Coordinated Research Infrastructures Building Enduring Life-science services
- CORBEL -

Deliverable D7.1
Report on ELSI support needs for BMS RIs and towards a joint Ethical Governance Framework

WP7 – Common services providing support with Ethical, Legal and Societal Issues

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Contents

Executive Summary

This report addresses ethics requirements 2, 3, 9 and 10 and fulfils the following related deliverable:

Deliverable (number)	Deliverable name	Short name of lead partner	Type	Dissemination level	Planned delivery date
D7.1	Report on ELSI support needs for BMS RIs and Ethics Check Procedure	BBMRI-ERIC	R	Public	6

It includes:

- a description of the ELSI support needs of BMS RIs
- a description on the integration of existing ELSI support tools
- the CORBEL Ethical Governance Framework (Version 1)
- the Ethics Check Procedure (Version 1)

The aim of the deliverable is to ultimately provide CORBEL partners with an Ethical Governance Framework (Annex 2) and Ethics Check procedure (Annex 3) building on the work of the Common Service ELSI of BBMRI-ERIC and the BioMedBridges project. It shall enable the partners to operate within agreed terms with respect to participant consent, ethics committee approvals and national regulations ensuring researchers supply and access data and/or samples whilst working under a common ethical framework. It aims to build a joint policy to address ELSI considerations of biological resource providers as well as to enhance related procedures for the user community of BMS RIs.

Ethics requirements 2 (informed consent), 3 (incidental finding policy), 9 (procedures on data collection, etc) and 10 (relevant authorisations) are addressed in the general provisions of the CORBEL Ethical Governance Framework. CORBEL has to monitor the compliance of the Ethical Governance Framework (e.g. statement of adherence). The responsibility to meet these ethics requirements and legal compliance ultimately lies with the individual sample and/or data provider and not with the respective research infrastructures.

Prior to implementation, the Ethical Governance Framework (including its templates) require validation of its processes and finally the approval of the Executive Board.

The ultimate aim of this Work Package is to establish a single and sustainable support mechanism (Common Service) for all BMS RIs dealing with samples and/or data with ethical, legal and societal implications (ELSI). The submission of this report (D7.1) is an important achievement for reaching this goal.

Project objectives

With this deliverable, the project has reached/this deliverable has contributed to the following objectives:

a) Identify the specific needs of BMS RIs for ELSI support in close collaboration with the use-case work of WP3 (health), 4 (biosciences) and 6 (data management)

Detailed report on the deliverable

Background

CORBEL is an initiative of eleven new biological and medical research infrastructures (BMS RIs), which together will create a platform for harmonised user access to biological and medical technologies, biological samples and data services required by cutting-edge biomedical research. CORBEL will boost the efficiency, productivity and impact of European biomedical research.
Individually, the services offered by the BMS RIs are critical to their own user communities.

Collectively, through CORBEL, they will be transformative across the range of life-science disciplines: from generation of knowledge at the bench to patient treatment at the bedside. CORBEL aims to establish a collaborative framework of shared services between the ESFRI BMS RIs that transform the European research community from discovery of basic biological mechanisms to applied medical translation – through the provision of a unified interface, aligned services and coordinated user access to a range of advanced technology platforms. BBMRI-ERIC leads WP7, which concerns Ethical Legal and Social Implications (ELSI) issues relevant for all participating research infrastructure. Under the premise not to reinvent the wheel anew, the existing BBMRI-ERIC Common Service ELSI (BBMRI-ERIC CS ELSI)[1] will enlarge to fit the ELSI requirements of the fellow BMS Research Infrastructures and build on, integrate and enlarge the achievements of the FP7 Project BioMedBridges[2]. The objective of the WP7 is to better enable researchers to access data, increasing its utility with the ultimate goal of benefiting society, for example by facilitating new discoveries in health research and by allowing re-analysis of expensive, rare or unrepeatable investigations, while continuing to protect the interests of research participants with regard to their privacy and confidentiality.

Description of Work

This document describes the achievements of WP7 in the identification of the needs of BMS-RI support regarding the ELSI of their activities involving the storage of and access to biological samples and data for health research uses and presents the advances regarding the setting up of an adapted Ethical Governance Framework including, in particular, the setting up of a dedicated Ethics Check Procedure.

Description of the ELSI support needs of BMS RIs

In contrast to the BioMedBridges project, which had a focus on data (including licensing of software), CORBEL focuses on samples and data as well as innovation (IP issues) and use cases, especially from biology and medicine. The aim of CORBEL is to set up a single and sustainable support mechanism for all BMS RIs dealing with samples and/or data from human and non-human origin.

[1] The BBMRI-ERIC Common Service ELSI pools together the ethical, legal and societal expertise of 18 experts across its Member States. It aims to facilitate and support cross-border exchanges of human biological resources and data attached for research uses, collaborations and sharing of knowledge, experiences and best practices. Among other things, it will provide an ethics check and help-desk format.

[2] BioMedBridges was a joint effort of twelve biomedical sciences research infrastructures on the ESFRI roadmap. Together, the project partners developed the shared e-infrastructure—the technical bridges—to allow data integration in the biological, medical, translational and clinical domains and thus strengthen biomedical resources in Europe.

Some aspects are specific to RIs, such as the legal, ethical and societal challenges with animal models (Infrafrontier), clinical trials (ECRIN), and protection of exploitation of developing countries (eg, Nagoya Protocol; MIRRI). Shared needs for ELSI support across all RIs include:

- Data sharing procedures & guidelines across countries (incl. MTA/DTA)
- Common access procedures (for internal/external users)

These expectations and ELSI issues and needs for CORBEL partners have been identified in the context of the WP7 Kick-off Meeting on 7. September 2016 in Paris and been followed up on in personal communication.

Improve the identification of specific needs of BMS RIs:

Because each BMS RIs have special support needs that would go further than the common needs described above, WP7 is preparing a more detailed questionnaire based on continuous engagement (esp. with representatives of WP3, 4, and 6) that will be communicated to the BMS RIs partners in order to enhance granularity in the identification of the needs and to allow planning of appropriate coordinated actions through CORBEL where necessary. The questionnaire is annexed (Annex 1).

Integration of existing ELSI support tools

These answers will furthermore inform the work to create one single tool by integrating the three existing ELSI support tools, namely the BioMedBridges Legal and Ethical Assessment Tool; Legal Wiki Platform and hSERN:

- hSERN – human Sample Exchange Regulation Navigator, www.hsern.eu: online tool providing practical information to health researchers about the ethical, legal and administrative requirements for exchanging biological samples and attached data cross-borderly according to both the international frameworks (e.g. Council of Europe, EU, but also guidelines from scientific societies such as the ISBER) and the national frameworks.
- Legal Wiki Platform, http://www.bbmri-wp4.eu/wiki/index.php/Main_Page: online wiki website allowing description and discussions around the issues of personal data protection in Europe.
- BioMedBridges Legal and Ethical Assessment Tool, http://hhu2.at.xencon.de:8080/lat/: This online tool aims to raise awareness of formal requirements when sharing data with regard to ELSI. It highlights areas that need further action from the researcher making the data available (the "data provider") or issues alerts when further expert advice may be needed. The tool covers the current legal framework in the European Union concerning four areas: data protection, data security, intellectual property and bio-sample security. General requirements are provided, with hints and solutions such as consent templates. The tool does not provide legally binding advices.

The work for "one-entry-platform" has been started under the auspice of BioMedBridges and is now continued within CORBEL. Special analysis was made regarding the main difficulties that have been confronted during the development, performance and maintenance of the tools and most importantly the absolute necessity of targeting to an ad hoc group of users when developing the integrated tool (e.g. researchers, bio-bankers, lawyers etc.)

