model was developed in which BBMRI-ERIC would act as a single-entry partner for industry, channelling requests for samples and data to relevant partners within the BBMRI network. The objective of this “one-stop shop” model is to enable faster responses to industry needs while establishing contractual and governance frameworks in ad-

vance to facilitate efficient and fast service delivery. A pilot case with an industrial partner is currently explored and a draft collaboration agreement was initiated. Ongoing discussions still need to carefully address contractual obligations, liabilities and performance expectations between BBMRI, the service provider and the industrial partner(s).

Second, SO4.1 worked on defining the concept and requirements for a universal, user-friendly platform providing a central entry point to explore and access biological resources, services and other relevant information (e.g. trainings) across the BBMRI community. User needs were identified and the platform concept is currently under development.

4.2 Build different partnership models

Co-leads: NO (Vegard Marschhäuser), HQ-BBD (Manuela Pausan)

Contributions NN: BE, BG, CZ, DE, FI, GR, HU, IT, LT, PL, QA

Contributions HQ: FPM, QM

The initial mapping exercise, launched in Q2 2025, focused on collecting information of both new

and existing partners, either academic or industry partners, across the countries contributing to

SO4.2. The results were presented in a follow-up meeting that included country presentations outlining the different partnership models. Presentations were provided by Norway, Czech Republic and Finland.

A detailed analysis of the initial mapping indicated inconsistencies in the reported partnerships, with

some countries reporting partnerships at the biobank level, rather than at the National Node network level. To address this, a re-scoped mapping was launched in Q4 2025, focusing exclusively on new academic/research partnerships between National Node networks and prospective partners.

4.3 Develop new membership and partnership models beyond ERIC Statutes (Links to SO8)

Co-leads: IARC/WHO (Zisis Kozlakidis & Elodie Caboux), HQ-PA (Elena Preziosa)

Contributions NN: GR, IT

Contributions HQ: FPM, CO

Building on the growing international reach and collaborative potential of BBMRI-ERIC, SO4.3 aims to explore and develop new membership and partnership models beyond the current ERIC statutes. The objective is to create flexible mechanisms that enable broader participation from institutions, networks, and stakeholders that are not currently able to join through the formal ERIC membership framework. This activity focuses on identifying opportunities for engagement with a wider ecosystem of partners, including research infrastructures, clinical networks, public health organisations, industry stakeholders and international multilateral organisations.

Following the AoM's approval of the Strategic Partnerships concept paper in 2024, BBMRI-ERIC developed its first pilot case in 2025 with the

European Rare Disease Biobank Network ([EuroBioBank](#)), with the Strategic Partnership formally adopted by the AoM in June 2025. EuroBioBank is a European network of biobanks providing human DNA, cell and tissue samples for rare disease research, currently comprising 27 institutions across 11 countries. The partnership aims to integrate EuroBioBank's rare disease biobanks into BBMRI-ERIC services, tools and infrastructure, while engaging in joint activities such as Europe Biobank Week, scientific events, educational initiatives and project collaborations to increase the visibility of rare disease collections and strengthen BBMRI-ERIC's role in rare disease research. In addition, EuroBioBank will participate in the BBMRI-ERIC Management Committee as an observer with speaking rights.

4.4 Develop and implement risk assessment tools, including risks related to privacy, consent or possible discrimination (Links to SO8)

Leads: HQ-ELSI (Monica Cano-Abadia)

Contributions NN: AT, CY, GR, HU, IT, LT, NO

Contributions HQ: HQ-IT

The activities of Operational goal 4.4. will kick off in 2026.

4.5 Define and build a back-up system

Co-leads: IARC/WHO (Zisis Kozlakidis & Elodie Caboux), HQ-BBD (Saba Abdulghani)

Contributions NN: DE

Contributions HQ: PA, QM, ELSI

Building on the need for sustainable and robust biobanking operations, SO4.5 aims to define and support the development of a structured back-up system for resilient biobanking. The objective is to strengthen preparedness and continuity of operations in the event of technical failures, environmental disruptions, funding cessation or other unforeseen incidents that may threaten the integrity of stored biospecimens and associated data. This needs to occur through practical approaches, e.g., at the simplest level the identification of partner biobanks capable of hosting secure back-up storage and facilitating reciprocal support arrangements.

The work focuses on mapping existing capacities as presented in the international scientific literature. Particular attention was given to minimum operational standards and governance considerations, including traceability, quality assurance and ethical and legal requirements associated with robust back-up systems. The outcomes of this activity will contribute to the development of a framework for resilient biobanking, providing guidance for national nodes on implementing scalable and sustainable back-up solutions. This framework may function as the long-term protection of biospecimens and data resources while enhancing the overall reliability and resilience of the BBMRI-ERIC infrastructure.

4.6 Leverage funding and subsidies to support biobanks (Links to SO3)

Co-leads: LT (Daiva Dabkeviciene & Sonata Jarmalaite), HQ-BBD (Saba Abdulghani)

Contributions NN: BE, CY, CZ, DE, SI

Contributions HQ: PA

In 2025, the team completed internal alignments to define the scope and work plan for SO4.6, thereby establishing a foundation for coordinated actions in which the principal priorities included analysing the Green Biobanking Survey results to identify sustainability needs and opportunities across National Nodes in collaboration with SO3; assessing funding gaps and capacities to strengthen participation in EU funding programmes; and mapping expertise and technologies across National Nodes — including project development and data analytics — to support collaboration and joint EU project initiatives in collaboration with SO4.2 and SO6.3.

The work will also target EU funding opportunities within the Health Cluster, with emphasis on disease-focused research calls, personalised medicine and biomarker development, while leveraging digital and artificial intelligence capa-

bilities — encompassing AI tools for health, data-driven research, and emerging digital technologies — and advancing research infrastructures through EOSC integration and service/technology upgrades. This integrated approach aims to enhance collaboration across the Health Cluster, Digital & AI and Research Infrastructures, thereby strengthening participation in EU programmes and the overall resilience and effectiveness of the European biobanking ecosystem. Additionally, the initiative will establish a robust network comprising National Nodes, biobanks, universities, research institutes and other stakeholder groups to articulate the value proposition of the biobanking community in specific activities — such as green biobanking and energy-saving green computing (as linked to SO3) — and to demonstrate impact and raise awareness among policymakers and funders.

SO5 - Strengthen the National Node and biobank community within Member States

Milestone SO5: Call for community topic champions (Q2 2025).*

The long-term sustainability of BBMRI-ERIC depends upon the expertise of the local and national community. Active engagement and shared responsibilities across the RI will strengthen collabo-

ration with the network, including national policy-makers, delegates, National Nodes and biobanks.

Operational Goals

5.1 Empower National Nodes and biobanks

Co-leads: HQ-BBD (Saba Abdulghani)

Contributions NN: AT, BE, BG, CH, CY, CZ, DE, EE, ES, FI, GR, HU, IT, LT, LV, MT, NL, SI

Contributions HQ: PA, OEC, QM

During 2025, BBD worked on designing a “Bio-banks Operations and Sustainability” survey focused on mapping and identifying operational bottlenecks, financial sustainability issues and strategic infrastructure gaps/needs to inform future funding, policy and capacity-building initiatives. Its impact will be a comparable evidence base that benchmarks performance and needs across biobanks to highlight priority investments and capacity-building needs, informs targeted

funding and policy measures and ultimately strengthens long-term resilience, trust and scientific value of the biobanks in the BBMRI-ERIC. The survey was shared with the MC for feedback and distribution to their national biobanks. It is envisioned to be launched in 2026.

* Milestone delay explanation: The focus on the operations and sustainability survey was prioritised to ensure deeper understanding of the biobanking landscape. The results will be combined with a fine-grained assessment of future European Commission call priorities before reaching out to the community for topic champions.

SO6 - Educate, train & build capacity

Milestone SO6: Launch of upgraded BBMRI Academy as training portal (Q1 2026).

BBMRI-ERIC will shape education and capacity building by developing agile and future-oriented models for collaborative training and research for

different target groups, such as researchers, data managers, project managers or biobank technicians.

Operational Goals

6.1 Evolve the BBMRI-ERIC Academy

Co-leads: DE (Ulrike Felgenhauer & Ronny Baber), ES (Elena Molina Roldán & Teresa Escámez Martínez)

Contributions NN: AT, BE, CY, ES, GR, HU, IT, QA, SE

Contributions HQ: QM, ELSI

In 2025, the co-leading teams advanced the development of tailored career development programmes for the RI community by coordinating a structured, evidence-driven process across BBMRI National Nodes; in alignment with the EvolveBBMRI project focus and activities. The year began with consolidating the Training Offer Catalogue, which compiled 105 programmes from nine National Nodes and 55 biobanks, resulting in a curated list of 59 trainings open to the wider RI community. Building on this mapping exercise, the team delivered the Competence Matrix v1.0, defining four thematic domains, (governance and ethics, biobanking operations, the research ecosystem, and professional skills) as the foundation for career pathways. A comprehensive gap analysis identified priority areas with limited coverage,

including One Health, sustainability and green biobanking, interoperability and advanced data analytics and funding strategies.

Two coordination meetings (5 June and 4 September 2025) ensured alignment across contributors and prepared the ground for the high-level academic workshop held on 20 November 2025, which validated the identified gaps and confirmed universities' capacity to develop ECTS-accredited modules, micro-credentials and flexible learning formats. The group collectively endorsed moving toward a harmonised European core curriculum complemented by national adaptations, laying the groundwork for structured, future-oriented career development programmes for RI staff.

6.2 Build specific career development programmes for RI community

Co-leads: DE (Ulrike Felgenhauer & Sara Nussbeck), IT (Marialuisa Lavitrano & Monica Forni)

Contributions NN: CH, ES, GR, HU, LT, NL, SE

Contributions HQ: QM, FPM

In 2025, the group focused on laying the conceptual and strategic foundations for structured mobility and career development opportunities within the RI community. The team consolidated previous outcomes from EvolveBBMRI and de-

finied the framework for key components such as staff exchange formats, mobility criteria, matching mechanisms, and evaluation approaches. Planning also included consideration of hybrid and remote training formats, as well as conceptual alignment

with future Live Educational Events and One Health summer schools, ensuring accessibility, inclusivity and cross-disciplinary integration.

To operationalise these plans, the group prepared and submitted a competitive Horizon Europe funding proposal ([CaBRIOH](#)), which will provide the resources to implement these initiatives.

The main achievement of 2025 was the successful submission of the CaBRIOH proposal, which was subsequently selected for funding. Thus, CaBRIOH

could serve as the financial and structural basis to implement transnational mobility schemes, career pathways, and training programmes in the coming years representing a critical step toward long-term capacity building within the RI community

6.2 Ensure biobanking adapts to and leverages innovative technological developments (Links to SO4)

Co-leads: LT (Daiva Dabkeviciene), SE (Anna Beskow)

Contributions NN: CZ, ES

Contributions HQ: BBD, QM

The group had three meetings during 2025 and a presentation at a BBMRI community webinar. We prepared an excel template for collection of needs regarding Innovative technologies for different

parts of the biobanking process. We performed a first round of Innovative technology mapping from the National Nodes.

SO7 - Strengthen stakeholder engagement and awareness

Milestone SO7: Launch of BBMRI-ERIC's new website (Q4 2025).*

Increasing multisectoral engagement with stakeholders — including Member States, National Nodes, patients and the public, policymakers, industry and academia — is crucial to further

develop and strengthen BBMRI-ERIC to generate further socio-economic impact and awareness among wider communities.

Operational Goals

7.1 Strengthen communication, outreach and demonstrate impact to key stakeholders, e.g. EU and national ministries, universities and hospitals, funders and foundations through existing and new digital channels

Co-leads: BE (Annelies Debucquoy & Elke Smits), DE (Verena Huth & Ronny Baber)

Contributions NN: AT, BG, CH, CY, CZ, EE, ES, FI, GR, HU, IT, LT, LV, MT, NL, SE, SI

Contributions HQ: PA, OEC

In 2025, the already established BBMRI-ERIC Taskforce 9 “Communications and Outreach” served a dual purpose as forum for discussion and development related to SO7.1 and SO7.2. The communications and outreach toolkit, containing templates and materials for National Nodes and biobanks, was tested by TF9 users and subsequently made available (EvolveBBMRI D4.4). This process was supported by a dedicated webinar held within TF9 to explain how to access the toolkit and how to use the online design software Canva.

In support of the BBMRI-ERIC website relaunch, a stakeholder mapping and user group exercise was conducted within TF9 (“Adopt a user”) to better

understand the communication needs of the different user groups of the BBMRI-ERIC website. Based on this work, the new BBMRI-ERIC website was conceptualised in 2025 and deployed in a development stage (WP Milestone SO7). This process also included the deployment of the learning platform within the website (EvolveBBMRI MS4.5).

* Milestone delay explanation: The website public launch was delayed enabling inclusion of technical infrastructure (LS AAI Login) and additional service functionality that was not in the original scope of the redevelopment. The launch is expected to be achieved by end Q2 2026.

7.2 Improve stakeholder engagement by continuing to strengthen the Stakeholder Forum Patients and Citizens' Pillar

Co-leads: DE (Verena Huth & Ronny Baber), HU (Molnar Maria Judit & Márta Széll)

Contributions NN: AT, BE, BG, CZ, ES, FI, GR, IT, LT, MT, SE

Contributions HQ: PA, OEC

The section of the BBMRI-ERIC website dedicated to patients and the public was discussed with the [BBMRI-ERIC Stakeholder Forum](#) Patients' and Citizens' Pillar. Feedback from members was actively collected to better understand expectations and information needs. As a first step in developing this website area, a draft "Biobanking 101" document was prepared, providing basic and accessible information about biobanking and its societal and scientific relevance. The draft was widely shared to gather further input and ensure that the

content is understandable and meaningful for non-specialist audiences.

In parallel, [principles for public and patient involvement and engagement \(PPIE\)](#)¹ were co-created together with members of the Stakeholder Forum. These principles aim to support meaningful participation of patients and citizens. They were unanimously endorsed by the National Nodes and subsequently published to guide future engagement efforts.

7.3 Strengthen ability to illustrate the socio-economic value of biobanking – samples, data and biomolecular resources of BBMRI-ERIC and wider biobanking community (Links to SO4)

Co-leads: IARC/WHO (Zisis Kozlakidis & Elodie Caboux), HQ-PA (Johanna Kostenzer)

Contributions-NN: AT, BE, CH, CY, CZ, DE, GR, IT, LT, MT, QA, DE

Contributions-HQ: OEC, FPM, ELSI

In 2025, the SO7.3 group advanced efforts to strengthen the evidence base on the socio-economic value of biobanking. Contributors aligned on initial outcomes of desk research on impact assessment methodologies and to identify strategic pathways forward. A systematic literature review, led by IARC/WHO and in collaboration with the School of Public health at City St. George's University of London, UK, was initiated to examine how medical research infrastructures (MRI) across the EU and UK assess and communicate impact, providing a structured overview of identified socio-economic impact domains, indicators, evaluation frameworks, and emerging best practices in

MRI. Building on these initial findings and discussions, funding opportunities were explored to further develop a structured concept for socio-economic impact assessment tailored to BBMRI-ERIC. Collectively, these activities fostered a shared understanding of the importance of impact assessment and laid a solid foundation for more systematic implementation and future strategic initiatives in the coming years.

¹ Principles for public and patient involvement and engagement (PPIE) available at: <https://bbmri-eric.eu/new-publication-public-and-patient-involvement-and-engagement-ppie-in-biobanking/>

SO8 - Advance a global biobanking community

Milestone SO8: Policy Paper on “advancing global biobanking community” published (Q2 2027).

BBMRI-ERIC has the potential to play an impactful leadership role to strengthen the global biobanking community and standards, as well as advance

the biobanking field in Europe and beyond. This is important as global challenges need to be dealt with at global level.

Operational Goals

8.1 Identify and implement different “BBMRI-ERIC Global” formats (Links to SO4 and SO5)

Co-leads: QA (Fatima M Kafood & Eleni Fthenou), HQ-PA (Johanna Kostenzer)

Contributions-NN: ACY, GR, IT

Contributions-HQ: FPM

In 2025, BBMRI-ERIC advanced the operationalisation of “BBMRI-ERIC Global” formats by strengthening structured pathways for international engagement and formalising cooperation principles. In June 2025, the Assembly of Members (AoM) approved guiding Principles for International Cooperation – covering shared vision, reciprocal benefits, scientific excellence, ethical compliance, patient and public involvement, research security, transparent communication, and education and training – constituting a key deliverable linked to SO4.3 and EvolveBBMRI.

International outreach was significantly scaled up through targeted strategic engagements. The joint Australian–European Health RI Symposium at Monash University Prato (Italy) fostered collaboration across health and life science research in-

frastructures, with BBMRI-led discussions focusing on the EOSC landscape, global health challenges, industry and community drivers for distributed RIs, and future-oriented international strategy. The meeting furthermore resulted in the joint white paper “Building an Intercontinental Research Infrastructure Ecosystem in Health and Life Sciences: Opportunities for Australia–Europe Collaboration”.

Further impact was achieved through BBMRI-ERIC representation at the 2025 Joint Biodiversity and Human Biobanking Conference in Cape Town, strengthening partnerships with South African and global stakeholders, progressing a Memorandum of Understanding with Global Genome Biodiversity Network (GGBN), and advancing dialogue on potential membership.

8.2 Lead global standardisation initiatives (Links to SO1, SO2, SO4, SO6)

Co-leads: AT (Helmuth Haslacher & Cornelia Stumptner), PL (Agnieszka Matera-Witkiewicz & Joanna Gleńska-Olender)

Contributions-NN: AT, BE, CH, CZ, DE, ES, IARC/WHO, IT, NL

Contributions-HQ: QM, ELSI, HQ-IT, PA

In 2025, significant progress was made across multiple standardisation activities supporting biobanking. Within ISO/TC 276 Biotechnology, the group actively and continuously contributed to-

wards the ongoing development and revision of the Biobanking standard (ISO 20387) and Provenance standard series (23494, parts 1-3). Additionally, AT-representatives have been in the lead

in ISO/TC 212/WG 4 advancing the pre-examination CEN standard Human specimens - Isolated microbiome DNA (CEN/TS 17626) towards internationalisation, were finalising the standard on cfDNA from urine and other body fluids (ISO 18704), and continued leading the development of the digital image standard for AI-based analysis (ISO 24051-2). A staff training session on human microbiome research was organised, to inform the community of the microbiome standard and about the relevance of sample standardisation for biobanking and research. In ISO/TC 215 Health Informatics, a contribution to support the development of a new guideline in Data governance and

quality (ISO/TS 16599-1) was made. Throughout the year, the group members participated in ISO/TC meetings.

In parallel, data standardisation activities were monitored, and relevant updates were communicated to National Nodes. One example of key outcomes this year was the publication of the HL7 FHIR-MIABS profile, marking an important step towards improved interoperability and data exchange across biobanking infrastructures.

8.3 Consolidate BBMRI-ERIC's position as an opinion leader for health and life sciences RIs within the overall EU and global policy arena

Co-leads: GR (Sissy Kolyva & Dimitris Thanos), HQ-PA (Elena Preziosa)

Contributions-NN: WHO/IARC, MT

In 2025, BBMRI-ERIC continued playing a leading role in key initiatives, including the ERIC Forum - where BBMRI-ERIC acts as coordinator - as well as LS-RI, EU-AMRI, EOSC and other international collaborations. Through these platforms, BBMRI-ERIC continued reinforcing its role as a recognised voice for health and life sciences research infrastructures.

