AgroPortal: A Proposition for Ontology-Based Services in the Agronomic Domain

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To cite this version:

HAL Id: lirmm-01397465
https://hal-lirmm.ccsd.cnrs.fr/lirmm-01397465
Submitted on 15 Nov 2016

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**AgroPortal**

*a proposition for ontology-based services in the agronomic domain*

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**The challenge**

Biologists have adopted ontologies (knowledge representation, annotation, data integration)... But ontologies are: spread out, in different formats, of different size, with different structures.

→ How to enable straightforward use of agronomic ontologies?

→ Develop and support a reference ontology repository for the agronomic domain

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**Reuse NCBO technology**

NCBO Biportal: a web repository for biomedical ontologies:

- Users can publish, download, browse, search, comment, align ontologies and use them for annotations both online and via a web services API.
  - [http://bioparal.bioontology.org](http://bioparal.bioontology.org)
- Domain independent & open source
- Fully semantic web compliant
- Focus on biomedicine
- Many plant/agronomy related ontologies are not covered

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**Driving Uses-Cases**

- IBC Rice Genomics & AgroLD project ([http://agrol.org](http://agrol.org)):
  - RDF data integrated from a variety of plant resources and ontologies

- RDA Wheat Data Interoperability working group:
  - common framework for describing, representing, linking and publishing wheat data with respect to open standards

- INRA Linked Open Vocabularies, ([http://lovinra.inra.fr](http://lovinra.inra.fr)):
  - publish vocabularies produced or co-produced by INRA scientists and foster their reuse beyond the original researchers

- The Crop Ontology ([www.cropontology.org](http://www.cropontology.org)):
  - publishes ontologies required for describing crop germplasm, traits and evaluation trials

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**Search**
- **Mapping**
- **Versioning**
- **Peer review**
- **Community notes**
- **Multiple formats**
- **Projects**
- **Resources**
- **Annotation**
- **Recommendation**
- **Metadata**
- **Slices**
- **REST API**
- **SPARQL endpoint**

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In collaboration with [SIFR project](http://www.lirmm.fr/sifr)

With support of [INRA](http://www.inra.fr)