The BBMRI-ERIC CS IT is currently building this new tool, in collaboration with the managers of the three ELSI support tools. This new integrative tool will be available to habilitated persons through the BBMRI-ERIC secured intranet. A webinar intended to present the achievements of the CS IT on this new tool has been held on Friday 19 February 2016. The ELSI Playground is now in trial with a pool of ELSI experts forming an "editing group" in order to refine it according to users' first experiences and needs. It was agreed that tools can only provide a first guidance and generic information and that the need for advising from ELSI experts on a case-by-case basis when required cannot be ignored. The "BBMRI-ERIC helpdesk" is intended to fill the gap.

Ethical Governance Framework

The aim of this Ethical Governance Framework (Annex 2) is to enable the CORBEL project members to operate within agreed terms with respect to participant consent, ethics committee approvals and national regulations, ensuring researchers supply and access data whilst working under a common ethical framework. The draft framework presented below has been written on the basis of other EU funded projects works[3] in order to ensure reliability and consistency of the systems in place, with the concern that very different samples and datasets can be utilised in an ethically-coherent manner to maximise research benefit, while acknowledging the responsibilities and obligations that are owed to research participants.

The BMS RIs are accessible to a variety or external research groups willing to take advantage of the facilities and services provided at European level. This entails that the BMS RIs resources are available for a wide range of studies including genetics, genomics, systems biology and research on existing well characterised repositories of biological samples and attached data, including biobanks. In terms of the type of biological samples and data that will be processed and analysed in the context of BMS-Ris there is a certain degree of diversity and could range from biological samples of human origin to samples animal origin, thus implying several ethical and regulatory issues necessitating different expertises.

Samples and/or data providers have a number of joint responsibilities and obligations, such as the obligation to respect participant confidentiality where research involves samples of human origin and/or personal data. Researchers accessing the samples and/or data have a custodian role, to ensure the careful and responsible management of the information. They have an obligation to operate in conformity with the requirements of their own institution, and fulfil all necessary national and international regulatory and ethical requirements. They also have obligations to the CORBEL project, as well as the funders and the wider research community, to carry out high quality, ethical research.

The purpose of this document is to provide a general framework for ELSI consideration in CORBEL and to focus on specific issues that are key to the development and operation of BMS RIs.

Ethics Check

Based on the identified need of BMS RIs for ELSI management and inspiring from successful experiences from other projects (such as the ESGI project) and current practices at EU level (the European Commission Ethical Assessment of FP7 and H2020 research projects), WP7 will set up a simple and efficient procedure to check the protocols presented by applicants for both the scientific merit of their project and their adherence to principles and practices of ethically acceptable research.

[3] Namely the BioMedBridges - FP7 Project GA n°284209 Deliverable on BioMedBridges Ethical Governance Framework; CAGEKID, Cancer Genomics of the Kidney - FP7 Project GA n° 241669 , Deliverable 8.4; ESGI, European Sequencing and Genomics Infrastructure - FP7 Project GA n°262055, Deliverable 7.5 and 7.7.

It will build on the BBMRI-ERIC Common Service Ethics Check, which will be trialed in the coming months in the context of BBMRI-ERIC.
The Ethics Check system is based on two documents explaining the process in detail:

- The document on the Ethics Check Criteria describes the criteria used to filter projects necessitating to pass an ethics check through the BBMRI-ERIC CS ELSI as well as the procedure to be followed by the concerned applicant (the research promoter applying to access BMS RIs services and resources – the research promoter is understood as an individual, company, institution or organisation which takes responsibility for the initiation, management and/or financing of a research). This document has been drafted in order to ensure an objective and independent check of the ELSI issues and guarantees of consideration and implementation of the related normative frameworks in each project. The process is based on a self-assessment from the applicant (using a standardised form) and follows standardised criteria for the practical implementation of the check by independent ELSI experts. The Ethics Check process has been designed by considering the need not to add administrative burdens to the project leaders but to provide adequate expertise and recommendations at the design stage or during the implementation of their research project using BMS RIs services. The Ethics Check will make a particular focus on the implementation of relevant European laws and guidelines. The objectives of the Ethics Check is to provide BMS RIs with an adapted and standardised process intended to both verify the taking into account of relevant legal and ethical provisions and inform/educate/warn the applicants about the lacks they project suffers from. The Ethics Check also intends to safeguard the public interest through the promotion of responsible uses of biological resources made available through BMS RIs. Ultimatly, the Ethics Check experts' opinion should speed up the process(es) of ethical reviews performed by competent National Ethics Committees and enhance the accountability and general quality of the research projects. This draft document detailing the procedure is annexed (Annex 3).
- The document on the Ethics Check Operational Procedure that describe how to implement the Ethics Check in practice, how to select relevant experts, how to manage communication with the applicants and other practical information for internal use only. This draft document is annexed (Annex 4)

Next steps

- To finalise, circulate and analyse the Assessment Questionnaire (Annex 1) to fine tune ELSI guidance;
- To draft templates and recommendations (e.g. data and/or provider form template, see Annex 5), building on the results of previous projects (e.g., BioMedBridges' information sheet and informed
- To finalise the Ethical Governance Framework (draft see Annex 2) for new scientific, technological and cross-border developments using the 'helpdesk' format (D7.2) in close collaboration with WP3 and 4 especially;

- To provide templates and recommendations for ELSI support in form of the Ethical Governance Framework (MS 43);
- Ultimately, to reach consensus and approval on the Ethical Governance Framework by the Executive Board (signed declaration of adherence)

References

International reference texts and EU legislation:

- The Convention of the Council of Europe on “Human Rights and Biomedicine” signed In Oviedo on April 4th 1997.
- The Additional Protocol to the Convention on Human Rights and Biomedicine, concerning Biomedical Research, Strasbourg, 25.1.2005.
- UN Convention on the Rights of the Child.
- The Universal Declaration on Bioethics and Human Rights adopted by UNESCO on October 19th 2005.
- The Universal Declaration on the Human Genome and the Rights of Man adopted by UNESCO on November 11th 1997
- The Declaration on Human Genetic Data adopted by UNESCO on October 16th 2003.
- The Charter of Fundamental Rights of the EU (2000/c 364/01).
- Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data. The Consortium is aware of the current revision of this Directive and will apply the requirements of the new regulation as soon as it will be final and in application.
- The provisions of Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases.
- Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications).
- Directive 98/44/EC of the European Parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions, where such inventions may be used, for example in the context of biomarkers.
- On 16 April 2014, the new Regulation No 536/2014 of the European Parliament and of the Council on clinical trials on medicinal products for human use, and repealing Directive 2001/20/EC was adopted, and published in the Official Journal on 27 May 2014. It entered into force on 16 June 2014 but will apply no earlier than 28 May 2016.
- Human tissue banking involved will follow the opinions given to the European Commission by the “European Group on Ethics in Science and New Technologies” on “ethical aspects of human tissue banking” (N° 11, 21 July, 1998) and relevant parts of other Opinions.

- Opinions of the European Group on Ethics. The consortium is also aware of the opinions given to the European Commission by the "European Group on Ethics in Science and New Technologies" where a part at least are relevant for the project or part of the recommendations may help addressing the ELSI of the project: Opinion n°28 – 20/05/2014 – Ethics of Security and Surveillance Technologies; Opinion n°26 – 22/02/2012 – Ethics of information and communication technologies; Opinion n°18 – 28/07/2003 – Ethical aspects of genetic testing in the workplace; Opinion n° 13 – 30/07/1999 – Ethical issues of healthcare in the information society; Opinion n° 11 – 21/07/1998 – Ethical aspects of human tissue banking.
- Recommendation Rec (2006)4 of the Committee of Ministers to member states on research on biological materials of human origin (Council of Europe) [and its revised version when available].
- Directive 2004/23/EC of the European Parliament and of the Council on Setting standards of quality and safety for the donation, procurement, testing, processing, preservation, storage and distribution of human tissues and cells", code number 2002/0128 (COD), Strasbourg, 31 March 2004.
- Helsinki Declaration in its latest version.
- Convention of the Council of Europe on Human Rights and Biomedicine signed in Oviedo on April 4, 1997, and the Additional Protocol on the Prohibition of Cloning Human Beings signed in Paris on 12 January 1998.
- Universal Declaration on the human genome and human rights adopted by UNESCO.
- Directive 98/46/EC, and its revision as the General Data Protection Regulation
- Directive 2010/63/EU on the protection of animals used for scientific purposes.
- Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) to the Convention on Biological Diversity is a supplementary agreement to the Convention on Biological Diversity (entered into force on 12 October 2014).

