Eurostat ESS Innovation Agenda Portfolio

Showcasing innovation activities within the European Statistical System

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About the ESS Innovation Agenda

The European Statistical System (ESS) continually innovates to keep pace with today's business environment, which faces:

- increased competition from private data providers;
- a data ecosystem that changes quickly;
- a rise in urgent demands for new, timelier and more detailed statistics, especially during times such as the financial crisis and COVID-19 pandemic.

The main goals of the ESS Innovation Agenda are to:

- strengthen the ESS' ability to respond rapidly to new and urgent user needs;
- build up a portfolio of products and services to meet policy needs;
- make efficiency gains to free up resources;
- strengthen resilience to shocks and adapt to societal changes.

The ESS Innovation Agenda has a portfolio of projects working towards these goals, as described below.

Lighthouse projects

Innovation Lighthouses, or 'innovation execution' projects, create and improve innovative statistical products and services:

- **Use of microdata linking techniques (MDL) for getting insights into enterprises belonging to multinational enterprise groups:** Developing statistical indicators on domestic or multinational enterprise groups.

- **Modernization of household budget survey (HBS) production:** Providing a new mechanism for HBS statistical data production for important macro-economic indicators.

- **Open-source data visualisation tool for Principal European Economic Indicators:** Creating a customisable tool developed in R for rapid dissemination of statistical information.

- **Machine Learning for automatic classifying entities according to NACE** (Nomenclature statistique des activités économiques dans la Communauté européenne): Updating the classification of economic activities in the EU.

- **Development of environmental ecosystem accounting for European Statistical System:** Innovating environmental statistics through new technologies and models.

- **Use of Automated Identification Systems (AIS) of vessels data for improved maritime statistics:** Developing EU-wide statistics using automatic vessel identification system (AIS) data for maritime statistics.

- **European Space Economy Thematic Account:** Providing macro-economic statistics for the EU space sector to analyse its contribution to Europe's economy.

- **From experimental statistics to a statistical process: Distributional National Accounts:** Structuring activities to develop a statistical process for producing Household Distributional Accounts (HAD).

- **Working towards early estimates for short-term business indicators:** Developing an 'industrial production index,' which measures the amount produced in an economic area.

In 2025, 13 new Lighthouses joined the portfolio:

- New visualisation tool for multinational enterprise groups data based on PowerBI.
- **MDL(II):** New globalisation statistics and indicators based on streamlined and coordinated approach to MDL across NSIs.
- **New traffic and mobility indicators.**
- **Collaborative Economy:** Moving from experimental to official statistics based on new data sources.
- Developing Commercial **Real Estate Indicators.**
- **New railway statistics.**
- **Timelier Energy Statistics.**
- Using **bank card** data for compiling (new) business statistics.
- Residential real estate indices based on web data.
- Flash House Price Index (HPI).
- **Modernising Labour Market Statistics** based on businesses.

Cross-cutting projects

Cross-cutting projects set up or improve capabilities to realise innovative products and processes, such as artificial intelligence (AI) and machine learning (ML), and smart technologies:

- **Developing advanced Trusted Smart Surveys (TSSurvey):** Developing a proof-of-concept data collection process and a solution applicable to Household Budget Survey (HBS) and Time Use Survey (TUS).
- **Innovative tools and sources for HBS and TUS (HBS-TUS):** Creating innovative tools for HBS and TUS data collection.
- **Open methodological standards for the processing and integration of MNO data for official statistics (TSS-MNO):** Creating an open standard for transforming raw location data into statistical indicators.
- **Privacy enhancing technologies (PET) as a service (PETaaS):** Helping ESS members adopt advanced Privacy Enhancing Technologies (PETs).
- **AI/ML Collaborative structure (AI/ML4OS):** One-stop-shop for ESS staff to use AI and ML solutions for official statistics.
- **Enrich the quality framework for non-traditional/new data sources:** Enriching quality frameworks, e.g. for survey data, administrative data sources, standards and metadata reporting.

In 2025, two new cross-cutting projects will further expand the ESS innovation portfolio:

- **DIGICOM(I):** Developing online publications and tools for the Eurostat website.
- **DIGICOM(II):** Adapting dissemination products and services to user needs.

Lighthouse and cross-cutting projects

Some projects fall within the scope of both lighthouse and cross-cutting projects:

- **Web intelligence for labour market and business statistics (WIH):** Boosting web scraping capabilities for high-quality statistics from web content within the ESS.
- **Integrating Earth Observation data into statistics (EO4S):** Fulfilling the ESS' wish to test and integrate novel earth observation (EO) data into the statistical production process.

Innovation mechanism projects

Innovation mechanisms create or improve structures that enable innovation through technical and methodological developments to support lighthouse projects and strengthen the ESS capabilities:

- **Revision of the European Statistics Regulation (EU) 223/2009:** Enabling access to private data, meeting urgent user demands, and increasing effectiveness and efficiency in statistics.
- **Improving statistical literacy:** Improving statistical literacy by expanding the range of statistical literacy products.
- **Improving dissemination and communication of official statistics:** Improving the dissemination of official statistics and developing innovative visualisation tools.
- **Review of the European Statistical Training Programme (ESTP):** Training statisticians in traditional statistics topics and providing cutting-edge courses on machine learning.
- **Creation of a data science lab:** Providing services to share and reuse data, experiment, prototype and develop applications by offering tools to adapt, create and innovate new statistical products.
- **Review of the European Master in Official Statistics (EMOS):** Reviewing the objectives and achievements of EMOS, exploring opportunities for its future development.

More information https://cros.ec.europa.eu/dashboard/innovation-statistics

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