





ITHACA Board Meeting 2020

2020 December 11th
WG6 ILIAD/registries parallel session

Connected database: OPBG Biobank

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OPBG Research Biobank, 1/3

1985 – Accreditation as a Scientific Institute for Research, Hospitalization and Health Care by the Italian Ministry of Health

2015 - 4 historical collections (about 300,000 samples, more than 45,000 partecipants, 18 different ICD-10 chapters)

2017 - Adaptation to international recommendations and best practices for the management of biological material and related data











OPBG Research Biobank, 2/3

- 2018 Foundation of a Research Biobank
 Quality System certified as compliant to the ISO
 9001:2015 by DNV
 BBMRI-ERIC partner biobank
- 2019 Catalogues: about 400,000 samples, more clinical biospecimen types
- 2020 Extention, restructuring and development of the Biobank

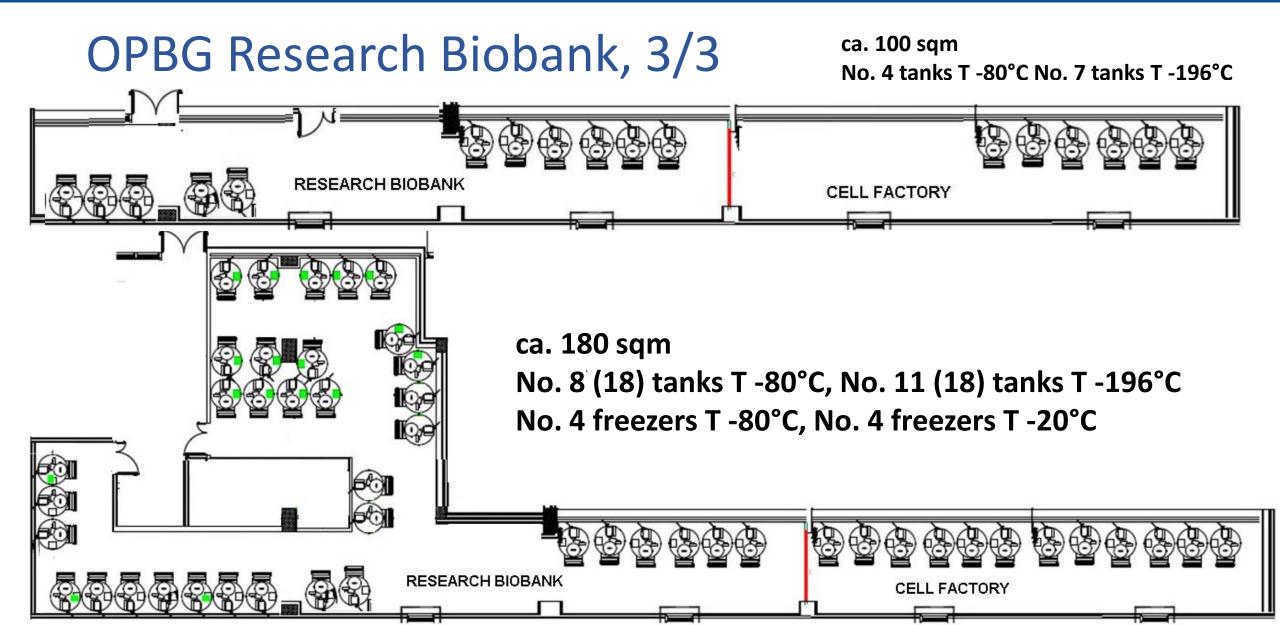














Biobank collections

- No. 4 hystorical collections: about 300,000 samples (cells, DNA, RNA, fecis, urine, tissues, serum, plasma, liquor)
- No. 7 institutional collections: about 100,000 samples (DNA, cells, serum, plasma, fecis, tissues) collected during normal clinical practice, for future research applications
- No. 11 on-demand collections: biobanking of biospecimens (about 10,000 samples DNA, cells, liquor, plasma, fecis, tissues) for clinical trials and research projects. Sample access is bounded by the trial/project duration.
- No. 1 COVID19 collection: about 2,000 samples.





