

IGN

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DESIGNING IDENTIFIERS

THE APPROACH IN FRANCE IN GENERAL AND AT IGN FRANCE IN PARTICULAR






European guidelines

- **Source document :**
- ARE3NA Study on RDF and PIDs for INSPIRE (Deliverable D.TD.04)
 - A very comprehensive study
 - 3 different PID governance approaches:

A

Diversification

 AS-IS

B

Unification

C

Coordination



At national level



- **Publish national guidelines :**
 - CNIG formed a group to write guidelines on URI
- **Use a coordination approach**



- **Consider all kinds of resolvable URIs : HTTP URIs and identifier coupled with a resolver.**



At national level



- Priority fixed to resource identifiers for this guideline (ie not object identifiers)
- Main objective: Solve issue about linking data metadata and service metadata !

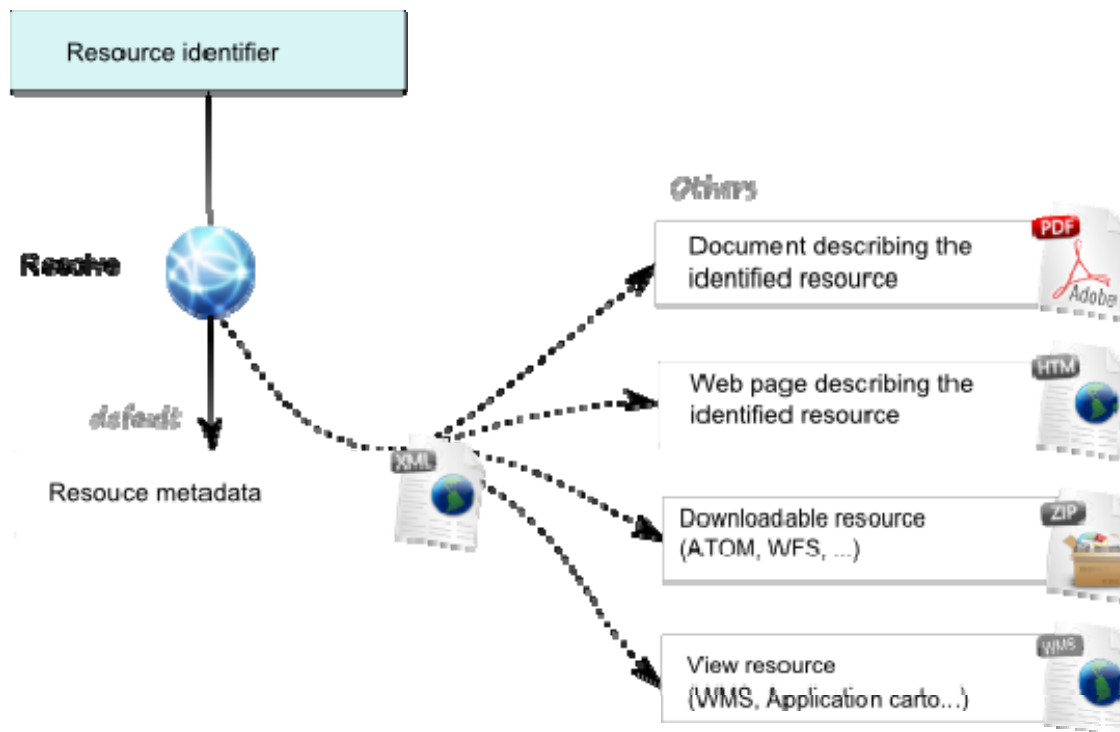


At national level



■ One requirement :

- Resource identifier should point to resource metadata



At national level



- Only one requirements but many guidelines to answer common questions :
 - Which technologies should be chosen ?
 - Presentation of HTTP URIs, DOI, URN, uuid
 - Details on different criteria (unicity, opacity, cost, etc)
 - Feedback from users
 - How to set up a URI governance ?

- Guidelines available here :
 - <http://cnig.gouv.fr/wp-content/uploads/2016/02/GuideIRU-corrig%C3%A9-v2.pdf>



At IGN France



- **Defining URIs has been a never ending issue :**

- When setting up registers
- To reach the world of linked data
- Starting to transform our data to Inspire data



✓ Creation a new product was finally the occasion to start the process

- Do not start too big !



At IGN France



- **1. Identify resources that needed an identifier:**
 - feature objects and dataset
 - vocabularies
 - Feature description (feature catalogs)
 - metadata
 - real-world concepts (eg monumented control point)
 - informational resource
 - document





■ 2. Define a URL pattern for each resource:

- « feature » : feature objects and dataset
- « def » : vocabularies
- « fc » : feature catalogs
- « set » : metadata
- « id » : real-world concepts
- « doc » : informational resource
- document

Linked data world vs database oriented world :

- Difficulty to define vocabularies for our projects
 - -> Decided to create a “fc” branch more database oriented and to keep “def” clean with what was existing in Datalift project.





■ 2. Define a URL pattern for each resource:

- « feature » : feature objects and dataset
- « def » : vocabularies
- « fc » : feature catalogs
- « set » : metadata
- « id » : real-world concepts
- « doc » : informational resource
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Pattern: <https://data.ign.fr/feature/{product-name}/{class-name}/{object-id}/{attribute-name}>

Example: <https://data.ign.fr/feature/bdparcellaire/parcelle/1132154>
[https://data.ign.fr/feature/INSPIRE Hydrography LOD2/Watercourse/216534](https://data.ign.fr/feature/INSPIRE_Hydrography_LOD2/Watercourse/216534)



At IGN France



Before :

Namespace FR_IGNF_BDTOPO_HY_MET
LocalID 216534



After : (not fixed yet)

LocalID https://data.ign.fr/feature/INSPIRE_Hydrography_LOD2/Watercourse/216534
Namespace ?





■ 3. Accept that there are exceptions:

- « feature » : feature objects and dataset
- « def » : vocabularies
- « fc » : feature catalogs
- « set » : metadata
- « id » : real-world concepts
- « doc » : informational resource
- Document : many practices already exist, study if we can use an existing identifier system (e.g. DOI)





■ 3. Accept that there are exceptions:

- « feature » : feature objects and dataset
- « def » : vocabularies
- « fc » : feature catalogs
- « set » : metadata
- « id » : real-world concepts : no responsible for real-world concepts excepts geodetic points
- « doc » : informational resource
- document

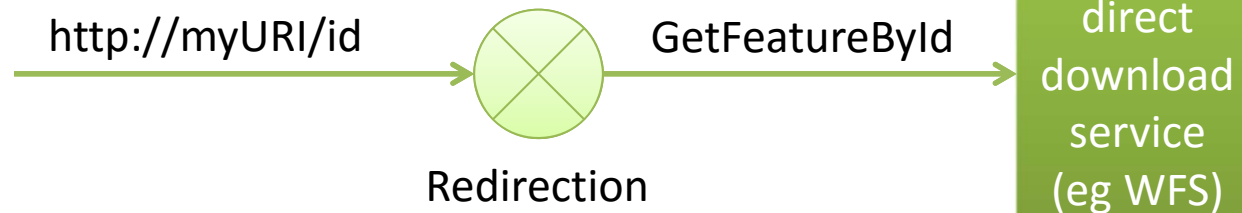




■ 4. Be prepared for future work!

- Build up a system that make URL resolvable
 - To what it should point ? Redirections ? Content negotiation ?

Example for features:



Final advices

- **Do not be too ambitious**
 - Otherwise you will not succeed in your task (maybe not even start)
- **Do not be too shy**
 - Otherwise you will have a painful harmonisation later