Abbreviations

ELSI	Ethical, legal and societal issues
BMS	Biological and Medical Research Infrastructures
CS	Common Service
RI	Research Infrastructure

Delivery and schedule

The delivery is delayed: No, delivered in time: Month 6; 29 February 2016

Adjustments made

Due to the fact that the ethical, legal and societal requirements identified in collaboration with WP participants requires to include both RI 'user' needs (Ethics Check) and 'sample/data provider' needs

(Ethical Governance Framework) and ultimately addresses addresses ethics requirements 2, 3, 9 and 10, the focus of this deliverable has been extended as "Report on ELSI support needs for BMS RIs and towards an Ethical Governance Framework".

Appendices

See next page

Appendix 1: Questionnaire

Questionnaire for identifying ELSI support needs in BMS Research Infrastructures

This questionnaire aims to identify the relevant ethical, legal and social issues (ELSI) arising at European level and the needs regarding related supports which could base further coordinated actions to answer practical needs.
For each question below, multiple choices are available. Please, select your answer according to the level of relevance of the question for your own infrastructure. Free text space for specifications on specific aspects can be used for stating more particular aspects of an issue.

NAME OF THE RESPONDANT:
INFRASTRUCTURE:
NATIONALITY OF THE RESPONDANT:
FUNCTION:

QUESTIONS:

1- Do the ELSI on cross-border transfers of biological samples for research uses are important in your organisation?

If, yes, please give examples of the issues and some examples of actions that would help at a pan-infrastructure level

2- Does the transfer of personal data (including sensitive) an issue in your organisation?

If, yes, please give examples of the issues and some examples of actions that would help at a pan-infrastructure level

3- Does the protection of vulnerable persons (e.g. children, persons unable to consent etc) put specific issues in your organisation?

If, yes, please give examples of the issues and some examples of actions that would help at a pan-infrastructure level

4- Does the management of Intellectual Property issues regarding research databases is an issue in your organisation?

If, yes, please give examples of the issues and some examples of actions that would help at a pan-infrastructure level

5- Does the management of Intellectual Property issues regarding patent an important issue in your organisation?

If, yes, please give examples of the issues and some examples of actions that would help at a pan-infrastructure level

6- Do the ELSI regarding stem cells are important in your organisation?

If, yes, please give examples of the issues and some examples of actions that would help at a pan-infrastructure level

7- Do the ELSI regarding animal experimentation are important in your organisation?

If, yes, please give examples of the issues and some examples of actions that would help at a pan-infrastructure level

8- Do the ELSI regarding GMOs are important in your organisation?

If, yes, please give examples of the issues and some examples of actions that would help at a pan-infrastructure level

9- Do you think that training and education in ELSI is an issue in your organisation?

If, yes, please give examples of the issues and some examples of actions that would help at a pan-infrastructure level

10- Do you have any other issues regarding ethical, legal and social aspects that would find potential solutions in coordinated actions?

If, yes, please give examples of the issues and some examples of actions that would help at a pan-infrastructure level

Appendix 2: Ethical Governance Framework

Ethical Governance Framework for CORBEL (draft)

Definition of terms used in this document

Samples

All types of biological samples of human or animal origin made available or used for scientific research, such as fluids like blood, tissues, cells or DNA, RNA including micro-organisms.

Personal data

Data which contains information relating to an identifiable natural person (data subject); an identifiable person is someone who can be identified with reasonable efforts, in particular by reference to an identifier such as a name, an identification number, location data, online identifier or one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that person.

- Anonymous (or anonymised) data is data that is not Personal data.
- Pseudonymised data (also known as 'coded' or 'linked' data)
- Pseudonymised data is data that can only be connected to the data subject by using additional, separately kept information (key) that would allow certain authorised individuals (e.g. the clinical team who collected them) to link them back to the identifiable data subject.

Biological resources

The material composed of samples and associated data as defined above.

Samples and/or Data provider

The 'sample and/or data provider' is the individual researcher or investigator or body of researchers or investigators that makes samples and/or data available for access and use within the context of the BMS RIs projects. (It does not refer to the participant.)

Samples and/or Data user

The 'sample and/or data user' is the individual researcher or investigator or body of researchers or investigators from either academia or industry that requests access to samples and/or data and use. The samples and/or data user may seek access outside of the context of a particular research or RI environment.

Participants

The term 'participant' (also 'research participant') refers to an individual whose samples and/or data are accessed within the scope of the BMS RIs activities. Participant in this document is equal to "data subject" in applicable EU data protection law and "research subject" in applicable EU and Council of Europe laws and guidelines.

Ethics committee

The term 'ethics committee' in this document refers to a committee which has given ethical approval for a study which has/intends to collect and use biological samples and/or data that will be subsequently made available by the data provider within the BioMedBridges project. (It does not refer to the BioMedBridges Ethical Governance Committee.)

Research Infrastructures

The eleven Biological and Medical Research Infrastructures (BMS RIs) involved in the CORBEL project include:

- Bio-banking and Biomolecular Resources research infrastructure (BBMRI)

- European Advanced Translational Research infrastructure in Medicine (EATRIS)
- European Clinical Research Infrastructures Network (ECRIN)
- European Life Science infrastructure for Biological Information (ELIXIR)
- European Marine Biological Resource Centre (EMBRC)
- European Infrastructure of Open Screening Platforms for Chemical biology (EU-OPENSCREEN)
- European Biomedical imaging infrastructure (Euro-BioImaging)
- European Infrastructure for Phenotyping and Archiving of Model Mammalian Genomes (Infrafrontier)
- Integrated Structural Biology Infrastructure for Europe (INSTRUCT).
- Infrastructure for Systems Biology in Europe (ISBE)
- Microbial Resource Research Infrastructure (MIRRI)

Aim

The aim of this Ethical Governance Framework is to enable the CORBEL project members to operate within agreed terms with respect to participant consent, ethics committee approvals and national regulations, ensuring researchers supply and access data whilst working under a common ethical framework. The draft framework presented below has been written on the basis of other EU funded projects works[4] in order to ensure reliability and consistency of the systems in place, with the concern that very different samples and datasets can be utilised in an ethically-coherent manner to maximise research benefit, while acknowledging the responsibilities and obligations that are owed to research participants.

The BMS RIs are accessible to a variety or external research groups willing to take advantage of the facilities and services provided at European level. This entails that the BMS RIs resources are available for a wide range of studies including genetics, genomics, systems biology and research on existing well characterised repositories of biological samples and attached data, including biobanks. In terms of the type of biological samples and data that will be processed and analysed in the context of BMS-Ris there is a certain degree of diversity and could range from biological samples of human origin to samples animal origin, thus implying several ethical and regulatory issues necessitating different expertises.

Samples and/or data providers have a number of joint responsibilities and obligations, such as the obligation to respect participant confidentiality where research involves samples of human origin and/or personal data. Researchers accessing the samples and/or data have a custodian role, to ensure the careful and responsible management of the information. They have an obligation to operate in conformity with the requirements of their own institution, and fulfil all necessary national and international regulatory and ethical requirements. They also have obligations to the CORBEL project, as well as the funders and the wider research community, to carry out high quality, ethical research.

The purpose of this document is to provide a general framework for ELSI consideration in CORBEL and to focus on specific issues that are key to the development and operation of BMS RIs.

[4] Namely the BioMedBridges - FP7 Project GA n°284209 Deliverable on BioMedBridges Ethical Governance Framework ; CAGEKID, Cancer Genomics of the Kidney - FP7 Project GA n° 241669 , Deliverable 8.4; ESGI, European Sequencing and Genomics Infrastructure - FP7 Project GA n°262055, Deliverable 7.5 and 7.7.

