



The Use Of ERETES for a Better Consistency of National Accounts Data over User Countries

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Introduction:

ERETES is the main cooperation tool of Eurostat and the French Co-operation in the area of National Accounts, used to produce National Accounts by several countries of the world. It provides assistance in compiling National Accounts in compliance with the international standards of SNA 2008. ERETES supports the production of consistent economic figures across countries and over the time while offering a great flexibility of use. Currently, about 30 countries over the world are using ERETES including around 25 Northern and Sub-Saharan African countries.

The ERETES software tool is co-owned by Eurostat, INSEE and the users' community who discuss its developments during the bi-annual steering committees. A unique version of ERETES is available that satisfies all the needs of stakeholders.

It is also a place where the users can discuss, share concerns and find common solutions for the compilation of reliable National Accounts, by proposing a development process and methodology.

The poster presents the main features of the tool, the conditions that need to be reached to use it and the way how the tool contributes to the African integration agenda at the sub-regional scale of African countries which use the tool.

1. What is ERETES

ERETES is a package that includes a software tool, a methodology to build national accounts but also an assistance process and a users' community. All these elements make of ERETES an appropriate tool to contribute to harmonisation and integration of national accounts across countries which use it.



1.1. ERETES is a software package for national accounts

The ERETES module provides assistance in compiling national accounts which comply with the international standards of SNA 2008. It is available in 3 languages: French, English and Spanish.

It associates:

- An assistance process with the organization of the work of the team of accountants,
- A database in which the user downloads the data provided by his statistical system,
- Work tables to analyze these data in order to make them compatible, in an iterative process crossing different points of view: goods and services, distributive transactions, financial transactions, institutional sectors.

The result of this work is the working out of the two main synthesis tables of the SNA 2008:

- the Supply and Use Table,
- The Integrated Economic Accounts Table, including financial accounts but excluding balance sheet accounts.

Its main advantages are the following:

- It helps deriving maximum benefit from each item of statistical data
- It can be adapted to the characteristics and needs of the country,
- It offers great flexibility of use: each country can choose the expansion it wishes to give to its accounts.

ERETES is installed under a project which has been approved by the owners (Eurostat, Insee, IBGE).

The ERETES system is both:

- **A place for storing data and working tools**
- **a tool for organizing team work**
- **an itinerary to transform the " inputs " (incoming data) into outputs (results produced)**

1.2. Data to be downloaded in ERETES

The base can receive all data used to compile accounts, whatever they are:

Survey Data	Surveys of enterprises, households.....
Administrative data	State budget, bank accounts, fiscal data
Rates	Trade or transport margins, tax or VAT rates
Indices	Prices, volumes, values indexes...
Analysis ratios	Value added/person employed, social contributions/wages and salaries...
Technical coefficients	Used to describe a branch of production

It is neither possible nor useful to load the basic data of a survey (e.g. at the level of an enterprise; a household). The data must first be aggregated by product, industry, sector, etc., according to the classifications selected by the users.

The data must also undergo a preliminary analysis, in order to determine the correct national accounting transaction for each of them.

Evaluation of the informal economy

The ERETES industry account proposes tools to help estimate the unreported part of the economy. These tools are based on the analysis of various economic ratios: output or value added by person employed, remuneration per employee, Intermediate Consumption/output ratio. Most of these tools refer to the workforce. To be able to use them, it is necessary to have compiled a balance of the national employment situation, listing data on workforce by industry and by status (wage-earners, managers, self-employed, etc.).

ERETES is a flexible tool

It is not mandatory to complete all the tables proposed by the system; each country will decide to what extent it wishes to develop its own accounts. Thus, there are many users who still do not compile accounts of institutional sectors. Others compile accounts in values only, because they lack price or volume indexes. Others compile only a global balance between supply and demand in intermediate consumption, without trying to synthesize the Use matrix.

Each table provides a framework for the analysis of a restricted subset of data, a sort of “zoom” on this subset. For example, a supply-use balance is a focus on the availability and uses of a product, an industry account sets out the conditions of production, a who-to-whom matrix outlines the relationships between agents in a basic transaction. In this limited framework, it is easier to reconcile the different points of view, and to estimate the missing data. Indeed these could be obtained by balances in the supply-use balances and the who-to-whom matrices, or by analyzing ratios of various Production modes.

ERETES can be implemented in a modular way, starting with the information available and it can be completed further when new data are available.

1.3. The "outputs" of ERETES

The results are displayed in the form of two synthesis tables which conform to the SNA: the SUT (Supply/Use Table) and the TIEA (Table of integrated economic accounts).

