TOGGLe, a flexible framework for easily building complex workflows and performing robust large-scale NGS analyses

Project Title: P1677 - IRD contribution to flagship project 5

Description of the innovation: TOGGLe (Toolbox for Generic NGS Analyses), a simple and highly flexible framework to easily and quickly generate pipelines for large-scale second-and third-generation sequencing analyses, including multi-threading support. TOGGLe comprises a workflow manager designed to be as effortless as possible to use for biologists, so the focus can remain on the analyses. Embedded pipelines are easily customizable and supported analyses are reproducible and shareable.

New Innovation: No

Stage of innovation: Stage 2: successful piloting (PIL - end of piloting phase)

Innovation type: Research and Communication Methodologies and Tools

Geographic Scope: Global

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

Description of Stage reached: TOGGLe is a workflow manager designed to be as effortless as possible to use for biologists. Pipelines are easily customizable and supported analyses are reproducible and shareable. It is freely available at http://toggle.southgreen.fr/, and can be deployed onto HPC clusters as well as on local machines.

Name of lead organization/entity to take innovation to this stage: IRD - Institut de Recherche pour le Développement

Names of top five contributing organizations/entities to this stage:

- CIRAD - Centre de coopération internationale en recherche agronomique pour le développement

Milestones: No milestones associated

Sub-IDOs:

- 12 - Increased conservation and use of genetic resources

Contributing Centers/PPA partners:

- IRD - Institut de Recherche pour le Développement

Evidence link:

- http://toggle.southgreen.fr/
- https://www.biorxiv.org/content/10.1101/245480v2

Deliverables associated: <Not Defined>

Contributing CRPs/Platforms:

- Rice - Rice