Project-specific considerations

Consideration should be given for providing ELSI support for handling samples and/or data within the project with respect to

- Trans-border/international access to samples and/or data for research uses (inside the EU and with non-EU countries)
- Establishment of new links between data or types of data that were not linked before.
- Existing ELSI tools or services provided by the scientific community

Project bodies involved in ethical governance

The bodies involved in ethical governance of the project are:

- The Independent External Ethics Advisor
- The Ethical Governance Committee, which is comprised of experts whose backgrounds cover the different areas of the project
- The Executive Board

Independent External Ethics Advisor

The Independent External Ethics Advisor:

1. Monitors and reports on the progress of compliance with requirements of the Ethics Review Report and reports on this to the Commission *via* Periodic Reports
2. Oversees the development and preparation and implementation of the Ethical Governance Framework
3. Advises the Ethical Governance Committee, the Executive Steering Committee and the project coordinator on all ethical issues
4. In consultation with the Ethical Governance Committee and the project coordinator, ensures that the project operates to appropriate ethical standards.

Ethical Governance Committee

The Ethical Governance Committee:

1. Monitors the compliance of the project beneficiaries with the Ethical Governance Framework
2. Provides an ethics management report to each meeting of the BioMedBridges Executive Steering Committee (every three months)
3. Supports the External Independent Ethics Advisor in monitoring and reporting on the progress of compliance with the requirements of the Ethics Review Report and Ethical Governance Framework
4. As necessary, prepares updates of the Ethical Governance Framework, to be approved by the project's Executive Steering Committee.

Executive Board

The Executive Steering Committee:

1. Is responsible to ensure that there is no scope-creep within the project with respect to unforeseen use of the mechanisms, processes and infrastructure developed during

the project to facilitate the transfer and use of samples and/or data where Ethical, Legal and Social Issues (ELSI) pertain
2. Approves the Ethical Governance Framework and any updates thereof
3. Ensures that suitably qualified individuals are appointed for the role of Independent External Ethics Advisor and the Ethical Governance Committee.

General Provisions of the Ethical Governance Framework

Regulatory approvals

Responsibility for all samples and/or data that are made available, linked or accessed via the services provided by the BMS RIs remains with the samples and/or data providers and must have been obtained in accordance with the laws and regulations in operation in the country in which the provider resides. This includes any requirement for approval from an appropriate ethics committee or other regulatory body.

Depending on the type of consent given by the participant, there may be more or less potentiality for using the samples and/or data for research purposes. It is the responsibility of the samples and/or data provider to ensure that the uses of the resources are not in conflict with the provisions of this framework and that they may be used within the project.

Samples and/or data providers should determine whether, with respect to the use and the purposes of the project, any additional approvals or procedures are required for the biological resources (samples and data) they have collected.

Where providers have collected samples and/or data from participants in countries outside of their own (another 'source country'), they must ensure that approvals have been given by appropriate ethics committees and/or other regulatory bodies in the source country of the biological resource to be used in the project.

Samples and/or data obtained *via* the use of animals in research can only be made available for the project if the work has taken place within the requirements of national regulations and with appropriate licences or authority permission as required by national and EU law, and with due consideration given to animal welfare and care.

Updates to the framework

As the project evolves, adjustments may be made to this draft framework. Any adjustments shall be developed and agreed by the Ethical Governance Committee and approved by the Executive Board.

Human participants

Samples and/or data providers

The project has been designed to enable maximal benefit from research by making samples and/or data as accessible as possible to the research community, while protecting the interests of participants from whom the biological resources originate with regard to their privacy and confidentiality, and within the scope of their free and informed consent.

Samples and/or data providers are responsible to ensure that the responsible ethics committees, data access committees, national regulatory authorities or equivalent bodies have granted approval for the biological resources they provide to be accessed and used within the respective project. The provider must ensure that prior approval is available before any deposition of samples and/or data which may be accessed by users of BMS RIs services occurs.

Deposition of samples and/or data by the providers will act as assurance that samples and/or data providers have sought and obtained, where necessary, all appropriate approvals as required by relevant national laws and regulations. Where approvals are necessary, the provider inform the project coordinator.
Once samples are collected for research, the principal investigators shall fulfil the role of custodians of the samples, to ensure the careful and responsible management of the samples and information entrusted to their care by research participants. The obligations are transferred to a new custodian who must ensure the original obligations to research participants are honored.

Confidentiality and data security

All samples and/or data providers have an obligation of confidentiality and must conform to data protection principles to ensure that data, and particularly sensitive personal data (e.g. health, genetic, biometric data) is processed lawfully and in the respect of applicable best practices.
In some areas, the level of detail of data held on a participant may be such that it will be unique to that participant and thus, if linked to other non-anonymised data, could potentially be used to identify the participant. This raises important privacy protection issues. As such, personal data held within the project must always be de-identified to the extent possible in order to fulfil the research purpose. Consequently, identification by a third party should only be possible if extra information for a participant were to be made available.
Certain data analyses may confer non-intentional stigmatisation of subsets of the population involved. Consequently, any new study within the project that may have the potential to cause stigmatisation through the publication of the results of analyses must be carefully considered and discussed with an appropriate ethics committee in order to obtain further guidance prior to the analyses being undertaken.

Informed consent

Where the project involves the use of personal data, prime consideration should be given to whether existing consent for the use of this data in the project is sufficient and in accordance with any requirements set down in national guidelines or protocols, which may be upheld by relevant national or local authorities, or by ethical or regulatory bodies. This includes consent given by participants residing in a source country that is different from the country the data is subsequently deposited in. Where this was not initially consented, the responsible authority or research ethics committee should approve the sharing of data across national boundaries. However, in the case of countries using a legal 'opt out' system relating to the use in research of participants' residual human tissue originally taken for medical purposes, rather than a consent process, data from these samples may be included in the project if the 'opt out' system allows for the use and sharing of the data in ways defined by CORBEL.
Novel ways of combining data or datasets within the project can proceed as long as data is linked or unlinked anonymised and an appropriate ethics committee or national authority has granted approval where required. Where there is doubt that consent provisions adequately cover the combination of datasets, the opinion of an appropriate ethics committee or national authority should be sought as to whether additional participant consent is required.
Adequate consent available: Where pre-collected participant consent adequately covers the use of samples and/or data in the project, no further consent will need to be sought.
Adequate consent not available: Where adequate consent has not been obtained, re-consent must be sought, if national law does not provide for exceptions.

Consent forms

Drafting consent forms and obtaining consent for new data collections is entirely the responsibility of the researcher collecting the data, and the responsibility to ensure that appropriate consent and/or ethics committee or other authority approval is in place before data is deposited and/or made available for the project lies exclusively with the data provider.

It is suggested that, going forward, broad and generic consent for the use of samples and/or datasets may better serve the purposes of the BMS RIs, and that consent of this type should be considered, along with advice from appropriate ethics committees and national authorities, where applicable.

Consent forms should be drafted to adequately cover the BMS RIs plans for:

- Access to and linkage of samples and/or data stored
- Sharing of samples and/or data with other researchers within and outside of the country
- Any decisions made regarding the management and communication of findings of individual clinical significance, including any obligations data consumers may have to communicate findings through adequate communication process, and any pre-set time-limits for the feeding-back of results
- Permission for future re-contact
- Instructions how to handle withdrawals.

Re-consent

Re-consent is not required if a valid broad consent has been obtained, Ethics committees may decide on alternative methods of informing participants of the uses to which their samples and/or data may be put, for example, by sending a letter by recorded delivery to the participant's home if they have agreed to be re-contacted, and giving the participant the option to withdraw samples and/or personal data that relates to them. Newsletters and websites can also serve as communication tools.

