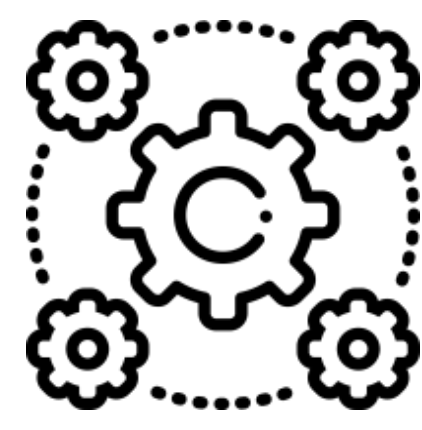
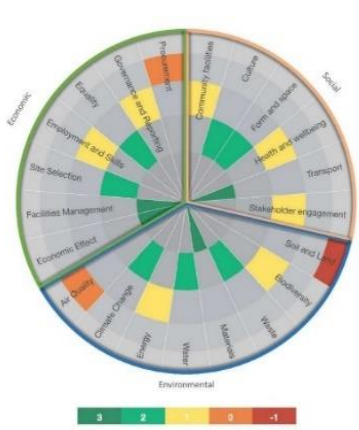


Data Management for Nanotechnology Risk Governance

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Data management core group: overall role and remit

The three NMBP-13 projects have a common data management core group with delegates from each of the three projects. Joint milestones were defined for the areas depicted below:



Data management plans

- covering all aspects & all types of data
- how we manage them effectively & efficiently
- alignment across 3 projects.

Quality/fitness for re-use scoring of datasets

- consensus & development of standards
- implementation of tools & workflows

Datasets to support case studies

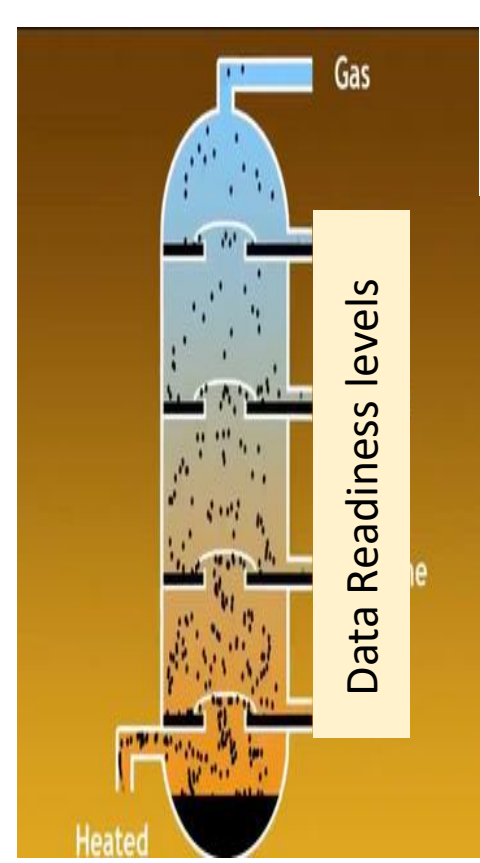
- integrated datasets will be compiled using agreed standards

Interoperability and automation

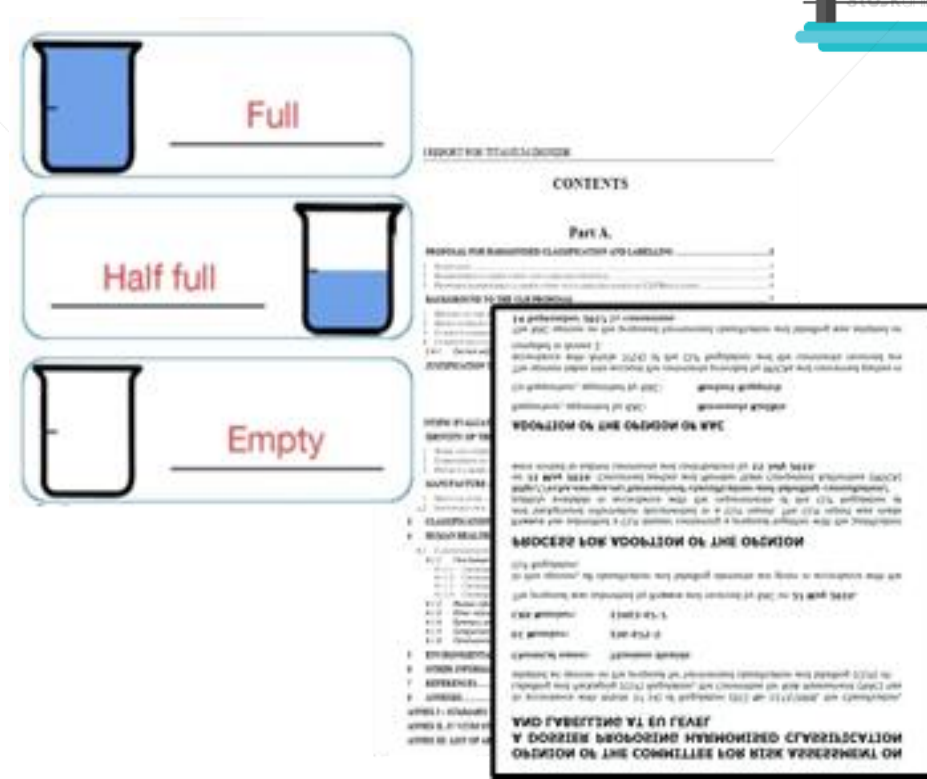
- through optimisation of uptake of existing tools and development of "bridging" tools