The supply and use table (SUT)

This table combines all the accounts of goods and services on the one hand, and the production accounts and the generation of income accounts by industry on the other. It provides a framework for the synthesis across all these accounts and the associated transactions.

ERETES produces this table directly in Microsoft® Excel format.

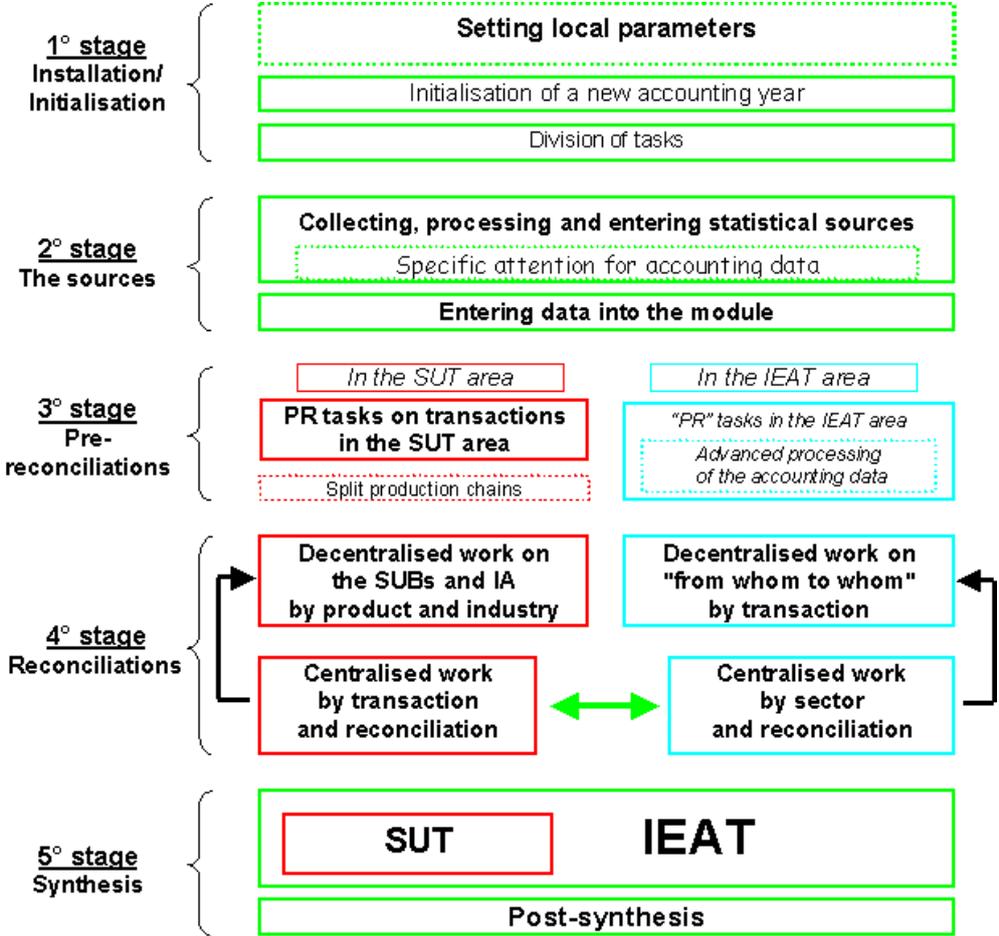
The table of integrated economic accounts

The table of integrated economic accounts provides a complete view of the accounts of the entire economy, including balance sheets, so that they display the main economic relationships and the large aggregates. Simultaneously, this table shows the general pattern of the system, and presents a set of data for the institutional sectors, for the economy as a whole, and for the rest of the world.

ERETES directly produces this table in Microsoft® Excel format.

1.4. A signposted itinerary

ERETES offers users a five-phase signposted itinerary to compile the national accounts of an accounting year.



Phase 1: local installation

The module is portable; it can be installed in any country that wishes to adopt the proposed process of compiling accounts. Each country is unique, both in terms of its economy, society or institutions and as regards the specific characteristics of its statistical apparatus. At the moment of its installation, the module has to be adapted to those national characteristics. This is mainly done through the choice of the local classifications.

There is also room for some flexibility in implementing the method proposed by the module, in deciding locally which components of the central framework to choose, etc.

This stage is a prerequisite for using ERETES and occurs only once.

Phase 2 : Collection and processing of statistical sources

The task of compiling National Accounts entirely relies on the availability of statistical data which take account of the full economic life of the country. There are areas which escape the statistician's reach. But

whatever exists should be used, because different approaches to a single phenomenon can frequently yield additional information.