BBMRI-ERIC also increased its visibility and influence through participation in major European conferences and policy initiatives. In particular, the ERIC Forum co-organised with the European Commission an ERIC Committee workshop (October 2025), addressing the future EU research and innovation strategy, the research infrastructure landscape, and potential updates to the ERIC Regulation. BBMRI-ERIC also organised a policy discussion with key political stakeholders on the current FP10 proposal and the role of Research Infrastructures (RIs) during the ERIC Forum Annual Meeting in Brussels (November 2025). In addition, it contributed to key policy events including the EU Life Science Summit (October 2025), where BBMRI-ERIC chaired a session on personalised medicine and prevention through the power of

data and AI, the Technology and Research Infrastructure Summit (October 2025) and the AI in Science Summit (November 2025) organised under the Danish Presidency of the Council of the EU. These events provided opportunities to engage with policymakers, stakeholders and the broader RI community and strategically position BBMRI-ERIC as a strong voice in life sciences and current EU policy landscape. As part of the follow-up to the EU Life Science Summit, BBMRI-ERIC actively contributed to shaping recommendations on the implementation of the EU Life Sciences Strategy, which were presented to the European Commission.

In parallel, BBMRI-ERIC contributed to several EU policy processes by preparing position papers and coordinated responses to consultations on the upcoming ERA Act (2026), the European Strategy for Research and Technology Infrastructures (2025), and EU Framework for Science Diplomacy (2025). Engagement with international organisations also progressed, including discussions with the OECD on potential collaboration opportunities.



PART 2

Service achievements 2025

Biobanking Development

The Biobanking Development (BBD) department has continued its core activities in 2025 which included extensive participation in the BBMRI work programme in line with the 10-year roadmap. Such activities were carried out through strong community engagement that focused on the following topics:

National Node/Biobank Sustainability

Green Biobanking

BBD is leading the strategic activities towards Green Biobanking within BBMRI-ERIC through its leadership of the Teaming with Industry towards Green Biobanking within the EvolveBBMRI project as well as Strategic objective 3 'Foster green biobanking and Research Infrastructure operations'. Here we teamed up with our community to further develop the greening activities that have already initiated in 2024. The focus is to collaboratively establish a Green Biobanking Strategy with key industrial partners to co-create sustainable solutions aimed at reducing the environmental impact of daily biobanking practices while enhancing the long-term sustainability of biobanks.

With close collaboration with our community, we have analysed the responses we received to the Green Biobanking gaps and challenges sur-

vey (with participation from 99 biobanks from our network). This analysis was presented at the EBW 2025 in Bologna, Italy.

We have also initiated the Green Incentive process which is designed to encourage BBMRI biobanks to adopt environmentally friendly biobanking practices. It will define criteria (e.g., energy efficiency, waste management, sustainable procurement) and compliance standards with a target timeline, establish an application, review, and rating process to assess adherence to the defined criteria and implement regular monitoring (audits or annual reports) to ensure ongoing compliance. The goal of this process is to award a Green-Label to biobanks that meet the criteria as part of the BBMRI Green Initiative to promote sustainable practice and reduce carbon footprint.

Financial and operational sustainability

In 2025, we continued teaming with our community to develop sustainable operational models through the activities of SO 4.2 'Build different partnership models' alongside our Norwegian National Node in which we focused on identifying current partnerships with high-level research institutes that brings added value to our community. Moreover, BBD teamed up with IARC/WHO to initiate work on SO4.5 'Define and build a back-up system' that aims to establish a structured, sus-

tainable back-up system for resilient biobanking to ensure preparedness and continuity during technical failures, disruptions or funding gaps through legacy and disaster planning. In addition, BBD Developed a 'Biobanks Operations and Sustainability' survey to map operational bottlenecks, financial sustainability issues and strategic infrastructure gaps/needs to be launched in early 2026.

Enhanced visibility & access to samples and data

BBD continues to support researchers, biobankers and industry users who rely on our access pipelines: Directory, Negotiator and the Federated Platform, to identify and obtain samples and data essential for their research. We actively monitor submitted requests to ensure smooth communication and timely responses from the biobanks within our network. In 2025, 229 requests were submitted via the Negotiator to 13 NNs. Additionally, BBD coordinates the Negotiator Monitoring group, which brings together community representatives to discuss issues related to requests and the use of the Negotiator tool, introduce new features and collaborate with IT colleagues from BBMRI.

BBD continues to lead scientific activities in on-going EU projects which rely on strong participation from the BBMRI Biobanking community, such as: canSERV, EvolveBBMRI and Integrate-LMedC. In canSERV, BBD facilitated access to samples and data to cancer researchers worldwide thanks to the active participation of 32 biobanks from 11 member states. Samples and data provision was requested in three submitted proposals. Two submitted proposals were approved for the service to provide access to samples and data from our biobanks. For these two approved proposals in 2025, three biobanks were engaged to provide access to the requested samples and data.

BBD supported our National Nodes through joint activities such as those of SO6.3 'Ensure biobanking adapts to and leverages innovative technological developments' where BBD supports activities co-led by BBMRI.SE and BBMRI.LT that focused

on mapping for current capabilities and needs for new technologies within our biobanking community. Additionally, BBD supported activities organised by our National Nodes for their communities such as presenting the BBMRI Roadmap at the first Lithuanian Biobank Forum in Vilnius, Lithuania and discussing BBMRI-ERIC's Vision for FP10: 'Strengthening Europe's Research Infrastructure Ecosystem' at the III ISCIII Platforms supporting R + D + i in Biomedicine and Health Sciences conference in Salamanca, Spain.

In 2025, BBD also prepared the groundwork for activities of SO 5 'Strengthen the National Node and biobank community within Member States: Empower National Nodes and biobanks' through the development of a mapping survey targeting biobanks operations and sustainability gaps and needs to better understand how biobanks, National Nodes and Headquarters can work together to strengthen their relationships and processes and to ensure the system remains scalable as the ecosystem around us changes and grows.

ELSI Services & Research

Multidisciplinary Expertise

The ELSI Services & Research Department works through an integrated network of specialists based at Headquarters, across National Nodes and within project consortia. This structure allows us to address ethical, legal and societal dimensions of biomedical research in a coordinated and practice-oriented way. Our core areas include data protection and governance, AI ethics, the integration of sex and gender analysis and struc-

ture approaches to risk identification and mitigation. By grounding our services in current research and operational experience, we translate complex normative requirements into workable guidance, promote responsible practices and maintain a stable framework for knowledge exchange within the biobanking and broader biomedical research community.

Knowledge generation and transfer

During the reporting period, ELSI expertise supported 20 research consortia, with the team leading or co-leading dedicated work packages and tasks. Contributions spanned European and international initiatives focused on health data use, genomic research and digital infrastructures. Outputs included 4 peer-reviewed publications, 2 book chapters and a broad set of public and confidential project deliverables. Staff members also served as ethics reviewers and advisors for EU-funded projects and members of scientific and ethical advisory bodies. Through keynote lectures, panel participation and the organisation of thematic workshops, the department ensured that emerging regulatory, ethical and societal questions were addressed in dialogue with researchers, policymakers and technical communities.

In September 2025, the [PERIFORMANCE EU project](#) started, which is coordinated by BBMRI-ERIC. PERIFORMANCE is designed to transform and reshape the stakeholder engagement in cancer re-

search by addressing the ELSI aspects of cancer research and emerging technologies. The project links together partners from BBMRI-ERIC National Nodes, in particular from the ELSI network and spans 7 Member States and IARC/WHO as well as it brings on board 4 patient organisations. Moving beyond traditional patient and public involvement, PERIFORMANCE includes patients/donors, professionals, industry and policymakers to explore the ethical use of AI and the European Health Data Space (EHDS), with a strong focus on societal trust and inclusion. The project complements the BBMRI-ERIC proposition in other EU Cancer Mission projects (CANDLE, canSERV, EU-CIP, UNCAN.connect) and with its focus on ethics ensures that ethical reflection, legal robustness and social responsiveness are embedded from the outset in cancer research and data-driven innovation.

Practical expert guidance

The ELSI Knowledge Base continues to function as an open, practice-focused platform that converts research findings and regulatory analysis into usable guidance. Users can access FAQs, model documents and step-by-step guidance that support responsible decision-making while remaining adaptable to evolving rules and technologies. New entries of the Knowledge Base in 2025 tackled issues such as ELSI digital services for cancer research and ways to enhance patient engagement.

The platform has matured into a stable, self-directed resource that also hosts recordings from the [ELSI Dialogues series](#). In 2025, 4 ELSI Dialogues

were organised, addressing topics such as trustworthy AI, fair and equitable sharing of benefits from genetic resources governed by the Nagoya Protocol and best practices to elevate patients' voices and experiences in research participation. With around 200 live attendees to the ELSI Dialogues, and almost 400 views on the BBMRI-ERIC ELSI YouTube channel, the webinars organised in 2025 demonstrated sustained engagement and broad reach, underscoring their value as a practical source of guidance and services for the biobanking community.

Key activities

- **Presentations at EBW25:**
 - EHDS implications for biobanks as data holders and data users
 - An embedded ethics approach to trustworthy AI for transformative healthcare
- **FUTURE-AI webinar series:** Beyond the Algorithm: Ethical and Societal Dimensions of Trustworthy AI
- **Keynote speech:** Trustworthy AI in Medicine: Ethical Challenges and Societal Implications, at the Conference Science, Ethics, Politics Day Meets RoKoCon (Berlin).

Helpdesk Network

The ELSI Helpdesk provides direct, case-based support to researchers and infrastructure actors from our member states seeking to navigate regulatory obligations, ethical review processes, and societal concerns linked to data-intensive and biomedical research. Requests during the reporting period totalled 94, corresponding to approximately 240 expert hours at Headquarters, with additional input from the distributed Helpdesk Network. Queries frequently addressed data protection in genomics, governance structures such as ethics advisory boards, and the handling

of gender bias and inclusivity in study design. Beyond resolving individual cases, Helpdesk activity serves as an early indicator of emerging challenges, informing the development of new guidance materials, training activities, and project proposals. Quarterly exchanges within the experts in the Network strengthen consistency across Nodes and ensure that practical experience feeds back into collective knowledge.

BBMRI-ERIC Academy ELSI Symposium

The Symposium “Ethical, Legal and Societal Aspects in View of Recent EU Legislation”, organised by BBMRI-ERIC, University of the Basque Country (UPV/EHU), University of Milano-Bicocca (UNIMIB), and Platform ISCIII Biomodels and Biobanks, took place at the UPV/EHU, on 22nd and 23rd of October, 2025.

The Symposium brought together about 60 experts on ELSI aspects of biobanking and the use of health data: from lawyers to bioethicists, as well as clinicians, patient advocates and biobankers.

During two intense days, legal experts and early-career researchers presented their research on the role of biobanks in the recent European Health Data Space (EHDS) regulation and data subjects rights. There were sessions highlighting the importance of multistakeholder perspectives that bring the biobanking community together and foster citizen participation and transparency. Additionally, the increasingly prominent role of artificial intelligence in biobanking practices was explored from different ELSI perspectives.



The 2025 ELSI Symposium in Bilbao, 22.-23. Oct 2025

PERFORMANCE

BBMRI-ERIC was awarded the Horizon Europe project [PERFORMANCE](#) – Public Engagement in Research Infrastructures for Mission Cancer: **Managing Complexity of Emerging Technologies** (Call: HORIZON-MISS-2024-CROSS-02; Duration: 36 months; Grant Agreement No. 101216808). The project has a total budget of €2,362,348.75, of which €856,250.00 is allocated to BBMRI-ERIC, acting as coordinator. It successfully launched in Autumn 2025.



PERFORMANCE
Science with Society for Mission Cancer.

Quality Management

Activities on standard developments

In 2025, the Quality Management (QM) department further strengthened its role as an interface between the international standardisation landscape and the practical needs of the biobanking community. As an established liaison partner of ISO (the International Organization for Standardization) and CEN (the European Committee for Standardization), BBMRI-ERIC continued to actively contribute to *ISO/TC 276 Biotechnology*, *ISO/TC 212 Clinical laboratory testing and in vitro diagnostic test systems*, *ISO/TC 215 Health Informatics* and *CEN/TC 140 In vitro diagnostic medical devices*. Through this engagement, the QM department ensured that developments in standardisation were not only monitored but actively shaped.

A highlight of the year was the participation in the ISO/TC 276 online and Plenary Meetings, which

provided an important opportunity for direct exchange on standardisation activities with international experts. Furthermore, we actively contributed to the Systematic Review of the ISO 20387:2018 standard 'General requirements for biobanking'. Consolidated feedback from the BBMRI-ERIC community has been gathered to ensure that the revised version of the standard effectively addresses real operational challenges and reflects best practices for research biobanks. In parallel, we contributed to advancing the ISO 23494 series on provenance information for biological material and data. In particular, *ISO/DIS 23494-3* progressed significantly in 2025. The series is being restructured in close collaboration with BBMRI-ERIC IT and QM experts to provide a more practical framework for tracing biological materials and associated data across their lifecycle.

Auditing for excellence

The BBMRI-ERIC audit programme continued to prove its value as a structured pathway for biobanks striving for excellence and international recognition. In 2025, BBMRI-ERIC Quality Labels on operational aspects of biobanking based on the biobanking standard (*ISO 20387*) were awarded to nine biobanks. *ISO 20387* accreditation within the BBMRI-ERIC community expanded further, with seven biobanks across five countries (Finland, Germany, Italy, Norway, Spain) successfully completing accreditation with their national accreditation bodies.

In addition, newly accredited biobanks received the respective BBMRI-ERIC Quality Labels via the fast-track route. These developments reflect not only the maturity of the quality management systems across our biobank network, but also the growing confidence of biobanks in undergoing formal accreditation procedures. The community's achievements were celebrated at the Europe Biobank Week 2025 in Bologna, highlighting BBMRI-ERIC's growing quality culture to an international audience.

Recognising emerging scientific fields and new pre-analytical challenges, the QM department together with the contribution from Italy and Austria, introduced a new Self-Assessment Survey (SAS) based on *CEN/TS 17626:2021*, addressing pre-examination processes for human specimen microbiome DNA isolation. This was an important step towards expanding the scope of the audit programme to include microbiome research and novel biological material types.



QM awards at the EBW25 award ceremony

EU projects benefiting from QM expertise

Throughout 2025, the QM department ensured that quality management principles remained firmly embedded in European collaborative research initiatives. Contributions continued within the [QUANTUM](#), [canSERV](#), [EPND](#), [EvolveBBMRI](#) and [CY-Biobank](#) projects, focusing on areas related to data quality, auditing and biobanking community training and capacity building.

With the official start of the [PRIM-TECH3R](#) project in April 2025, QM involvement is supporting the development of robust quality frameworks in the non-human biological biobanking field, aligned with BBMRI-ERIC's One Health vision. The [ISIDORE](#) project has been successfully completed, marking the end of our QM contributions to its quality-related tasks. Project results are publicly available on Zenodo.



Group picture of the QM workshop at EBW25

Training and support

Training and capacity building remained central pillars of QM activities in 2025, with a strong emphasis on practical applicability such as advancing auditing skills and emerging topics like microbiome research. A dedicated session in the lecture series 'How to build a biobank' was delivered at the Medical University of Graz, providing participants with a comprehensive overview of quality considerations right from the earliest stages of setting up a biobank.

A key highlight of the year was the quality-themed pre-conference workshop at EBW25. More than 50 participants attended the workshop and received

basic auditor training aligned with the BBMRI-ERIC audit programme.

The engagement of the QM Department in establishing training within the broader BBMRI-ERIC Academy framework was recognised with a poster award at the conference. QM training was requested by the International Society of Oncology and Biomarkers (ISOBM), resulting in a workshop on biobank and preanalytical standards that attracted strong interest. BBMRI.be initiated an auditor training programme to enable the conduct of national audits on behalf of BBMRI-ERIC. This initiative has strengthened national audit capacity and supports the consistent implementation of the BBMRI-ERIC audit programme.

The year concluded with a BBMRI-ERIC Academy session on Microbiome research, with major contributions from Italy and Austria, linking pre-analytical and data quality to research outcomes.

These activities demonstrate the growing demand for structured quality training, the expanding scope of topics addressed by the QM department and the valuable contributions by the National Nodes to benefit the entire biobanking community.



Auditor training © BBMRI.be

Continuous improvement

Building on the 2024 success and high demand on proficiency testing services, Jena University Hospital's Integrated Biobank conducted two liquid biobanking proficiency tests in 2025, within the BBMRI.de framework. Thirteen biobanks from Austria, Belgium, Italy, Luxembourg, the Netherlands, Spain, and Switzerland took part. Participants processed standardised test samples using their routine workflows, enabling a comparative assessment of key pre-analytical steps. Across both proficiency test rounds, the results revealed per-

sistent pre-analytical variability, highlighting the continued need for such proficiency test services. Participation helped biobanks pinpoint opportunities for improvement and define corrective and preventive actions, thereby strengthening sample quality and enhancing comparability across Europe's biobanking community.

IT

Overview

In 2025, BBMRI-ERIC continued to strengthen its digital service portfolio to make biobank resources easier to find, easier to access and easier to use in data-driven research. Across the year, IT activities prioritised practical improvements that matter to users — researchers, clinicians and policy stakeholders — such as clearer resource descriptions, more reliable discovery and access workflows, better support for network-level operations and stronger interoperability foundations underpinning responsible datafication (Strategic Objective SO2 – Datafication).

Common Service IT (CS IT)

Transition to the new CS IT (from July 2025)

The first half of 2025 saw a continuation of the former CS IT activities until the process for the re-procurement and organisational transition to a 3rd iteration of the CS IT was finalised with the summer AoM. The new CS IT started in July 2025 foreseen to last for three years. Prof. Morris Swertz (University Medical Centre Groningen) and Prof. Martin Lablans (German Cancer Research Center) serve as co-coordinators of the CS IT. The call for tender for the new CS IT caused a new scope for the activities, changed consortium and different work package structure.

Service portfolio and strategic alignment

CS IT provides BBMRI-ERIC's core digital services for resource discovery, access management and community standards. In 2025, service delivery and new capability development primarily supported SO2 – Datafication by improving the quality, structure, interoperability and machine-readability of descriptions of samples, data, cohorts and services, while also supporting secure and transparent access workflows. (Strategic alignment: SO1.2&3; SO2.1-6; SO4.1&2; SO5.1; SO6.1&3.)

BBMRI-ERIC Directory (Directory; catalogue)

The Directory is BBMRI-ERIC's primary catalogue of biobanks, collections and associated data. In 2025, development focused on making the Directory more informative and usable for researchers, biobank staff and policy makers, while also strengthening interoperability for connected systems. A major step was the transition of the underlying platform from MOLGENIS EMX1 to EMX2, enabling substantial user experience improvements and more robust handling of structured metadata, including improved ontology support. Further measures were taken towards increased quality of metadata descriptions in the catalogue. The Directory also advanced its star-schema-based statistics, enabling clearer, scalable reporting on available samples and data per collection. The EMX2 transition provides the technical foundation for future cohort variable characterisation (important for describing large medical cohorts and aligned with the project INTEGRATE-LMedC), but this functionality will be introduced in subsequent development. As part of the platform transition, some integrations required updates due to API evolution (e.g., moving from REST-style integrations to GraphQL). (Strategic alignment: SO2.3&6.)

