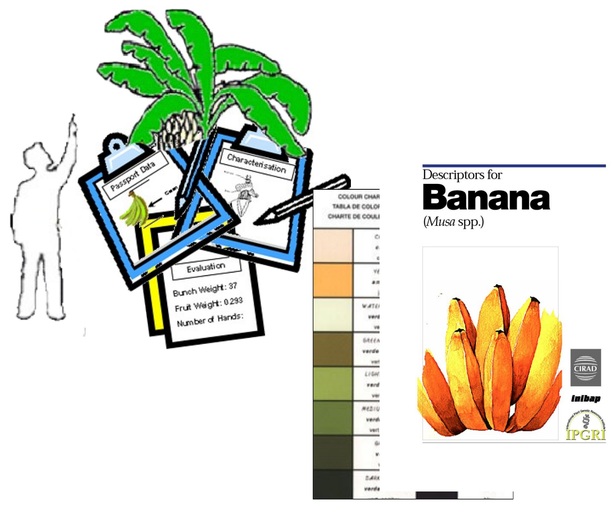
# The *Musa* Germplasm Information System

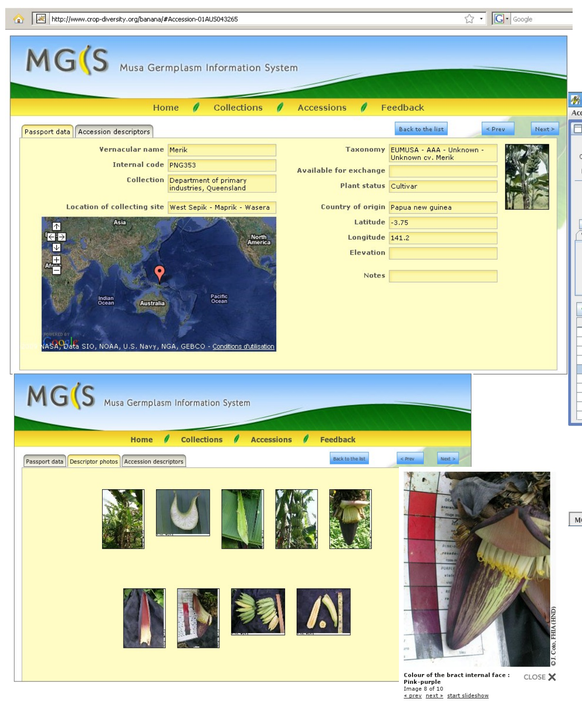
## Enhances knowledge availability of Banana Diversity

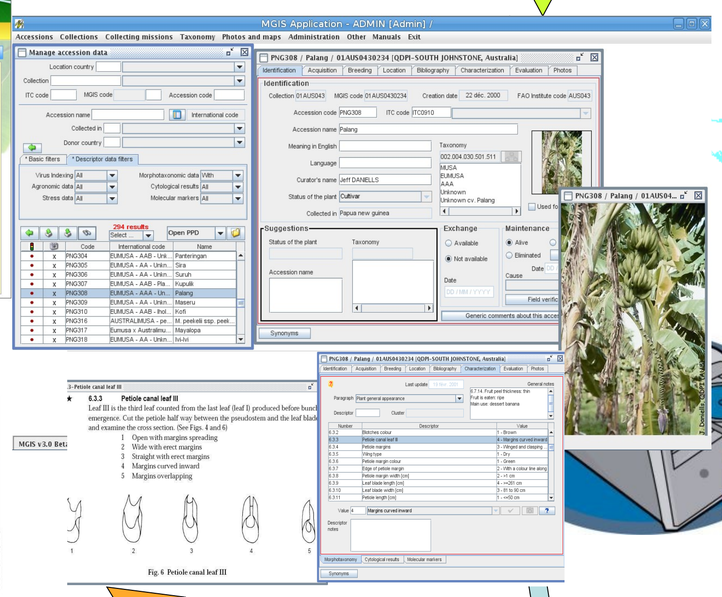
The ***Musa* Germplasm information System (MGIS)** is the most extensive source of information for various banana germplasm users namely breeders, researchers and farmer communities. It contains information on accessions managed in 22 banana collections so far, including passport data, morpho-taxonomic descriptors, and pre-evaluation data, as well as a minimum set of photos. It helps locate alternative sources of banana germplasm by identifying the most appropriate accessions with particular traits of interest. Each participating Gene Bank curator enters and manages his own accession data, which are centralized by Bioversity. MGIS is on line at http://www.crop-diversity.org/banana