Whereas NANORIGO is focused on defining concepts and user needs, in RiskGone and Gov4nano the emphasis is on operationalisation / implementation of nanosafety data and FAIR solutions. Together, the 3 projects cover the whole data management spectrum to enable the risk governance of nanomaterials and provide knowledge in a useful format for the Nanomaterials Risk Governance Council (NRGC) once established.

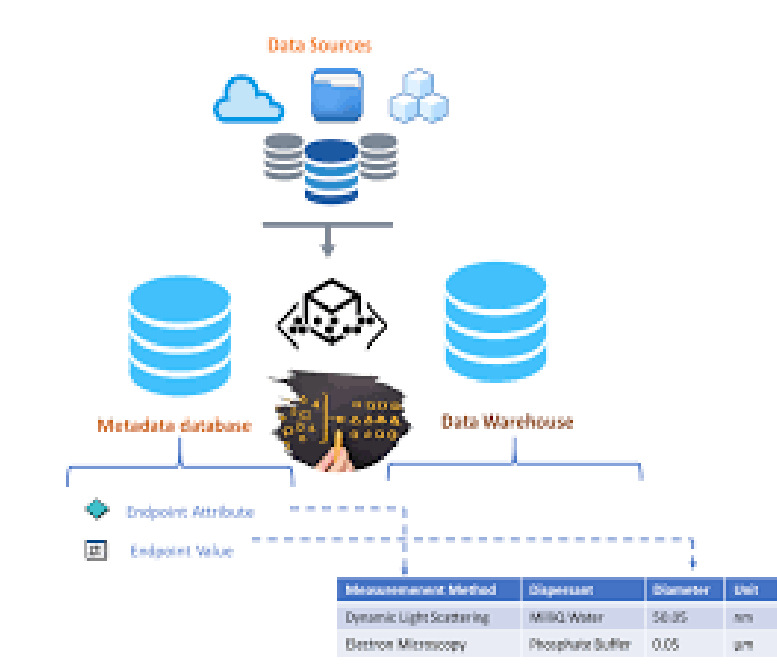
Conceptualisation & user needs documentation



Community consensus on data standards (metadata, FAIR metrics) => stepwise SOP for data quality / re-usability



Operationalisation & automation (tooling) to facilitate data re-use, decision making & sustainability



Joint Milestone: Glossary of key terms related to data management

KEY TERM	DEFINITION	REFERENCE
Database	A digital data archive typically based around a relational model but sometimes using an object-oriented, tree or graph-based model.	http://edamontology.org/data_0581
Databank	A flat-file (textual) data archive.	http://edamontology.org/data_2831
CLOUD	Server or network of servers, accessed remotely.	
FRAMEWORK	A set of elements (e.g. ideas, best practices, regulatory provisions) organised in a conceptual manner, which constitute a frame of reference for a certain topic or issue.	JRC (2016) NANoREG harmonized terminology for environment
HARMONISATION	The term 'harmonisation' can be defined as the establishment of a common and coherent basis in a certain field/activity or for a certain scope.	JRC (2016) NANoREG harmonized terminology for environment
MODEL		
PLATFORM		
PORTAL	A Resource that provides a point of access to information on the World Wide Web, presenting information from diverse sources in a unified way.	http://bioontology.org/ontologies/BiomedicalResourceOntology.owl#Portal
SOFTWARE	A set of coded instructions, which a computer follows in processing data, performing an operation, or solving a logical problem, upon execution of the program.	http://ncicb.nci.nih.gov/xml/owl/EVS/Thesaurus.owl#C17146
TOOL	A bioinformatics package or tool, e.g. a standalone application or web service.	http://edamontology.org/data_0007
Identifier	A text token, number or something else which identifies an entity, but which may not be persistent (stable) or unique (the same identifier may identify multiple things).	http://edamontology.org/data_0842