BBMRI-ERIC Negotiator (Negotiator; access request management)

The Negotiator supports structured handling of access requests to samples and data across biobanks and networks. In 2025, improvements prioritised usability and operational oversight, particularly for network managers (e.g., BBMRI-ERIC Nodes and other biobank networks) who need to monitor progress, identify bottlenecks and support timely resolution. Workflow refinements aimed to reduce friction for both requesters and providers by clarifying status handling and communication patterns. In parallel, improved instrumentation and operational reporting established stronger foundations for evidence-based service improvement. (Strategic alignment: SO5.1; SO4.1&2.)

LifeScience Login (LS AAI; Authentication and Authorisation Infrastructure)

BBMRI-ERIC uses LifeScience AAI (LS AAI — homonymous with LifeScience Login) as its Authentication and Authorisation Infrastructure, providing trusted login, single sign-on and group-based access management for BBMRI services. In 2025, work focused on strengthening interoperability and trust, including improved integration pathways for BBMRI services and continued support for secure access management. In collaboration with EOSC AAI activities, LS AAI also progressed towards higher-assurance authentication, including enabling government-backed electronic identities (eID) under the eIDAS framework for BBMRI services where stronger identity proofing is required. (Strategic alignment: SO2.3; SO2.5; SO2.6.)

Community standards: MIABIS and DUC/CCE

Alongside service delivery, BBMRI-ERIC maintains and evolves community standards that make cross-border discovery and access scalable and interoperable. In 2025, the Minimum Information About Biobank data Sharing (MIABIS) Data Set

component was delivered and approved by the BBMRI-ERIC Management Committee. MIABIS also advanced work on describing services beyond retrospective access to samples and data through a MIABIS Service Component, aiming to deliver a consensus vocabulary for advanced services of biobanks and biomolecular resources.

The MIABIS Service component has been developed in collaboration with the projects ISIDORE and canSERV; Directory and Negotiator already support representation of such services. In parallel, Digital Use Conditions / Common Conditions of Use Elements (DUC/CCE) were maintained as a BBMRI-ERIC community asset liaising with MIABIS, providing a structured, machine-readable way to express access and reuse conditions to support policy-aware and responsible data sharing. (Strategic alignment: SO2.1&3; SO6.3.)

Locator (federated discovery) – returned into CS IT scope

Under the new CS IT scope, the Locator service returned to the portfolio in 2025. Development focused on increasing robustness and reliability, including expanding functional testing coverage across the codebase to reduce operational risks and improve stability for users and Nodes integrating federated querying. (Strategic alignment: SO2.1&4.)

New capabilities initiated in 2025 under the new CS IT scope

2025 initiated several cross-service capabilities intended to improve the end-to-end discovery-to-access user journey, strengthen evidence-based operations and accelerate integration of Nodes and services.

Unified Discovery and Access Pipeline: initial development towards a more integrated path from discovery to access, reducing fragmentation for end users and supporting a more coherent user

experience across services. (Strategic alignment: SO2.3&6; SO4.1&2; SO5.1.)

Distributed KPI collection: initial work towards collecting and consolidating key performance indicators from distributed settings to support systematic service improvement, operational monitoring and strategic reporting. (Strategic alignment: cross-cutting KPI monitoring across SO1-8.).

Support for onboarding Nodes: development of tooling and support patterns to accelerate onboarding of Nodes and services, reduce time-to-integration and strengthen network consistency. (Strategic alignment: SO2; SO5.1.)

Identity and access: LS AAI, EOSC AAI and eID

A further 2025 focus area was identity and access integration: LifeScience AAI integration into the EOSC AAI ecosystem to enable higher-assurance authentication pathways, including support for government-backed electronic identities (eID) under the eIDAS framework.

Large medical cohorts

A first INTEGRATE-LMedC clinical cohort catalogue was launched, building on existing MOLGENIS catalogue technology and BBMRI/MIABIS-compatible

modelling. The initial version included 68 cohorts and established a reusable metadata template for describing large medical cohorts, biobanks and sample collections while avoiding duplicate data entry through future catalogue synchronisation.

BBMRI-ERIC contributed core components for a European data-sharing architecture for large medical cohorts. INTEGRATE-LMedC identified BBMRI's Directory/Locator as a basis for cohort discovery, the Negotiator for access negotiation and Data-Shield for federated analysis, creating a practical pathway towards secure, FAIR and EHDS/EO-SC-aligned cohort data use.

The project prepared the ground for federated feasibility studies and science cases in large medical cohorts. Work on data stewardship, catalogue development, cohort harmonisation and information security is being connected to upcoming activities, including science cases on federating stroke cohort data, national registries and complementary data, and large-scale longitudinal population-based cohort studies.

Public Affairs

Furthering relations with Members States and cooperation partners in light of One Health

Following the adoption of the BBMRI-ERIC 10-Year Roadmap and the 2025-2027 Work Programme, implementation of the vision “Biobanking towards a healthier world” commenced in January 2025. In this context, BBMRI-ERIC strengthened its engagement with existing Member and Observer States throughout 2025, in particular regarding the One Health approach in biobanking. The research infrastructure participated in a range of stakeholder events with Member States, including visits to Hungary (April), Latvia (October), Norway, Cyprus and Poland (November). In June, the BBMRI-ERIC Assembly of Members officially approved Slovakia as a full member followed by Spain stepping up to full membership in September; warmly welcoming both countries into the

BBMRI-ERIC community. By the end of the year 2025, BBMRI-ERIC comprised 26 Members and Observers.

In parallel, the Public Affairs Department expanded contact to European and associated countries, which are not yet BBMRI-ERIC members or observers, including Croatia, Ireland, France, Montenegro, Portugal, Romania, and Serbia and explored collaboration opportunities with third countries such as Australia and South Africa. These activities fostered meaningful relationships with national stakeholders and local biobanking communities, while identifying opportunities for collaborative progress towards One Health and biodiversity.

Stakeholder Forum – Patients and Citizens’ Pillar

Relations with patient organisations, patient representatives and civic groups were further strengthened in 2025. BBMRI-ERIC organised two meetings of its Patients and Citizens’ Pillar, welcoming additional organisations. By the end of the year, the Pillar comprised 24 organisations, including 15 from Member States and 9 operating at the European level. New members joined from Slovenia and Italy, and several patient organisations transitioned from observer status to full membership of the Stakeholder Forum.

Under the leadership of the Chair, patient organisations prepared for participation in the Europe Biobank Week 2025 and contributed to public ac-

tivities related to the legislative process of the European Health Data Space (EHDS). Two key documents were developed in 2025: a Position Paper on the EHDS draft Guidelines for Health Data Access Bodies on implementing opt-out mechanisms for the secondary use of health data¹, and the Public and Patient Involvement and Engagement Principles in Biobanking². The Patients and Citizens’ Pillar was also actively involved in several EU-funded projects in which BBMRI-ERIC coordinates stakeholder and patient engagement.

¹ Position paper on EHDS opt-out. <https://www.bbmri-eric.eu/wp-content/uploads/Stakeholder-Forum-PP-EHDS-Opt-Out.pdf>

² Public and Patient Involvement and Engagement Principles in Biobanking. https://www.bbmri-eric.eu/wp-content/uploads/PPIE-Booklet_Digital_FN.pdf

ERIC Forum

BBMRI-ERIC continued to serve as the secretariat of the ERIC Forum Executive Board and to drive a wide range of coordination and policy-related activities including the [ERIC Forum Annual Meeting](#) that took place in Brussels in November 2025. It featured a high-level policy discussion with key stakeholders, including the European Commission, on the proposal for the next Framework Programme for Research and Innovation and the role of research infrastructures.

In its role as the coordinator BBMRI-ERIC also supported the ERIC Forum community and its Executive Board in policy engagement and strengthening

relations with the European Commission. BBMRI-ERIC, together with the Executive Board and the ERIC community, contributed to the development of strategic positions and responses to EU policy consultations on the forthcoming ERA Act, the European Strategy on Research and Technology Infrastructures and Europe's Framework for Science Diplomacy. BBMRI-ERIC further represented research infrastructures in several EU initiatives, such as Resource for AI Science in Europe, and in the ERA Forum.

EvolveBBMRI

In February 2025, the second annual meeting of the EvolveBBMRI project was held in Vienna, with fruitful discussions and exchange on the next steps. In July 2025, the project entered its second reporting period. Following a very constructive project review, the continuation of EvolveBBMRI

activities and outputs is expected to strengthen the long-term sustainability of BBMRI-ERIC. This is given extra impetus by being fully aligned with the EvolveBBMRI developed 10-Year Roadmap.



The 2025 Annual meeting of the EvolveBBMRI project (25 Feb 2025, Vienna)

Key partnerships

Life Science Research Infrastructures (LS-RI) Strategy Board:

The LS-RI Strategy Board, comprising 15 partners, provides a coordination platform for European life science research infrastructures. In 2025, BBMRI-ERIC remained an active member of the LS-RI Strategy Board, contributing to regular on-line meetings and ongoing strategic discussions aimed at enhancing coherence and collaboration across the life science research infrastructure landscape in Europe.

EU-AMRI:

In 2025, BBMRI-ERIC continued to work closely with EATRIS-ERIC and ECRIN-ERIC within the Alliance of Medical Research Infrastructures (EU-AMRI). In particular, EU-AMRI jointly participated in the preparation of a proposal for the upcoming ECHoS 2 project, focusing on the implementation of Cancer Mission Hubs in Europe.

Other partnerships and public affairs activities:

In 2025, we furthermore strengthened our biobank community and stakeholder network by connecting partners:

In 2025, BBMRI-ERIC coordinated the establishment of its first Strategic Partnership, following adoption of the concept at the Assembly of Members in November 2024. This initiative lays the foundation for future integration of related communities into BBMRI-ERIC.

In 2025, the Public Affairs department was responsible for organising two meetings of the Scientific and Ethical Advisory Board (SEAB) of BBMRI. The first meeting was dedicated to finalis-

ing the ELSI Review and obtaining guidance on key topics for the infrastructure. The second meeting marked the launch of the CS-IT and IT services review.

In addition, Public Affairs supported the establishment and signing of Memoranda of Understandings with **EMPAIA International e.V.** (Artificial Intelligence for the Future of Pathology), **ICSC** (Italian Research Center on High-Performance Computing, Big Data and Quantum Computing), **ISOBM** (International Society of Oncology and Biomarkers), **EIRENE** (Research Infrastructure for Environmental Exposure assessment in Europe), **GGBN** (Global Genome Biodiversity Network), and **EOSC** (European Open Science Cloud) Federation and furthermore coordinated the renewal of the Memorandum of Understanding with **ESBB** (European, Middle Eastern & African Society for Biopreservation and Biobanking).

To support European Commission policymaking and position BBMRI-ERIC as an opinion leader, the Public Affairs department — on behalf of BBMRI-ERIC — responded to several European Commission Calls for Evidence in 2025, including those related to the European Research Area Act, the Life Sciences Strategy, and the Technology and Research Infrastructures Strategy.

The overall impact of BBMRI-ERIC is being further driven by two EU projects (EvolveBBMRI and ERIC Forum 2) coordinated by Public Affairs, as well as 12 additional projects in which Public Affairs has a contributing role.

Outreach, Education and Communications

2025 marked the first year of delivering the Work Programme 2025-2027 with a refreshed emphasis on stakeholder engagement. The new Work Programme facilitated focus on amplifying the impact achieved by National Nodes, biobanks and

our wider community. OEC, returned to full complement following parental leave, displayed specialist skills to shape and enrich in-house communications and outreach.

Community engaging education

BBMRI-ERIC's flagship education event is the [Europe Biobank Week Congress](#) (EBW). Coordinated by BBMRI-ERIC in partnership with the European, Middle Eastern and African Society for Biopreservation and Biobanking (ESBB), the Congress was held at the Convention Centre in Bologna, Italy from 13-16 May. It was supported by over 800 delegates, sponsors and speakers from 47 countries. The four days played host to a high-quality scientific programme including specialist workshops, keynotes, parallel sessions and industry input. OEC provided comprehensive support through strategic marketing, branding, social media campaigns and producing [#EBWLive](#) (a series of articles, photography, podcasts and videos). This last element continues to shape a distinct

identity and add lasting value to the congress and also forms soft marketing for future years.

Across the year, OEC provided promotional, design and production support for webinars and events that engaged 2,187 participants. Where the learning had persisting value as part of the BBMRI Academy, sessions were edited for podcast and video. Topics included ethical and legal learning, public and patient involvement in biobanking, EBW Congress Radio, data privacy and artificial intelligence in medical research. The close of 2025 saw delivery of the BBMRI-ERIC Academy, an on-line learning platform that will be a central offer of the new website.

Community strengthening outreach

Task Force Nine – Communications and Outreach (TF9) took on a stronger shaping role in 2025 as the main collaborative environment for both the communications tasks in the EvolveBBMRI project and delivering on Strategic Objective 7 operational goals for the Work Programme. TF9 played a pivotal role in developing the EvolveBBMRI Communications and Outreach Toolkit with early use of it

by National Nodes demonstrating its value for the community. SO7 task leaders also facilitated strategic reshaping of the BBMRI-ERIC website that included public facing content. This enables harmonious presentation of the research infrastructure. TF9 continues to be a vibrant, collaborative and agile method of working together as a community.

Core communications

BBMRI-ERIC benefits from versatile in-house multimedia production, graphic and web design skills. These ensure a coherent and vibrant presentation of the research infrastructure. This en-

hances value, visibility and recognisability. For 2025, this included the design, production and launch of the Work Programme 2025-2027 which facilitates delivery of the 10-Year Roadmap.

Over the year, OEC team prioritised covering a wide range of stories that reflect the scientific and strategic role of the research infrastructure. 35 published website articles welcomed new member states, unveiled key partnerships, profiled quality label awardees, shared policy papers and told authentic biobanking and biomolecular stories from the community. Nine BBMRI-ERIC podcast episodes complemented the learning offer from the BBMRI Academy or were standalone, such as the young scientist profile and EBW Congress Radio. As many of these episodes are linked to active projects, they are also a long-lasting visibility tool.

Core communications were strengthened by consistent presence of BBMRI-ERIC on social media. New weekly formats were launched in 2025: #NodeTuesday amplifies current member state activity and #ProjectThursday curates the latest Horizon Europe funded BBMRI activity. The team monitored and responded to fluctuating social

media trends by seeking out where major stakeholders are active.

Over 2025, OEC provided key stakeholder dissemination and outreach leadership and support to 27 EU funded projects. Particular highlights include: Supporting the open calls and production of [User Stories](#) - real use cases of successful canSERV applicants talking about their canSERV facilitated cancer research projects; launch of the EvolveBBMRI Communications and Outreach Toolkit that was collaboratively produced with the National Nodes; leading communications and outreach work for INTEGRATE-LMedC that included articles, social media, newsletters and impact storytelling; for ERIC Forum 2, delivering stakeholder and media contacts mapping for targeted outreach, putting in place a programme of Media Skills Cafés and bringing together communications staff from 22 ERICs to benefit from tailored media and communications workshops.

Powerful biobanking and biomolecular stories

It is a priority to deepen communication and engagement within the vast BBMRI-ERIC community. This is part of a unified way to increase research infrastructure visibility and awareness of biobanking and its benefits for society. Contributions at Task Force Nine: Communications and Outreach demonstrated there was an untapped goldmine of success stories from member biobanks, National Nodes and EU projects. OEC provides, and trains National Nodes in agile impact storytelling skills. Together, these factors helped form a distinct offer for 2025 - targeted engagement and community building through impact narratives.

Aimed at a wide variety of stakeholders, including the public, World Days highlight particular themes or causes and many relate to the core offer of BBMRI-ERIC. Using TF9 as a dissemination mechanism for story callouts, OEC covered four strategically relevant days in 2025 – [International Childhood Cancer Day](#), [World Health Day](#), [World Patient Safety Day](#) and [One Health Day](#). These awareness days acted as ‘pots’ to collect and showcase biobank submitted impact stories and were told as

multimedia rich, longform ‘scrollytelling’ stories. Dedicated social media campaigns highlighted the storytellers — the BBMRI-ERIC community. These World Day stories have been especially well received by participants and audiences alike. The strong collaborative approach for building these stories together with the community proved to be an effective community building exercise.

For a distributed research infrastructure like BBMRI-ERIC, such co-creation activities foster interactions between the local, national and HQ level.



BBMRI-ERIC multimedia stories highlighting community contributions for international awareness days.

Finance and Project Management

Finance

Throughout 2025, the finance and project management team continued to advance its digital transformation, creating a more resilient foundation to support operational expansion. The automated document upload onto the central HR platform (BambooHR) and document distribution process was successfully implemented, ensuring timely delivery to employees and eliminating manual, error-prone steps.

The digitalisation of the travel process (from approval to the final expense claim) also advanced considerably: after selecting a suitable development and deployment partner, significant steps toward a fully streamlined workflow for employees were taken. In addition, all digitalised reporting files were adapted to the new database structures, ensuring higher data accuracy, and

more reliable preparation of both internal and external reports. These developments contributed to a more robust and efficient financial data environment, supporting the organisation's continued growth with stable resource utilisation.

The strategic goal to enhance the collaboration with industry, being one of the major targets for the next years and co-led by the National Nodes of Switzerland and Finland was supported by the finance team, resulting in a collaboration concept. The next steps are driving the development of contractual framework agreements between the parties involved (industrial partners, National Nodes, biobanks and BBMRI-ERIC) and the implementation of a pilot case.

Project management

In project management (PM), the department strengthened its capacity through the coordination of the canSERV project (18 partners, 150+ service providers, over 500 services, ~€15 Mio budget). Key areas of focus included large-scale consortium coordination and governance, the use of standardised templates and tracking tools and the management of a high volume of applications. In total, more than 155 applications and 260 services were approved and are currently in the service provision phase, representing an approved budget of approximately €9 Mio. Coordinating a consortium of this scale and complexity further enhanced the PM Department's operational expertise in coordinating large EU consortia and further developed reusable tools, governance

approaches and internal standards, supporting its readiness for future EC-funded SERV and other Horizon Europe projects.

In total, four projects were successfully completed in 2025 (EOSC4CANCER, ISIDORE, EuCanImage and INTERVENE) and seven new projects were started (UNCAN-CONNECT, CANDLE AHEAD, PERIFORMANCE, PRIM-TECH3R, RI-SCALE and EU-CIP). Eight new project proposals from various programme calls in 2025 were granted and will officially be kicked off in 2026 (CaBRIOH, EOSC-Mesh, SIRENE, Access2Access, ISIDORE2, PALACROS, THEODORA and ECHoS).

Human Resources

In 2025, HR continued to strengthen BBMRI-ERIC's organisational culture and operational efficiency. The employee life cycle was further streamlined through enhanced use of the central HR platform, BambooHR. A strong emphasis was placed on improving the onboarding experience, from personalised welcome cards and individual department meetings to biobank tours and structured first-quarter check-ins.