The quality of each source must be checked. In parallel, the content of each source will be analyzed, so that it can be transposed according to the classifications of National Accounts. Lastly, to be incorporated into the database, the data must be coded according to the attributes stipulated by the module.

Particular attention must be paid to the accounting data supplied by the institutional units.

Phase 3: Preliminary pre-reconciliation

This phase helps to achieve a better preparation of sources for use in the decentralized tasks of phase 4.

A pre-reconciliation is necessary:

- to make the sources compatible with the requirements of the National Accounts, in particular by taking account of data from other sources (e.g. inventories and changes in inventories)
- to achieve a more homogeneous picture of the available data, by reconciling various sources (e.g. jobs and labor)
- to breakdown the data at the most detailed level of industries, products, transactions or sectors wherever possible (e.g. taxes on production and imports).

For the field of the SUT (supply/use table), pre-reconciliation covers the transactions only.

Phase 4 : Analytical working out, harmonization

This is the beginning of the active phase of making all existing sources compatible between them, and of the setting up of estimations for the parts of economy which statistics know poorly or even do not know at all. This work is done by alternating two complementary and iterative approaches;

- It emphasizes the beginning of the active phase of a decentralized approach, which confronts the gathered data according to several axes:
 - o in the field of the SUT, by supply-use balances(SUB) on the one hand and production and operating accounts by industry on the other ;
 - o in the field of the IEAT , the ‘who-to-whom’ matrix helps to achieve alignment for each transaction.

These tasks are carried out on local work stations.

- a centralized approach, which makes it possible to validate the proposals arising out of the decentralized work and to compare the results obtained with the data of institutional sector accounts.

Throughout this analytical approach, the maintenance of divergences between the various points of view will however continue to be accepted:

- In respect of the SUT, by accepting a difference between supply and demand (visible in the use matrix for intermediate consumption),
- Outside the SUT, by using transitory positions

Phase 5 : Synthesis

Once a sufficient quality has been achieved for the industries, the products, the transactions and the institutional sectors, we move on to the synthesis phase, which involves completing the following tasks :

- Reconciliation of the use matrix
- Establishing correspondence with the sector accounts
- Reconciliation of the Integrated Economic Accounts Table,
- Finalizing the tables of the central framework: Supply/Use Table and Integrated Economic Accounts Table
- formatting of results for publication,
- Preparing the data to start the accounts of the following year.

1.5. Work tables and control tables

The ERETES database proposes several tables to facilitate analysis and reconciliation. There are the work tables, which make possible to modify or supplement the data of the base, and the synthesis tables which aim to carry out a global check of the overall consistency of the data.

When calling up a table, the module will search in the base for all the data with the characteristics of this table. Thus each cell displays all the data in the base which have the attributes of this cell. Tools called up by the menus help to calculate the missing values and to balance the tables.

All the tables - work tables or synthesis tables - can be printed on paper or as an Microsoft® Excel file.

Main work tables: Supply-use balance of the base year, Supply-use balance for the current years (Tools associated with the tables: calculation of margins and taxes based on rate of margin or taxation, framework of control of accounting equations, the Industry Account (Tools associated with the table: tools to check consistency between outputs by industries and outputs by products, tools to convert the data by Production modes into data by institutional sector), The who-to-whom matrix (Tools associated with the table: tools to break down data by sector or transaction)

Key synthesis tables: Synthesis by product, Synthesis by industry, Synthesis by transaction, Synthesis by institutional sector

1.6. Organization of the work

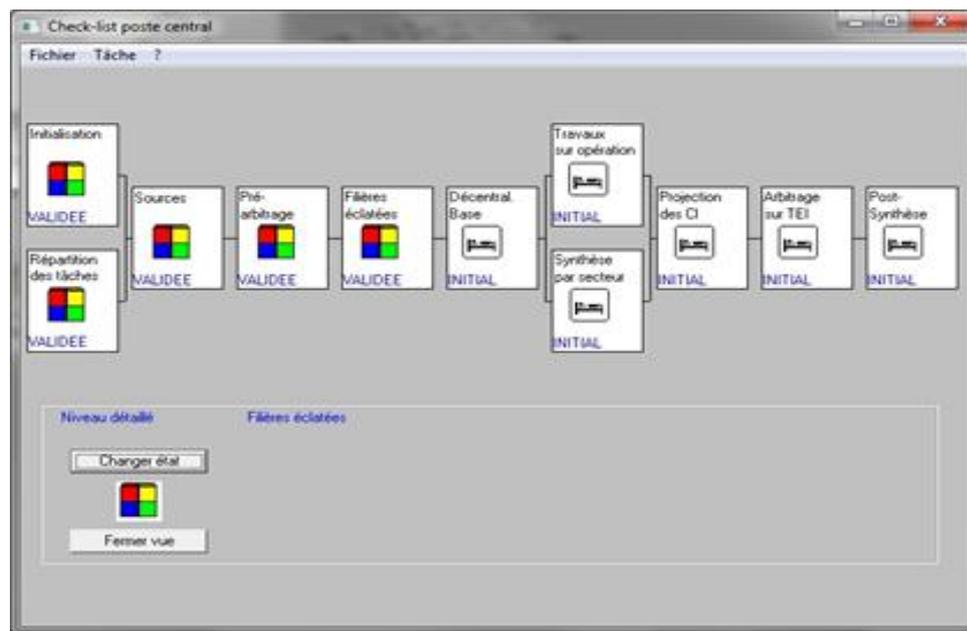
ERETES guides the user as he compiles his accounts and offers assistance at each stage of the work.

