



Food and Agriculture Organization  
of the United Nations

>> FAO Statistics Division

# Towards an International Network of Knowledge for Statistical Data

## Caliper Deployment at the UN Global Platform

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# Today

1. Overview of Caliper
2. A network of resources
3. A network of partners



A set of **tools** and **methodologies** for the management of statistical classifications along their entire lifecycle.

Driving principle: statistical metadata and classifications are public goods and as such should be treated

- The FAO **website** for the dissemination of statistical classifications
- A UNSD-FAO-BC3 **partnership** on the Global Platform to manage the entire lifecycle of the International Family of Statistical classification.

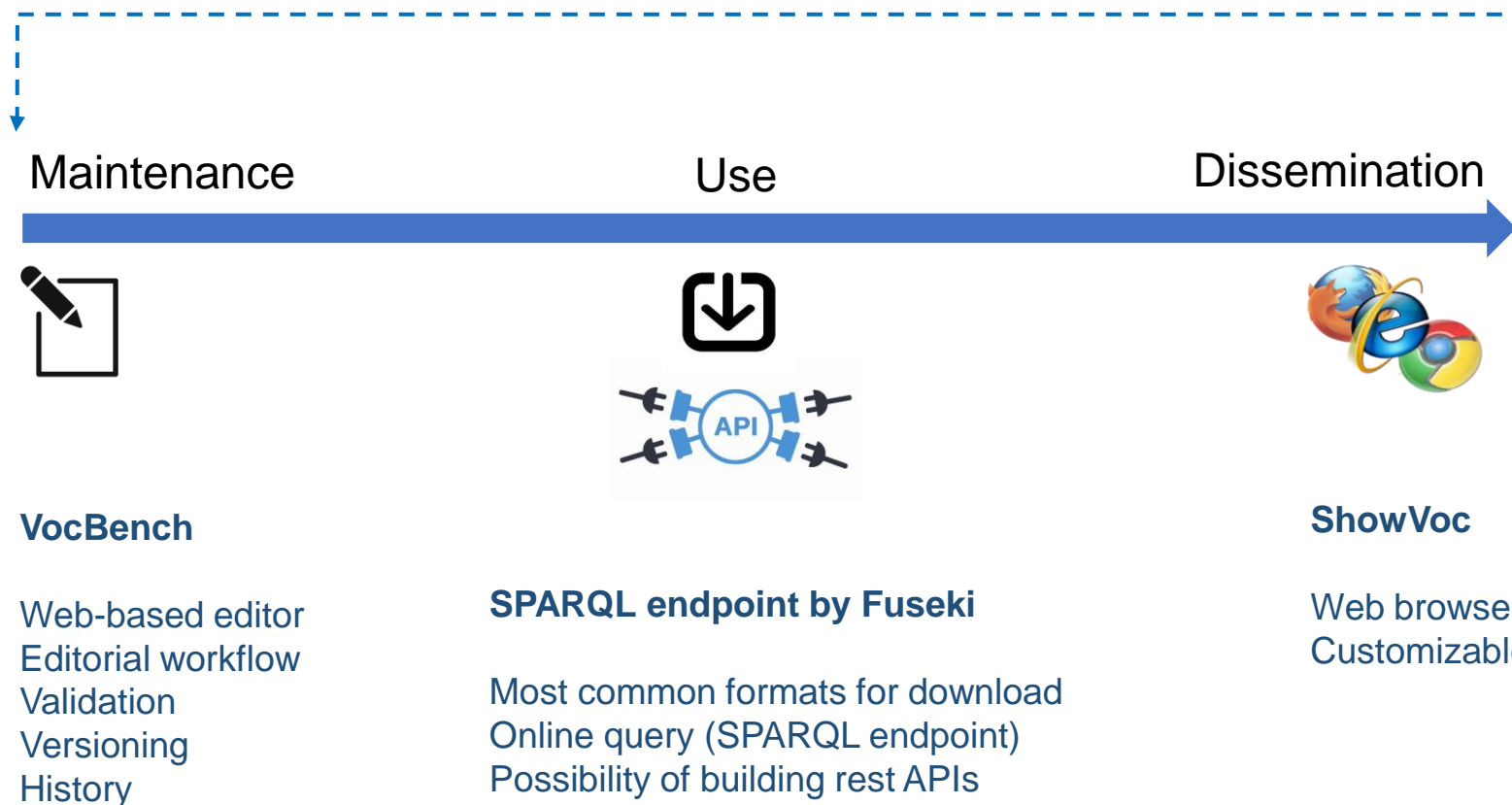
# Caliper's deployment at the Global Platform

Currently, all services associated to Caliper are deployed at BC3 (since 2022, thematic node of the UN Global Platform)

1. A “Prod” instance, open access
2. A “Dev” instance, password protected

FAO coordinates the update of a docker containing latest released of the tools used.