Feedback to participate

CORBEL is concerned with building integrated and consistent ELSI support services, bridging existing tools and technology to link up different or overlapping types of services, or to create new ones where necessary and not with processing and analysing samples and data. Provisions surrounding feedback of results and incidental findings directly to participants are thus unnecessary and beyond the scope of the CORBEL project per se.

However, stakeholders of the BMS RIs involved in CORBEL are committed to make all data generated throughout their project as widely available as possible to the research community. At the same time, the availability of results shall be balanced with the need to protect the interests of research participants as to privacy and confidentiality, as well as to the scope of research to which they consented.

The ELSI support intends to encourage and positively support projects' leaders in the design of fitted procedures to return selected incidental findings that would result from their research activities using samples and/or data, this being notably done through the Ethics Check procedure described below. In general, it is not scarce that feedback of results and incidental findings within the project to participants is not anticipated or planned. Projects' leaders as well as samples and data providers should inform the project coordinator if they, or any third party who uses the samples and/or data,

are under any obligation to communicate (feedback) incidental findings of individual clinical significance to participants.
The mechanism of feedback must have been consented to by the participant, agreed with an appropriate ethics committee or national authority and findings must be validated to a diagnostic standard prior to reporting back to the participant. Conversely, participants should be informed during the consent process if no feedback will occur. However, it must be understood before a sample set or dataset is used for the project that an open commitment to re-evaluate ad infinitum samples and/or data from a participant to identify clinically significant findings is not sustainable and, if feedback is considered, there must be an unambiguously predictive relationship between the finding and the disease.
Feedback of incidental findings to research participants is only ethically justified if the analytical validity, the clinical validity and the clinical utility of those findings are previously established in an independent manner.

Participant withdrawal

Research participation is voluntary: research participants thus retain a right to discontinue their participation to the study at any time.
Personal data held on a participant who wants to withdraw will be removed or fully anonymised.

Use of animal samples and/or data

Where the project involves animal samples and/or data, the provider must ensure that national guidelines for their welfare and care during collection of the data were followed.
Animal life and welfare must have been respected and research work to collect data undertaken within the requirements of national regulations and with appropriate licences or permission by the responsible authorities as required by national law.

Assurances to third parties

Assurances made to third parties, such as those found in Material Transfer Agreements, must be included with any accompanying information sent with a dataset prior to its inclusion in the project.

Time-limited materials

Samples and/or data providers must make any information about time-limitations attached to the materials made available by virtue of consent restrictions, ethics committee approval or national regulations, available to the BMS RIs and project responsible persons by any means.

Appendix 3: Ethics Check Criteria

BBMRI-ERIC Common Service ELSI Ethics Check Criteria (draft)

OBJECT OF THE DOCUMENT

This document specifies the criteria for the BBMRI-ERIC Common Service ELSI (here-after the CS ELSI) independent Ethics Check of research projects and programs.

This activity necessitates establishing objective and systematic criteria to be used in the Ethics Check:

- For deciding which project/program necessitates an Ethics Check (cf. point 1)
- For performing the Ethics Check (cf. point 2 and 3)

The criteria set up in this document are based on already existing criteria used by the European Commission in the context of the EU research and technological development framework programs such as H2020.

SCOPE AND PURPOSE OF THE ETHICS CHECK

The Ethics Check is a precondition in order to be allowed to use the resources of BBMRI-ERIC identified through the BBMRI-ERIC Directory 2.0.

The Ethics Check is an analysis of ethical, legal and social implications of research projects or programs regarding the International and European applicable laws, ethical principles and relevant best practices, in accordance with a specified list of considerations established in this document.

It is a verification of the presence/absence of the necessary evidence of respect of International and European relevant laws for the research activity that will be performed, and of the necessary elements that will be useful for National competent ethics committees or other authorities that have to approve the project according to the National framework.

The Ethics Check is an add-on process that articulates with existing ethical reviews mechanisms at National and European levels without constituting disproportionate nor unnecessary administrative burdens for projects' leaders. The Ethics Check does not aim to substitute the authority of competent research ethics committees at national, regional, local levels to be consulted according to applicable national laws.

In the context of the procedure A described below (cf. point 2), the Ethics Check allows BBMRI-ERIC to ensure that the access and the provision of any support from the BBMRI-ERIC is only allowed for research projects presenting sufficient legal and ethical guarantees. Additionally, in the context of the procedure B described below (cf. point 2), the Ethics Check may facilitate the works of national competent ethical review committees by checking minimal criteria of European and International ethical-legal compliance.

Therefore, the opinion from the BBMRI-ERIC Common Service ELSI Ethics Check has no mandatory implication for these competent committees according to national laws, nor to authorities involved to review the project/program within the concerned ERIC Member States.

Complementary document: Ethics Check Operational procedure. Available on the intranet.

CRITERIA AND PROCEDURES FOR THE ETHICS CHECK

1. ETHICS CHECK IMPLEMENTATION CRITERIA

This step aims to check the eligibility of the demand and is ensured by the CS ELSI Secretariat, at the time of receipt of the application.

Eligibility criteria:

Research projects or programs subject to an Ethics Check must:

- have a transnational feature by involving the use of resources from several National Nodes AND
- include European or international samples and data flows

AND

- consist of a non-interventional or observational research involving the reuse of existing human samples, bio-fluids or micro-organisms maintained in biobanks that are part of BBMRI-ERIC.

An Ethics Check shall systematically be implemented as a part of the decision-making process in case of a request from a research promoter for BBMRI-ERIC support as defined here-below:

- access requests to the European biological resources managed by National Nodes' members, OR
- funding applications of research projects involving BBMRI-ERIC budget, OR
- projects/programs requesting the ethics management to the CS ELSI, OR
- access requests to technical Common Services and capacities offered by the ERIC.

Exclusion criteria:

Any project that is out of the scope of the above-defined implementation criteria are not subject to the Ethics Check. This should not damage their right to participate to BBMRI-ERIC activities in the respect of other procedures and requirements, nor to participate to, or benefit from, other services offered by the CS ELSI.

Due to the specific scope of BBMRI-ERIC activities, the Ethics Check:

- does not apply to animals' biological resources
- does not apply to clinical research
- does not apply where the research promoter is subjected to the H2020 ethical review. However, in such a case, the CS ELSI can be asked for advice in the preparation of the ethics part, in order to meet the European Commission requirements or answer to recommendations.

2. ETHICS CHECK PROCEDURES

The applicant (research promoter) to the access to BBMRI-ERIC support(s) must transmit the scientific part and the ethics part of his/her project to the CS ELSI for the purpose of the Ethics Check. If necessary, any complementary information could be requested by the CS ELSI experts involved. All the information will be processed in the respect of professional secrecy and confidentiality.
Two alternative procedures have to be used according to the state of development of the project regarding ethical/legal/social implications.

Procedure A: Expedited Ethics Check

The applicant has already gathered all nationally competent ethics committees' approval and other relevant authorisations to perform the research in accordance with the respective law.
In this case, the applicant has just to fulfil **step 1 below (self-assessment)**.
Regarding step 1 in this procedure "A", the expert group shall check whether:

1. All relevant information has been answered/provided (Completeness of the information)
2. The right information is provided (Truthfulness of the information)

3. The relevant approvals / authorisation related to the envisaged activities are well referenced (Appropriateness of the information)

A **formal statement** signed by the research promoter stating that all the necessary approvals/authorisations to begin the research have been obtained can be requested and recorded into the applicant dossier maintained by the Common Service ELSI.

Procedure B: Normal Ethics Check

The applicant has not gathered all the necessary ethics approvals and authorisations to perform the research.

Exceptionally, where the applicant justifies the impossibility to access to any Ethics Committee in his/her country to get approval of the project/program but that these activities are submitted to an Ethics Check in application of the criteria set up in this document, the procedure B must be followed and the opinion given by the BBMRI-ERIC Common Service could have a broader scope in terms of ethico-legal compliance regarding relevant enforceable international frameworks.

In these cases, the applicant is subject to **step 1 and 2 below (self-assessment + checking criteria)**.

