

# **SIMSTAT project**

## **Micro-data exchange in the domain of trade in goods statistics**

**Mushtaq Hussain**  
**European Commission, DG Eurostat**

# ESS Vision 2020

---

- Challenge of staying relevant in a changing world
  - adoption of the **ESS Vision 2020** by the European Statistical System Committee in May 2014
- Specific statements of the ESS Vision 2020
  - We will develop novel ways to **share data** to do our job more efficiently and to reduce burden on our respondents
  - We will benefit from **exchange of (micro)data**, while fully respecting statistical confidentiality
  - The exchange of confidential micro data will proceed **where there is a clear business case** for improving the quality or efficiency (...) and all pre-requisites have been satisfied

# Core principles of microdata exchange

---

In order to elaborate the **pre-requisites** for exchanging confidential data, the ESSC adopted in February 2016 a set of core principles:

*Principle 1:* Access minimisation

*Principle 2:* Purpose limitation

*Principle 3:* Value added

*Principle 4:* Data protection

*Principle 5:* Clear responsibilities and rights

*Principle 6:* Appropriate legal basis

*Principle 7:* Transparency

# Trade in goods statistics in the EU

## Extra-EU trade in goods statistics

- Trade with non EU countries
- Based on **customs declarations**



## Intra-EU trade in goods statistics

- Single Market in 1993
- Customs declarations replaced by **business surveys**

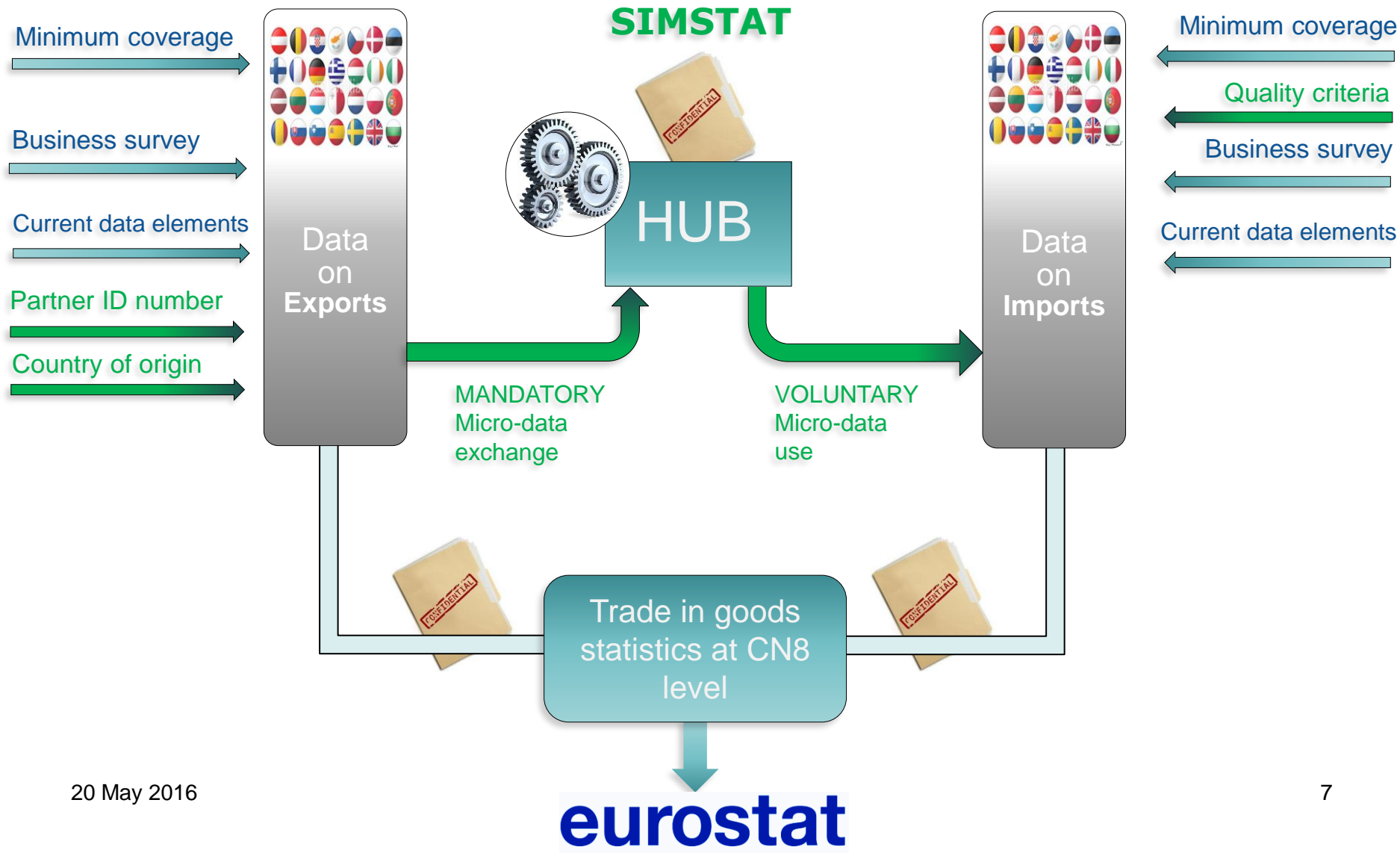




# SIMSTAT principles

- **Make available** already existing data by enabling the exchange of micro-data on intra-EU exports among EU MS
- Each transaction reported in one Member State will serve as a **data source for two Member States**
  - first, for compiling the Intra-EU exports of the exporting country and,
  - second, for verifying and/or compiling the Intra-EU imports of the importing country
- Potential to reduce **asymmetries**





# Setting up of a pilot project

---

- ◆ Can the exchanged data be used as a substitute for the nationally collected data?
- ◆ Can a IT system be set up to exchange large volume of micro-data on a monthly basis in a timely manner?
- Project launched in June 2012:
  - Phase 1: Feasibility study for the micro-data exchange (June 2012 – Q2 2013)
  - Phase 2: Development of the system (Q2 2013 – Q2 2015)
  - Phase 3: Pilot testing, evaluation and reporting (Q2 2015 – Q2 2016)



# Preparatory work – Statistics

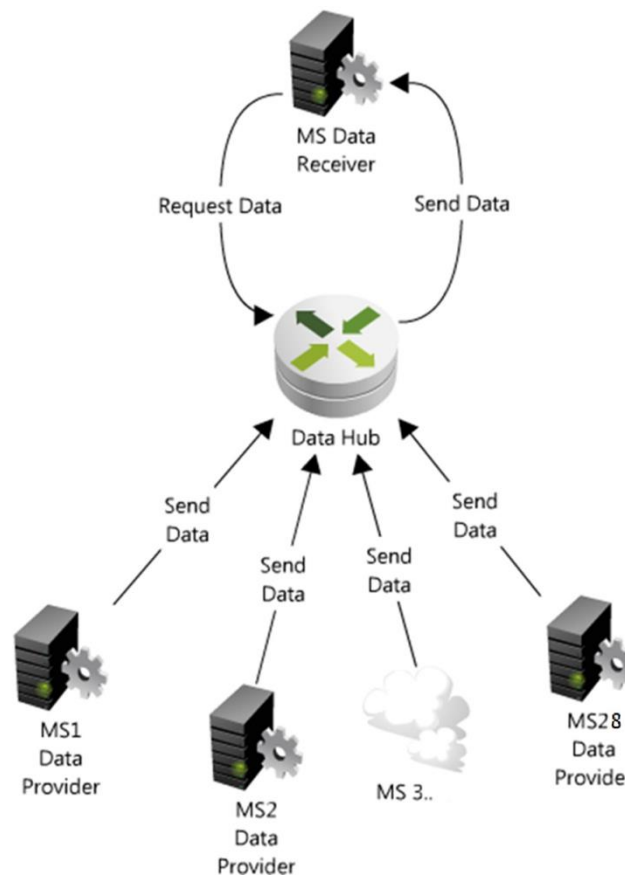
---

- ❖ Content of the data sets to be exchanged
- ❖ Technical specifications, format
- ❖ Timetable for data exchange
- ❖ Data validation
- ❖ Data confidentiality
- ❖ Data analysis