# Statistical classifications lifecycle & Caliper architecture



# Statistical classifications as Linked Open Data

## Linked & FAIR!



- Web technologies (HTTP, URIs)
- Standard models and metadata scheme (RDF, DC, SKOS, XKOS,)
- Open formats for data (CSV, JSON, RDF, XML)
- Open-source software (VocBench, ShowVoc, Fuseki)
- Thorough documentation

# A network of resources



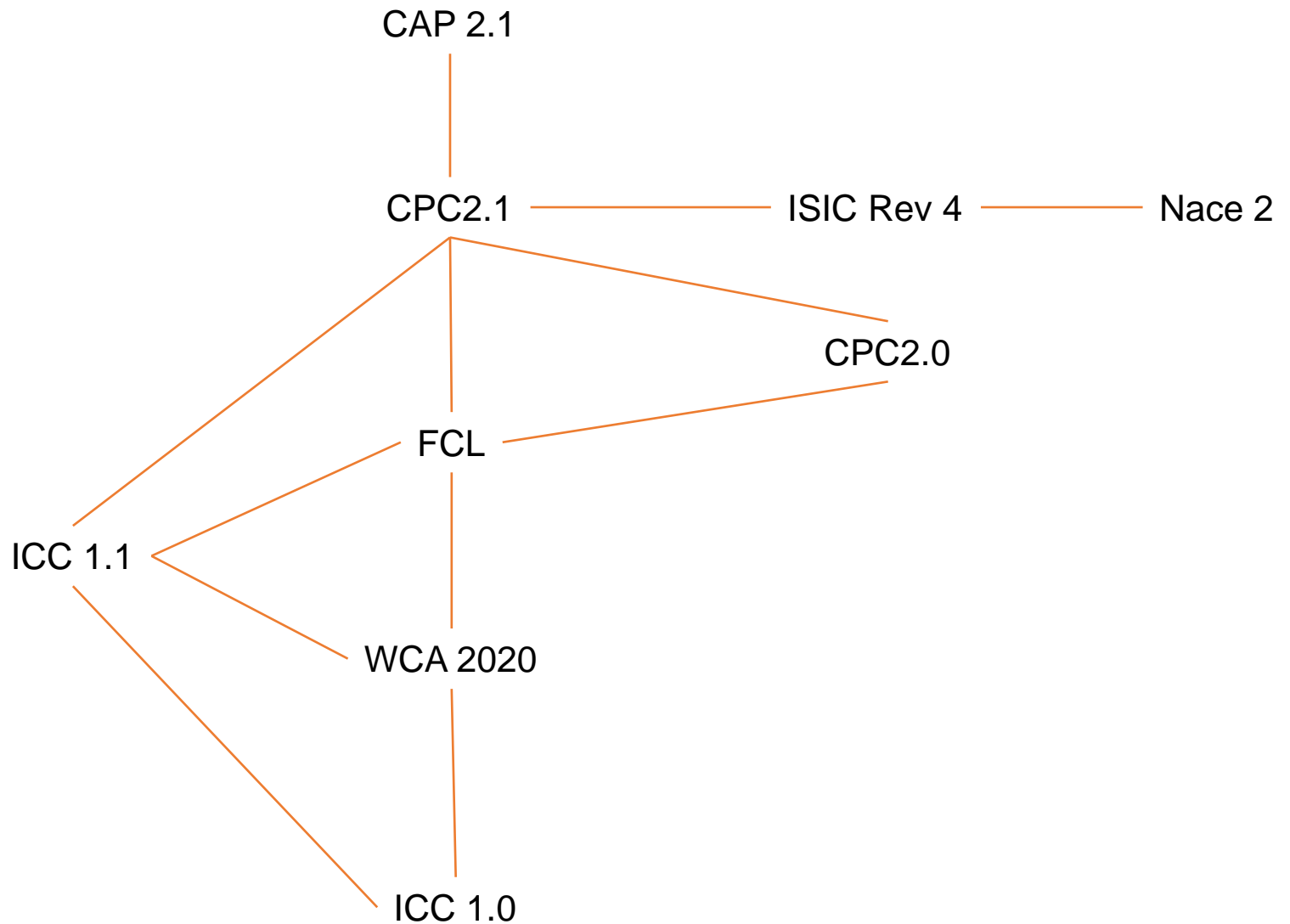
# Statistical classifications are “naturally” linked

## Linked & FAIR!

- Web technologies (HTTP, URIs)
- Standard models and metadata scheme (RDF, DC, SKOS, XKOS,)  
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# A network of resources