Regarding step 2 and procedure "B", the expert group shall check deeper whether:

1. All relevant information has been answered/provided (Completeness of the information)
2. There is no contradictory information (Truthfulness of the information)
3. Given answers and related documentation are of quality and comply with applicable framework. If necessary experts can take action to be reported to the applicant if a particular answer is problematic; e.g. pointing out lack of information, inconsistencies, compliance issues or irregularities (Appropriateness of the information)

3. STEPS AND CRITERIA

STEP 1: Self-assessment (Procedure A and B)

For any application satisfying the inclusion criteria defined above (point 1), the applicant is invited to fulfil the following self-assessment table in order to allow preparing the Ethics Check of the planned research activities.

This step intends to identify activities and ethical issues that shall be considered by the experts.

The applicant shall appropriately tick the corresponding boxes (items) in the following grid and specify further where necessary or requested.

Item 1: SCIENTIFIC GOALS, EXPECTED OUTCOMES AND BBMRI-ERIC SUPPORT(S)	
Which are the research aims?	*Please, briefly describe the purpose(s) of the research and page where there is further description.*
Which are the expected benefits for individuals and the society?	*Please, briefly explain the function of the expected research outcomes.*

What kind of support(s) from BBMRI-ERIC is requested? *BBMRI-ERIC support includes any financial, technical, intellectual supports provided by the ERIC, including through its Common Services or from at least 3 National Nodes.*			*Please, describe and link with the purposes of the research*
Item 2: ORIGINS OF THE BIOLOGICAL RESOURCES (SAMPLES/DATA)	YES/NO		Fill in as appropriate
Does this research request the use of biological resources which belong to biobanks which are part of National nodes networks of BBMRI-ERIC member countries? *Biological resources means biological samples and/or associated data, including genetic data.*	☐	☐	Austria ☐ Belgium ☐ Czech Republic ☐ Estonia ☐ Finland ☐ France ☐ Germany ☐ Greece ☐ Italy ☐ Malta ☐ Norway ☐ The Netherlands ☐ Sweden ☐ UK ☐ Do not know yet *(please justify)* ☐
Does this research request the / already use biological resources which belong to biobanks established in other EU countries? *Including non-BBMRI-ERIC countries and BBMRI-ERIC observer countries*	☐	☐	*Please specify the countries, the resources and the page[5] describing the modalities for their use*
Does this research request the / already use biological resources which belong to biobanks established in non-EU countries? *Including non-BBMRI-ERIC countries and BBMRI-ERIC observer countries*	☐	☐	

[5] References shall be done to the page numbers of relevant sections in the scientific documents provided that describe the project. Examples: for a block of consecutive pages, ex: p.45-48. For separated pages, ex: p.12; 17.

If YES	Is it planned to import biological resources – including personal data – from non-EU countries into the EU?	☐	☐	*Please specify the countries, the resources and the page[1] describing the modalities for their use*
	Is it planned to export biological resources – including personal data –from the EU to non-EU countries?	☐	☐	*Please specify the countries, the resources and the page[1] describing the modalities for their use*
	Is it planned to use local resources (e.g. human remains or materials of historical value, traditional knowledge etc.)?	☐	☐	*Please specify the countries, the resources and the page[1] describing the modalities for their use*
	In case this research involves low and/or lower-middle income countries, are any benefit-sharing actions planned?	☐	☐	*Page[1]*
Item 3: RESEARCH CENTRES INVOLVED		YES/NO		Tick as appropriate
Will the resources be managed (e.g. stored) in centers that are part of BBMRI-ERIC National nodes networks? *Including non-BBMRI-ERIC countries and BBMRI-ERIC observer countries*		☐	☐	Austria ☐ Belgium ☐ Czech Republic ☐ Estonia ☐ Finland ☐ France ☐ Germany ☐ Greece ☐ Italy ☐ Malta ☐ Norway ☐ The Netherlands ☐ Sweden ☐ UK ☐ Do not know yet *(please justify)* ☐
If **NO or if other countries are also involved**	Will the resources be managed in centers located in other EU countries?	☐	☐	*Please specify the countries and page[1]*
	Will the resources be managed in centers located in non-EU countries?	☐	☐	*Please specify the countries and page[1]*

:				
Item 4: HUMAN SAMPLES AND DATA SOURCES		YES/NO		Page
Does this research relates to the following categories of persons as original sources of the samples/data to be used?				
- Healthy volunteers?		☐	☐	*Please indicate the page[1] where selection criteria and modalities for respecting individuals' rights are described*
- Persons unable to give informed consent?		☐	☐	*Please indicate the page[1] where selection criteria and modalities for respecting individuals' rights are described*
- Vulnerable individuals or groups?		☐	☐	*Please indicate the page[1] where selection criteria and modalities for respecting individuals' rights are described*
- Children/minors?		☐	☐	*Please indicate the page[1] where selection criteria and modalities for respecting individuals' rights are described*
- Patients?		☐	☐	*Please indicate the page[1] where selection criteria and modalities for respecting individuals' rights are described*
- Existing database?		☐	☐	*Please indicate the page[1] where selection criteria and modalities for the access and respect of individuals' rights are described*
Item 5: HUMAN CELLS / TISSUES		YES/NO		Page [1]
Does this research involve the use of human tissues / cells which are part of BBMRI-ERIC? (*other than from Human Embryos/Foetuses, see below)*		☐	☐	
If **YES:**	- Please, specify the type and quantity of tissues / cells			Type(s):

				Quantity[6]:
If **NO**:	- Are they available commercially?	☐	☐	
	- Are they obtained from another project, laboratory or institution?	☐	☐	
	- Are they intended to be used for developing biotechnologies or commercial products within this project?	☐	☐	
	- Please, specify the type and quantity of tissues / cells			Type(s): Quantity[2]:
Does this research involve Human Embryonic Stem Cells (hESCs)?		☐	☐	
If **YES**:	- Are they accessed through BBMRI-ERIC?	☐	☐	
	- Will they be directly derived from human embryos within this project?	☐	☐	
	- Are they derived from previously established cells lines?	☐	☐	
	- Please, specify the type and quantity of stem cells			Type(s): Quantity[2]:
Does this research involve the use of human embryos?		☐	☐	
If **YES:**	- Are they accessed through BBMRI-ERIC?	☐	☐	
	- Please, specify the quantity of requested/involved stem cells			
Does this research involve the use of human foetal tissues/cells?		☐	☐	
If **YES:**	- Are they accessed through BBMRI-ERIC?	☐	☐	
	- Please, specify the type and quantity of requested/involved stem cells			
Does this research involve the setting up of a new biobank?		☐	☐	

[6] Sample size and/or quantity of each sample as relevant.

Item 6: MICRO-ORGANISMS		YES/NO		Page [1]
Does this research involve the use of micro-organisms of human origin?		☐	☐	
Does this research involve the use of genetically modified organisms of human origin?		☐	☐	
Does this research involve the use of pathogenic micro-organisms of human origin?		☐	☐	
Item 7: PERSONAL DATA		YES/NO		Page [1]
Does this research involve personal data collection and/or processing?		☐	☐	
If **YES**:	- Does it involve the collection and/or processing of sensitive personal data *(e.g. health, sexual lifestyle, ethnicity, political opinion, religious or philosophical conviction)*?	☐	☐	
	- Does it involve processing of genetic information?	☐	☐	
	- Does it involve tracking or observation of participants?	☐	☐	
	- Is it likely that the study will produce (personal) health related information that could be important for an individual participant to know, like strong possibility of disease with known cure?	☐	☐	
Does this research involve BBMRI-IT platforms or services?		☐	☐	
Does this research involve the setting up of a new database?		☐	☐	
Item 8: ENVIRONMENT & HEALTH AND SAFETY		YES/NO		Page [1]
Does this research involve the use of elements that may cause harm to the environment, to animals or plants?		☐	☐	
Does this research involve the use of elements that may cause harm to humans, including research staff?		☐	☐	
Item 9: DUAL USE		YES/NO		Page [1]
Does this research have the potential for military applications?		☐	☐	

Item 10: MISUSE	YES/NO		Page [1]
Does this research have the potential for malevolent/criminal/terrorist abuse?	☐	☐	
Item 11: OTHER ETHICS ISSUES	YES/NO		Page [1]
Are there any other ethics issues that should be taken into consideration? If **YES**: *please specify*	☐	☐	

STEP 2: Ethics Check by the BBMRI-ERIC Common Service ELSI (Procedure B only)

The step 2 intends to check the information provided by the applicant with regard to the self-assessment table used for step 1 (above).

