

FAIRification Objectives

Definition

A FAIRification objective is the end goal that the owners of a resource are looking to achieve with the process of FAIRification. It needs to be based on the research question, the data available in the resource, the expertise of the FAIRification team, available FAIR solutions and the availability of budget and appropriate infrastructure ¹.

The objectives can be defined in two complementary perspectives. First, there are the objectives related to the driving research question. Second, there are the objectives related to the FAIRification process *per se*. In the first case, the objectives will be achieved once FAIR data is available. In the second case, the objectives will be achieved once the FAIRification process is completed. The result of the FAIRification process will be the FAIR data that satisfies the first group of objectives.

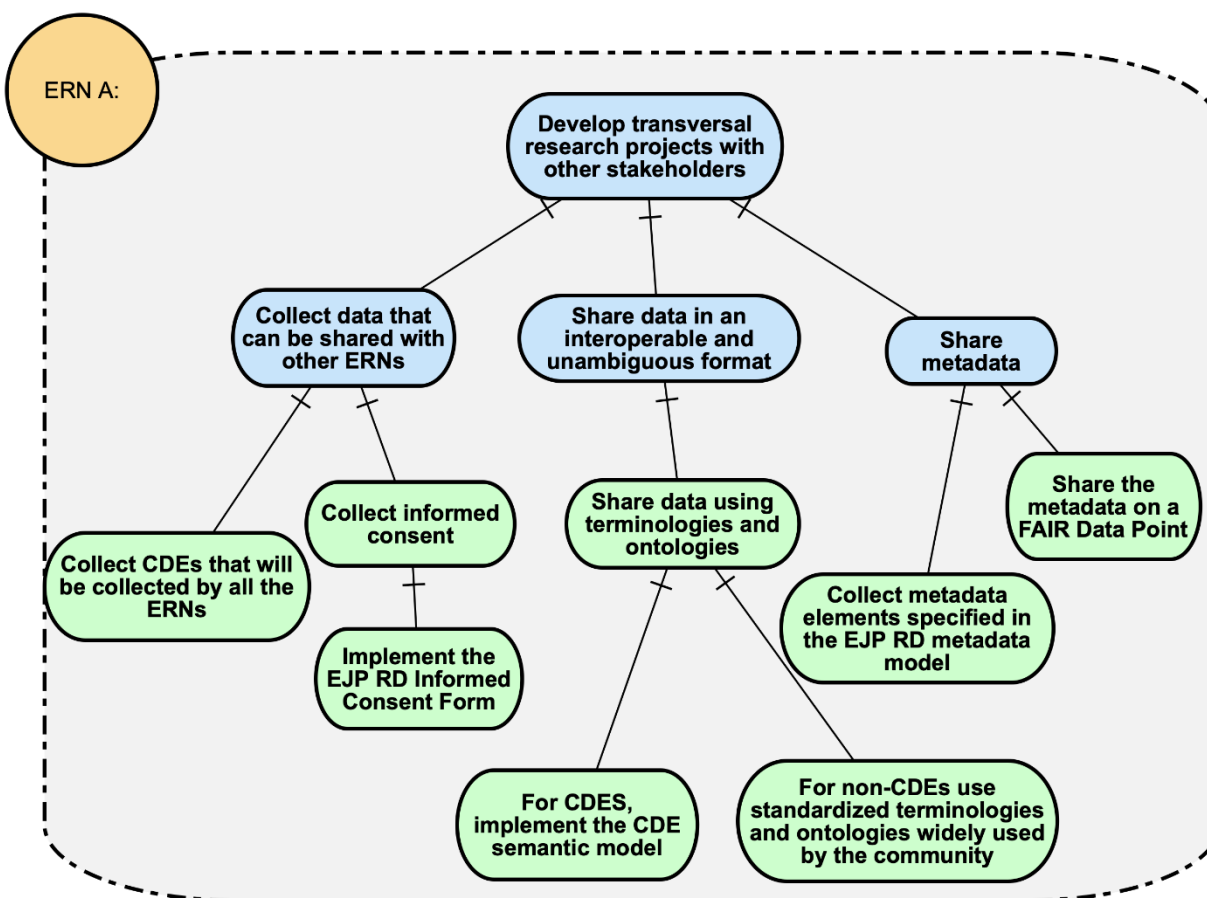


Figure A – Goal diagram of research question and FAIR related objectives. Objectives in light blue are related to the research question, while objectives in light green are related to FAIRification objectives. The lines between goals define refinement directions.

To exemplify: ERN A has, as main research objective that is to "Develop transversal research projects with other stakeholders". To achieve this objective, the ERN needs its data to be interoperable with other ERNs, and this interoperability is achieved through the I of FAIR. These initial, high-level objectives can then be refined into more specific ones that clearly state the steps needed to achieve main goal. Some work in progress suggests the use of goal diagrams to illustrate the research and FAIRification related objectives. An example of a goal diagram with the objectives mentioned in the example above is shown in figure A.

In Figure A, the main objective "Develop transversal research projects with other stakeholders" is refined into three more specific ones that are still related to the research question: "Collect data that can be shared with other ERNs", "Share data in an interoperable and unambiguous format", and "Share metadata". Then, the three mentioned objectives are refined into FAIRification related ones, which already address how the research question ones can be operationalised. For example, "Share data using terminologies and ontologies" is a mean to achieve the objective "Share data in a interoperable and unambiguous format".

It is recommended that the identified objectives are validated with all people involved. The objectives identification step is usually done in several iterations. Thinking about the FAIRification steps is also a way to identify different FAIRification objectives.

References:

1. Jacobsen A, Kaliyaperumal R, Santos LOB da S, et al. A Generic Workflow for the Data FAIRification Process. *Data Intell.* 2020;2(1-2):56-65. doi:10.1162/DINT_A_00028