For this it calls on four tools:

Distribution of tasks

Using the classifications the user has set up, ERETES compiles a list of tasks to be completed to compile the accounts: a supply/use balance for each product, a production account and generation of income account for each industry, a who-to-whom matrix for each transaction, a loading for each source.

The database administrator will then spread all these tasks between the staff of the accounting team.



Log (or checklist)

The distribution of the work is displayed on the "Log" in the chronological order of its completion. Each basic task is included, showing the name of the accountant responsible for it and its state of progress: i.e. initial, started, checked.

Each time a task is completed, the accountant is invited to update the corresponding element of the Log (or checklist).

Hypertext help

If an accountant encounters difficulties with his work, he can call Hypertext help. He will be asked to identify the particular point on which he needs information: the table on which he is working, the transaction or valuation method of the cell where he is located, the sector concerned, etc.

Notepad

If the accountant wishes to keep a record justifying his reconciliations, he can use the Notepad. This will propose a space for anything he wishes to mark, and will record it in the base. The context in which the note is created (product, industry, transaction, sector, etc.) is also recorded. A search tool then allows the easy recovery of all the notes relating to a given criterion.

2. How ERETES contributes to harmonisation of National Accounts between countries

ERETES is more than a software package. It brings out actions of several actors who play a role in its strategic development and technical updating. In the last years, several improvements took place under the impulsion of these actors: the ERETES tool was adapted to take into account the 2008 SNA novelties, new modules were integrated to perform additional actions (long term series, for example). On a technical point of view, a project of rewriting the tool in free software has started. In the meanwhile, in order to guarantee a continuity of use, an upgrade of the SGBD on which the tool relies has been undertaken.

2.1. The assistance programme

The implementation of ERETES in new countries is carried out through an assistance programme which encloses at least three Expert missions in the beneficiary countries. These missions will include not only a presentation of the tool and its installation, but more widely the principles of national accounts methodology and their application in ERETES. Between each mission, the beneficiary country will be given a list of activities to be performed before the next step. These activities are targeted to prepare the data that will be loaded in the tool.

The assistance stops when the tool is installed and able to produce national accounts data.

In some cases, follow-up missions can be carried-out to strengthen the system or implement additional items of the tool.

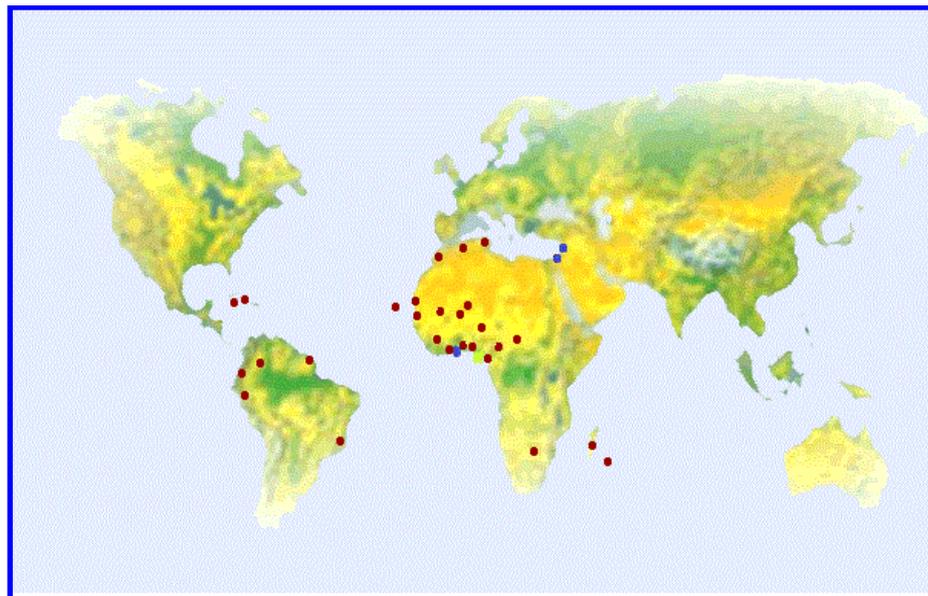
In addition to this, workshops and seminars are regularly organized (generally on an annual basis) to discuss the users' needs and the potential developments of the tool. These meetings may be organized by sub-regional Sub-Saharan organizations such as AFRISTAT (the economic and statistical Sub-Saharan observatory) or the IMF Regional Technical Assistance Centres for West-Africa or Central-Africa (West or Central AFRITAC), in partnership with INSEE and Eurostat.

