BI Success Story:

Project SPIRALES

Implementing an integration platform for
research data sources
of
PPR FTH-AC

As-takes of the FTH Program:

- The development of knowledge for decision making
- Strong demand for technical and institutional tools for effective management of territories and natural resources are some of the issues FTH Search program
- The overall objectives of the PPR FTH-AC requires in all areas of¬ research monitoring and traceability of collected information and effective restitution

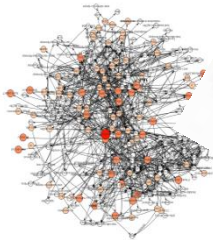| Situation before	Objectives
Heterogeneous Data Platform:	❑ Develop a scalable regional platform of PPR in directing us to a "semantic integration of own-source and heterogeneous data PPR FTH"
➢ Portal for archaeological data for Cameroon and Gabon http://www.pprfth-ac.org/archeologie/ Floristic platform for the Central African sub-region (South Cameroon, Congo and Gabon North) http://www. pprfth-ac.org/tridom/	❑ Develop a platform to make statistical analysis and do semantic searches across all of PPR data
➢ Platform for insect fauna in Central Africa (family▢ ➢ Cetoniidae) http://www.pprfth-ac.org/cetoine/	❑ Provide opportunities for each researchers to analyze data collected from the field through a Web user interface
➢ Not being able to do analysis on collections made on the ground in a given discipline	
➢ The Excel file of data collection on the field was not directly exploitable	
➢ Unable to cross-analyze data from several disciplines	
➢ Lack of transparency on timeliness of different sources	

Value Added of the Platform

Intégration & automation of data processing
loading and harmonization of data from different sources in the warehouse

Seamantic Search
Linking data from different context

KPI Quality
Resulting to indicators of quality of data harmonization through the warehouse

Time saving
Punctual delivery or direct access to reports to the researcher and policy makers
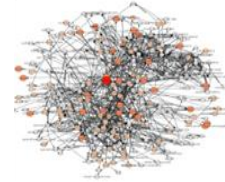
Reports & interactive analysis
Reports and Interactive Analysis directly by the user with access to all the history

Examples of queries that can be done without technical knowledge:
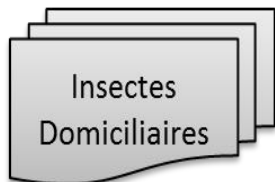
- What methods are used to capture the residential insects and what kind of buildings?
- What is the number of individuals harvested per year per discipline
- What are the areas in which there were more data collected on the field in Cameroon regardless of discipline?
- Who are the best data collectors in the field?

Architecture & Methodology
are based on the principles of "Evolutionary Data Warehouse"

Presentation Layer
This Layer:
- Enable interactive reporting explorative analysis and semantic search

MDX/SQL

Apache Solr — Search index

Tripple store — RDF Schema — SPARQL

Data Warehouse Layer
This Layer
- Allows modeling responding to the analysis needs
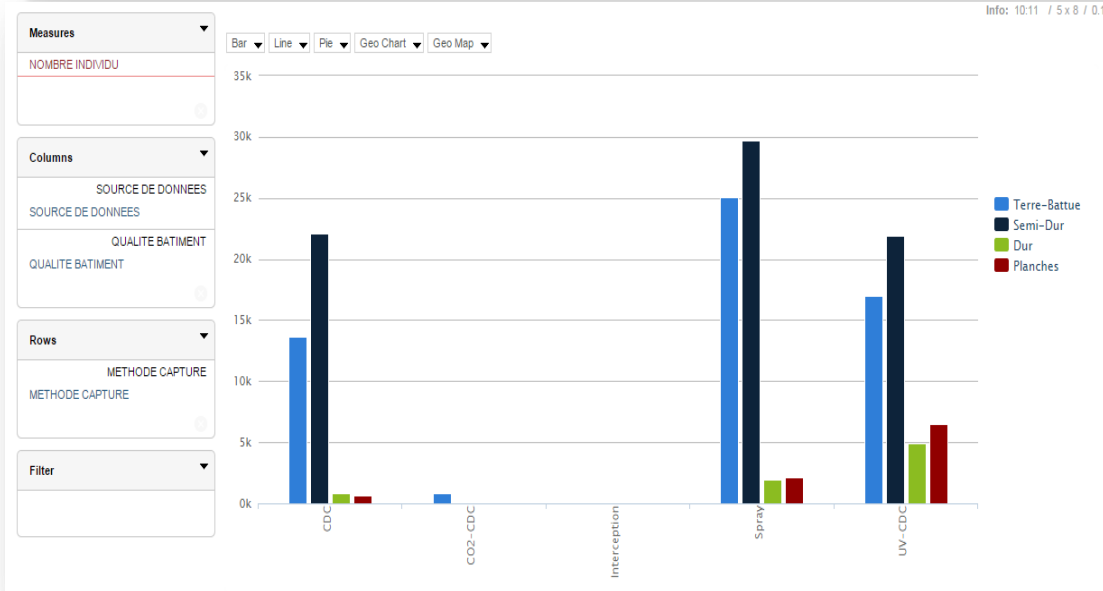- Allows Consolidation, standardized calculation and archiving of indicators

