Full International and Global Accounts for Research in Input-Output Analysis (FIGARO)

UNECE Group of Experts on National Accounts
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Eurostat, National Accounts and DG Joint Research Centre
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FIGARO

Full International and Global Accounts for Research in Input-Output Analysis

Project Eurostat – DG JRC IPTS

EU Multi-Country Supply, Use and Input-Output Tables
Motivation

This project aims to support Eurostat (ESTAT) in establishing:

1) an **annual** production of **EU Multi-country Input-Output Tables**

2) **five-yearly** production of **EU Multi-country Supply, Use and Input-Output Tables (EU-MC-SUIOTs)**.

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The EU-MC-SUIOTs constitute a **further development** of the current regularly published EU and Euro area consolidated SUIOTs.

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This project does **not** represent any additional **burden** on the Member States provided that it will rely as much as possible on the **re-use of available data**.
The development of the **EU-MC-SUIOT** shall be based on:

- A regular combination of **primary statistics** on businesses and trade and **macro-economic data** sources (TEC, STEC...);

- Careful checking of **user needs** of various European Commission’s **DGs** for policy analyses, i.e.: DG ESTAT, DG ECFIN, DG TRADE, DG ENV, DG RTD, DG EMPL, DG GROW...

- An institutional perspective by setting up consistent EU-MC-SUIOTs, recognised by international agencies such as **OECD**, **WTO** and **UN**, and used as such in a **Global Multi-country Supply, Use and Input-Output** framework.

- **National compilers** of the EU Member States should also be involved in order to ensure that they can take ownership of the national data used.
1. To make a **stock taking exercise** of current international projects related to the construction of multi country SUIOTs;

2. To define a **suitable methodological framework for the regular production of EU-MC-SUIOTs**, including the analysis and treatment of specific issues producing inconsistencies or asymmetries in trade statistics and overall balance procedure;

3. To construct **EU-MC-SUIOTs at basic prices** for the reference year **2010** based on SNA2008/ESA2010 methodology and the **NACE Rev.2/CPA 2008/ISIC Rev. 4 classifications**;

4. To integrate the EU-MC-SUIOTs into **Global (World) Supply, Use and Input-Output Tables**, in collaboration with the OECD and UN;
Scope and objectives/tasks

5. To include a reduced version of the EU-MC-SUIOTs at the A10 sector classification with capital and labour productivity indicators;

6. To integrate the EU-MC-SUIOTs with environmental accounts (energy and GHG emissions);

7. To explore possible extensions of the EU-MC-SUIOTs with business and international trade statistics taking into account the recommendations of the OECD Expert Group of Extended Supply and Use Tables;

8. To propose a strategy for a regular production of Eurostat’s annual EU-MC-IOTs and five-yearly EU-MC-SUIOTs, linked to environmental accounts and possibly with an extended SUIOT format using business and international trade statistics.
EU-MC-SUIOT (FIGARO) Implementation of the project

EU-MC-SUIOT FIGARO

OECD UN EC DGs

NSIs

DG JRC support

DG JRC support

EC DGs

Eurostat dimension

G5

G2

E2

C2

J5
Organised Working Groups

Other possible meetings to report to other Working Groups (e.g. EnvWG, ITWG...); to the Directors of Macro-Economic Statistics (DMES); to the Business Statistics Directors Group (BSDG); to the OECD Expert Group on Extended Supply and Use Tables; to various related UN international meetings (UNECE, FOC Group...); to academic fora (IIOA conference, IARIW conference, GTAP conference...).
Description of Work

**WP1.** - Inception report and format of the EU-MC-SUIOT

**WP2.** - Review of methods

**WP3.** - Treatment of asymmetries in trade statistics

**WP4.** - Construction of international SUTs

**WP5.** - Construction of international IOTs

**WP6.** - Integration with global MC-SUIOTs (OECD, UN)

**WP7.** - Link to labour and capital inputs

**WP8.** - Environmental accounts

**WP9.** - Extended format of MC-SUTs

**WP10.** - Analysis of results, dissemination & future prospects

**WP11.** - IT developments
WP1. Inception and format

This Work Package has the aim to set up the basics and the format of the EU-MC-SUIOTs in terms of:

a) The year of reference
b) The use of national SUIOTs and valuation (prices, imports, exports...)
c) The use of National Accounts as benchmark
d) The use of the domestic principle versus the territorial principle
e) The method to be used for estimating missing national SUIOTs
f) The use of international trade statistics in combination with national SUIOTs and National Accounts data
g) The use of the ESA2010, NACE Rev.2, CPA08 and the choice of the number of industries and products
h) The type of input-output table (product by product or industry by industry)
i) The future periodicity of publication of SUTs (e.g. 5-yearly) and IOTs (e.g. yearly)
j) The identification of countries included in the Rest of the World region
k) The use of reliability estimates
l) Possible extensions to the standard SUIOT format
WP2. Review