In the past years, the following topics were discussed:

- The transition between the 1993 SNA and the 2008 SNA and the changes that occur
- The inclusion in ERETES of a module to create long term series and a module aligned with the International Comparison Programme.
- The back casting of data following the transition between 1993 SNA and 2008 SNA

More general topics are presented during these seminars which allow participants to share their experiences. Training course may be given for beginner experts. The seminars are also the occasion to present the new features of the tool.

2.2. The users' community



The Users' community is composed of the representatives of the 30 National Statistical Institutes that use ERETES around the world. It is represented by two main bodies.

The users group

The User Group was created by the ERETES Steering Committee. It represents and defends the interests of persons using the tool. It shall elect a Chairman according to its constitution. The Group has been created in 2005 and started its activities in 2007. It has currently about 125 members representing the French institutions (Insee and the Ministry of foreign affairs), Eurostat, regional institutions such as ECOWAS, UEMOA, CEMAC, AFRISTAT and representatives of countries using ERETES.

The Group is member of the ERETES steering committee and represented by its chairman. The Group is currently chaired by Cameroon. Its activities include the writing of documents and the proposal of topics to be discussed in order to share good practices between members and improve the ERETES tool.

The Steering Committee

It includes the following members:

- Eurostat, Insee, Afristat, Chairman of the ERETES User Group, African Union;
- Two User Countries or supporting organizations. One of them representing the User Countries as the co-owner.

The presidency and secretariat of the Steering Committee are assured, on a rotating basis, by Eurostat and INSEE. The Steering Committee is convened in principle twice per year by the Presidency that also prepares the agenda.

All Steering Committee members, including the Community of User Countries and the User Group (“the stakeholders”), have the capacity to make suggestions and propose orientations to the Steering Committee. Decisions are taken in principle on a consensus basis.

All Steering Committee members have the duty to jointly promote the use of ERETES and assure its maintenance and future developments.

The Steering Committee may organize a side-event during the UN Statistical Commission that takes place annually in March. This side-event may be targeted to countries using ERETES or have a wider target and present ERETES to all interested countries in order to arouse interest of new countries.

2.3. The contribution to African on-going projects for developing National Accounts

The Strategy for Harmonisation of Statistics in Africa (ShaSa) which has been developed to support the African integration agenda, promotes the harmonisation of standards and methods of statistical production (Strategic theme 1- strategic objective n°3) and the establishment of an effective technological environment (Strategic theme 3- strategic objective n°3). In this frame, ERETES reaches the strategic objectives of ShaSa and is considered as an integrating tool for the compilation of National Accounts, which allows comparison of different data sources and get consistent results from this confrontation.

INSEE participates to the AGNA (African Group for National Accounts) meetings and activities. The current activities of the AGNA are focused on the implementation of the 2008 SNA. The stakeholders of the Project include Member States, RECs, Afristat, Pan-African institutions, and concerned regional and international organizations and development partners. In this context, ERETES is considered as a solution for the implementation of the 2008 SNA in African countries. As a matter of fact, a study performed in the frame of this group showed that African countries using ERETES are more advanced in

the implementation of the 2008 SNA that other African countries. The action plan includes training on national accounts and ERETES. In order to extend the use of ERETES in English speaking African countries, a system of South-South cooperation is envisaged by forming pools of experienced ERETES users who could assist new users.

In addition, the EU Pan African Statistics programme that started in May 2016 includes a component to develop tools that promote integration of African Statistics. ERETES has been chosen for the development and integration of National Accounts in African countries. The activities that will be carried out in that frame include training session for beginners and advanced users as well as workshops to share experiences and good practices.