

## **Designing identifiers: The approach in France in general and at IGN France in particular**

When an Inspire infrastructure is designed, many issues are raised to make sure that the infrastructure will be interoperable, useful and convenient to maintain, many issues that go beyond Inspire requirements. Building persistent identifiers is one of these issues. The path to URI (Unique Resource Identifiers) has required several steps.

The first step was at the general French level. It was necessary to define national recommendations to make sure the national infrastructure would be working. Based on the ARE3NA study about PIDs, guidelines have been designed. This document has two aspects:

A pedagogic aspect first: Defining PIDs seemed a huge amount of work for many data providers. The guidelines contain an overview of existing technologies, their advantages/disadvantages and on which criteria you could pick one or the other.

A minimum set of requirements: Some data providers had already defined PID so the goal was to minimize the impact of these guidelines. It appeared that the moot point in the Inspire infrastructure was to be able to make a link between dataset metadata and the service that serves this dataset. Thus, the main recommendation has been to recommend a resolvable data identifier, pointing at least to the dataset metadata.

Once these guidelines have been published, IGN France has decided to work on a new URI policy. This definition was done in a context where a new database product was being designed. We had the experience of the Datalift research project around linked data and of IGN register. The choice was quickly made to use persistent URLs as identifiers. The work was carried out in a group gathering people from different backgrounds: production, research, standardization, Inspire and developments. The first step was to define on which kind of resources an identifier had to be defined (objects, metadata, CRS, documents, etc). Then for each kind of template a URL pattern was designed. This pattern had to take into account existing identifiers, potential use cases and best practices from other organisms and from the datalift project. Future works will consist in defining on which kind of resources these URLs will point and developing a redirection tool, able to point to these resources. It is still a work progress and there is a lot to do to be able to produce linked data but this first approach to sensitize producers with a first reasonable step.