INTRODUCING SISMA: THE NEW WEB APPLICATION OF THE ATECO CLASSIFICATION

CNS15ª Conferenza Nazionale di Statistica

FRANCESCA ALONZI – Istat alonzi@istat.it | **DARIO CAMOL** – Istat camol@istat.it | **MONICA CONSALVI** – Istat moconsal@istat.it | **CRISTINA DESIDERI** – Istat cdesideri@istat.it | **GIUSEPPE ESPOSITO** – Capgemini giuseppe.esposito@capgemini.it | **BARBARA GENTILI** – Istat bagentil@istat.it | **CRISTIANO MAIONE** – Istat maione@istat.it | **GIULIA PENNE'** – Istat giulia.penne@istat.it | **MARINELLA PEPE** – Istat pepe@istat.it | **LAURA VIGNOLA** – Istat vignola@istat.it |

ATECO: towards an "alive" classification

Until 2020, ATECO as a **static classification**: remained unchanged since the last revision of its parent classification (the NACE) in 2008.

At **national level** release of **stand-alone documents** to complete the consolidated version of the ATECO classification already made available to users in paper form since 2008. No informative system (only an interactive application with a few functionalities).

Some kind of integrations to the NACE introduced at **European level** and disseminated via Ramon, the so-called **rulings**: a way to provide users with replies to urgent classification questions.

enriched classification structure, explanatory notes, correspondence tables, etc.

for the first time availability of index entries

a live informative system with customised outputs: SISMA

Core issues of the new strategy adopted by Istat

1. updating the classification more frequently but without changing "too much too often"
because the primary aim of the ATECO is that of satisfying statistical purposes

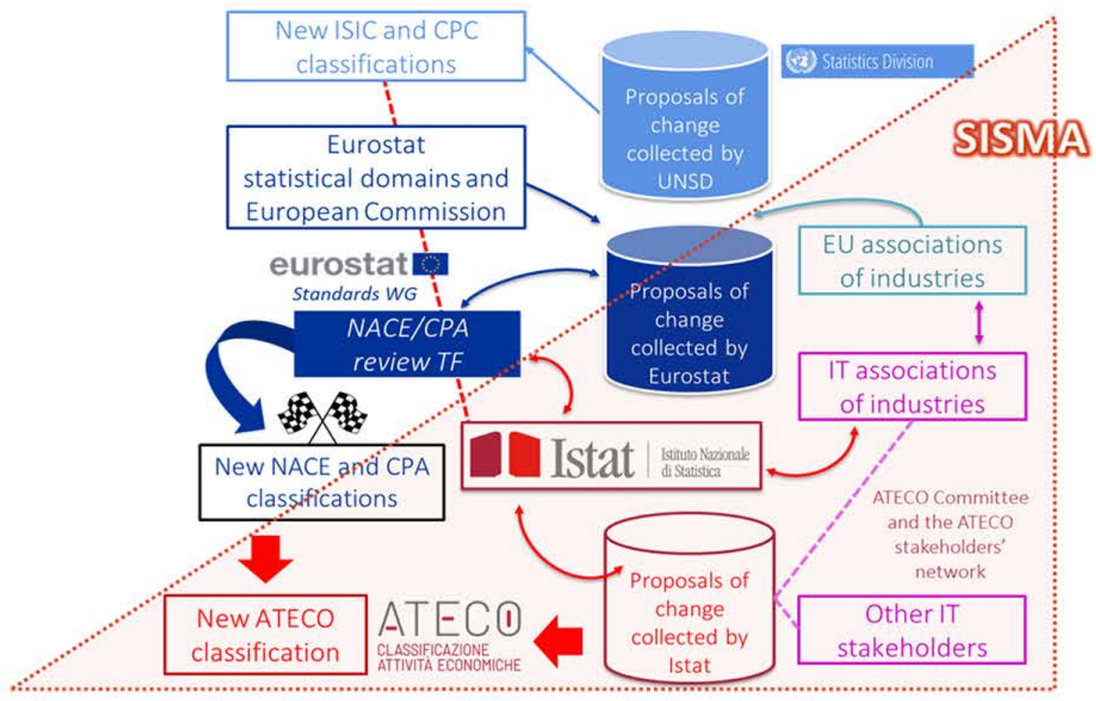
2. making available to all users European NACE rulings and classification decisions
by introducing changes in the ATECO paying attention to timeliness

3. improving a shared interpretation of the ATECO classification when used for non-statistical purposes
by enriching "consolidated texts" based on requests collected from users

The two key features of SISMA

- an increasing need to **improve the usability of the ATECO classification** offering to **all users** new data, e.g. the type of contents of the classification (explanatory notes, implementation rules) and differentiating the output generated by the web application according to the type of users (.pdf or .xlsx files)
- providing **a production environment** to the **custodians of the classification** to create new versions/updates of the classification in force: re-organising contents, creating new codes, introducing new explanatory notes, managing correspondences with the previous version of the same classification, simulating draft versions before approval

From ISIC/NACE classifications to ATECO



SISMA supports the whole updating/revision process of the ATECO classification deriving from the European NACE and the international ISIC classifications.

Technological aspects and system architecture

Technical Choices

The software language is APEX (Oracle Application Express).

APEX is a RAD (Rapid Application Development) language.

This choice is motivated by the numerous advantages offered by RAD languages:

- low code software reducing time and costs
- low learning curve
- agile development with frequent releases
- suitable for management systems

SISMA

The System Architecture

The system architecture is closely aligned with the definition of the new classification process that is based on the modifications of the previous version (reference classification).

The application functionalities and database schema are, therefore, organised as follows.

1. **Production area**: multiple users can collaborate on creating the new classification by working on self-consistent packages that contain modifications to the reference classification. These packages are then selected for the next phase. Additionally, new correspondences with the reference classification are inserted.
2. **Simulation area**: allows the simulation of the classification creation. Processed classification codes from the chosen packages, along with unprocessed codes, contribute to the new classification. The final classification selected from the simulations is downloaded into the viewing area. In this area several checks on the consistency of the classification are performed.
3. **Visualization area**: internal and external authorised users, can view all released classifications, making selections or searching for classification nodes, and using printing functionalities.
4. **Output area**: still work in progress, it will be possible to query the available classifications in different dissemination formats.

APEX is

- good in scenarios that demand intensive interaction with the database
- portable and safe
- easy to securely connect to web services within a controlled environment
- suitable for managing different user roles and multi-languages applications

ATECO CLASSIFICAZIONE ATTIVITÀ ECONOMICHE

SISMA is enriched by a satellite environment

SATELLITE

SISMA satellite aims to support classification custodians managing users and assessing proposals for change, clarification enquiries and decisions taken.

PROPOSALS OF CHANGE

The assessment procedure for a proposal of change is composed by several steps, contributions, clarifications and documents.

SISMA satellite allows to store, manage and easily link

all the information about each single proposal.

USERS

The process of maintaining, updating or revising the ATECO classification involves several stakeholders (private citizens, associations of industries, administrative institutions etc.) even with contrasting interests.

SISMA Satellite allows a deep categorization and a easy grouping of users with specific characteristics.

INSTANCES

SISMA satellite allows to group similar proposals of change and clarification enquiries into instances.

Future developments

Reuse: thanks to its architecture, SISMA will enable the inclusion of **other economic classifications** with minimal IT modifications.

Code matching: the informative content of SISMA will be enriched with **index entries**, a set of combinations of activities and products that further detail the classification codes.

Interaction: web services will be implemented to facilitate interaction with several IT systems using the ATECO classification, such as the Istat Metadata System (**METAstat**).