

The information about Biobank is organized in three different sections: General Information, Services, and Members. Creating a biobank in the system creates its General Information part.

General Information

Attribute Name	Allowed Values	Description	Mandatory
Name	Text	Textual string of letters denoting the name of the biobank in English.	Yes
Biobank Id	Text	Textual string of letters starting with the country code (according to standard ISO1366 alpha2) followed by the underscore “_” and post-fixed by a biobank ID or name specified by its juristic person (nationally specific).	Yes
Acronym	Text	Textual string of short name in use for the biobank. If applicable.	No
URL	Text	Textual string of letters with the complete http-address for the biobank.	No
Juristic Person	Text	Textual string of letters denoting the juristic person e.g. a university, concern, county council etc. for the biobank.	Yes
Country	Text	ISO-standard (3166 alpha2), two letter code for the country of the biobank.	Yes
Description	Text	Textual string of letters with a description about the biobank in English.	No
Backup	Boolean	Boolean value (either Yes or No) denoting whether the biobank provides the backup.	No
Training Courses	Boolean	Boolean value (either Yes or No) denoting whether the biobank provides the training courses.	No

Services

Attribute Name	Allowed Values	Description	Mandatory
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Type of Repository	Text List	Multiple applicable values from the following: Animal Specimen, Human Specimen, Enviromental Specimen, Microorganism Culture Collection, Vegetal Specimen, Other.	No
Data Management	Text List	Multiple applicable values from the following: Commercial LIMS (Lab Information Management System), In-house Developed Management System, Non-structured Data Management (Text Documents; Paper Forms; etc.)	No
Database	Text List	Multiple applicable values from the following: Oracle, MS SQL Server, MS Access, MySQL, PostgreSQL, Informix, Other.	No
Storage Facility	Text List	Multiple applicable values from the following: Onsite Storage (Dedicated Facility), External Storage, Outsourced Storage, Another Country Storage.	No
Monitoring	Text List	Multiple applicable values from the following: Access and Use of Biobank, Temperature, Humidity.	No
Genetic Platform	Text List	Multiple applicable values from the following: DNA/RNA Extraction, DNA/RNA Quantification, DNA/RNA Characterization, DNA/cDNA Amplification, Genotyping, Sequencing, NGS, Gene Expression Analysis.	No
Proteomics Platform	Text List	Multiple applicable values from the following: Protein Separation and Quantification, Identification and Profiling, POTS Translational Modification Analysis.	No
Metabolomics Platform	Text List	Multiple applicable values from the following: Extraction, Separation, Detection (Mass Spectrometry; NMR), Identification and Profiling, Quantitative Analysis.	No
Epigenomics Platform	Text List	Multiple applicable values from the following: DNA Methylation Analysis, Histone Modification, Bioinformatics for Data Analysis.	No
Bioinformatics Data Analysis Service	Text List	Multiple applicable values from the following: Genomics, Proteomics, Metabolomics, Epigenomics, Other.	No

Complementary Services	Text List	Multiple applicable values from the following: Pathology Department/Imaging, Histology Laboratory, Biochemistry Laboratory, Virology Laboratory, Haematology Laboratory, Bacteriology Laboratory, Serology Laboratory, Cell Biology, Molecular Biology Laboratory, Biomolecules Extraction, Other.	No
Automation Services	Text List	Multiple applicable values from the following: Sample Processing, Pipetting, Aliquots, Storage, Retrieval, DNA/RNA/Proteins Extraction, Analysis.	No
Available Documents	Text List	Multiple applicable values from the following: Sample Catalogue, Protocols/Procedures, Questionnaires, Consent Forms, Patient Information, Access Policy, Data Access Policy, Material Transfer Agreement, Grant Information, Ethics Documentation, Other.	No