In step 2, CS ELSI experts are requested to provide an opinion regarding the project and its modalities with due regard to the requirements of enforceable legal framework, ethical principles, guidelines and best practices, as described in the Ethics Check Operational Procedure (available on the intranet).

Legal / ethical benchmark of the checking:

The following criteria have to be scrutinized with regard to the relevant European or international laws and regulations including relevant ethical guidelines and opinions.

This includes, in particular, the following instruments:

Binding instruments:

- European Convention for the Protection of Human Rights and Fundamental Freedoms, 1950;
- Charter of Fundamental Rights of the European Union, OJC 326, 26 October 2012.
- Council of Europe Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine: Convention on Human Rights and Biomedicine (Oviedo Convention), 4 April 1997; as well as relevant additional protocols such as Additional Protocol on the Prohibition of Cloning Human Beings, 12 January 1998;

- Directive 2004/23/EC of the European Parliament and of the Council of 31 March 2004 on setting standards of quality and safety for the donation, procurement, testing, processing, preservation, storage and distribution of human tissues and cells;
- Directive 2006/17/EC implementing Directive 2004/23/EC as regards certain technical requirements for the donation, procurement and testing of human tissues and cells;
- Directive 2006/86/EC implementing Directive 2004/23/EC as regards traceability requirements, notification of serious adverse reactions and events and certain technical requirements for the coding, processing, preservation, storage and distribution of human tissues and cells;
- Directive 98/44/EC **of the European Parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions;**
- Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data (to be replaced by the EU General Data Protection Regulation as soon as it will be adopted and in force);
- Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector.

Non-binding instruments:

- WMA Declaration of Helsinki, Brazil, 2013;
- OCDE Guidelines for Human Biobanks and Genetic Research Databases (HBGRDs), 2009;
- Council of Europe Rec(2004)10 concerning the Protection of the Human Rights and Dignity of Persons with Mental Disorder;
- Council of Europe Rec(2006)4 on Research on Biological Materials of Human Origin
- ISBER Best practices for repositories: collection, storage, retrieval, and distribution of biological materials for research, third edition, 2012;
- EGE, European Group on Ethics in Science and New Technologies relevant Opinions
- Article 29 Data Protection Working Party opinions and recommendations
- EuroBioBank SOPs
- OECD Principles and Guidelines for Access to Research Data from Public Funding, 2007.
- Global alliance, International code of conduct for genomic and health-related data sharing;
- HUGO Ethics Committee Statement on benefit sharing, 2009.
- Singapore Statement on Research Integrity, 2010.

Other instruments can be used as a basis of the Ethics Check, notably the BBMRI-ERIC policies, where it is relevant in the context of a specific project.

Checking criteria *(and related item from step 1, see the self-assessment table above)*

Note: The below-defined criteria are conceived as guiding elements for experts involved in the checking. Where relevant, other legitimate elements can be taken into account regarding a specific research.

N°	Criteria to check	Relevant item(s) from step 1

1	Explanation about the scientific goals of the activities planned and explanation on the benefits of the research for individuals/society. This shall be checked regarding the research protocol.	**Item 1**
2	Clear information about the European scheme of the research (partners and countries, flow chart stating the geographical sources and destinations of samples, partners' tasks regarding samples and data to be used).	**Items 2,3, 9**
3	Justification of the necessity to use biological samples regarding the research purposes (risk/benefit assessment).	**Items 4, 5, 6**
4	Justification of the necessity to use personal data regarding the research purposes – (risk/benefit assessment).	**Item 7**
5	Details on the types of resources, number, quantity, context and authorisation(s) obtained by the primary owner (including references to ethics approval obtained or applied for).	**Items 5, 6, 7**
6	Details about the procedure(s) ensuring the respect of informed consent / agreement from research participants (e.g. voluntariness and no financial gain shall be ensured; confirmation that informed consent and/or appropriate approval has been obtained and covers the reuses, including the international sharing, import/export, of samples and/or data for the needs of the project; potential further envisaged retention or uses after the project).	**Items 2, 3, 4, 5, 7, 11**
7	Details on the management of the samples collections and databases including information regarding responsible institutions, custodian(s) and users of the resources in relation with a research task (e.g. kind of activity performed and purpose(s), duration of storage, security, quality and accountability principles, professionals identity and appropriate background/training, details about what will be done with the resources at the end of the research. Any agreements or contracts allowing to access and use these sources should also be included. It is also recommended to check if a cost/benefit assessment is performed specifically where a new biobank/database will be set up).	**All ticked items**
8	Details on the policy and procedures for the access and use of the collections of samples/data in compliance with EU laws and, where relevant, measures regarding participants' rights compliance and exercise.	**All ticket items**

9	Details about the privacy policy, data protection and the management of incidental findings (In particular where genetic data are used or generated).	**Items 5, 7**
10	Security and safety measures regarding micro-organisms or GMOs; authorisations, quality and security controls, sites' description and suitability for carrying out proposed research and minimize identified risks.	**Items 2, 3, 7, 9**
11	Details on activities carried out in non-EU countries including explicit confirmation that the activities could have been legally carried out in an EU Member States. Clear flow chart(s); appropriate safeguards and terms of uses; contracts**.** Check of the existence of any Convention to respect or of European Commission decisions regarding adequacy of data protection level.	**Item 2, 3**
12	Risk/benefit analysis including details on the measures planned to mitigate identified risks (E.g. regarding personal data this exercise can take the form of a data protection impact assessment).	**All ticked items**
13	Adequacy of ethical (e.g. guidelines) and legal documents (e.g. laws) referred regarding the envisaged activities.	**All ticked items**
14	ELSI management along the project (E.g. ELSI internal management board/expert).	**All ticked items**
15	Confirmation that the ethical and legal international or European texts referred through the project will be rigorously applied, regardless of the country in which the research activities are carried out.	**All ticked items**
16	Existence and relevance of the documentation provided in support of the project/program regarding the issues at stake (informed consent form and information notice; copies of relevant ethics approvals, authorisations from competent authorities, certifications, MTA etc.)	**All ticked items**

Appendix 4: Ethics Check Operational Procedure

BBMRI-ERIC Common Service ELSI Ethics Check – Operational Procedure (draft)

OBJECT OF THE DOCUMENT

This document describes the internal rules regarding:

- The submission of the projects/programs submitted to the Ethics Check procedure and accepted according to the Ethics Check Criteria defined in the eponym document, and
- The participation of experts involved in the Common Service ELSI (here after CS ELSI) Ethics Check,
- The formulation of experts' opinions.

The Ethics Check consists in an analysis of the ethical, legal and social implications of research projects or programs in accordance with a specified list of considerations established in the document "Ethics Check Criteria".

The Ethics Check is intended to provide an opinion to the BBMRI-ERIC headquarters and recommendations to research promoters or investigators regarding the ethical legal and social implications (ELSI) arising from their research project/program.

Recommendations can also be given regarding further investigations of ELSI issues that should be carried out within a specific project/program.

PROCEDURE

1. Submission of a research project/program subject to an Ethics Check

Any research promoter whose project/program is responding to the submission criteria described in the document "Ethics Check Criteria" must apply for an Ethics Check to BBMRI-ERIC.

Note: When an ethics review has been done or will be done within the Horizon 2020 Program there will be no Ethics Check performed by the BBMRI-ERIC. However, in such cases, the CS ELSI can be asked for advice in the preparation of the ethics part, in order to meet the European Commission requirements or answer to recommendations.

