

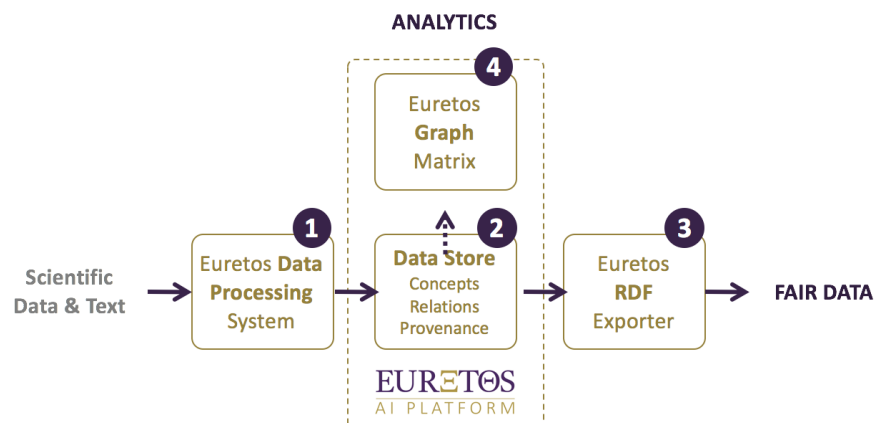
Proposal FAIR Data - Value Demonstration Event

This document focuses on an essential aspect of FAIR data: **what is the value to the user/researcher?** FAIR data is in itself an abstract concept and runs the risk of being a too IR centric activity. Achieving success with the implementation of FAIR data basically mandates that the value to the researcher needs to be demonstrated and experienced as early as possible in any FAIR data implementation program.

In order to demonstrate the value, Phortos Consultants, in collaboration with FAIR Data Service Provider Consortium partner Euretos, offers a so-called '**FAIR Data Value Demonstration Event**'. Within limited preparation a selection of raw data sources are processed and output as FAIR data and, more importantly, automatically integrated into the Euretos AI platform for end user access. Biological researchers can then experience immediately the value of integrated FAIR data while the data specialist have the underlying FAIR data to work with.

Phortos Consultants is the leading consultancy party in the area of FAIR data, having been involved with the movement from the very beginning. It's partner, Euretos provides a market leading AI platform used by pre-clinical researchers for **in-silico discovery & validation of targets and biomarkers**, including **indication expansion**. World leading pharma, biotech and academic institutions use it to **accelerate multi omics research** in all major disease areas. This platform is unique in having all the key elements already in place to demonstrate the value of FAIR data:

1. An **existing ontological and semantic framework** that enables highly accurate concept recognition. For structured sources, a fine-meshed relationship typing is also possible. This enables a FAIR output where each individual data item is 'FAIR': referring to a publicly known concept identifier.



2. An **operational, high performance data processing system** (the Euretos Data Processing System) that, based on the ontological and semantic framework, is able to create FAIR (meta) data on a large scale.
3. The ability to **export data in binary (ie performant) form**, which can be exported in multiple usage formats, including rdf-xml, n-triples, turtle, n3, trig, n-quads, trix, and rdf-json.
4. The possibility to do **immediate high performance analytics** based on the Euretos linearly scalable graph Matrix, such as semantic search, automated workflows with embedded analytics and machine learning.

As stated above, The value demonstration event is especially aimed at researchers involved in target and biomarker research and is ready to integrate all the required data used in this area such as genetic, genomic and proteomic annotations, expression profiles, experimental and animal models, diseases, phenotypes, pathways, small molecules - covering metabolites, food ingredients, as well as therapeutic agents (antibodies and peptides) data.

A FAIR value demonstration event requires limited time investment from the data owner and involves the following stages:

1. Initial Customer engagement (about 6 weeks in advance)

- Identification of a research question and at least one (ideally more) involved researchers.
- Identification of the data that should be integrated in support of the research question, including contact with the potential data owners managing the data.

2. Event preparation

In order to run a best possible event significant preparations will be undertaken by the consulting team including the following activities:

- Analyzing all required data that needs to be loaded
- Loading of the data
- Initial research activities to answer the research question (including the loaded data)
- Initial scientific review of the research outcome with the customer's research team
- Implementation of changes coming out of the initial scientific review

3. The event

Based on this preparation the FAIR Value event will be held. This will take 2 to 3 days, depending on the level of detail required, which will become clear in the preparation phase. The event will focus on 3 tracks:

- Introduction day to FAIR. This is lead by Phortos Consultants and can also be done as a separate (on-site) event
- Technical session where the data specialists evaluate the FAIR data and are demonstrated the process of FAIRification. This will include the following activities:
 - Analysis of the core data
 - Configuration of the Euretos Data Processing System to load the data
 - Export of the data in binary RDF
 - Integration options, either using the exported RDF or direct access to the Euretos API
 - Evaluation of the value and next steps for the post event evaluation.
- End user session (1 day) where the research question is discussed and demonstrated with the researchers in a highly interactive session which will focus on:
 - The data that has been loaded to answer the research question
 - The outcome of the research, focusing on key aspects of the disease mechanism in the context of the specific customer question (i.e. target validation, biomarker discovery, target identification, indication expansion etc).
 - The demonstration of how the various capabilities from the Euretos AI Platform that have been used to answer the research questions such as semantic search, various embedded analytics functionalities and end to end workflows (such as target validation and transcription regulation analysis.

4. Post event Evaluation (within 2 to 4 weeks after the event)

- After the event, the researchers will be given access to the AI platform to asses the results in the period till the final evaluation
- FAIR data call where open issues or questions from the event will be discussed and potential next steps will be agreed
- Research call where open issues or questions from the event will be discussed and potential next steps will be agreed

NOTE: The FAIR Data Value Event can also be delivered with ‘canned’ data so much preparation is needed. The value for researchers and IT specialists working with their own real data is proven to be more convincing and enticing.