Members

Attribute Name	Allowed Values	Description	Mandatory
E-mail	Text	E-mail address of the contact person.	Yes
First Name	Text	First Name of the contact person.	Yes
Middle Name	Text	Middle Name of the contact person.	No
Last Name	Text	Last Name of the contact person.	No
Juristic Person	Text	Textual string of letters denoting the juristic person e.g. a university, concern, county council etc. for the biobank.	No
Department	Text	The department to which the contact person belongs to.	No
Position	Text List	Multiple applicable values from the following: Coordinator/Principal Investigator, Data Provider/Contributor, Database Manager, Curator, Data Analyst, IT Expert, Biostatistics Expert, Scientific Expert, Legal Expert, Ethical Expert, Patient Representative, Management, Other.	No

Roles	Text List	Multiple applicable values from the following: Biobank Owner, Biobank Editor, Main Contact.	No
ORC ID	Text	The persistent digital identifier that distinguishes researchers. As defined by ORCID.	No

The information about Sample Collection is organized in three different sections: General Information, Attributes, and Contacts. Creating a sample collection in the system creates its General Information part.

General Information

Attribute Name	Allowed Values	Description	Mandatory
Name	Text	The name of the sample collection in English.	Yes
Sample Collection Id	Text	Sample Collection ID that also links the sample collection to the hosting biobank or study.	Yes
Acronym	Text	Short name in use for the sample collection.	No
Description	Text	A description of the sample collection. Recommendation max. 2000 char.	No
Consent Template	Boolean	Boolean value (either Yes or No) denoting whether the sample collection has the consent template.	No
Reuse of Samples	Boolean	Boolean value (either Yes or No) denoting whether the sample collection allows the reuse of samples.	No
Material Transfer Agreement	Boolean	Boolean value (either Yes or No) denoting whether the sample collection has the material transfer agreement.	No
Accreditation	Boolean	Boolean value (either Yes or No) denoting whether the sample collection has the accreditation.	No
Quality Control	Boolean	Boolean value (either Yes or No) denoting whether the sample collection has the quality control.	No

Attributes

Attribute Name	Allowed Values	Description	Mandatory
Data Categories	Text List	Multiple applicable values from the following: Biological Samples, Survey Data, Imaging Data, Medical Records, National Registries, Genealogical Records, Physiological/Biochemical Measurements, Other.	No
Material Type	Text List	Multiple applicable values from the following: Dried Blood Spots, DNA, RNA, cDNA/mRNA, microRNA, Whole Blood, Periphial Blood Cells, Plasma, Serum, Tissue; Cyro Preserved, Tissue; Paraffin Preserved, Cell Lines, Urine, Saliva, Faeces, Pathogen, Other.	No
Storage Temperature	Text List	Multiple applicable values from the following: RT, 2 °C to 10 °C, -18 °C to -35 °C, -60 °C to -85 °C, LN, Other.	No
Collection Type	Text List	Multiple applicable values from the following: Case-Control, Cohort, Cross-Sectional, Longitudinal, Twin-Study, Quality Control, Population-Based, Disease Specific, Birth Cohort, Other.	No
Disease	Text List	Multiple applicable values from the following: Disease Ontology, Disease Ontology Version, Disease Ontology Code, Disease Ontology Description, Disease Free Text.	No
Origin of Collection	Text List	Multiple applicable values from the following: Research, Diagnosis, Therapeutics, Other.	No
Consent Form	Text List	Multiple applicable values from the following: Broad Consent, Specific Consent, Presumed Consent.	No

Quality Management	Text List	Multiple applicable values from the following: For Sampling, For Processing, For Shipment, For Storage, For Distribution, For Data Management/IT, For Infrastructure (e.g. Security of Access; Biosecurity), For Equipment (e.g. Storage Temperature; Monitoring), For Sample (e.g. Duplicate; Independent Storage Location).	No
Storage Facility	Text List	Multiple applicable values from the following: Onsite Storage (Shared Facility), Onsite Storage (Dedicated Facility), External Storage, Outsourced Storage, Another Country Storage.	No