## Preparatory work – IT

- Centralised hub-based system
- Data providers submit data to the Hub
- The Hub, after some operations, submits data to the data receivers
- Use of Common Communication Network (CCN) for data transmission



# Pilot exchange of micro-data

- **20 Participating Member States**

AT, BG, CZ, DE, DK, EE, EL, FI, FR, HR, IT, LT, LU, LV, MT, PL, PT, RO, SI and SK

- **Exchanged data**

Intra-EU exports of goods collected under Intrastat system

- **Data for the reference period**

January 2013 – August 2015, according to agreed timetable

- **Period of exchange**

April – October 2015



## Results of the pilot (1/3)

---

- ☑ **Good coverage** of traders and of trade values
- ☑ **Good match** of traders and their traded values
- ☑ **Gain in additional information** through mirror data
- ☑ **"Small" MSs** could **benefit** from the mirror data received from "big" MSs
- ☑ High comparability of data between **neighbouring MSs**
- ☑ Similar convergence time for **revisions** to a stable value

## Results of the pilot (2/3)

### Shortcomings

- × Although the difference between imports and mirror exports at total level were rather low, there were **considerable differences** for individual Member States at less aggregated level
- × Member States could identify substantial **asymmetries** in bilateral trade and at product level
- × Problems regarding data consistency and **breaks in time series** at detailed level were detected

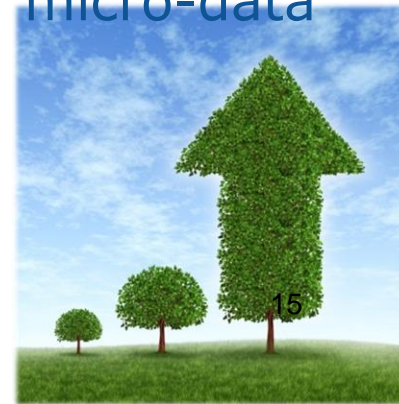
## Results of the pilot (3/3)

---

- ✓ The system fulfilled its task to transfer large data files in a **secure way**
- ✓ **Demonstrated technical feasibility** of the IT infrastructure
- ✓ Satisfactory accessibility, availability and performance
- ✓ **Timely delivery** of all files received
- ✓ Good performance of the portal with significant **user-friendliness enhancements**
- ✓ **Further improvements** of the IT system needed to help fully automate the micro-data exchange

## Lessons learnt from the pilot

- The mirror exports data could be used effectively as a **full or partial substitution** for collected imports data.
- The use of mirror data could consequently **reduce administrative burden** on reporters on the imports side.
- Existing **asymmetries** were identified at detailed level
- Pilot exercise fulfilled its purpose and proved clearly that from a **technical** point of view the exchange of micro-data is **feasible**.



## Additional elements

### ❖ **Quality enhancement potential**

The availability of micro data at a very early stage in the process opens up the possibility to investigate at micro level the sources of **asymmetries**

### ❖ **Neutral impact on users of trade in goods statistics**

No change in:

- trade in goods statistical output
- product or country breakdown
- frequency or timeliness





## Next steps

- Results of the pilot project will be presented and discussed at the upcoming meeting of the European Statistical System Committee (ESSC) on 18 May 2016
- The ESSC is expected to give orientation for the future of the compilation process of the intra-EU trade statistics

*(This slide will be modified to reflect the decision of the ESSC)*



**Thank you for your attention**