

Objective
Present a basic conceptual model of the IDS domain and provide the user with a view of the data sovereignty aspects, legitimacy of participants, and the economic agreement for data exchange within these spaces. With the ontology, it should be possible to instantiate IDS organizational models according to the RAM-IDSA parameters, as well as retrieve information for the analysis of the models in the three mentioned aspects.
Scope
The ontology is aimed at modeling IDS organizational forms with their basic components, focusing solely on economic, data sovereignty, and legitimacy aspects. Its level of detail is directly related to the competence questions.
Implementation Language
The reference ontology should be implemented in OntoUML, serialized in Turtle, and operationalized in OWL.
Expected End Users
<ul style="list-style-type: none"> • Managers and entrepreneurs; • Public and private organizations; • Software engineers.
Use Cases
<ul style="list-style-type: none"> • Assist in the development or analysis of IDS business models; • Allow understanding of the IDS value proposition under the aspects of data sovereignty, legitimacy, and economic agreement; • Serve as a reference model for the development of IDS software or IDS graphical modeling.
Non-Functional Requirements
<ul style="list-style-type: none"> • RNF 1. Availability on the internet; • RNF 2. The ontology should be developed and documented at least in English; • RNF 3. The ontology should be interoperable with other ontologies from the same metaconceptual family of ontologies derived from UFO.
Competence Questions Group
<ul style="list-style-type: none"> • QC1. Who are the sovereign owners of their data? • QC2. Who are the legitimate participants in the IDS? • QC3. What are the data offers made? • QC4. Who is making economic agreements for data sharing? • QC5. What are the valuable objects negotiated in the economic agreements?