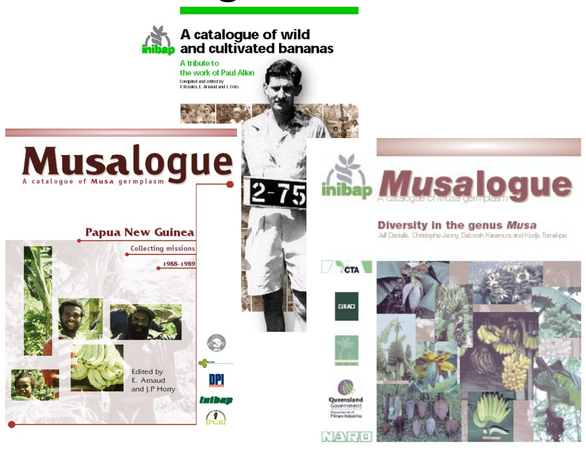

### Field Verification project of ITC accessions

720 accessions of the International Transit Center (ITC), Leuven are verified after *in vitro* conservation in 5 partner institutions.
Data collected during this project (photographs and descriptions) are stored In the MGIS database.



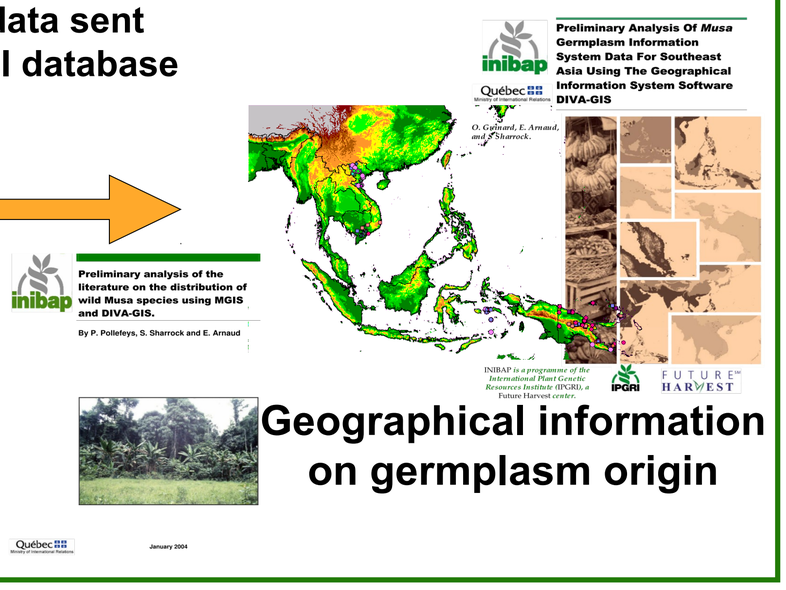



### Catalogue of varieties




**MGIS**

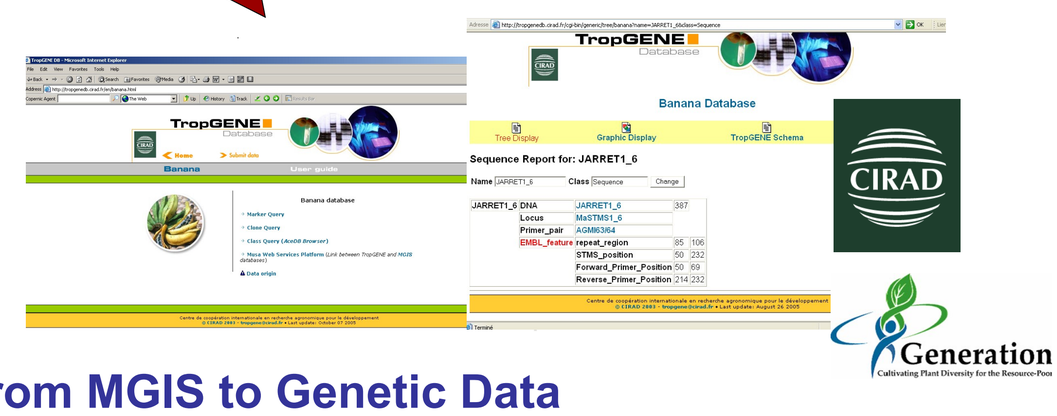
### Updated data sent to the global database




### Geographical information on germplasm origin


### From the *in vitro* collection to MGIS

The ***in vitro Musa* Gene Bank Management System (MGBMS)** of the ITC collection uses bar-codes to ensure the accurate labeling of the germplasm entrusted by partners to ITC. Linking the MGBMS to the *Musa* Germplasm Information System offers ready access to the full passport data of the accession conserved *in vitro*.




### From MGIS to Genetic Data

**TropGENE DB** (http://tropgenedb.cirad.fr) is an information system created to store genetic and molecular data of the tropical crops including bananas. **MGIS** and **TropGENE DB** (CIRAD) will be linked to combine phenotypic and genetic data using web services technology and the Generation Challenge Program data model.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