Biobank Services

- **Know-how**: acquired by partecipating in research projects for decades, and for which perforing characterization and biobanking of cell lines were required.
- Tracking and data integration: documentation and sample management softwares, integrated with Electronic Health Records and disease registers.
- Quality Controls and datasheet: performing and recording quality controls in appropriate documentation, in accordance with the clients.



Biospecimen tracking

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Code DNLAB	Sampling date	HPO HPO	Mother code			Withdrawal notes	
1023420901	23/10/2018 13:20		BB00000047				
OPBG Unit	Check-in date/Coll. stock. date	ICD	QC code			Output request code	
SP Genetica Medica DH	24/10/2018 15:23	D82.1;SINDROME VELO-CARDIO-FACCIALE (75832)	QC00000047				
Referent physician	Sex	Note	External Unit			Withdrawal date	
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Patient ID	Research on the patient's disease	Stocking code	ICD CODE			Input request referent	
62133636	Υ	G804599095	D82.1			CTS	
Patient surname	Research on other diseases	Stocking date	ORPHA CODE			Input request code	
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Patient name	Recall	Tissue					
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Patient DOB	Informed consent						
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Workflow management platform, 1/2

Storage request

Requirement identification

Sample and informed consent collection

Processing and quality control data

Storage

Access request

MTA/DTA

Withdrawl

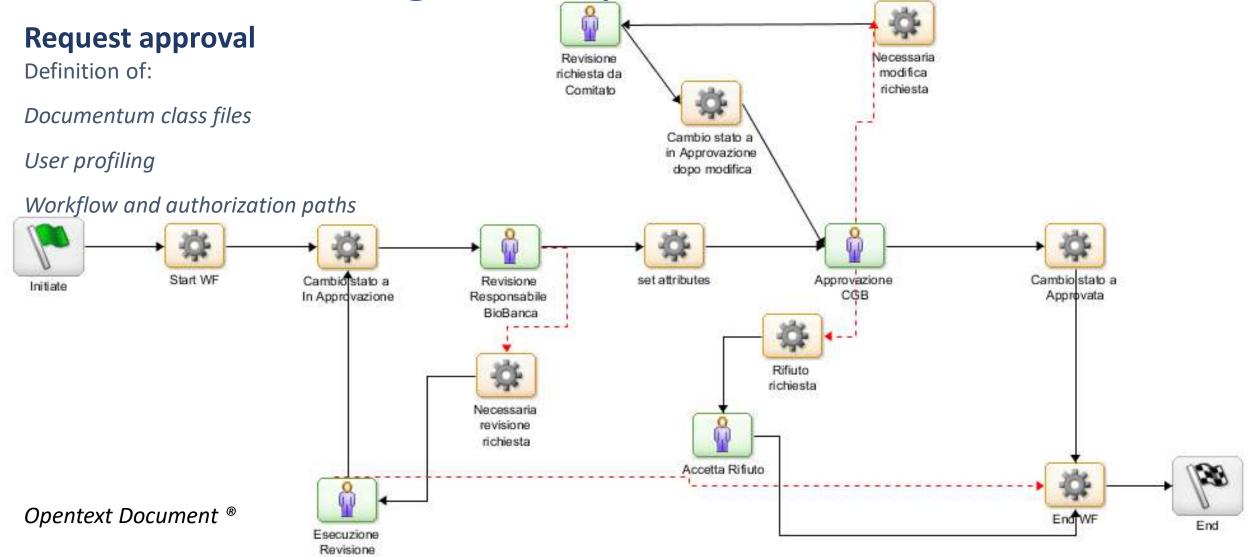
Biobanking workflow



Network
 Intellectual Disability
 and Congenital
 Malformations (ERN ITHAC



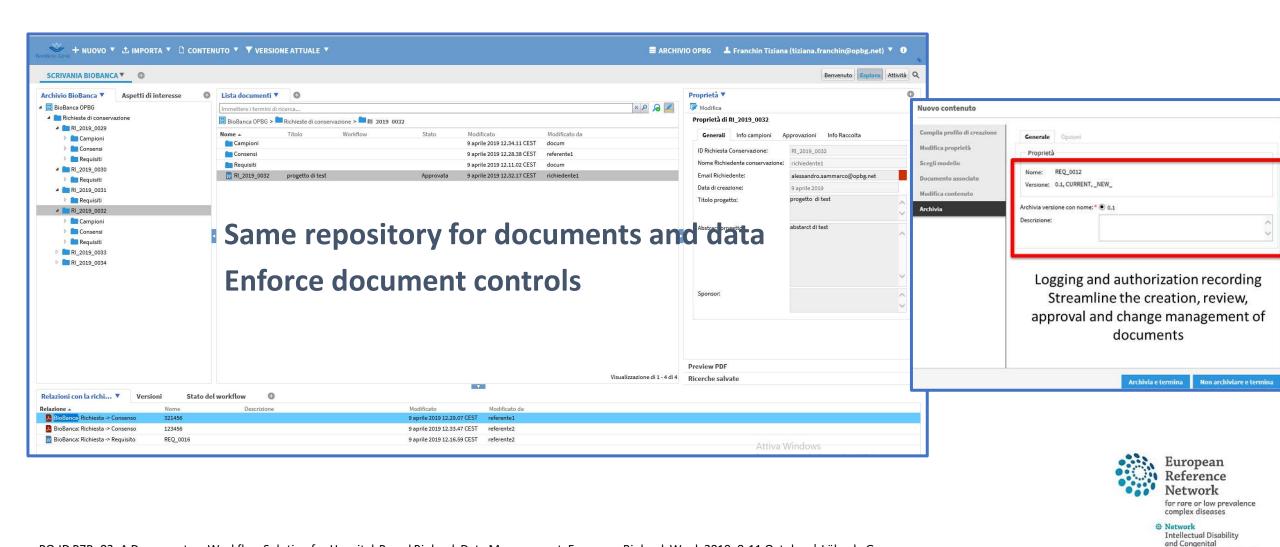
Workflow management platform, 2/2





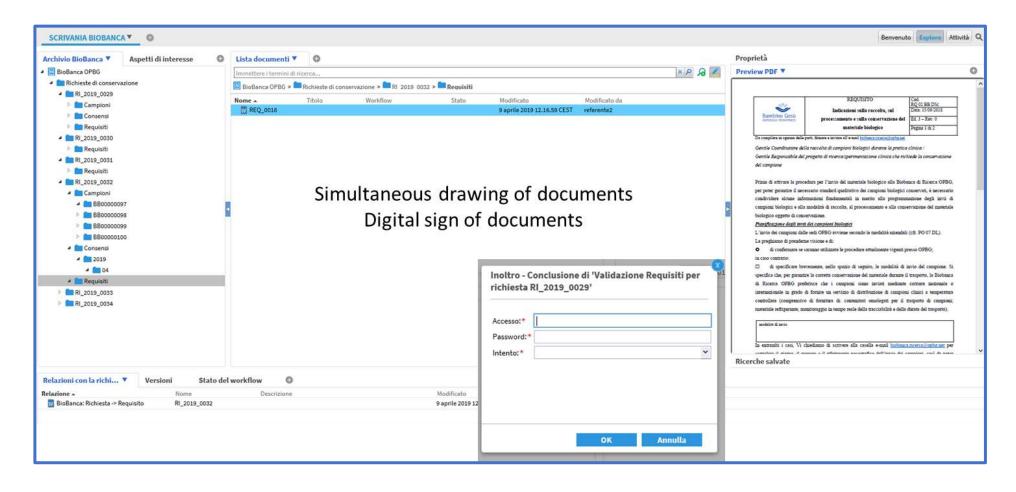
Malformations (ERN ITHACA)