Team development remained a priority, highlighted by the successful Head of Department Retreat in February and the HQ Get-Together in March, both focused on leadership, communication and team building. HR also remained actively engaged in the wider Research Infrastructure through Quarterly HR Network meetings.

A key milestone was the launch of the automated acknowledgment process in December, piloted with the parental leave and return policy. This marks an important step toward more efficient document management and clearer organisation-wide communication.

HR also strengthened its role in workplace safety by completing First-Aider and Safety Representative (SVP) training. Additionally, HR coordinated the recognition of long-standing colleagues, presenting 10-year anniversary certificates to four employees.



Central Office

In 2025, the Central Office of BBMRI-ERIC further strengthened its role as a key operational and coordination hub, ensuring the smooth functioning of internal processes and fostering effective collaboration across scientific and organisational domains.

Beyond its core administrative responsibilities, the Central Office actively contributed to the development and refinement of internal policies and procedures, supporting continuous organisational improvement. It also played a central role in the planning and delivery of major BBMRI-ERIC events, workshops and conferences, including the successful organisation of EBW25.

A significant focus in 2025 was the implementation of the BBMRI-ERIC Work Programme. The Central Office facilitated coordination across activities, ensuring effective information flow, alignment among stakeholders and overall coherence of implementation. In February 2025, Central Office organised a kick-off workshop in Vienna for National Node Directors and Assembly of

Members delegates, followed by structured cycles of meetings aligned with Strategic Objectives to support progress monitoring and fruitful collaboration.

In parallel, the Central Office contributed to strengthening communication and engagement across the BBMRI-ERIC community, including the launch of new information-sharing formats such as Community Webinars. Two webinars were delivered in 2025, each attracting over 250 registrations, providing updates on strategic and organisational updates as well overarching topics in the European landscape.

Overall, the Central Office continued to evolve from a primarily support-oriented function towards a more proactive and integrative role, contributing to coordination, communication and strategic alignment across BBMRI-ERIC.

European Open Science Cloud (EOSC)

Project management

In 2025, BBMRI-ERIC took a prominent role in the EOSC Federation build-up, after being selected as one of the first 13 selected Nodes. BBMRI-ERIC is the only EOSC Node representing the sensitive health data domain including biobank-related resources. Kick-off commenced in the autumn and BBMRI-ERIC became a signatory to the EOSC Federation's Memorandum of Understanding.



Kick-off of the EOSC Federation's build-up phase implementation (March 2025, Brussels).

There are three major areas where BBMRI-ERIC provides significant contribution to the building of EOSC Federation:

- Its expertise in the sensitive health data domain
- Deployment of key technologies in alignment with Technical Readiness Level Nine (TRL9)
- Evolution of harmonised service provision that utilises the One Health paradigm.

In addition, BBMRI-ERIC also contributes to developing the EOSC governance framework.



Leadership and participation in EOSC groups

A particular contribution to the building of the EOSC Federation in the first year has been the implementation of a use case in the area of 'Multi-Centric VALidation of AI models for prostate cancer screening ([MCVAL](#))'. In 2025, MCVAL piloted validation of a prostate cancer model developed by the BioMedAI/RationAIgroup (Czech Republic), already in clinical use at Masaryk Memorial Cancer Institute (MMCI), the host of the BBMRI.cz Node. The pilot was implemented in close collaboration with Medical University of Graz (MUG, Austria) providing data and ICSC/INFN (Italy) providing certified compute resources, and was successfully demonstrated at the EOSC Symposium (Brussels, November 2025).

- **Health Data Task Force:** co-chairs Petr Holub (BBMRI-ERIC Headquarters) and Juan Garcia-Gonzalez (IACS / BBMRI.es).
- **Sensitive data subgroup (EOSC Nodes):** chair Andreas Türk (BBMRI-ERIC Headquarters).
- **Participation in EOSC Nodes subgroups:** AAI (Peter Bolha, LS AAI team), EOSC Handbook (Jana Pavlič-Zupanc, BBMRI-ERIC Headquarters), cybersecurity (Alexander Fürbaß, BBMRI-ERIC Headquarters).
- **Governance Working Group:** (Jana Pavlič-Zupanc, BBMRI-ERIC Headquarters)

2025 Service KPIs

All KPIs cover the period of January to December 2025.

6,765

Users of BBMRI-ERIC Directory

61

Active **Users** of the BBMRI-ERIC Negotiator (**Requesters**)

41

Active **Users** of the BBMRI-ERIC Negotiator (**biobanker and biomolecular resource representatives**)

81

Requests filed into the BBMRI-ERIC Negotiator

3

Requests successfully handled via BBMRI-ERIC Negotiator

14,946

Requests successfully handled outside of the BBMRI-ERIC Negotiator

240

Hours of BBMRI-ERIC ELSI Services provided

195

Attendees in BBMRI-ERIC ELSI Dialogues



9

New BBMRI Quality (Q)-Labels on BBMRI Biobank, Laboratory/
Institute or Expert Centre level in BBMRI Directory

0

New BBMRI-ERIC Quality (Q)-Label on Collection / Subcollection
level in BBMRI Directory

37

New Certified/Accredited BBMRI-ERIC Biobanks, Laboratories/
Institutes & Expert Centres

4,568

New publications involving BBMRI-ERIC

49,789

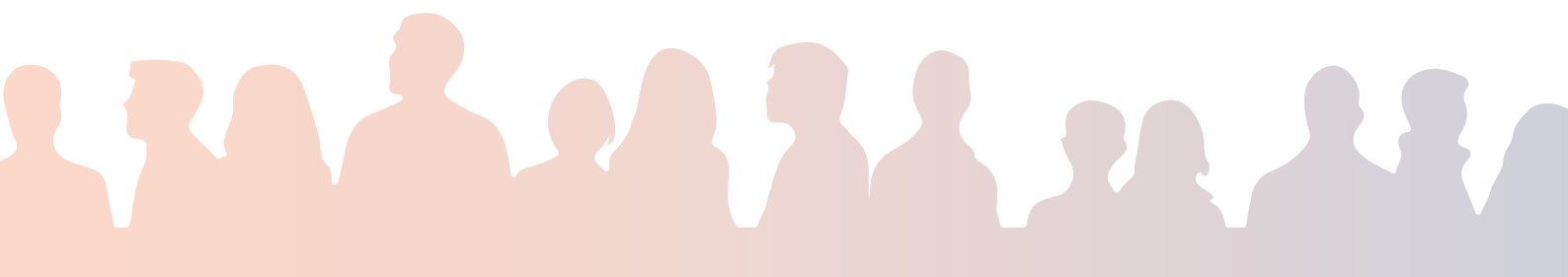
Participants reached by BBMRI-ERIC outreach events

105

Participants in Stakeholder Forum

459

New successful grants





PART 3

Financial Information

Financial Information

Core budget expenditures and allocated competitive research grants

The split of the resources at BBMRI-ERIC between core to project activities has now become stable at 40% (core) and 60% (projects). The financial stability could also be partially improved by an increase in membership fees from existing member states, new members as well as the stepping up of some observer states to member status.

In 2025, one new EC grant with 0,9 Mio. € in research grant funding was secured, which BBMRI coordinates. Taken the particularly strong years of

2024 and 2023 regarding successful grant proposals also into consideration, the average of these three years is in line with the required budget expectations.

BBMRI-ERIC coordinated five projects in the course of 2025, an additional project (CaBRIOH) was only recently awarded to the consortium also led by BBMRI.

Profit & Loss Statement

In EUR	2021	2022	2023	2024	2025
Turnover	3.292.908	3.920.923	4.334.553	5.556.156	5.706.036
Other operating income	7.441	7.537	72.327	106.123	38.851
Material/Service Expenses	-	(1.920)	(291.054)	(329.875)	(255.098)
Staff expenses	(2.477.511)	(3.053.131)	(3.389.773)	(4.058.794)	(4.283.049)
Amortisation	(54.819)	(52.595)	(48.282)	(53.101)	(52.938)
Other operating expenses	(758.648)	(791.673)	(786.231)	(1.388.099)	(1.324.001)
Operating result	9.371	29.142	(108.460)	(167.590)	(170.198)
Other interest and similar income	-	1.355	3.548	200.617	194.776
Interest and similar expenses	(204)	(21)	-	(0)	(897)
Financial result	(204)	1.333	3.548	200.617	193.879
Loss from operating activities, Earnings before taxes	9.167	30.475	(104.911)	33.027	23.681
Taxes on income and revenue		(339)	339	(5.494)	-
Profit of the year	9.167	30.136	(104.573)	27.532	23.681
Reversal of profit reserves	-	-	-	-	-
Allocation to profit reserves	(9.167)	(30.136)	104.573	(27.532)	(23.681)
Profit carried forward from the previous years	367.775	367.775	367.775	367.775	367.775
Balance sheet profit	367.775	367.775	367.775	367.775	367.775

Balance Sheet

In EUR	2021	2022	2023	2024	2025
Intangible Assets	91.920	68.940	45.960	22.980	0
Tangible Assets	41.891	37.777	32.984	40.950	37.093
Fixed Assets	133.811	106.717	78.944	63.930	37.093
Receivables and other Assets	439.425	409.394	880.771	801.309	1.908.709
Receivables arising from deliveries services	254.117	51.397	167.914	173.581	1.464.042
Other receivables and assets	185.308	357.997	712.857	627.728	444.667
Cash on hand and Bank deposits	2.667.526	9.633.534	7.963.174	8.375.429	11.423.855
Current Assets	3.106.951	10.042.927	8.843.945	9.176.738	13.332.565
Prepaid expenses, deferred charges	3.923	1.453	1.643	51.734	5.540
Assets	3.244.685	10.151.097	8.924.532	9.292.401	13.375.197
Reserves pursuant to the articles of association	893.333	923.470	818.897	846.429	870.110
Balance sheet profit	367.775	367.775	367.775	367.775	367.775
Investment grants	13.189	9.791	6.448	3.217	-
Capital and Reserves	1.274.297	1.301.036	1.193.120	1.217.421	1.237.885
Other accruals	127.273	119.580	158.468	159.401	243.502
Accruals	127.273	119.580	158.468	159.401	243.502
Liabilities arising from deliveries and services	246.162	220.003	92.274	181.155	23.605
Other liabilities	221.866	312.529	221.685	263.182	349.657
Liabilities	468.027	532.532	313.959	444.337	373.262
Deferred income	1.375.087	8.197.949	7.258.986	7.471.241	11.520.547
Liabilities and Owner's Equity	3.244.685	10.151.097	8.924.532	9.292.401	13.375.197

Cash Flow

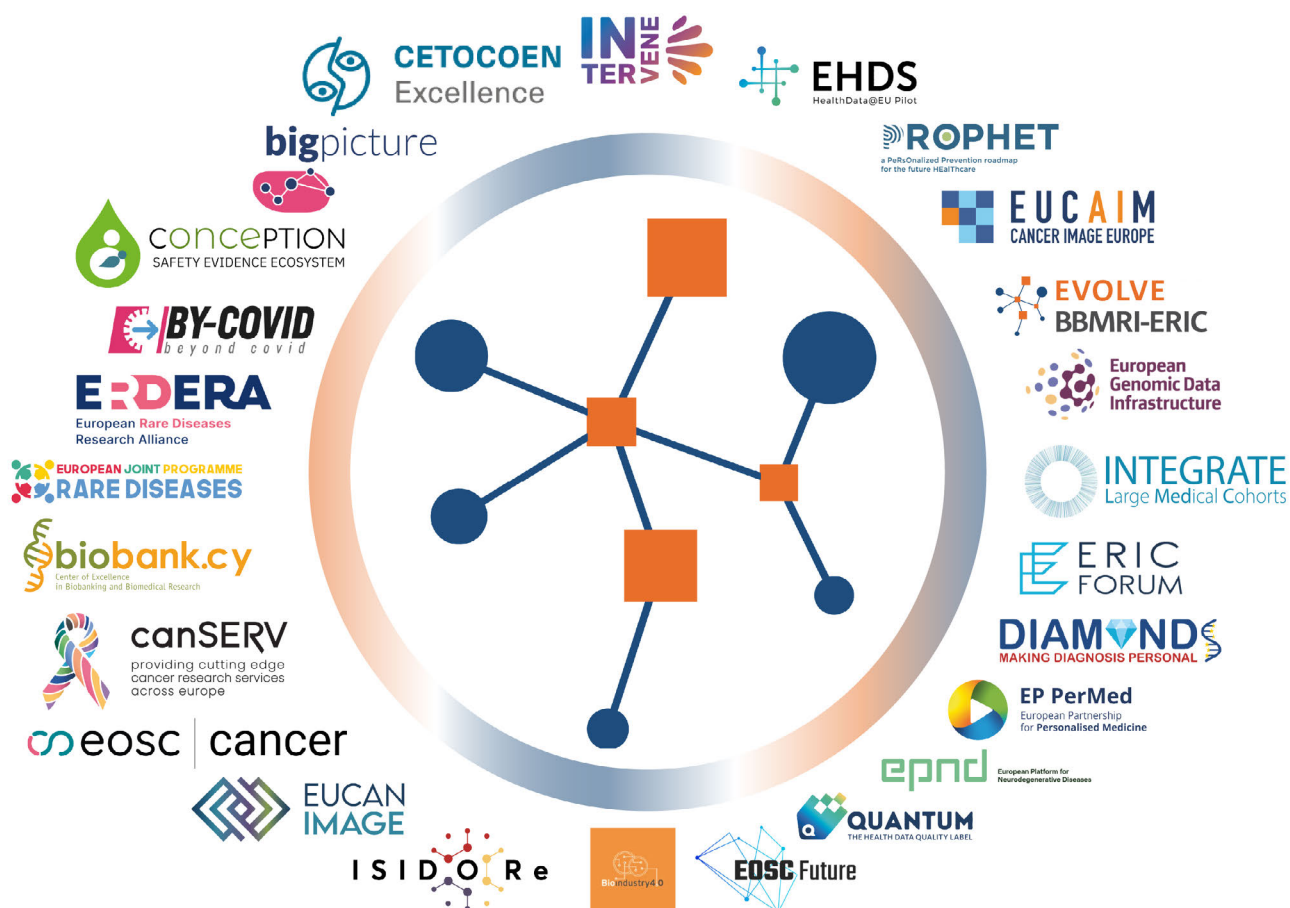
In EUR	2021	2022	2023	2024	2025
Profit of the year	9.167	30.136	-104.573	27.532	23.681
Amortisation	54.819	52.595	48.282	53.101	52.938
Cash Flow from the Result	63.986	82.731	-56.291	80.633	76.619
Δ Receivables arising from deliveries services	-161.116	202.721	-116.518	-5.667	-1.290.461
Δ Other receivables and assets	21.032	-172.689	-354.860	85.129	183.061
Δ Liabilities arising from deliveries & services	216.136	-26.158	-127.729	88.881	-157.550
Δ Other liabilities	-174.932	90.664	-90.844	41.497	86.475
Δ Prepaid expenses, deferred charges	-1.113	2.471	-190	-50.091	46.194
Δ Accruals	330.027	6.815.168	-900.075	213.189	4.133.407
Δ Investment grants	13.189	-3.397	-3.344	-3.231	-3.217
Δ Working Capital	243.223	6.908.778	-1.593.560	369.708	2.997.908
Cash Flow from Operations	307.209	6.991.509	-1.649.851	450.341	3.074.527
Investing / Deinvesting	-131.397	-25.501	-20.508	-38.086	-26.100
Cash Flow from Investing Activities	-131.397	-25.501	-20.508	-38.086	-26.100
Δ Capital and Reserves					
Cash Flow from Financing Activities	0	0	0	0	0
Total Cash Flow	175.813	6.966.008	-1.670.360	412.255	3.048.427
Cash Beginning	2.491.713	2.667.526	9.633.534	7.963.174	8.375.429
Δ	175.813	6.966.008	-1.670.360	412.255	3.048.427
Cash End	2.667.526	9.633.534	7.963.174	8.375.429	11.423.855

The cash flow in 2025 of +3,0 Mio. EUR mainly result from the prefinancing of EC projects acquired in 2024 and paid out to BBMRI in 2025. This is also the main reason that the cash position increased from 8,4 to 11,4 Mio. EUR. About 5 Mio. EUR of

this amount will be used to finance canSERV TNA services, funds which are held by BBMRI-ERIC on behalf of the project consortium and paid out to the beneficiaries whenever TNA services are completed.



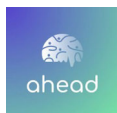
PART 4 **Projects**



Projects BBMRI-ERIC was active in **during 2025**.

Projects launched in 2025

AHEAD



BBMRI-ERIC Budget: 9,200.00 €

Start date: 01.01.2025

AHEAD (AI for Health: Evaluation of Applications & Datasets) creates a transdisciplinary, diverse and global community drawing on the expertise of professionals across diverse fields. Together, the community will gather, consolidate and put into practice established principles and guidelines, building a methodology and a platform to evaluate AI-based systems for biomedical and health-care applications to ensure the compliance with legal, ethical, technical, scientific and regulatory standards.

EU-CIP



BBMRI-ERIC Budget: 405,500.00 €

Start date: 01.05.2025

The EUropean Cancer Information Portal project (EU-CIP) addresses the information needs of cancer patients, survivors, relatives, and caregivers. EU-CIP aims to create a patient-centric cancer information portal that improves health literacy, empowers patients, and reduces inequalities in access to cancer care information across Europe.

CANDLE



BBMRI-ERIC Budget: 141,250.00 €

Start date: 01.06.2025

The national CAncer data Node DeveLoPErs (CANDLE) project will provide an avenue towards a successful and highly desired data transformation in European cancer research and serve as a catalyser for the UNCAN.eu and ECPDC platforms by advancing the development of National Cancer Data Nodes (NCDNs) in European countries, as recommended in the 4UNCAN.eu blueprint, to reach the goal of the Cancer Mission and Europe's Beating Cancer Plan, i.e. reducing the burden of cancer.



Coordinated by
BBMRI-ERIC

PERFORMANCE

BBMRI-ERIC Budget: 856,250.00 €

Start date: 01.09.2025

Enhancing stakeholder engagement in cancer research is vital for improving the relevance, impact, ethics, and equity of outcomes. The EU-funded Public Engagement in Research Infrastructures for Mission Cancer (PERFORMANCE) project will advance local action under the Mission: Cancer initiative, using federated biobanking as a key platform for transdisciplinary research and innovation across Europe. By adopting a quadruple helix model that includes patients, healthcare professionals, industry partners, and policymakers, the project goes beyond standard Patient/Public Involvement (PPI) practices.

PRIM-TECH3R



BBMRI-ERIC Budget: 578,125.00 €

Start date: 01.04.2025

The use of mouse models in biomedical research has been pivotal in understanding human diseases due to their genetic and physiological similarities to humans. However, concerns on ethics and translatability have prompted a shift towards alternative methods such as complex in vitro models (CIVMs). PRIM-TECH3R addresses this shift by leveraging advanced technologies to develop reliable mouse and human CIVMs for preclinical studies, aiming to reduce and refine the use of animal models.

