

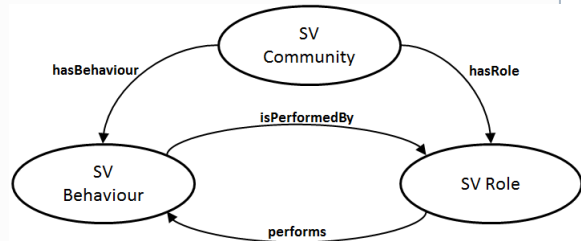
Science Viewpoint

The Science Viewpoint (SV) of the ENVRI RM captures the requirements for an environmental research infrastructure from the perspective of the people who perform their tasks and achieve their goals as mediated by the infrastructure. Modelling in this viewpoint derives the principles and properties of model objects through the analysis of the structure and functionality of organisations, people interacting within and around those organisations, and rules governing the interactions.

Two requirements engineering efforts in the ENVRI and ENVRIplus projects revealed the existence of a common lifecycle for the data produced, shared, and processed by research infrastructures. The five phases of the data lifecycle are *Data Acquisition*, *Data Curation*, *Data Publishing*, *Data Processing* and *Data Use*. Correspondingly, the **SV Community Behaviours** that support these five phases in order to collaboratively conduct scientific research, from data collection to the delivery of scientific results, can also be grouped in the same way. Such groups are called **communities** in ODP. The Science Viewpoint defines what those **SV Communities** are, what kind of **roles** they have, and what main **behaviours** they act out.

- **SV Communities**
- **SV Community Roles**
- **SV Community Behaviours**

i The Science Viewpoint defines communities with their community behaviours and roles. The diagram below shows the main elements of the science viewpoint and their relationships. Each ellipse contains a concept. The arrows connecting the concepts are directed and indicate the relationship between to concepts. The label of the link indicates the type of relationship. From this, the diagram indicates that SV behaviours are performed by SV roles. This is represented by two relationships, **isPerformedBy** and **performs**.



Science Viewpoint objects and their relationships