"Living document" to support needs of all Core groups & projects

Joint Milestone: Prioritization of databases to make interoperable

- Inventory of databases – content / maintenance / API access
- Inventory of data uses (by NRG)
- Analysis and synthesis of priority list in progress

Alignment with NRG needs & Cloud Platform architecture



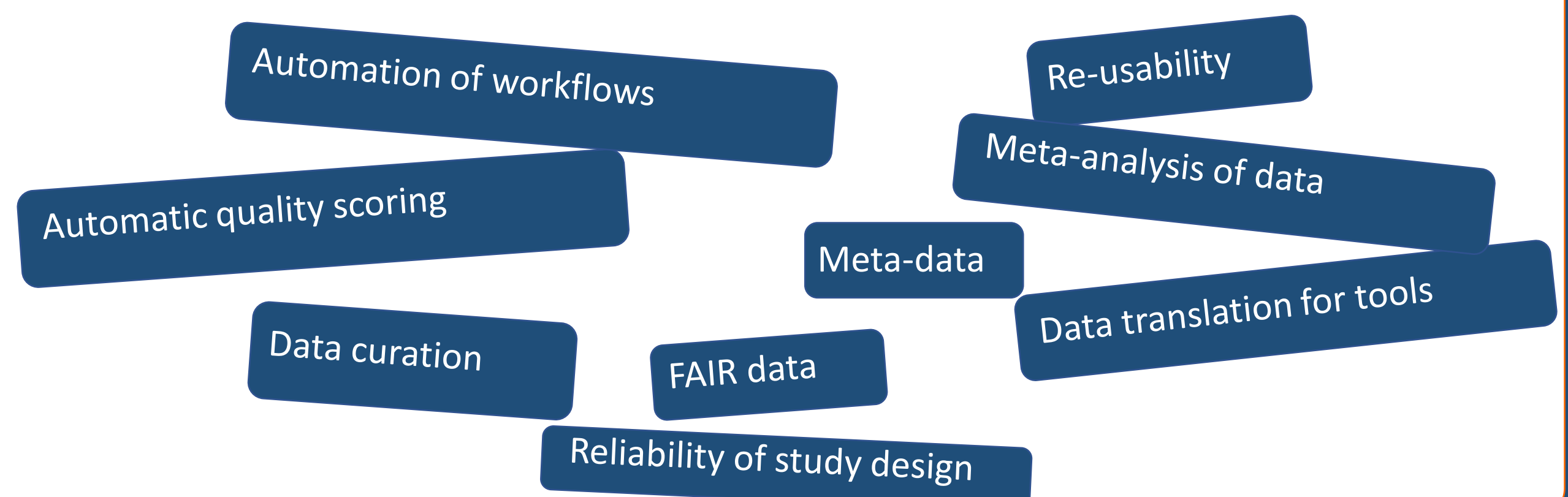
Joint Milestone: Agreed access and criteria for curating and verifying / validating older project datasets for re-usability

Paper in preparation on:

- Optimization and automation of workflows
 - for evaluation of dataset quality, completeness and fitness of purpose
 - for re-use by diverse end-users and stakeholders

Work in progress

Contributors from NANORIGO, Gov4nano, RiskGone, NanoCommons, NanoSolveIT and NanoInformaTIX projects.



Joint milestones on alignment of the project's data management plans



Work in progress

Joint Plan for jointly created outputs & NRG inputs

NMBP-13 Collaboration: 3 projects; 82 partners; 17 EU countries and Brazil, India, Iran, Switzerland, South Africa, Republic of Korea, the UK, and the USA; **Budget:** € 18.3 million; **Duration:** January 2019 – February 2023

www.gov4nano.eu

www.nanorigo.eu

www.riskgone.eu

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