Stock taking exercise of current international projects related to the construction of MC-SUIOTs (data sources and tables):

a. EXIOBASE (TNO, Netherlands)
b. WIOD (RUG, Netherlands)
c. OECD/WTO (OECD, France)
d. GTAP (Purdue University, US)
e. EORA (University of Sydney, Australia)
f. IDE-JETRO (Japan External Trade Org, Japan)
g. GRAM (Vienna University, Austria)

Aim: detailed proposal of the methodology to construct the EU-MC-SUIOTs
WP3. Asymmetries in trade statistics

Outcomes:

1. Country of origin of imports
2. Trade asymmetries (total exports/imports by products)
3. Split import matrices by users (BEC...)

The results will be discussed among the different project partners for quality assurance, especially in the treatment of asymmetries and confidentiality.

Cooperation with Eurostat trade statistics units.
WP4. EU-MC-SUTs

Steps:

a. Harmonisation and standardisation of SUTs
b. Estimation of missing SUTs (bp)
c. Benchmark to National Accounts
d. Estimation and balancing International SUTs (bp), outcome of WP3

The results will be discussed among the different project partners for quality assurance, especially in the treatment of asymmetries and confidentiality.
1. Supply and Use Tables (SUTs) can be transformed into Input-Output Tables (IOTs) using various technology assumptions (for product by product IOTs) and various sales structure assumptions (for industry by industry IOTs).

2. This Work Package will estimate the EU-MC-IOTs from the estimated EU-MC-SUTs (WP4) following one of these assumptions.

3. The results will be discussed among the different project partners for quality assurance.
WP6. Global EU-MC-SUIOTs

• This Work Package aims to facilitate the integration of the EU-MC-SUIOTs into global databases developed by other international statistical agencies such as the OECD and the UN.

• The results will be discussed among the different project partners for quality assurance, especially in the treatment of asymmetries and balancing method.
This Work Package aims to link a number of labour and capital input indicators (A10 industry breakdown) to the EU-MC-SUIOTs, e.g. QALIs, Net fixed capital stock...
WP8. Environmental accounts

- **This Work Package aims to link energy and greenhouse gas emissions** (CO2, N2O, CH4) to the EU-MC-SUIOTs.

- **The ESTAT Unit E2 will deliver data of environmental accounts** (IAEA, MFA, GHG and energy accounts); will validate and check **consistency** between (energy) physical and monetary tables (in cooperation with unit C2); will **treat** the **GHG emissions and energy data** needed to **link** the environmental accounts to the EU-MC-SUIOTs; among other tasks.
WP9. Extended formats of MC-SUTs

• This Work Package aims to explore the type of extended format that future EU-MC-SUIOTs may have by using additional primary statistics of businesses and international trade statistics.

• Preferably, this work will take into account the results of the discussions of the OECD Expert Group on Extended Supply and Use Tables.

• This Work Package does not aim to produce an extended EU-MC-SUIOT but rather to pave the way to do it.
WP10. Analysis, dissemination and future

- This Work Package aims to carry out the calculation of:
  a) GHG footprints,
  b) Employment embodied in EU exports as a way to complement the dissemination activities of the new EU-MC-SUIOTs
  c) Estimation of international services trade by supply modes

- Besides, some conclusions will have to be provided by this Work Package on the lessons learnt and future prospects/recommendations for a regular production of EU-MC-SUIOTs by Eurostat.
WP11. IT Developments

• This Work Package will take care of the **IT needs** to **efficiently** deal with:

  a) **Data storage** needed as input for the construction of the EU-MC-SUIOTs

  b) All type of **calculations** involved in the different steps of the construction of the EU-MC-SUIOTs (including **code writing**)

  c) **Dissemination** of the EU-MC-SUIOTs and the **analysis of results** to the general public.
### Schedule

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**Bold = Final reports**  
**Italics = Interim/progress reports**
ESTAT-DG JRC Project on the construction of EU Multi-Country SUIOTs (FIGARO Project)

Thank you very much!!

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European Commission, Eurostat and DG JRC (IPTS, Seville)