Biobank D2 Workflow





Biobank D2 Workflow, 2/3



Integration with existing IT infrastructure

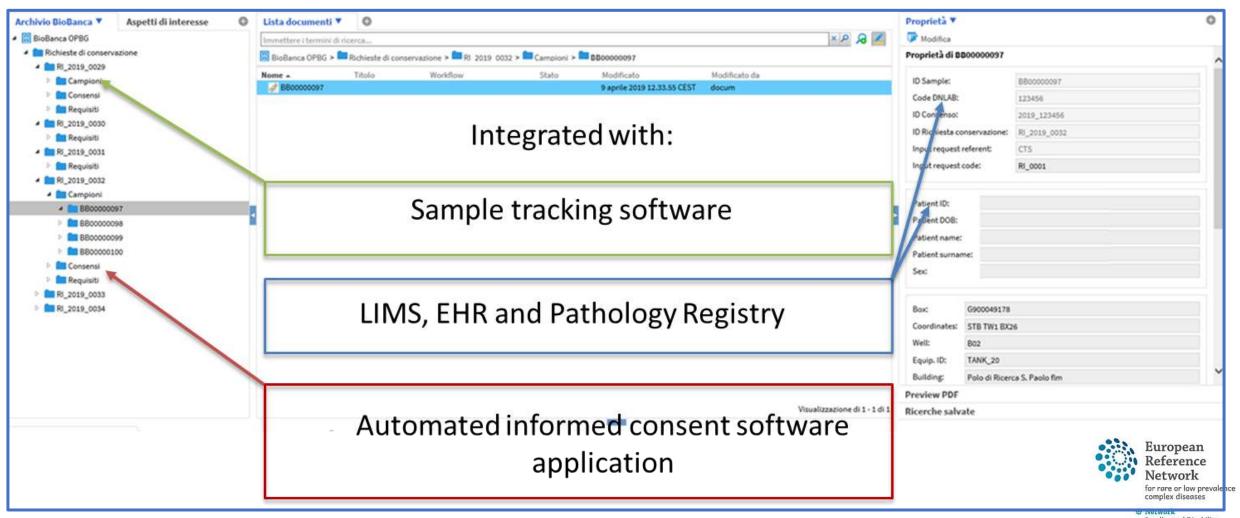
Reducing errors of creating, editing, and reviewing SOPs and registrations



Malformations (ERN ITHACA)



Biobank D2 Workflow, 3/3







EUROPEAN PLATFORM ON RARE DISEASE REGISTRATION (EU RD Platform)

SET OF COMMON DATA ELEMENTS FOR RARE DISEASES REGISTRATION

GROUP	ELEMENT N°	ELEMENT NAME	ELEMENT DESCRIPTION	CODING	COMMENT
1. Pseudonym	1.1.	Pseudonym	Patient's pseudonym	String	https://eu-rd- platform.jrc.ec.europa.eu/erdri/eu pid-intro
	2.1.	Date of birth	Patient's date of birth	Date (dd/mm/yyyy)	
2. Personal information	2.2.	Sex	Patient's sex at birth	Female Male Undetermined Foetus (Unknown)	
3. Patient Status	3.1.	Patient's status	Patient alive or dead	Alive Dead Lost in follow-up Opted-out	If dead then answer question 3.2
111	3.2.	Date of death	Patient's date of death	 Date (dd/mm/yyyy) 	
4. Care pathway	4.1.	First contact with specialised centre	Date of first contact with specialised centre	Date (dd/mm/yyyy)	

