

8. GenomeHarvest

ABSTRACT

Year : 200

Project number :

Type of funding :

Project type :

Research units in the network :

Start date : 2016-01-15

End date : 2019-10-15

Flagship project : yes

Project leader :

Project leader's institution :

Project leader's RU :

Budget allocated : €

Total budget allocated (including co-financing) : €

Funding :

GOAL

The project aims to develop models, methods and tools that will allow, among other things, to address the frequent inter(sub)specific hybridization events that are observed in the history of cultivated plants, through a number of case studies. The strength of the project lies, among other things, in the diversity of the species studied (citrus, banana, rice, coffee, tomato, groundnut, sugarcane). One of the underlying objectives is to bring together scientists from different fields around these questions (mathematicians, bioinformaticians, geneticists, etc.). The dissemination of the new tools and methods will be done through training sessions for the members and partners of the project and for scientists from the South.

ACTION

The program focuses on two aspects:

- * Developing mathematical models and computational methods to characterize inter(sub)specific genomes of crop plants (WP2) ;
- * Analyze the impact of genomic structure on chromosome transmission/recombination and gene expression (WP3).

RESULTS

Innovative bioinformatics methods have already been explored, improved and/or developed and are being exploited for the analysis of the structure and evolution of the genomes of a first circle of species of interest (rice, banana, citrus, coffee). These tools are integrated in bioinformatics platforms representing an important capital for the future. Several innovative results on the structure of the genomes of the first circle of species studied have been obtained and are being published.

In total, 2 post-doctoral fellowships, 4 theses and 8 internships (bachelor, M1 and M2), as well as an engineer CDD will have been financed completely or partially by the project.

Species studied: citrus, banana, rice, coffee, tomato, peanut, sugar cane.