Data Warehouse

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ETL – Extract Transform and Loading processes

ETL Layer
This Layer
- Allows automated acquisition of data
- Ensure regular updating

Insectes Domiciliaires

Cétoines (PG)

Archéologie (PG)

Tridom (PG)

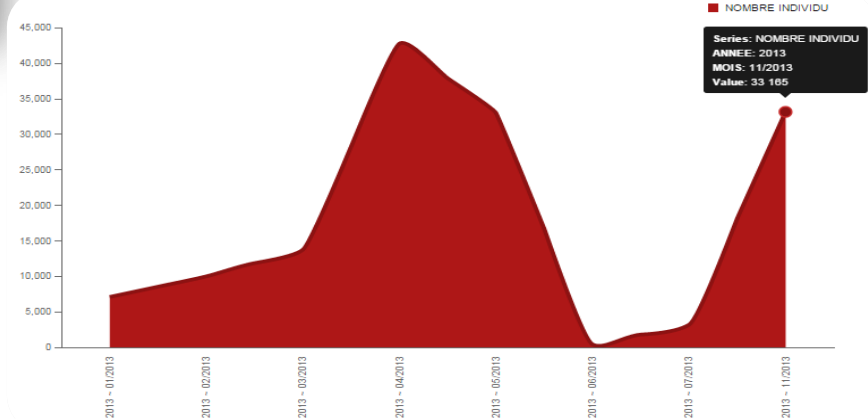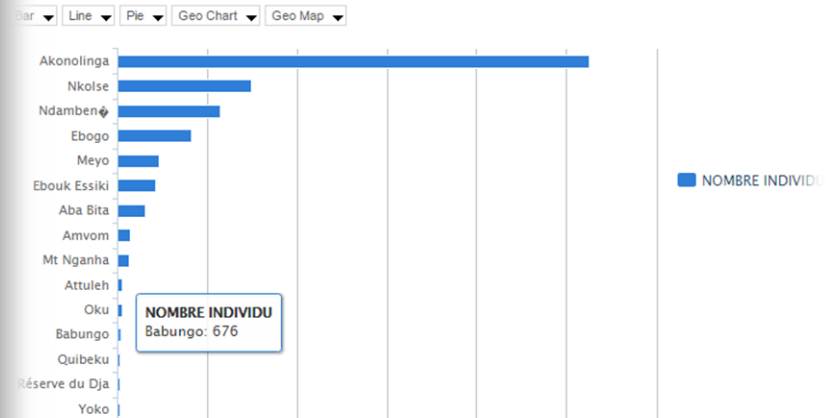# Use cases - Request Samples

Ex: Top 20 places by volume of harvests

Ex: the number of individual by collection method depending on the quality of the buildings.
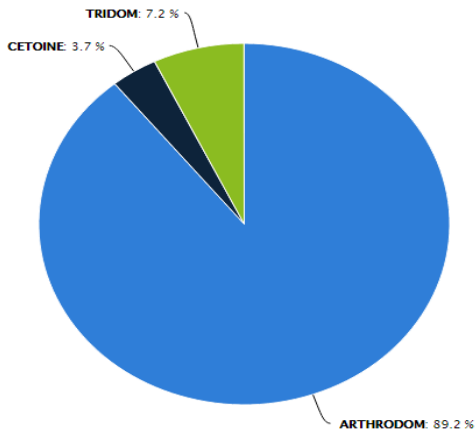
Ex: Number of harvests per data sources

Ex: Changing havests domiciliary insects (ATRODOM)