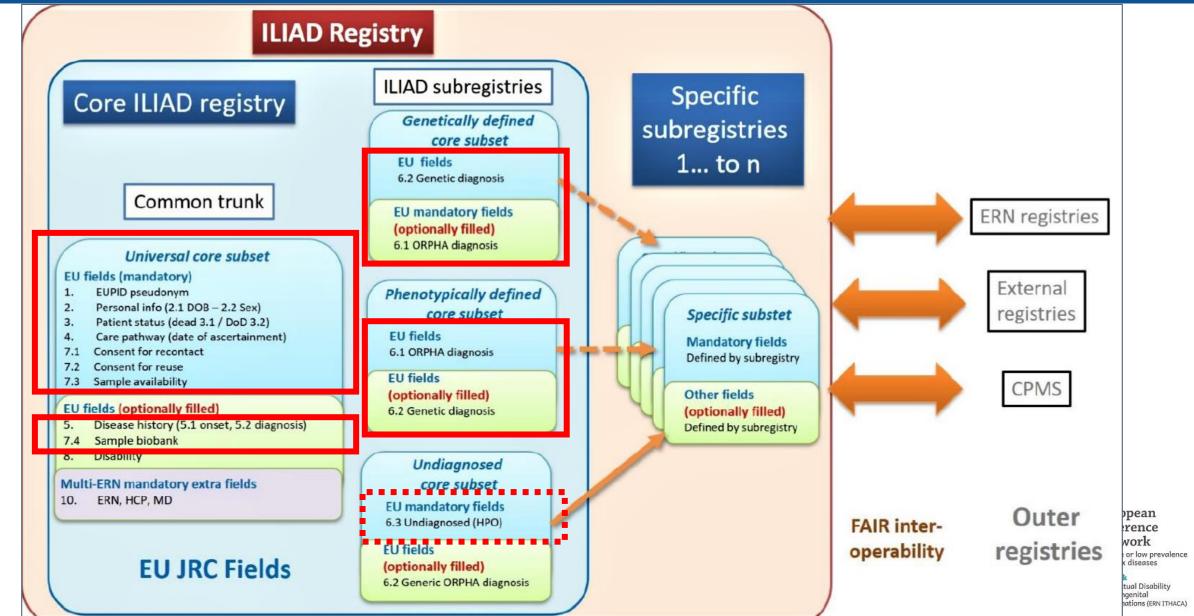


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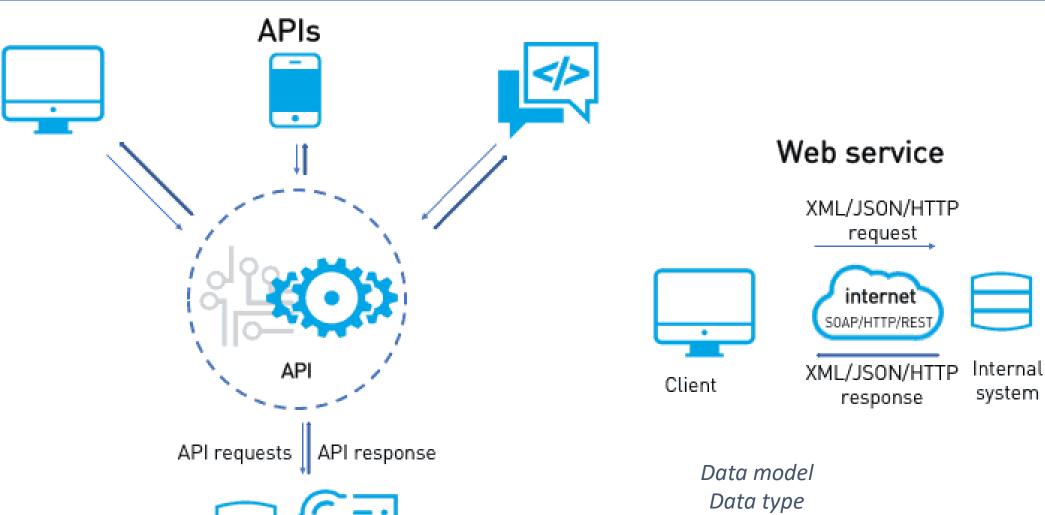
Registries parallel session - Connected database: OPBG Biobank DATA DATA **REPOSITORY REPOSITORY** #2 **DATA** #5 **REPOSITORY** #1 DATA **REPOSITORY** #n DATA **REPOSITORY** #3 DATA European DATA Reference **REPOSITORY REPOSITORY** #6 #4 for rare or low prevalence complex diseases

> Intellectual Disability and Congenital









Server/Data Source

Data model
Data type
Data Representation (data present in request and response payloads)
Server resource



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