RI-SCALE



BBMRI-ERIC Budget: 354,250.00 €

Start date: 01.01.2025

Scientific discoveries increasingly rely on data and AI. Research infrastructures (RIs) generate huge amounts of complex data, but managing, analysing and using this information is becoming a major challenge. Scientists often lack the large-scale tools and expertise needed to process data quickly and effectively. With this in mind, the EU-funded RI-SCALE project is tackling this issue by creating scalable Data Exploitation Platforms. These platforms will combine scientific data with pre-configured AI tools and powerful computing resources, unlocking their full potential. Working with four RIs (ENES, EISCAT, BBMRI and Euro-Bio-Imaging), RI-SCALE will test the technology in environmental and life sciences. It will also foster collaborations to help more RIs adopt these innovations.

UNCAN-Connect



BBMRI-ERIC Budget: 2,800,000.00 €

Start date: 01.09.2025

UNCAN-Connect aims to develop a decentralised collaborative network to advance cancer research and innovation, enabling secure, interoperable and ethical access to cancer-related health data across the European Union.

2025 Active Projects



AHEAD

Evaluating AI applications for healthcare with a global transdisciplinary approach



BIGPICTURE

Central repository of digital pathology slides to support the development of artificial intelligence (AI) tools.



BIOINDUSTRY 4.0

R&D for the next generation of scientific instrumentation, tools and methods.



CANDLE

Drives European data transformation by developing National Cancer Data Nodes to reduce cancer burden

Coordinated by
BBMRI-ERIC



canSERV
providing cutting edge
cancer research services
across Europe

canSERV

European wide research infrastructures, oncology experts and patient associations team to provide transnational access to cutting-edge, interdisciplinary oncology services across the entire cancer continuum.



CETOCOEN
Excellence

CETOCOEN EXCELLENCE

To create the European Centre of Excellence in Environmental Health Sciences.



biobank.cy
Center of Excellence
in Biobanking and Biomedical Research

CY-BIOBANK

Towards the establishment of a Research and Innovation Center of Excellence (CoE) for Biobanking and Biomedical Research at the University of Cyprus.



DIAMONDS

Demonstration pilots for implementation of personalised medicine in healthcare.



EOSC4CANCER

FAIR and open data sharing in support of cancer research.



European Platform for
Neurodegenerative Diseases

EPND

European Platform for Neurodegenerative Diseases for accelerating biomarker discovery and validation to support therapeutics development for neurodegenerative diseases.



EP PerMed
European Partnership
for Personalised Medicine

EP PerMed

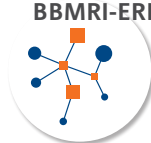
The European Partnership for personalised medicine.



ERDERA

European Rare Diseases Research Alliance.
Improve the health and well-being of the 30 million people living with a rare disease in Europe.

Coordinated by
BBMRI-ERIC



ERIC FORUM 2

Coordination and monitoring of the European Research Infrastructure Consortia (ERICs).

2025 Active Projects

EUCAIM

Federated European infrastructure for cancer images data.



EuCanImage

A European Cancer Image platform linked to biological and health data for next-generation artificial intelligence and precision medicine in oncology.



EU-CiP

Cancer information portal project. Empowering patients through trusted information.

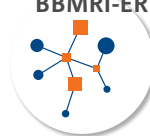


EvolveBBMRI

Further develop BBMRI-ERIC for the benefit of its scientific communities and users.



Coordinated by
BBMRI-ERIC



GDI

Genomic Data Infrastructure. Federated European infrastructure for genomics data.

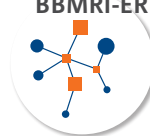


INTEGRATE-LMedC

A new concept to guide and support decision-making for the next-generation research infrastructure (RI) to facilitate efficient utilisation and harmonisation of large medical cohorts (LMedC).



Coordinated by
BBMRI-ERIC



INTERVENE

International consortium for integrative genomics prediction.

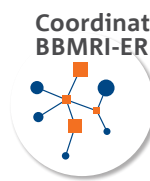


ISIDORe

Integrated Services for Infectious Disease Outbreak Research. Research infrastructure services for rapid research responses to COVID-19 and other infectious disease epidemics.



Coordinated by
BBMRI-ERIC



PERFORMANCE

Public engagement in research infrastructures for mission cancer



PRIMTECH3R

Preclinical in vitro models for the replacement, reduction and refinement of mouse models in preclinical studies



PROPHET

A Personalised prevention roadmap for the future healthcare.



QUANTUM

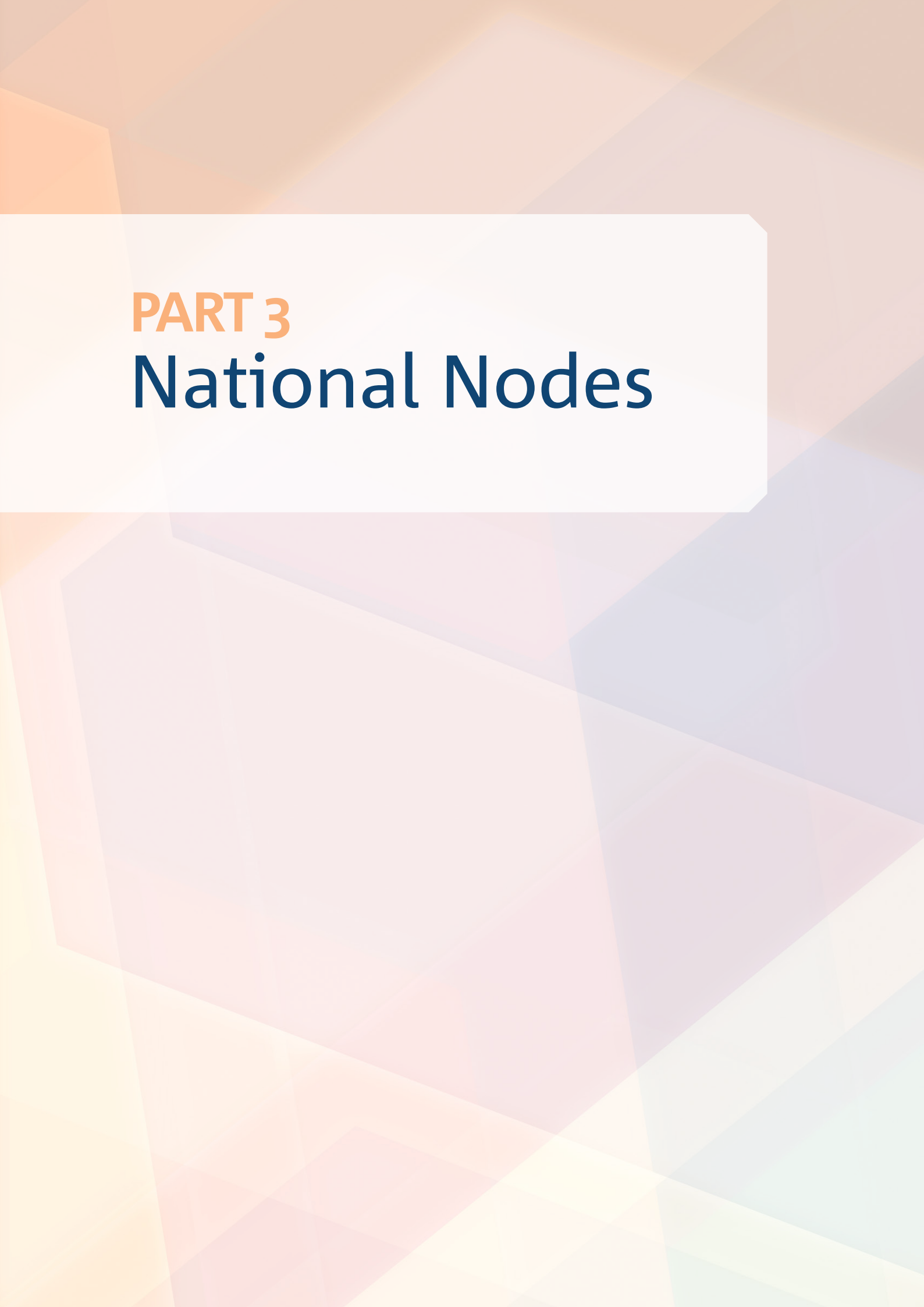
To create a common label system for Europe that guarantees the quality and utility of datasets for scientific and health innovation purposes.



UNCAN-CONNECT

Decentralized Collaborative Network for Advancing Cancer Research and Innovation.





PART 3

National Nodes



BBMRI.at comprises the Medical Universities of Graz, Vienna, Innsbruck, the JKU Linz Medical Faculty and the University of Veterinary Medicine with their biobanks. The University of Vienna brings in legal expertise. BBMRI.at develops the Austrian biobanking research infrastructure and links it to the European community. Focus is to increase close cooperation and

harmonisation between biobanks and foster research collaborations using samples/data and expertise. BBMRI.at partners harbour 22+ million human and animal samples with associated data to support academic and industrial research. BBMRI.at was established in 2013 and is funded by the Federal Ministry of Education, Economy and Research. More about [BBMRI.at](https://www.bbmri.at).

Top 3 Areas of Expertise

Quality & data management: Developing/implementing ISO/CEN (pre-analytics) standards; QM cross-audits; Training/webinars; High-capacity tissue slide digitalisation (whole-slide-imaging) & AI; Biobank-Editor; Trusted data environment/access model; Data quality; BSL-3 facility & high-risk pathogen-containing material.

Stakeholder & user engagement: BBMRI.at Legal Knowledge-Base & Helpdesk, Public engagement (e.g., Long Night of Research, biobank tours, children's courses); Education/training (e.g., QM, standards & IVDR; biobanking (MSc, courses)); Industry cooperation.

Non-human & green biobanking: Veterinary/animal biobanking for comparative medicine/One-Health; Green biobanking & environmental sustainability; Non-human biobanking (QM, ELSI).

Top 3 Achievements

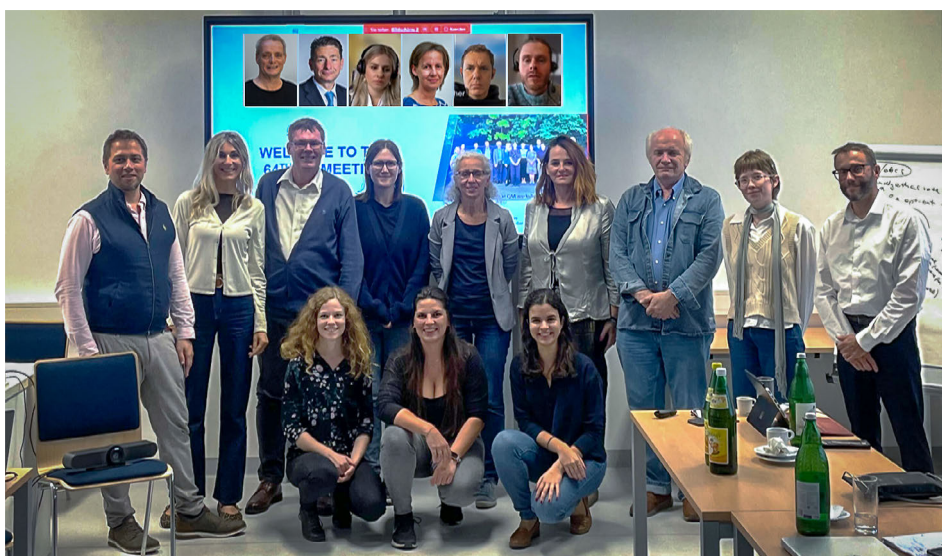
Harmonisation & standardisation: Leading "ISO-18701 human specimens - microbiome DNA"; ISO-24051-2 "Digital pathology & AI-based image analysis" development; QM cross-audits on ISO-20387; Organising QM course on ISO-21899; Operation of BBMRI.at Legal Helpdesk & Knowledge Base supporting partners; ELSI harmonisation; Co-leading the Austrian Cohort Initiative as platform for research groups with cohorts.

Data management: Development of technical specification for BBMRI.at Biobank Data Communication Platform "trusted environment for patient/research data" in EvolveBBMRI; complementing biobank samples with digital whole slide images (WSI).

Stakeholder / user information and engagement: Co-leading 4 strategic objectives of BBMRI-ERIC's WP25-27; Multiple grants and industry collaborations; Awareness raising on veterinary biobanks' potential for comparative medicine/One Health, and on green biobanking; Contribution to SCIBIOEU's Biobanking Adventure Game and eCourse; Multimedia stories at World Patient Safety Day and One Health Day; Several dissemination and communication; Scientific publications with biobank/BBMRI.at contributions.

BBMRI.at team Meeting (17 Sep 2025)

From left to right:
Helmuth Haslacher,
Cornelia Stumptner, Franz
Gruber, Jennifer Hsu, Ingrid
Walter, Monika Valjan,
Volodymyr Shekhovtsov,
Klaudia Kwiatkowska, Gregor
Gorkiewicz
Front: Veronika Perz,
Sabrina Kral,
Catarina Zamith de Almeida
On screen: Georg Göbel,
Nikolaus Forgó, Elena Ivek,
Monika Wieser, Patrick
Mucher, Patrick Neff.
© BBMRI.at





Belgium's scientific participation in BBMRI-ERIC was initiated in 2013 by merging the three existing Belgian network biobank initiatives. The activities of BBMRI.be are coordinated from the coordination office located at the Belgian Cancer Registry. All relevant biobank topics are addressed by more than 60 biobank experts

in the six working groups of BBMRI.be (IT, ELSI, Quality, Sustainability, Stakeholder Involvement, Networking & Valorisation). The BBMRI.be network currently connects 21 Belgian biobanks linked to public institutions such as hospitals, universities and research centres. More about [BBMRI.be](https://bbmri.be).

Top 3 Areas of Expertise

Clinical biobanks

Healthcare
integrated biobanking

Quality management of samples and
data

Top 3 Achievements

ISO20387 audit training: In November 2025, BBMRI.be organised a two-day training for biobank staff to become quality auditors for ISO 20387 in collaboration with BBMRI-ERIC

Validation of the BIOCOST model: The BIOCOST model previously developed within the Sustainability Working Group was validated by nine BBMRI.be biobanks. The results of the validation were written down in a manuscript that was submitted to "Biopreservation and Biobanking".

Overarching QM manual: The first version of the overarching QM manual was finalised in collaboration with the National Nodes from Germany, Switzerland and Poland.

BBMRI.be annual meeting, 26/11/2025, Leuven. © Kim Vande Loock





BBMRI.bg is based at Molecular Medicine Center, Medical University of Sofia, hosting the biggest national biobank with various clinical and population research collections. The biobanking network involves biobanks from two of the biggest Medical Universities in Sofia and Plovdiv. BBMRI.bg is supported by the Ministry of Education and Science in the frame of the National

Roadmap of Research Infrastructures. The goal of the National Node is to enlarge the biobanking network, increase international visibility and further use of the available collections, supporting high quality technical and ethical standards and contributing to health research and precision medicine. More about [BBMRI.bg](https://bbmri.bg).

Top 3 Areas of Expertise

Research biobanking in cancer and complex diseases, including collection of various biological samples and data for advanced Omics research.

Clinical biobank for research in rare diseases, linking sample collections from Genome Diagnostics Laboratory with BBMRI.bg.

Capacity for whole exome and whole genome analysis by NGS and aCGH, coupled with storage at the GDI national hub.

Top 3 Achievements

Collection of additional 1000 participants for the Genome of Bulgaria as part of the Genome of Europe project, following massive national media campaign.

Financial support for BBMRI.bg was provided by the Ministry of Education and Science within the framework of the National University Complex for Biomedical and Translational Research (NUCBTR), as a Research Infrastructure on the National Roadmap. This support covers operational costs, biobanking activities for GoE participants, WGS, as well as co-funding of the GDI project aimed at establishing the Genome Data Hub.

Cooperation with EATRIS and Health and LifeScience Cluster. Presenting BBMRI.bg and international projects at the meeting „Biomarkers in Translational Medicine — Common Goals and Shared Expertise“, organised by EATRIS Bulgaria, 28.11.2025 in Sofia.

Workshop of BBMRI.bg and MMC team.

A/Prof. Claudia Andl, University of Florida, A/Prof. Todor Po-pov's team from Department of ENT and head and neck surgery, MF, MU-Sofia, 5th of September 2025, Sofia
© Krasimira Ilieva





BBMRI.cy is the official Cypriot node of BBMRI-ERIC, led by the Ministry of Health and integrating the national biobanking landscape with European standards and infrastructures. The Node encompasses the country's two biobanks and coordinates national biospecimen and data collections. These include biobank.cy — Centre of Excellence in Biobanking and Biomedical Research at the University of Cyprus — and the Cyprus

Institute of Neurology and Genetics (CING), which contributes clinical and disease-focused collections. BBMRI.cy provides secure, GDPR-compliant access, ELSI support and links Cypriot researchers, clinicians and industry to BBMRI-ERIC's federated platform, enabling international research access and advancing precision medicine and genomic initiatives in Cyprus. More about [BBMRI.cy](https://bbmri.cy).

Top 3 Areas of Expertise

Population-level genomics and precision medicine, including systematic recruitment and characterisation of the Cypriot population.

Inherited and rare disorders, with longstanding expertise in kidney diseases and expanding collections in cardiovascular, ophthalmic and other genetic conditions.

Biobanking-driven translational research, integrating biospecimen collection, clinical data and genomic analysis to support research on complex traits and inherited disorders.

Top 3 Achievements

Participation in BBMRI-ERIC and EU-level initiatives: Cyprus, as a full member of BBMRI-ERIC, continued participation in coordination activities and contributed to pan-European initiatives including Genome of Europe (GoE), the Global Biodata and Biobanks Initiative (GDI) and EvolveBBMRI.

National biobanking operations: biobank.cy CoE continued population-level biospecimen and data collection under approved protocols and maintained operational workflows supporting national genomic and precision medicine research activities.

Node integration of national biobanks: The BBMRI.cy National Node maintained the integration of biobank.cy and the Cyprus Institute of Neurology and Genetics as collaborating biobanks, ensuring national representation within BBMRI-ERIC structures and European access and visibility mechanisms.



biobank.cy Center of Excellence, Biobank Team
Layia Xenidou, Msc Biobank Technologist, Elena Yiangou MMedSci Biobank Technologist
© Charis Kyprianou



The Network of Czech Biobanks (BBMRI.cz) is the unique national infrastructure in the Czech Republic providing coordinated collection, long-term storage and access to biological samples and associated data for scientific and biomedical research. Established in 2010, BBMRI.cz has developed into a distributed large research infrastructure currently comprising eight biobanks across the country. The network manages bio-

logical material and data from donors with oncological, rheumatological, and hematopoietic disorders, as well as samples from population-based and environmental studies. BBMRI.cz offers a unique combination of advanced technologies, specialised services and expert knowledge, particularly supporting translational research. More about [BBMRI.cz](https://bbmri.cz).

Top 3 Areas of Expertise

Data collections: Intensive data fairification and datafication of Czech biobanks.

Digital pathology: Use of digital and molecular pathology in oncology and biobanking

Archived samples: Wide spectrum of biomaterial types including population-based and disease-specific collections and rare diseases.

Top 3 Achievements

Datafication: All Czech member biobanks have been connected to the BBMRI ERIC Federated Platform, enabling real time discovery of biospecimens and associated clinical (meta)data.

CS-BIQ project: The project connects the national nodes BBMRI.cz and BBMRI.ch with the aim of strengthening the quality and interoperability of biobanking services in both countries.

