

Crop Ontology new web site using a graph database

Project Title: P1541 - CoP Ontology Module 2

Description of the innovation: The Crop Ontology web site has been redeveloped using a graph database called NEO4J, along with an Elastic search based index, and a CMS. NOE4J is used by several ontology tools like the Ontology look up service of EMBL-EBI, or by Stanford University for labelled property graph. Ontologies are downloadable in RDF or in Excel.

New Innovation: Yes

Stage of innovation: Stage 3: available/ ready for uptake (AV)

Innovation type: Other

Geographic Scope: Global

Number of individual improved lines/varieties: <Not Applicable>

Description of Stage reached: The graph based web site was publicly released in November after a round of user tests. This web site is used by a group of 32 curators to publish crop specific ontologies. The new web site provides improved curation and display features.

Name of lead organization/entity to take innovation to this stage: CIAT (Alliance) - Alliance of Bioversity and CIAT - Regional Hub (Centro Internacional de Agricultura Tropical)

Names of top five contributing organizations/entities to this stage: <Not Defined>

Milestones:

- 2.1.5. 2020 - Communities of Practice around geospatial data, socioeconomic data, ontologies, data-driven agronomy, livestock data, and crop modeling establish CoP networks across CGIAR and produce outputs addressing key constraints in data and analytics.

Sub-IDs:

- 45 - Increased capacity for innovations in partner research organizations

Contributing Centers/PPA partners:

- Bioversity (Alliance) - Alliance of Bioversity and CIAT - Headquarter (Bioversity International)

Evidence link:

- <https://cropontology.org/>

Deliverables associated:

- D24244 - Renewed Crop Ontology web site using graph technology and CMS published (<https://croponontology.org/>)

Contributing CRPs/Platforms:

- BigData - Platform for Big Data in Agriculture