Contacts

Attribute Name	Allowed Values	Description	Mandatory
E-mail	Text	E-mail address of the contact person.	Yes
First Name	Text	First Name of the contact person.	Yes
Middle Name	Text	Middle Name of the contact person.	No
Last Name	Text	Last Name of the contact person.	No
Juristic Person	Text	Textual string of letters denoting the juristic person e.g. a university, concern, county council etc. for the biobank/sample collection.	No
Department	Text	The department to which the contact person belongs to.	No
Roles	Text List	Multiple applicable values from the following: Sample Collection Owner, Sample Collection Editor, Main Contact.	No
ORC ID	Text	The persistent digital identifier that distinguishes researchers. As defined by ORCID.	No

Samples are imported using standard excel (.xls, .xlsx) template sheets. The different attributes, allowed values, description about them are provided below in the sheet. The sheet also explains which attributes are mandatory and the remarks are provided for detailed explanation.

Attribute Name	Allowed Values	Description	Mandatory	Remarks
sampleCollectionId	Text	Sample Collection ID that also links the sample collection to the hosting biobank or study.	No	However if provided, this means the sample is part of that sample collection which has the provided sampleCollectionId. There should already be a sample collection with the given sampleCollectionId in the catalogue to be able to link up the sample with the sample collection. Hence the sample collection should be created first before any sample could be part of that sample collection.
hashedSampleId	Text	Pseudonimized Sample Id generated according to the IARC governance process.	Yes	For privacy reason(s) the Sample Id provided by the biobank should be hashed before uploading it to the catalogue. Mapping between the original Sample Id and the generated hashedSampleId should be maintained by IARC and the biobank.

hashedIndividualId	Text	Pseudonimized Individual Id generated according to the IARC governance process.	No	However if provided, for privacy reason(s) the Individual Id provided by the biobank should be hashed before uploading it to the catalogue. Mapping between the original Individual Id and the generated hashedIndividualId should be maintained by IARC and the biobank.
materialType	Text	The biospecimen type saved from a biological entity for testing, diagnostic, propagation, treatment or research purposes.	Yes	
container	Text	The container in which the sample is stored.	No	
storageTemperature	Text	The long term storage temperature at which the samples are stored after preparation.	No	
sampledTime	Date	The time when the sample is taken according to ISO 8601 i.e. YYYYMMDDThhmm	No	
anatomicalPartOntology	Text	Name of the ontology used for the anatomical part.	No	
anatomicalPartOntologyVersion	Text	Version of the selected ontology for anatomical part.	No	
anatomicalPartOntologyCode	Text	Code of the anatomical part according to the used ontology.	No	
anatomicalPartOntologyDescription	Text	Description of the selected anatomical part ontology code.	No	
anatomicalPartFreeText	Text	Explanation about anatomical part in case of unknown or insufficient information.	No	
sex	Text	The sex of the sample donor. Can be one of the following values: Male, Female, Unknown, Undifferentiated.	No	

ageLow	Integer	Integer value denoting the lower value of the age range of the sample donor.	No	The real age of the sample donor is not revealed in the catalogue. Instead the age range is displayed and ageLow denotes the lower value of this age range.
ageHigh	Integer	Integer value denoting the higher value of the age range of the sample donor.	No	The real age of the sample donor is not revealed in the catalogue. Instead the age range is displayed and ageHigh denotes the higher value of this age range.
ageUnit	Text	Unit defining ageLow and ageHigh. Can be one of the following values: years, months, weeks, days.	No	
diseaseOntology	Text	Name of ontology used for disease. Can be several values e.g. ICD, SNOMED.	No	
diseaseOntologyVersion	Text	Version of selected ontology for disease e.g. ICD-9, ICD-10, SNOMED-CT.	No	
diseaseOntologyCode	Text	Disease code from the selected Disease Ontology Version e.g. C61.	No	
diseaseOntologyDescription	Text	Description from the selected Disease Ontology Code e.g : Malignant neoplasm of prostate.	No	
diseaseFreeText	Text	Explanation about disease or symptom in case of unknown disease or insufficient information.	No	
countryOfOrigin	Text	Country of Origin of the sample donor.	No	