# Uniform interface for querying the data

## SPARQL API endpoint

- Single access point to fire multiple queries
- REST APIs can be built on top




*Example (from website)*

 <https://stats.fao.org/caliper/sparql/AllVocs>

### Queries on classifications' items

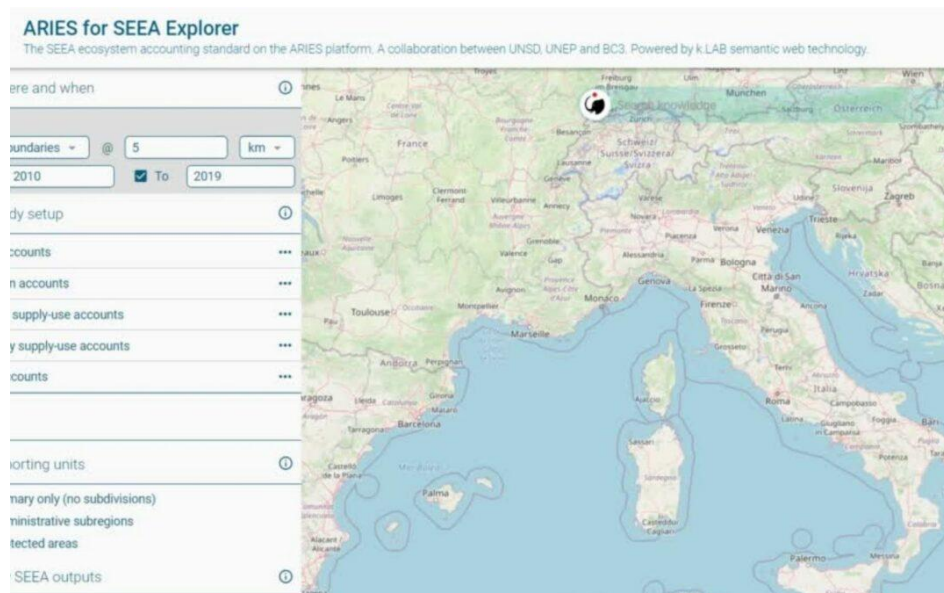
List all items in a given classification (with code, EN label, URI; sorted by code)

```
SELECT ?code ?label_en ?concept WHERE {  
  ?concept rdf:type skos:Concept .  
  ?concept skos:inScheme <[scheme_uri]> .  
  ?concept skos:prefLabel ?label_en . FILTER(lang(?label_en)='en') .  
  ?concept skos:notation ?code .  
} order by ?code
```

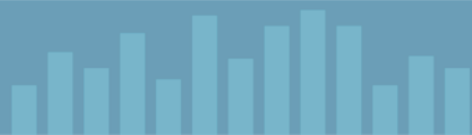
Table Raw Response Pivot Table Google Chart Geo 				
Showing 1 to 50 of 196 entries (in 0.164 seconds)				
code		label_en		concept
1		"Cereals"@en		<a href="https://stats.fao.org/classifications/ICC/v1.1/1">https://stats.fao.org/classifications/ICC/v1.1/1</a>
1.01		"Wheat"@en		<a href="https://stats.fao.org/classifications/ICC/v1.1/1-01">https://stats.fao.org/classifications/ICC/v1.1/1-01</a>
1.02		"Maize"@en		<a href="https://stats.fao.org/classifications/ICC/v1.1/1-02">https://stats.fao.org/classifications/ICC/v1.1/1-02</a>
1.03		"Rice"@en		<a href="https://stats.fao.org/classifications/ICC/v1.1/1-03">https://stats.fao.org/classifications/ICC/v1.1/1-03</a>
1.04		"Sorghum"@en		<a href="https://stats.fao.org/classifications/ICC/v1.1/1-04">https://stats.fao.org/classifications/ICC/v1.1/1-04</a>
1.05		"Barley"@en		<a href="https://stats.fao.org/classifications/ICC/v1.1/1-05">https://stats.fao.org/classifications/ICC/v1.1/1-05</a>
1.06		"Rye"@en		<a href="https://stats.fao.org/classifications/ICC/v1.1/1-06">https://stats.fao.org/classifications/ICC/v1.1/1-06</a>
1.07		"Oats"@en		<a href="https://stats.fao.org/classifications/ICC/v1.1/1-07">https://stats.fao.org/classifications/ICC/v1.1/1-07</a>

# Example of application – Caliper and ARIES for SEEA

ARIES uses Caliper as a repository of “authorities” to interpret the meaning of statistical data produced by a community of distributed data producers



# A network of partners



# Caliper at the Global Platform

## Partnership with FAO, UNSD, BC3

Custodians benefit from common infrastructure, while keeping control on their data and editorial workflow (within an agreed governance)



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# Benefits from the partnership

Standard modelling & web technology stack translate into:

1. Uniform interface for programmatic manipulation
2. Integration with other domains and classifications
3. Off the shelf, open-source tools available
4. Better reuse and interoperability of data
5. Sharing costs

# Thank you!

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