Focus on patient organisations: Assignment of Memorandum of Understanding with Alliance of Women with Breast Cancer, o.p.s., first educational seminar was managed as part of improvement of awareness of biobanks and biobanking.



Representatives of the Czech Biobank Network (BBMRI.cz).

From left down to right up:
Veronika Holánková, Zuzana Vaněčková, Eva Růčková, Jitka Forejťová Zhořová, Zdenka Dudová, Roman Hrstka, Tamara Kolářová, Martina Podborská, Ema Jochmanová, Kristína Greplová, Eva Šimůnková, Kateřina Nováková, Lucie Juránková, Radoslava Kacová, Šimon Koňár.

© Petr Uhlíř



The Danish Biobank Network is a national network that brings together Danish population-based, research and clinical biobanks to support scientific progress. By facilitating Denmark's participation as an observer in BBMRI, the network enhances international collaboration, linking Danish biobanks with European partners to promote knowledge exchange and joint research efforts. Additionally, the network ensures strong co-

operation among Danish biobanks, fostering synergy and coordination across institutions. The network consists of members from the Danish regions, the Ministry of the Interior and Health, universities with health faculties and the Danish National Biobank, creating a strong foundation for cooperation in biomedical research. More about [BBMRI.dk](https://www.bbmri.dk).

Top 3 Areas of Expertise

Strong Data Foundation

- Large population cohorts and high-quality disease specific biobanks available for research
- Extensive research data
- Seamless linkage to national health registries

Strong National Network

- National collaboration in a robust and open network

Extensive experience in providing and utilising biobank data

- High trust and support from the citizens
- Extensive Use of Biobank Samples
- High utilisation of biobank samples in active research

Top 3 Achievements

Funding has been secured as part of the implementation of the National Strategy for Personalised Medicine to support:

- The establishment of an overview of all Danish biobank samples at www.biobanks.dk
- Enabling citizens to access information about their samples via www.sundhed.dk

Grants from NordForsk and the Nordic Council of Ministers have been secured to:

- Advance Nordic cooperation in biobank research, precision medicine and the use of health data
- Plan and host the Nordic Conference on Future Health 2026 in Copenhagen

Enhancing the IT infrastructure and international interoperability of the Danish Biobank Register

- Three-year, Novo Nordisk Foundation-funded initiative to strengthen the Danish Biobank Register's IT infrastructure and international interoperability, including alignment with BBMRI-ERIC.
- Alignment assessment and initiation of a pilot implementation to enable standardised data export and transformation to the BBMRI-ERIC infrastructure.



Representatives of the Danish Biobank Network (BBMRI.dk)

Mads Albertsen, Christian Erikstrup, Henrik Krarup, Erik Sørensen, Lars Dyrskjød Andersen, Marianne Nygaard, Palle Lyngsie Pedersen, Sidsel Bangsgaard Skovgaard, Estrid Høgdall, Anne-Marie Vangsted and Karina Meden Sørensen
© Eva Albertsen

The Estonian Biobank (EstBB) is a volunteer-based prospective and longitudinal biobank, maintaining and managing the biological samples and healthcare, life-style and omics data of 212,000 biobank participants. Available samples include DNA, plasma and buffy coat cells for all participants, and more sample types for smaller subsets. Available data includes periodically updated health records from national healthcare and

other relevant registries, genotyping data from Illumina GSA microarrays and metabolomics data from Nightingale Health for all participants. Smaller subsets of participants have WGS (short-read and long-read), gut metagenome sequencing data, clinical biochemistry measurements, RNAseq and other data. More about biobank.ee.

Top 3 Areas of Expertise

Sample and data collection from biobank participants, including initial recruitment as well as follow-up visits for specific research purposes. Recall studies can be conducted based on specific genetic findings or existing diagnoses.

Integration of electronic health records from structured data sources and transformation of more detailed free-form medical records into a research-ready format.

DNA analysis, including long-read whole genome sequencing, genotyping arrays and metagenomic sequencing.

Top 3 Achievements

A modernised Bill regulating the Estonian Biobank, enabling opt-in transfer of participant data from the biobank to the healthcare system for personalised medicine services, was drafted in cooperation between the Estonian Biobank and the Ministry of Social Affairs and passed to the legislature for deliberations.

TeamPerMed project started a world-first personalised genetic risk-based study on heart disease prevention using statin therapy. The study involves more than 2500 biobank participants over a 5-year study period.

Estonian Biobank was included in the Estonian research infrastructure roadmap as part of the Estonian Centre for Genomics. This provides funding to improve and modernise the IT infrastructure and access procedures, upgrade automated sample storage systems and supplement the microbiome dataset at the Estonian Biobank in 2025-2029.



Steven Smit, head of the biobank lab of the Estonian Biobank, accessing samples in long-term storage in liquid nitrogen vessels.
© Karl-Erik Piirimees



BBMRI.fi is a research infrastructure comprising ten biobanks in Finland. BBMRI.fi is the Finnish National Node of the European level BBMRI-ERIC. The Finnish Biobanks Cooperative – FINBB has coordinated

BBMRI.fi since 2020. FINBB was appointed to this role by Ministry of Education and Culture. More at [BBMRI.fi](https://bbmri.fi).

Top 3 Areas of Expertise

National one-stop shop biobank services for researchers through [Fingenious®](https://fingenious.fi) services which includes Availability, Request and Recruit Services.

High quality sample collections with associated clinical data derived from Electronic Health records (EHRs), as well as study / population cohorts and expert data analysis capabilities.

Capability and processes to recruit participants to clinical trials and to return biobank study results to participants.

Top 3 Achievements

[Fingenious.fi](https://fingenious.fi) - the gateway to Finnish biobanks and biomedical research is enhancing international collaboration. Over 2,000 researchers from 45 countries. Over 500 projects conducted and >2000 scientific publications in peer-reviewed journals.

Large biobank study FinnGen is proceeding as planned. Already >500,000 samples collected and genotyped and proteomics analysis on-going.

Large-scale biobank infrastructure development project funded by the Finnish Research Council initiated and on-going. The mission is to build world's most impactful biobank network.

BBMRI.fi group photo
© Antti Heikkilä/Mama Creative Oy



FINBB team (National Node of BBMRI.fi)

Piia Mikkonen, Essi Kaiharju, Tom Southerington, Pauli Wihuri, Johanna Mäkelä, Mervi Ahlroth, Meri Lähteenmäki
© Pauli Wihuri/FINBB



The German Biobank Network (GBN) unites academic biobanks at 38 sites that collect human biosamples to make them available for biomedical research across Europe. The network ensures harmonised quality standards and facilitates access to high-quality bio-specimens and associated data. Funded through the Network of University Medicine (NUM) by the German

Federal Ministry for Research, Technology and Space (BMFTR), GBN serves as Germany's National Node of BBMRI-ERIC. In July 2025, the former German Biobank Node and the German Biobank Alliance merged under the new name, reflecting GBN's role as a central infrastructure for university medicine. More about [BBMRI.de](https://www.bbmri.de).

Top 3 Areas of Expertise

Integrated research support: Biobanks provide broad, high-quality bioresources and increasingly support multicentre studies, industry collaborations and translational research.

Quality management: Germany hosts one of Europe's strongest biobank quality ecosystems, with multiple DIN EN ISO 20387-accredited biobanks and several recipients of the BBMRI-ERIC Quality Label.

Public engagement and outreach: GBN biobanks actively engage citizens through open days, science festivals and educational programmes.

Top 3 Achievements

Strategic integration and consolidation: In 2025, GBN was integrated into the Network of University Medicine (NUM) and consolidated under the name German Biobank Network (GBN), reinforcing its role as a central infrastructure for academic biobanking in Germany.

Biobank platform initiative: Building on the inclusion of a 'National Biobank' in Germany's coalition agreement, GBN mobilised a broad alliance of academic, political and industry stakeholders and co-developed a national platform concept, positioning the network for major new funding and implementation from 2026 onwards.

Network growth: GBN expanded its national reach by welcoming new member biobanks in Munich, Ulm and Magdeburg.

Meeting of the German
Biobank Network
in Jena.
© Verena Huth / GBN



BBMRI.gr is Greece's National Node of BBMRI-ERIC and the country's central hub for biobanking. It integrates high-quality human biological samples with associated clinical and research data, alongside advanced biomolecular technologies, including the Greek Genome Center, from leading hospitals, universities and research centres nationwide. BBMRI.gr enables biomedical research, precision medicine and

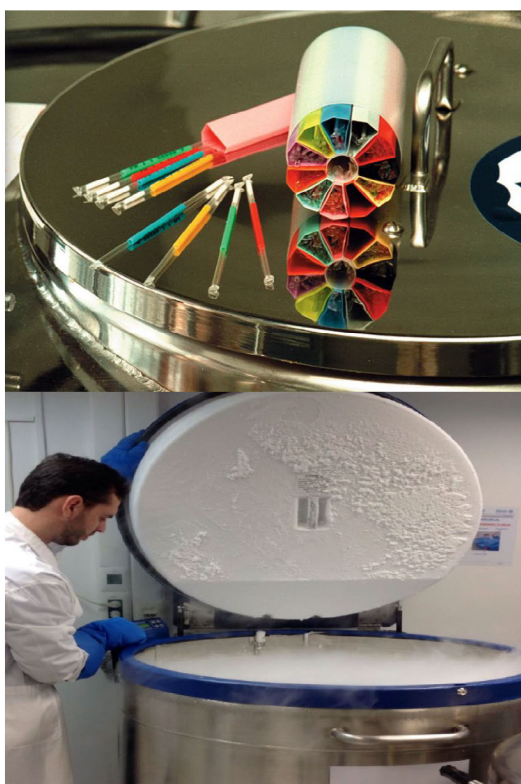
innovation by offering harmonised access, strong governance, and comprehensive ethical and legal support. It further leverages artificial intelligence tools for data integration, analysis and interpretation, while providing cutting-edge analytical services and actively linking Greek research with the European Research Area, fostering collaboration, interoperability and scientific excellence. More about [BBMRI.gr](https://bbmri.gr).

Top 3 Areas of Expertise

High-quality collection, processing and long-term storage of diverse human biospecimens linked to rich clinical, epidemiological and lifestyle data.

Advanced biomolecular, “omics” profiling (genomics, proteomics, metabolomics), biological and clinical bioimaging supported by robust bioinformatics and AI-driven analytical tools to advance radiogenomics approaches.

Strong ethical, legal and data-governance frameworks enabling secure, FAIR and responsible access for research and innovation.



Top 3 Achievements

Submitted New Funding Proposal and One Million Genomes Alignment: In 2025, BBMRI.gr submitted a major national funding proposal aligned with the One Million Genomes initiative, strengthening population-scale genomics, data interoperability and Greece's contribution to European precision medicine. The proposal integrates the Greek Genome Center and promotes the use of AI tools for large-scale data analysis and cross-border research collaboration.

Expansion of the National Biobanking Network: The BBMRI.gr network expanded through the integration of new hospital- and research-based biobanks, including biobanks of isolated regions, viromes and Alzheimer's biobanks, increasing geographic coverage, sample diversity and representation of the Greek population under harmonised quality standards.

Social Science Integration and Governance Strengthening: Collaboration with the National Center for Social Research (EKKE) advanced social science integration, reinforcing ethical governance, public engagement and societal impact assessment.

The BBMRI-ERIC Hungarian Biobank Node (HBN) acts as the national umbrella organisation for Hungary's largest biobanks and represents the Hungarian biomedical research community within BBMRI-ERIC. Established in 2021 with the support of the Hungarian Research and Innovation Office, HBN brings together six major biobanks from leading academic, clinical and industrial institutions and has recently been joined by the Budapest University of Technology and

Economics as a new member providing IT service support. Its mission is to provide ethical, standardised and FAIR-compliant access to high-quality biospecimens and associated clinical data, thereby supporting precision medicine and research innovation. In addition, HBN promotes collaboration, capacity building and infrastructure development, enhancing the national and international visibility and impact of Hungarian biobanks. More about [BBMRI.hu](https://bbmri.hu).

Top 3 Areas of Expertise

Disease-focused biobanking with rich, longitudinal clinical and molecular datasets, supporting translational and precision medicine research.

Clinical-trial-ready biobanking and data services, with particular strengths in oncology, rare diseases and cardiovascular disorders.

High-throughput, quality controlled biospecimen and real-world data generation serving academic and industry partners; several sites actively contribute to real-world evidence initiatives, including the EMA's DARWIN project.

Top 3 Achievements

Completion of the Semmelweis Federated Data Warehouse enabling fully operational, secure and FAIR-aligned data sharing among biobank partners, accompanied by the release of an educational YouTube film explaining federated data sharing to researchers and the wider public.

Initiation of a national biobanking data federation representing a major step toward interoperable, country-wide access to biospecimen-associated data and strengthening coordinated data governance at the national level.

Strategic expansion toward a One Health approach in biobanking, integrating human, animal and environmental perspectives and incorporating Nagoya Protocol-compliant access and benefit-sharing principles to ensure ethical and legally sound use of non-human genetic resources.

Sample preparation
© Attila Kovacs





The International Agency for Research on Cancer (IARC) is the specialised cancer research agency of the World Health Organization (WHO). Created in 1965 in Lyon, IARC's mission is to promote international collaboration in cancer research and understand the causes of cancer. With the support of 27 participating Member States, the Agency makes an exceptional contribution to the fight against cancer worldwide, by mobilising individuals and organisations around common values and objectives.

IARC is interdisciplinary, bringing together skills in epidemiology, laboratory sciences and biostatistics to identify the causes of cancer so that preventive

measures may be adopted, and the burden of disease and associated suffering reduced. A significant feature of IARC is its expertise in coordinating research across countries and organisations; its independent role as an international organisation facilitates this activity.

Aligned with its WHO mandate, IARC has a particular interest in conducting research in low and middle-income countries through partnerships and collaborations with researchers in these regions. More about [IARC/WHO](#).

Top 3 Areas of Expertise

Cancer research on an international scale.

Cancer research in resource-restricted settings and
Low-and Middle-Income Countries (LMICs).

Create and disseminate **research-informed national and international guidelines**

Top 3 Achievements

Supported the launch of major national and regional initiatives, e.g., the Arab Biobank Network and the new Malaysian National Guidelines on the use of Human Biological samples for Research.

Over 50+ LMIC biobanks from 26 countries have now joined [BCNet](#), creating the largest network of LMIC-based biobanks for cancer research.

Participation in the [PERFORMANCE grant](#), that will drive forward digital engagement with biobanks.



Biobank staff at IARC/WHO retrieving samples for cancer research.
© Zisis Kozlakidis

The Italian Node of BBMRI-ERIC (BBMRI.it), established in 2013, is a distributed infrastructure including 62 qualified biobanks located throughout Italy, the National Institute of Health, the CNR, 19 universities, 33 research hospitals, 45 hospitals, 15 patient associations and a large community of researchers involved in

disease-oriented projects that relies on the use of collections of biological resources. A Help Desk and Common Services for ICT, Quality and ELSI have been set up to support the network and >290 research groups and about 1100 users. More about [BBMRI.it](https://bbmri.it).

Top 3 Areas of Expertise

Quality Management (QM): QM trainings and support to biobanks. Support to implementation of ISO 20387 Standard. Healthcare integrated biobanking.

ELSI with a specific focus on co-production of knowledge as well as on stakeholder and user engagement.

Data management: Secure IT solution for managing big data and sensitive data. Adoption of BBMRI-ERIC standards and development of training and tools to improve interoperability of research databases.

Top 3 Achievements

Development of a Service Catalogue to provide structured and consistent access to 119 services from 32 providers for sample characterisation and big data production.

Development of the BBMRI Consent APP, aimed at facilitating interaction between participants and research biobanks through digital consent options based on the CCE, in format compatible with the Federated Platform.

Collections in the directory have increased to 304 and samples to >3.45M samples. Three biobanks connected to the BBMRI-ERIC federated platform expanded their available interoperable collections to 2500 samples from 800 patients. In 2025, BBMRI.it recorded 103 successful accesses. One additional biobank achieved ISO 20387 accreditation in 2025.

BBMRI.it National Day 2025 - 230 participants © Lorenzo Merignati





The aim of BBMRI.lv is to provide resources for biomedicine research in Latvia and collaborate with institutions abroad, ensuring knowledge circulation, development and setting of new goals, that will encompass international standards, best practices and promote scientific excellence. Currently, there are four leading biobanking institutions involved in Latvian National

Biobank Network — Latvian Biomedical Research and Study centre (National Node/Coordinator), University of Latvia, Riga Stradins University, Riga Children Hospital. BBMRI.lv also maintains close collaboration with other biobanking institutions in the fields of environmental biobanking, aligning with OneHealth initiatives in Latvia. More about [BBMRI.lv](https://bbmri.lv).

Top 3 Areas of Expertise

Biological samples of population-based and disease-specific collections, survey data and information retrieval from health care system.

Large-scale sequencing (genome, transcriptome, exome, metagenome) and digitalisation of biological samples in national scale “omics” projects.

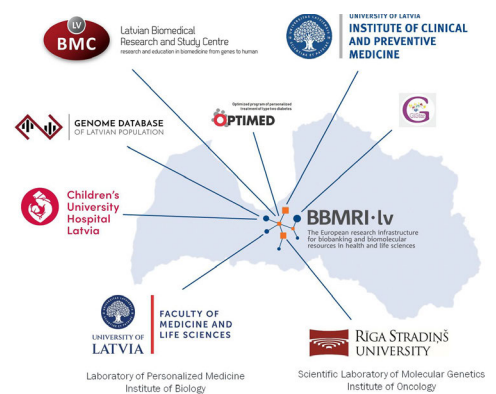
Activities in ELSI and quality management on national and international level.

Top 3 Achievements

Development of genomic data storage and processing infrastructure in Latvia for Latvian Genome Reference project under the “European Million Genomes Initiative” (1+MG). This will serve as foundation of future personalised medicine development in Latvia.

Organisation of national-level activities for biobanks and researchers about ELSI, QM and data protection and local level consultations. Promotion of Biobank law for coming in into force in Latvia participation in the working group for development of national regulation for secondary data use for research.

Participation in the development of more than 20 national-level and more than 10 international-level research projects; proposals include areas of diabetes, tumour research, rare disease, microbiome, omics data, ELSI and other.



Biobanks included in Latvian National Biobank Network

Visit of BBMRI-ERIC General Director Jens Haberman to Latvian National Biobank Network within the framework of Precision Medicine NET forum. Jens Haberman, Vita Rovite, Janis Klovins, Marcis Leja © Jana Pavlic-Zupanc





The BBMRI.lt node represents the National Cancer Institute of Lithuania (node coordinator), Vilnius University, Vilnius University Hospital Santaros Klinikos, the State Research Institute Centre for Innovative Medicine, the Lithuanian University of Health Sciences and the Hospital of the Lithuanian University of Health Sciences, Kauno Klinikos. Together, biobanks maintain collections covering oncology, haematology, rheumatology, infectious diseases and population-based

cohorts. The collections include snap-frozen and formalin-fixed paraffin-embedded tissues, digital images, blood-derived samples, viable cells, DNA/RNA and associated clinical, demographic and epidemiological data. The infrastructure is being expanded to support multimodal phenotype integration and population-level biomedical research. More about [BBMRI.lt](https://bbmri.lt).