Applications for a Common Service ELSI Ethics Check can be done through:

- an online request using the BBMRI-ERIC website (one stop-shop7)
- a written request from the Director of BBMRI-ERIC.
- a written request from a research promoter/principal investigator of a BBMRI-ERIC member State
- a written request from a research promoter/principal investigator of a BBMRI -ERIC Observer State
- a request from another ERIC, as a transversal support.

Any application is followed by an acknowledgement.

Any application and related documentation will be communicated to the secretary of the BBMRI-ERIC CS ELSI. The secretary will organize the Ethics Check in collaboration with the Coordinator of the CS ELSI, e.g. contact of the experts involved etc.

2. Selection of experts for the purpose of the Ethics Check

Experts involved for performing the interdisciplinary Ethics Check are selected with the help of an internal BBMRI-ERIC CS ELSI Experts' database (*presently in construction*) including both European

[7] The tool for submitting projects for the CS ELSI Ethics check is presently under construction.

and international recognized professionals skilled in relevant domains, notably in life sciences, law, ethics, social sciences, medicine and technology.

2-4 experts are selected per project/program depending on the number of countries involved; 1 expert is appointed as rapporteur. The selection process is further described below.

Selection process:

- The number of experts to mobilise for a project/program is established at the CS ELSI Coordination level at the time of the reception of the ethics table and related documents. This is done according to the apparent characteristics or complexity of the application (e.g. number of identified ELSI issues; length of the documents; number of partners to the project/program).
- A first pool of qualified persons is constituted using the ELSI Experts' database *(under construction),* in the respect of non-discrimination principle.
    - Experts are targeted according to the field(s) of the research to be checked;
    - Where specific skills (e.g. linguistic skills) are necessary for the purpose of the Ethics Check, it will be possible to use specific criteria for the randomised selection (e.g. nationality). This could be done either for setting up the original pool of experts, or under request from the selected experts involved in the Ethics Check.
- From this pool, 2-4 experts are selected randomly.
- The CS ELSI Secretary contacts each of the selected experts and ask for their consent to participate to the Ethics Check. Experts are free to refuse participation.
- Upon receiving consent from each expert confirming their availability, the CS ELSI Secretary send the necessary documents to perform the Ethics Check, inform about the deadline for providing the opinion and ask for a designation of the rapporteur.

3. General rules for participating as an expert in the Ethics Check

a) All the experts involved must respect professional secrecy and confidentiality in the processing of the projects/program submitted to the Ethics Checking procedure.

b) The presence of a conflict of interest is incompatible with the exercise of the Ethics Check. Each ELSI expert shall sign an individual declaration stating that she/he has no interest link[8] that could influence the opinion on a project/program to be checked.

c) Experts should be appointed based on their expertise in ELSI and acquaintance with national/local regulations and language.

d) A rapporteur ensures the drafting of the opinion and recommendations and its appropriate communication to the experts involved for approval. The rapporteur then reports the opinion and recommendations to the research investigator and to the CS ELSI secretary for recording and sending to the BBMRI-ERIC headquarter.

4. Delay in processing applications:

The entire Ethics Check procedure must not take longer than **4 weeks**.

[8] Persons who do not have conflicts of interest, are independent from the promoter/sponsor, research centers involved, investigators involved and persons financing the research, as well as free of any other undue influence such as financial or personal interests which could affect impartiality. In case of conflict, the person shall not participate in the ethics check.

This delay of 4 weeks to achieve the Ethics Check starts to run from the date of the reception of the complete application. At this time, the applicant is informed about the applicable timeline.
Where a supplementary delay is necessary, the applicant shall be informed. The 4 weeks delay can only be repeated once.
In case of impossibility to implement the Ethics Check in an 8 weeks delay, the opinion is deemed as positive. The burden of proof regarding the exceeding of announced deadlines relies on the applicant.

5. Standard formulation of the opinion:

The opinion of the experts is given with comments on the specific considerations laid out in the Ethics Check list. It is concluded with alternatives as follows:

- Recommended to accept
- Admissible under specific modifications (with recommendations)
- Recommended not to accept (with mandatory motivation and recommendations)
- Recommended for further investigations of ELSI issues within the project/program (with recommendations; investigations to be done by the promoter/principal investigator).

Appendix 5: Sample and/or Data Provider Form

Samples and/or data provider form (draft)

This form must be completed by all parties providing biological resources (biological samples and data) through BMS RIs where there are underlying restrictions on their use imposed by consent requirements, ethics committee approvals, national regulations or any other agreements.

NOTE: Custody of all biological resources made available within the context of BMS RIs remains with the provider (and, where applicable, the participants). The provider, when making biological resources available through BMS RIs has full responsibility under the terms agreed within the CORBEL Ethical Governance Framework.

1 Name of the samples and/or data provider	
2 Name and address of the samples and/or data provider's research institute/university	
3 a. Reference of the biological samples collection (Name; Authorisation/Approval number; BRIF b. Name of dataset and URL of dataset or service	a. b.
4 Please list the restrictions on use imposed by consent requirements, ethics committee approvals, national regulations or any agreements, such as, research collaboration agreements, material transfer agreements, and data access agreements, including those made with other parties who may have originally supplied the samples and/or data *Note: regarding biological samples restrictions includes any requirements regarding biosafety/biosecurity*	
5 Is the research participant data anonymised or pseudonymised[9]?	

[9] See definitions in the CORBEL Ethical Governance Framework document

6	If pseudonymised, name the person(s) holding the linkage key	
7	If pseudonymised, please give the name and address of the linkage key holder's research institute/university	
8	If applicable, please state if there is a date by when this biological samples / dataset must be removed from BMS RIs and related research projects	
9	Please state any decisions made regarding the management and communication of findings of individual clinical significance, including any obligations data requestors may have to communicate findings, and any pre- set time-limits for the feeding-back of results	
10	Please sign to indicate that you have read and understood the CORBEL Ethical Governance Framework document and that you agree to abide by the conditions contained therein	
11	Please sign to confirm that the participant informed consent provisions and/or ethical approval, and national laws and regulations, allow the use of the biological resources for research purposes through BMS RIs *Note: If you are unsure whether the current consent provisions or ethical approval adequately allow the use of the data in BioMedBridges, we recommend you seek advice from an appropriate ethics committee*	
For Office Use Only		
	Signature of the BMS RIs Coordinator representative	
	Date of approval	

Appendix 6: Information Sheet and Informed Consent

BioMedBridges Template: Information Sheet and Consent Form

Version 3 091214

Template:
Information Sheet and Consent Form

Definitions

In this document, the following definitions apply:

Anonymised – also known as 'unidentified' in some Member State's national legislation. The sample or data does not contain information identifying a person, or the link to such information has been permanently severed.

Pseudonymised – also known as 'coded'. The sample or data is connected to a person, but this connection has been marked with an identifier that does not contain information identifying that person.

Biobank – Any biosample repository or archive that is used for research purposes.

Biosample – Any human biological material, including extracted DNA/RNA samples.

Personal Data – Data which may be used to identify a research participant. (Note: Although in some EU jurisdictions, personal data may also be used to describe human biosamples, in the context of this template, it relates to identifiable data only).

How to use this template

This template is made to help gain research participant consent for the use of human biosamples and/or personal data in cases where the initial consent given by the research participant/data subject at the time of the collection of the material/data did not cover the now intended use.

First and overall importance: Asking for further consent assumes that the donor of the biosample(s) and/or data in question has given his/her prior consent to be contacted again by the institution now seeking further consent to use the biosample(s)/data. This consent to be contacted is a necessary prerequisite to using this template. If this requirement is not met, it would be a breach of privacy to use the research participant's contact details in order to seek consent to further use of the biosample(s)/data.

Secondly, valid consent to the use of personal data and human biosamples requires that the following conditions have been met:

- Consent must be freely given and informed.