Implementation strategy

InterEnerStat meeting

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Elements to consider in the preparation of the strategy

- European Statistical System Committee
  - ESS Vision 2020
  - ESS shared validation
- Validation & Transformation Language (VTL)
- SDMX Roadmap 2020
- Needs for efficiency gains in data processing
- International acceptance

European Statistical System Vision 2020

- **a common strategic response of the ESS (Eurostat, EU Member States and EFTA countries) to the challenges that official statistics is facing**
- **adopted by the ESSC in May 2014**
- *We will strive to be a leader for driving innovation in the global statistical community*
- *We will invest in new IT tools*
- *We will further identify and implement standards for statistical production*
- *We will adopt enterprise architecture as a common reference framework*

European Statistical System Shared validation

- **In Eurostat, SDMX is not "stand alone"**
- **In May 2016 ESSC enacted shared data validation as mandatory approach for European statistics**

Deployment actions	Business Outcomes	Mandatory / Optional
Agreement and documentation at Working Group level of validation rules and responsibilities	Reduction of costs related to the time-consuming validation cycle in the ESS ("validation Ping-Pong") Increase in the quality and credibility of European statistics	Mandatory
Use of shareable and reusable ESS services to validate data	Reduction of costs related to IT development and maintenance	Optional

SDMX in relation to ESS Validation

Increase **effectiveness** and **efficiency** of collection and validation processes

- **A harmonised, common and more complete validation comprising rules which are formally adopted by all stakeholders**
- **Increasing transparency and clarity**
- **Sharing the same understanding via standards and knowledge**
- **Executing appropriate rules by the responsible authority close at the source, awareness of all possible errors and warnings**
- **A validation process with clear responsibilities and steps avoiding multiple iterations (the so-called "validation ping-pong")**
- **Sharing the development and the use of IT tools**
- **A more automatized validation process**

Validation & Transformation Language (VTL)

- **developed under the SDMX governance**
- **to allow a formal and standard definition of algorithms to validate statistical data and to calculate derived data.**
- **user orientation**
- **integrated approach**
  - independent of statistical domain, process and SDMX
- **independence of IT implementation**
- **VTL 1.1 currently in public review**
- **Eurostat envisages VTL for energy statistics**

SDMX Roadmap 2020

Strategic objectives for 2016-2020:

- **1. Strengthening the implementation of SDMX**
- **3. Using SDMX to modernise statistical processes**

The main objective of the SDMX initiative is a stronger and more global information system

- **SDMX has already shown that it has the potential to achieve this**
- **G20 Data Gap Initiative (Recommendation II.19)**
  - ***"standardized transmission of data through internationally agreed formats (e.g. SDMX)"***

Needs for efficiency gains

- **Eurostat increased country coverage of annual energy statistics by 22% in last 5 years**
  - **From 31 in 2011 to 39 in 2016**
- **Eurostat expects increases in monthly energy statistics**
- **Eurostat implemented disaggregation of energy statistics for households**
- **Eurostat will implemented disaggregation of energy statistics in other sectors**
- **Eurostat is developing early estimate of energy balances**
- **Other European energy data collections might be centralized to Eurostat**
- **New resources are not enough; more efficiency in existing processes is essential to complete all tasks**
  - ✓ **SDMX enables efficiency gains**

Towards international acceptance
What was done so far?

- **SDMX Sponsor Organisations**
  - **BIS, ECB, Eurostat, IMF, OECD, UNSD, WB**
  - **common technical and statistical standards and guidelines**
  - **IT architecture and IT tools for the efficient exchange and sharing of statistical data**
- **Eurostat-IEA joint activities during the last year**
  - **Development of the DSD for energy**
  - **Discussion on harmonised code lists**
  - **New joint monthly electricity questionnaire will be compatible with the SDMX converter**

SDMX and ESS shared validation
Implementation in Eurostat

- Full implementation is a long term issue
- Formal agreements between Eurostat and countries
- Short term priority: *awareness and knowledge raising*
- Gradual implementation in steps
- Use of pilot projects and volunteers
- To minimise extra burden during the transition phase for reporting countries
- … but to allow options for "fast movers"
- **Key next milestone**: To develop and to formally agree the implementation strategy by end 2018

Towards international acceptance

Next steps:

- To share currently developed DSD with all InterEnerStat participants
- To validate suitability of DSD for all known energy data collections worldwide
- InterEnerStat participants to provide feedback
  - Technical 1 day meeting on SDMX
- Code lists need to be harmonised
  - Which organisation are interested to participate?
- To ~~inform~~ engage countries
- To develop and to agree on the international SDMX implementation strategy

Thank you for your attention!

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European Commission

ANNEX

SDMX Sponsor Organisations

- the Bank for International Settlements (BIS)
- the European Central Bank (ECB)
- Eurostat (Statistical Office of the European Union)
- the International Monetary Fund (IMF)
- the Organisation for Economic Cooperation and Development (OECD)
- the United Nations Statistical Division (UNSD)
- the World Bank

SDMX

Common open standards for data and metadata

- accepted worldwide for exchanging and sharing statistical information
- a general basis for statistical infrastructures
- ISO standard (ISO 17369:2013)
- promoted by the European Statistical System
- enabler for the ESS VISION 2020
- European statistical domains in SDMX
  - **38% of all datasets Eurostat receives via EDAMIS**
  - ESS: 26; 2016: +10; 2017: +4
  - GLOBAL: 5
  - https://webgate.ec.europa.eu/fpfis/mwikis/sdmx/index.php/SDMX_DSD_availability

SDMX benefits

- reduce data errors
- improve timeliness
- improve accessibility
- improve interpretability
- improve coherence
- reduce the reporting burden
- reduce IT development and maintenance costs

If each partner system were to use SDMX data structures and common IT building blocks, international information systems would be able to communicate 'machine-to-machine' as in industrial production processes.

ANNEX END