Top 3 Areas of Expertise

Advanced biorepositories for oncological and other diseases, applying cutting-edge freezing and storage technologies to preserve high-quality tissues, cells and 3D cell cultures for use in advanced in vitro models.

Application of next-generation sequencing (NGS) and data science approaches to explore complex diseases and population-level health questions.

High-capacity digitalisation of pathology data, including whole slide imaging (WSI) and AI-based analytical solutions.

Top 3 Achievements

BBMRI.lt hosted the first Lithuanian National Biobanking Forum, strengthening collaboration among biobanks, researchers, healthcare institutions and the public.

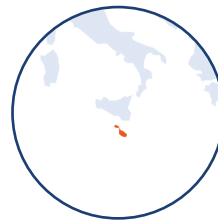
Following a national infrastructure modernisation project, all Lithuanian biobanks were licensed, became fully operational and advanced digital transformation through paperless workflows and the implementation of electronic informed consent.

The Lithuanian Population and the Rare Disorders Biobank launched a participant engagement platform, implemented a structured data quality model and joined the BBMRI-ERIC Directory, enhancing international visibility and accessibility for research collaborations.

Lithuanian National Biobanking Forum 2025

From left to right:
Dr. Justas Nugaras,
Dr. Giedrė Kvedaravičienė,
Dovilė Juozapaitė,
Dr. Jurgita Makšienė,
Prof. Vaiva Lesauskaitė,
Dr. Saba Abdulghani,
Dr. Anurag Verma,
Assoc. Prof. Lina Poškienė,
Dr. Dovilė Žilėnaitė-Petrulaitienė,
Dr. Živilė Gudlevičienė,
Prof. Dalius Jatužis.
© Jolanta Lapeikė





Malta's BBMRI-ERIC National Node represents DwarnaBio, the national population genomic biobank initiative led by the University of Malta. The node's role is to develop a BBMRI-aligned, quality-managed biobanking platform that supports recruitment of a representative cohort, standardised biospecimen processing and storage, secure pseudonymisation and

data governance and ethically robust participant engagement through dynamic consent. The node is progressing national partnerships, including alignment with 1+MG activities, to strengthen interoperability and enable research that improves genomic discovery and clinical interpretation in the Maltese population. More about [BBMRI.mt](https://bbmri.mt).

Top 3 Areas of Expertise

Population genomics and variant interpretation: Building Maltese reference resources to improve rare-variant classification and reduce VUS burden, with linkage to phenotype and longitudinal follow-up.

Biobank operations and quality management: Standardised SOPs for blood processing, aliquoting, traceable sample management and pre-analytical quality control.

ELSI and dynamic consent: participant-centred governance, recontact capability, and ethically robust approaches to data sharing and return of findings.

Top 3 Achievements

Strategic sustainability and scale-up: We developed and submitted the University of Malta MALGENPOP grant application to establish a coordinated population genomics research cluster and underpin a five-year growth plan for DwarnaBio operations and downstream science.

National genomics delivery: We completed the first 200 whole-genome sequences within Malta's 1+MG-linked programme, establishing a tangible national WGS capability and a foundation for Maltese reference data generation.

Public trust and recruitment: We expanded community outreach through targeted engagement and awareness activities to improve genomic literacy, support participation and strengthen the dynamic-consent model that enables long-term recontact and governance.

DwarnaBio staff

Left to Right: Mr Eric Santucci, Ms Jasmine Spiteri, Dr Lidia Ryabova, Dr Bridget Ellul, Dr Chris Barbara, Prof Alfred Vella, Prof Nikolai Pace, Prof Charles Sammut, Prof Gillian Martin, Prof Richard Muscat. © University of Malta communications office



Established in 2008, BBMRI.nl is the Dutch node of BBMRI-ERIC and a partner of Health-RI, the organisation dedicated to improving the reuse of health and life sciences data for policy, research and innovation. Connected through BBMRI.nl, more than 1,000 biobank collections and over 2,000 biobank professionals provide access to high-quality biomaterials and asso-

ciated data that support basic, translational, clinical and implementation research. BBMRI.nl strengthens health research in the Netherlands by fostering innovation, harmonisation, connectivity and the sustainable (green) operation of biobanks. More about [BBMRI.nl](https://www.bbmri.nl).

Top 3 Areas of Expertise

Promoting harmonisation by further developing and implementing evidence-based procedures, guidelines and standards, aligned with national and international frameworks.

Providing support by co-developing, implementing, promoting and maintaining services that facilitate the discovery and sharing of biomaterials and associated data for research and innovation.

Distributing knowledge that adds value to the biobank community through communication channels, stakeholder discussions and the National Biobank Day.

Top 3 Achievements

Renewing the organisational structure of BBMRI.nl, in close collaboration with the central biobanks of Dutch academic hospitals and Health-RI, responsible for the development of a sustainable, integrated health and life sciences data infrastructure

Executing projects aimed at harmonising pre-analytical workflows, biobank consent procedures and the evaluation of existing biobanks, with results shared and aligned at the European level

Organising the second National Biobank Day in Nijmegen, bringing together 135 participants to discuss a broad range of biobank-related topics, from bioresources shaping precision medicine to One Health initiatives

2nd National Biobank Day on March 27, 2025 in Nijmegen; Dutch biobank community.
© Thijs Rooimans



Biobank Norway (BN, bbmri.no) is a large-scale national research infrastructure for clinical and population-based biobanks, established in 2011. BN has developed key services and technologies, including implementing automated storage solutions that have enabled the use of biological materials linked to rich research data across numerous Norwegian research environments. BN has facilitated the availability of a range of well described biospecimens and

corresponding health related data, including large scale genotyping of 450,000 samples from population studies. These efforts have contributed to several hundred research projects resulting in a vast number of high-profiled publications. Biobank Norway/NTNU, on behalf of BBMRI-ERIC, coordinates the Horizon Europe project, INTEGRATE Large Medical Cohorts. More about BBMRI.no.

Top 3 Areas of Expertise

Initiating and running population-based and clinical biobanks.

Digitised biobank data — secure solution for handling of sensitive big data.

Integrating data from multiple sources, such as national and local registries, electronic health records and population studies, mostly accessed through one national entry point.

Top 3 Achievements

Nordic Biobank Network funded by NordForsk. The project is led from Biobank Norway and PI Therese Haugdahl Nøst.

The biobank at the Norwegian Institute of Public Health (NIPH) accredited under the international ISO 20387 standard.

As part of the Biobank Norway 4 project, we have compiled a cross cohort, population based genotype dataset for over 450,000 Norwegian individuals within a secure processing environment and analytical work is now in progress.

Biobank Norway Seminar, Bergen 2025

Names of people depicted: Biobank Norway community. © Biobank Norway





The Polish National Node coordinates the activities of the Polish biobanking community and its integration with the European infrastructure. The core BBMRI.pl consortium currently consists of eight biobanking institutions, with many others collaborating under the Polish Biobanking Network. Our National Node is responsible for internal and external communications, maintaining contacts and coordination with BBMRI-ERIC, representing the Polish biobanking com-

munity to national and international stakeholders and promoting Polish biobanking experts in the European initiatives and working groups. Our shared vision is to continue developing and expanding an integrated, sustainable and state-of-the-art biobanking network in Poland. To realise this vision, the biobanking community is committed to enhancing coordination, efficiency, and quality in the management of biobank samples. More about [BBMRI.pl](https://bbmri.pl).

Top 3 Areas of Expertise

Collaborative biobanking with an expanded research dimension: an ability to bridge biobanking and disease research with the special focus on the new cellular models and digital pathology data acquisition and analysis, specifically tailored for the individual research projects.

Advisory role for the medical staff on the best practices for collecting and preparing the biological samples for state-of-art biobanking.

Extensive expertise in quality management in biobanking, aligning its practices with international standards such as ISO 20387. The consortium supports the implementation of robust quality systems across Polish biobanks, offering training, audits and guidance to ensure high-quality, reliable biological samples and data.

BBMRI.pl national scientific conference 2025
© Iwona Dziuk



Top 3 Achievements

Organisation of the 2025 BBMRI.pl national scientific conference, bringing together researchers, clinicians and biobank representatives with guest speakers from BBMRI-ERIC. The event facilitated knowledge exchange, strengthened national collaboration and enhanced the visibility and strategic role of BBMRI.pl within the Polish biomedical research infrastructure.

Publication of chapters in an international monograph entitled "Artificial Intelligence in Biobanking: Ethical, Legal and Societal Challenges" on the ethical and legal aspects of AI in biobanking: "Artificial intelligence and communication with research participants in the process of biobanking human biological material", "Liability for Damages, AI and Machine Learning for Digital Pathology as New Challenges for Biobanks".

Participation in the work of expert group appointed by the Ministry of Health regarding biobanking legislation in Poland.

Radoslaw Zagodzdon and Iwona Goras © Michal Teperek





Qatar Biobank (QBB), operating under the Qatar Precision Health Institute (QPHI) and Qatar Foundation, is a national resource advancing health research by collecting biological samples and health information from the population of Qatar. As the designated National Node, the biobank enables groundbreaking studies on diseases prevalent in Qatar and the wider region. By integrating lifestyle, clinical and genetic data, it supports precision medicine, pharmacogenomics and population health research. ISO certifications and CAP accredited processes supports high quality biomedical and translational medicine research in line with the national vision and health strategy of the country.

QBB-QPHI is a unique collaboration between science and society, building knowledge to improve health-care and create a healthier future for generations to come. More about [BBMRI.qa](https://bbmri.qa).

Top 3 Achievements

Continued integration of Qatar Biobank and Qatar Genome under Qatar Precision Health Institute transforms Qatar's biobanking and genomics ecosystem into a cohesive translational medicine platform, linking population research with clinical practice to deliver precision healthcare.

Cohort 5-Year Follow-Up Visits. Successfully ramped up Follow-Up Visit 1 and initiated Follow-Up Visit 2 for its participant cohorts, marking a major milestone in long-term population health research. This achievement strengthens the biobank's ability to generate longitudinal data, track disease progression and provide deeper insights into the impact of genetics, lifestyle, and environment on health outcomes in Qatar.

Qatar Biobank continues to champion biobanking education by supporting local and international students through structured visits, internships and hands-on training programs in collaboration with leading universities. Our active presence at global biobanking events — such as European Biobanking Week and ISBER 2025 — includes delivering expert presentations, hosting competency-based workshops like Developing a 'Strong Laboratory Workforce', and leading roundtable discussions on laboratory validation and verification. Contributing to national knowledge-sharing platforms, including webinar series hosted by the Ministry of Public Health.

Top 3

Areas of Expertise

Sample and data collection of population and disease cohort participants in underrepresented Qatari/Arab population groups with deep phenotypic data.

Biobanking sustainability and laboratory automation. Innovation-driven, continuously integrates new technologies to improve sustainability and efficiency. Digital platforms link sample tracking, processing and retrieval, ensuring traceability and efficiency.

Biobank Quality Management — Establishing robust, ISO 20387 and Qatar Health Research Law-aligned processes for the handling of biological samples and associated data to ensure the highest standards of accuracy, reliability and international credibility in biobanking operations.



Qatar Precision
Health Team 2025
© Juliette Sawyer



The Slovak National Node BBMRI.sk (est. June 2025) is a distributed infrastructure designed to unite biobanks across Slovakia. Starting with six founding member organisations, we envision developing a strong operational framework and expand collaboration within the national biobanking network. We aim to ensure interoperability, improve sample and data

quality and create opportunities for joint research. In cooperation with BBMRI-ERIC, we plan to adopt international standards, establish strategic partnerships and contribute to projects that will drive innovation in personalised medicine and translational research.

More about [BBMRI.sk](https://bbmri.sk).

Top 3 Areas of Expertise

Cancer research: We provide high quality, well characterised biospecimens and data that advance oncology research and support progress in diagnostics, targeted therapies and personalised medicine.

Rare diseases: Patients with rare disorders are included in the National Registry with clearly defined data. Biobank resources enabled additional diagnostic assessment and improved patient care.

Liver diseases: We maintain diverse liver disease samples linked with clinical registries, contributing to hepatology research and translating findings into practice.

Top 3 Achievements

In 2025, BBMRI.sk officially joined BBMRI ERIC, reinforcing Slovakia's role in the European biobanking landscape and opening new opportunities for international collaboration. This achievement enabled us to engage in strategic discussions shaping biomedical research at the European level.

We initialised cooperation with National Nodes of major research infrastructures — EATRIS.sk, ELIXIR.sk, and SLOVACRIN — and partnered with the Association for the Protection of Patients' Rights to ensure ethical and patient-focused practices.

At the same time, we developed comprehensive documentation to support upcoming biobank initiatives, establishing a solid foundation for operational standards and future projects that will drive innovation in research and improve healthcare outcomes in Slovakia.

BBMRI.sk NN meeting, November 2025

From left to right:

Mgr. Gabriela Dabenini,
Ing. Viktória Ďurajová, PhD., MBA,
Mgr. Soňa Valušková doc.
MUDr. Ľubomír Skladaný, PhD.,
MUDr. Daniel Ján Havaj,
RNDr. Ivan Vanát, CSC.,
RNDr. Zuzana Váczy, doc.
RNDr. Zuzana Danková, PhD., doc.
RNDr. Ľuboš Danišovič, PhD.,
RNDr. Daniela Gašperíková, DrSc.,
RNDr. Peter Musil, PhD.,
prof. MUDr. Michal Mego, DrSc.,
© Mgr. Zuzana Marčeková



BBMRI.si consists of University of Maribor, University of Ljubljana, University of Primorska, National Institute of Biology, University Medical Centre Maribor and University Clinic Golnik. It is very interdisciplinary in its nature covering medical, biological, biochemical, IKT, legal, ethical and societal aspects. We tightly collaborate with the Slovenian Ministry of Health to prepare a new law on biobanking. Moreover, a tight collaboration with the Slovenian Society of Patient Organisation

was established to further enhance our outreach. We successfully published important research findings in leading scientific journals including Nature Genetics, Nature Chemical Biology, Nature Reviews Chemistry and Proceedings of the National Academy of Sciences U.S.A. We tightly collaborate with Slovenian pharmaceutical companies Krka and Lek. More about BBMRI.si.

Top 3 Areas of Expertise

Autoimmune disorders

Cancer

Rare diseases

Top 3 Achievements

Securing a multi-million Euro investment into the Slovenian biobanking research infrastructure.

Publication of a perspective on chemical stability of lipid nanoparticles in Nature Reviews Chemistry.

Inclusion of several Slovenian biobanks and their sample collections into Directory.

Team building of the BBMRI.si node in the Slovenian Alps © Urban Bren





The ISCIII Biomodels and Biobanks Platform is a national infrastructure under the Institute of Health Carlos III (ISCIII) and serves as Spain's BBMRI-ERIC National Node. It currently consists of 42 core units and 30 affiliated units, structured into four scientific-technological HUBs: Biobanks (59 units), Organoids (26 units), Animal Models (28 units) and 3D Printing (24 units).

Operating across 15 Autonomous Communities, P_ISCIII_BB enhances biomedical research by facilitating the collection, handling and supply of biological samples, along with associated clinical data, to support scientific and technological advancements on a national and international level. More about [BBMRI.es](https://bbmri.es).

Top 3 Areas of Expertise

Sample access: We streamline international access to high-quality biospecimens through our online form and catalogue. A 2025 upgrade to the OMOP standard and improved collection visualisation ease access.

Biomodels: Our Animal Model HUB catalogue now holds 800+ entries and our expertise extends to organoids and 3D bioprinting for development, validation and knowledge sharing.

ELSI: In 2025, our helpdesk experts handled four consultations and co-organised the BBMRI-ERIC Academy ELSI Symposium in Bilbao.



Top 3 Achievements

Becoming a full member of BBMRI-ERIC: After observing since 2021, Spain achieved full membership in BBMRI-ERIC on 15 September 2025. This milestone underscores our commitment to the European biobanking community, strengthens integration into international infrastructures, enhancing visibility, collaboration and access for Spanish researchers.

Expanding and consolidating our national network: In 2025, the platform supported 308,724 donors and generated over 1.25 million samples, providing 323,084 samples to research projects. We supported 1,617 national and international projects, highlighting the platform's role in facilitating sample access across Spain and beyond.

Advancing scientific output, training, and outreach: Our biobanks contributed to 496 publications, obtained 1 patent, organised 162 training events, participated in 447 courses and 1,299 dissemination activities promoted scientific awareness and biobanking visibility.

BBMRI.es at the EBW 2025 in Bologna

From left to right: Esperanza García (IMIB), Ana M^a Sánchez (BSSPA), M^a Isabel Cortell (IVO), Delia Recalde (IACS), Ohiana Belar (Biobanco Vasco), Inés Santiuste (IDIVAL), María José Marín (IDIVAL), Irene Pociño (IRBLleida), Teresa Escámez (IMIB), Eva Pérez (IBEC-PNBB), Leire Sánchez (Biobanco Vasco), Aurora García (IBEC-PNBB), Isabel Novoa (VHIR), Rocío Aguilar (BSSPA), María Ruíz (IRBLleida), Aina Rodríguez (IDIBAPS), Teresa Botta (IDIBAPS), Judith Sabaté (IDIBAPS), Noemí González (IDIBAPS), José Antonio López (IVO), and Roberto Bilbao (Biobanco Vasco).

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Biobank Sweden is not a biobank but a national infrastructure for biobanking where healthcare, academia, industry and patient organisations collaborate to attain good healthcare and research. We do this by national coordination of regulatory and operative management including documentation, communication, education, quality management and ELSI-mat-

ters. Biobank Sweden also builds a national biobank registry with several functionalities including consent management for health care samples, finding samples for research and healthcare, management of biobank applications and management of applications for clinical trials that need access to biobank samples. More about [BBMRI.se](https://bbmri.se).

Top 3 Areas of Expertise

Regulatory management

Operative services for collecting, storing and accessing samples

Access to pathology samples

Top 3 Achievements

National service catalogue of regional pathology services published on national web page by the Network for study coordinators in clinical pathology.

Interpretation comments on Swedish biobank legislation published.

Biobank course produced and published for patient representatives at the EUPATI national platform.



**The national management group meeting
8 October 2025**

Johanna Ekström, Camilla Örnberg, Malin Engelmärk, Johanna Åkerlund, Linda Fröderberg Roth, Sanela Kjellqvist, Camilla Hildesjö, Sara Rebbling, Elisabet Tina, Anna Beskow, Sonja Eaker, Mensur Dzabic, Lena Thunell
© Sara Rebbling



In Switzerland, many biobanks operate with heterogeneous processes, making the usability and comparability of samples challenging. Over the past decade, biobanking practices have greatly evolved, from individual collections of biological material to professional infrastructures. In 2013, the Swiss National Science Foundation launched a competitive call to establish a national biobanking platform, from which

the Swiss Biobanking Platform (SBP) was selected by an international panel of experts. Today, SBP serves as the national coordination platform for human and non-human biobanks, supporting biomedical and biological research by addressing questions around quality, visibility and the interoperability of biobanks and their associated data. More about [BBMRI.ch](https://bbmri.ch).

Top 3 Areas of Expertise

Quality and Practice Harmonisation: SBP supports biobanks through structured documentation and SBP Labels strategy, promoting compliance with legal, ethical and professional standards, including ISO 20387.

Interoperability and Visibility: SBP BIMS integrates standardised datasets to support interoperable data management, while NExT increases the access and visibility of biobanks and samples.

Education: SBP offers a Certificate of Advanced Studies (CAS) in Biobanking to strengthen competencies across key biobanking domains.

Top 3 Achievements

SBP network expansion: The SBP network continued to grow and reached a significant milestone with the attribution of the 100th SBP Label. This reflects increasing national engagement and a strong commitment from Swiss biobanks to quality, harmonised practices and recognised standards.

First edition of the CAS: The first edition of the Certificate of Advanced Studies (CAS) in Biobanking was successfully completed, receiving very positive feedback from participants. Building on this success, a second edition was launched in January 2026.

International collaboration on quality and FAIR data: SBP secured a bilateral grant between Switzerland and the Czech Republic, strengthening collaboration on quality management and FAIR data principles and fostering good biobanking practices at the international level.

The Swiss National Node team.

From left to right: Louise Roy, Christine Joye, Joséphine Uldry, Sabine Bavamian, Claudia Lagier and Valeria Di Cola © Daniel Domine



Türkiye holds observer status in BBMRI-ERIC, with BBMRI.tr serving as the National Node since 2014, coordinated by Izmir Biomedicine and Genome Center. BBMRI.tr brings together leading biobanking institutions to map and strengthen biobanking activities across Türkiye and the wider Euro-Mediterranean and MENA regions. Its mission is to establish a sustainable

national biobanking network, develop ethical and legal frameworks, harmonise standards and share best practices. Through standardised procedures, robust IT infrastructures, and quality assurance systems, BBMRI.tr contributes to the pan-European BBMRI-ERIC research infrastructure. More about [BBMRI.tr](https://bbmri.tr).

Top 3 Areas of Expertise

Establishment, long-term preservation, governance and controlled access sharing of high-quality biospecimen and associated data collections within collaborative research frameworks.

Development, characterisation, and biobanking of innovative experimental models for cancer and rare disease research in translational and preclinical settings.

Design, implementation, and sustainability of quality management systems for research biobanking, including ethical, legal, and social (ELSI) compliance frameworks.

The BBMRI.tr team

Sanem Tercan Avci, Yucel Erbilgin, Ozkan Ozdemir, Ece Akhan, Ali O.Kiliç © Ece Akhan



Top 3 Achievements

Significant expansion of the rare disease biospecimen collection. Through systematic patient recruitment and strengthened clinical collaborations, substantially increased its rare disease biospecimen inventory, enhancing national coverage and improving sample diversity for translational research. In 2025, 8,671 new biospecimens from 1,353 rare disease patients, with additional samples obtained from affected family members, spanning undiagnosed and 82 different rare disease groups, representing a 2% increase in the total biobank inventory. ii) Increased research utilisation and project support capacity. In 2025, distributed 841 biospecimens to research teams across 13 national/international projects, supporting translational and preclinical studies in rare diseases and oncology. This reflects a strong sample-to-project conversion rate and demonstrates the biobank's active integration into multi-center collaborative research workflows.

Scientific papers and congress appearances. Several scientific papers have been published in high quality journals and these cover topics such as childhood leukaemia, Missense variants in PKAN; clinical, electrophysiological, and neuroimaging features of BPAN; Biobank contribution to understanding haematological cancers and rare diseases; studies of liver tissue. Congress appearances included: CARE4ARID1B Project and Genomic Findings in Pediatric B-ALL Relapse with Ultra-Rare Extramedullary Eye Involvement.

Supporting the generation of new knowledge via doctoral and master thesis. Acibadem University Biobank and I.U. Aziz Sancar Rare Disease Biobank supported studies into: Genetic predisposition to leukemia and lymphoma; COP II Pathway Genes Functional Analyses in Hemolytic Anaemia; Current Molecular and Bioinformatic Approaches for Investigating Genetic Components in Neurodegenerative Diseases Associated with Iron Accumulation in the Brain.

PART 4

Additional information

National Node Directors

BBMRI-ERIC's National Nodes are represented by National Node Directors. Our 2025 National Node Directors are:



Assoc. Prof.
Georg Göbel
Austria, BBMRI.AT



Tom Southerington
Finland, BBMRI.FI*



Prof. Kristian Hveem
Norway, BBMRI.NO



Dr. Annelies
Debucquoy
Belgium, BBMRI.BE



Mervi Ahlroth*
Finland, BBMRI.FI



Dr. Michał Malewicz*
Poland, BBMRI.PL



Prof. Radka Kaneva
Bulgaria, BBMRI.BG



Dr. Dimitris Thanos,
Greece, BBMRI.GR



Prof. Radosław*
Zagożdżon
Poland, BBMRI.PL



Dr. Sara Nußbeck
Germany, BBMRI.DE



Prof. Mária Judit Molnár
Hungary, BBMRI.HU



Dr. Anna Beskow
Sweden, BBMRI.SE



Prof. Lili Milani*
Estonia, BBMRI.EE



Prof.ssa
Marialuisa Lavitrano
Italy, BBMRI.IT



c. RNDr. Zuzana Dankova
Slovakia, BBMRI.SK



Steven Smit*
Estonia, BBMRI.EE



Dr. Daiva Dabkevičienė
Lithuania, BBMRI.LT



Prof. Urban Bren
Slovenia, BBMRI.SI



Dr. Christine Joye
Switzerland, BBMRI.CH



Dr. Vita Rovīte
Latvia, BBMRI.LV



Dr. Fatima Qafoud
Qatar, BBMRI.QA



Dr. Carolina Stylianou
Cyprus, BBMRI.CY



Dr. Nikolai Pace
Malta, BBMRI.MT



Prof. Bayram Yilmaz*
Türkiye, BBMRI.TR



Dra. Teresa Escámez
Spain, BBMRI.ES



Prof. Gerrit Meijer*
Netherlands, BBMRI.NL



Prof. Ali Osman Kilic*
Türkiye, BBMRI.TR



Assoc. Prof. Roman Hrstka,
Czech Republic,
BBMRI.CZ



Jörg Hamann, PhD*
Netherlands, BBMRI.NL



Dr. Zisis Kozlakidis
IARC/WHO



Anne-Marie
Vangsted, MSc,
Denmark, BBMRI.DK



Prof. Nine Knoers*
Netherlands, BBMRI.NL

The BBMRI-ERIC Headquarters Team 2025



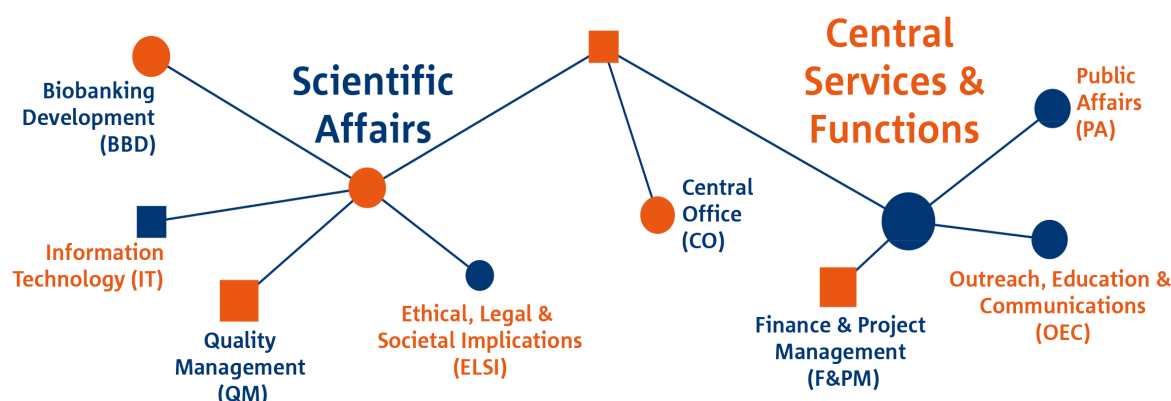
To get in contact with us, you can [find our details here](#).

Abbreviations

AI	Artificial Intelligence
aCGH	array-based C omparative G enomic H ybridization
AoM	A ssembly of M embers
BBD	B io B anking D evelopment
BBMRI	B io B anking and B io M olecular Resources R esearch I nfrastructure
BIMS	B io b ank I nformation M anagement S ystem
BSL	B io S afety L evel
CIMVs	C omplex I n V itro M odels
CS-IT	C ommon S ervice I T
DICOM	D igital I maging and C o M munications in M edicine
EBW	E urope B io b ank W eek
EHDS	E uropean H ealth D ata S pace
EHR	E lectronic H ealth R ecord
EC	E uropean C ommission
eID	E lectronic I dentities
eIDAS	E lectronic I Dentification, A uthentication and Trust S ervices
ELSI	E thical, L egal and S ocietal I mplications
EOSC	E uropean O pen S cience C loud
ERIC	E uropean R esearch I nfrastructure C onsortium
ESBB	E uropean, M iddle E astern & A frican S ociety for B iopreservation and B io b anking
ESFRI	E uropean S trategy F orum on R esearch I nfrastructures
EU	E uropean U nion
EUCAIM	E Uropean Federation for C Ancer I Mages
FAIR	F indable, A ccessible, I nteroperable, R eusable
FHIR	F ast H ealthcare I nteroperability R esources
FP10	F ramework P rogramme 10
GDPR	G eneral D ata P rotection R egulations
GoE	G enome of E urope
HQ	H ead Q uarters
IARC	I nternational A gency for R esearch on C ancer
ISO	I nternational O rganisation for S tandardisation
IVDR	I n V itro D iagnostic M edical D evice R egulation
LIS/LIMS	L aboratory I nformation S ystem / L aboratory I nformation M anagement S ystem
LS-AAI	L ife S ciences A uthentication and A uthorisation I nfrastructure
MC	M anagement C ommittee
MIABIS	M inimum I nformation A bout B io b ank data S haring
MS	M ember S tate
NGS	N ext G eneration S equencing
NN	N ational N ode
OEC	O utreach, E ducation and C ommunications
OMOP	O bservational M edical O utcomes P artnership
PPIE	P ublic and P atient I nvolvement and E ngagement
RI	R esearch I nfrastructure
SEAB	S cientific and E thical A dvisory B oard
TNA	T rans N ational A ccess
TRL	T echnology R eadiness L evel
UNCAN	U nderstanding C Ancer
WHO	W orld H ealth O rganisation
WGS	W hole G enome S equencing
WSI	W hole S lide I maging

BBMRI-ERIC's core domains

The BBMRI-ERIC headquarters, based in Graz, Austria, comprises the following scientific affairs and central services and functions:



Acknowledgements

We thank

Our Headquarters staff
National Node Directors and Biobanks
Ministries in Member and Observer States
for their continued
dedication and persistence
in supporting groundbreaking
medical research.

This Annual Report was co-authored by the
Headquarters team and National Node Directors.

Layout and design: BBMRI-ERIC Department for
Outreach, Education and Communications.

Legal Notice

Legal Address BBMRI-ERIC Neue Stiftingtalstrasse 2/B/6 8010 Graz, Austria Phone: +43 316 34 99 17-0 Fax: +43 316 34 99 17-99 Email: contact@bbmri-eric.eu This legal notice applies to the following internet addresses: bbmri-eric.eu twitter.com/BBMRIERIC linkedin.com/company/bbmri-eric youtube.com/channel/UCL2n13WcvK4jLg6AkFner4Q bsky.app/profile/bbmrieric.bsky.social Name Biobanking and BioMolecular resources Research Infrastructure – European Research Infrastructure Consortium (BBMRI-ERIC) Legal Entity European Research Infrastructure Consortium (ERIC) Entry Into Force On November 30, 2013, the BBMRI-ERIC Statutes were published in the Official Journal of the European Union and entered into force three days after publication on 3 December 2013. As from this date, the Biobanking and Biomolecular resources Research Infrastructure (BBMRI) was officially awarded the Community legal framework for a European Research Infrastructure Consortium (ERIC) and is henceforth to be called BBMRI-ERIC. Philosophy, Nature and Purpose of Business BBMRI-ERIC is designed to facilitate the joint establishment and operation of research infrastructures of European interest. The ERIC status allows pulling together biobanks and biomolecular resources into a pan-European facility and providing access to collections of partner biobanks and biomolecular resources, their expertise and services on a non-economic basis. BBMRI-ERIC is established for an unlimited period of time. Vat Number ATU 68520549	Court Jurisdiction Court of Justice of the European Union Liability Members of BBMRI-ERIC Procurement and Tax Exemption BBMRI-ERIC benefits from tax exemption as outlined in Article 6 of the BBMRI-ERIC Statutes. Members Republic of Austria, Kingdom of Belgium, Republic of Bulgaria, Republic of Cyprus, Czech Republic, Republic of Estonia, Republic of Finland, Federal Republic of Germany, Hellenic Republic, Hungary, Italian Republic, Republic of Latvia, Republic of Lithuania, Republic of Malta, Kingdom of the Netherlands, Kingdom of Norway, Republic of Poland, Slovak Republic, Republic of Slovenia, Kingdom of Spain, Kingdom of Sweden, Swiss Confederation Observers Denmark, International Agency for Research on Cancer (IARC/WHO), Qatar, Republic of Türkiye Values The activities of BBMRI-ERIC shall be politically neutral and guided by the following values: pan-European in scope, combined with scientific excellence, transparency, openness, responsiveness, ethical awareness, legal compliance and human values.
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Appendix: Auditor's Report

To the Director General of
BBMRI-ERIC,
Graz

We have completed the audit of the financial statements as of December 31, 2025 of

**Biobanking and BioMolecular resources Research Infrastructure -
European Research Infrastructure Consortium (BBMRI-ERIC), Graz**

(referred to as „the Company“)

and report on the result of our audit as follows:

1. Audit contract and performance of the engagement

The Company, represented by the Director General, concluded an audit contract with us to audit the financial statements as of December 31, 2025, including the accounting system pursuant to sections 269 et seqq. UGB (Austrian Company Code).

The Company is a **small corporation** pursuant to section 221 UGB (Austrian Company Code).

The audit is a voluntary audit.

The **audit included**, taking into account the accounting records, an assessment whether the statutory requirements were adhered to concerning the preparation of the financial statements.

We conducted our audit in accordance with the **legal requirements and generally accepted standards on auditing** as applied in Austria. These standards require that we comply with International Standards on Auditing. An auditor conducting an audit obtains reasonable assurance about whether the financial statements are free from material misstatement. Absolute assurance is not attainable due to the inherent limitations of any accounting and internal control system and due to the sample-based test nature of an audit, there is an unavoidable risk that material misstatements in the financial statements remain undetected. Areas which are generally covered in special engagements were not included in our scope of work.

We performed the audit, with interruptions, from March to May 2026 mainly at the premises of our office. The audit was substantially completed at the date of this report.

The **audit partner** responsible for the proper performance of the engagement is Mr. Clemens Corti alle Catene, Austrian Certified Public Accountant.

Our audit is based on the audit contract concluded with the Company. The “General **Conditions of Contract** for the Public Accounting Professions” issued by the Austrian Chamber of Auditors and Tax Advisors (refer to Appendix II) form an integral part of the audit contract. These conditions of contract do not only apply to the Company and the auditor, but also to third parties. Section 275 UGB (Austrian Company Code) applies with regard to our responsibility and liability as auditors towards the Company and towards third parties.

2. Breakdown and description of significant items in the financial statements

The breakdown and description of all significant financial statement items are included in the notes of the financial statements. Therefore, we refer to the respective disclosures made by the Director General in the notes of the financial statements.

3. Summary of audit findings

3.1. Compliance of the accounting system and the financial statements

During our audit, we obtained evidence that the statutory requirements and generally accepted **accounting principles** in Austria have been complied with.

In line with our risk and controls-based audit approach and to the extent we considered necessary for the purpose of expressing an opinion, we considered internal controls related to sub processes of the financial reporting process as part of our audit.

With regard to the compliance of the **financial statements** with all applicable statutory requirements we refer to the auditor's report.

3.2. Information provided

The Company's legal representative and the Company's employees provided all evidence and explanations requested by us. We obtained a representation letter signed by the legal representative which we included in our working papers.

3.3. Reporting in accordance with Section 273 (2) and (3) Austrian Company Code UGB (exercising the duty to report)

During our audit we did not note any facts which indicate there could be substantial doubt about the Company's ability to continue as a going concern, or which indicate a material deterioration of the Company's performance or a material offence of the Company's legal representative or its employees against Austrian law. We did not note any material weaknesses in the internal controls over the financial reporting process. The financial statements do not meet the requirements for the assumed need of reorganization in accordance with section 22 par. 1 subsec. URG (Austrian Corporate Restructuring Act).

4. Auditor's Report

Report on the Financial Statements

Audit Opinion

We have audited the financial statements of

**Biobanking and BioMolecular resources Research Infrastructure -
European Research Infrastructure Consortium (BBMRI-ERIC), Graz**

These financial statements comprise the balance sheet as of December 31, 2025, the income statement for the fiscal year then ended and the notes.

Based on our audit the accompanying financial statements were prepared in accordance with the legal regulations and present fairly, in all material respects, the assets and the financial position of the Company as of December 31, 2025, and its financial performance for the year then ended in accordance with Austrian Generally Accepted Accounting Principles.

Basis for Opinion

We conducted our audit in accordance with Austrian Standards on Auditing. Those standards require that we comply with International Standards on Auditing (ISAs). Our responsibilities under those regulations and standards are further described in the "Auditor's Responsibilities for the Audit of the Financial Statements" section of our report. We are independent of the Company in accordance with the Austrian General Accepted Accounting Principles and professional requirements and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained until the date of this auditor's report is sufficient and appropriate to provide a basis for our opinion by this date.

Responsibilities of the Director General for the Financial Statement

The Director General is responsible for the preparation of the financial statements in accordance with Austrian Generally Accepted Accounting Principles, for them to present a true and fair view of the assets, the financial position and the financial performance of the Company and for such internal controls as management determines are necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Director General is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with International Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Austrian Standards on Auditing, which require the application of ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit.

We also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Limitation of Liability

The engagement to audit the financial statements was undertaken without a legal obligation ("voluntary audit"). We shall only be liable to the client and third parties in case of willful intent and gross negligence; liability for gross negligence is limited in accordance with the liability provisions of Section 275 (2) UGB (Austrian Company code) for the statutory audit of a small or medium-sized company to EUR 2 million.

PKF Corti & Partner GmbH
Wirtschaftsprüfer und Steuerberater



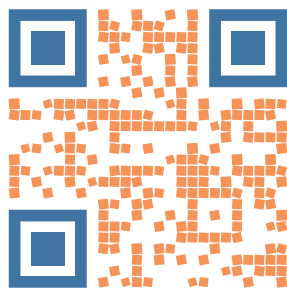
Mag. Clemens Corti alle Catene
Wirtschaftsprüfer/Certified Public Accountant

Graz, May 04, 2026

This report is a translation of the original report in German, which is solely valid.

Publication or sharing with third parties of the financial statements together with our auditor's opinion is only allowed if the financial statements and the management report are identical with the German audited version. This audit opinion is only applicable to the German and complete financial statements with the management report. Section 281 par. 2 UGB (Austrian Company Code) applies to alternated versions.

2025



BBMRI-ERIC
Neue Stiftingtalstraße 2/B/6,
8010 Graz, Austria
+43 316 34 99 17 0,
contact@bbmri-eric.eu

