

The European Commission's science and knowledge service

Joint Research Centre



The COIN Tool

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What is it?

A free **Microsoft Excel-based tool** designed to help users in the process of building and analysing composite indicators.

Developed by the European Commission's **Competence Centre on Composite Indicators and Scoreboards** (COIN), at the Joint Research Centre.

Download at our website:

<https://composite-indicators.jrc.ec.europa.eu/>

Versions

Full Version

- With example data
- Without example data

Lite Version (reduced features, runs faster)

- With example data
- Without example data

Also please consult full **User Guide** (featuring general tips on composite indicators).

What does it do?

Given a data set, a structure, and methodological settings, the COIN Tool:

- Helps to visualise your data, including error-checking
- Checks and corrects for **outliers** (data treatment)
- **Imputes** missing data
- **Normalises** and **aggregates** indicators
- Calculates and visualises index **scores and ranks**
- Analyses **correlations** and helps balance your index
- Gives **alternative aggregations** (Borda, Copeland)
- Investigates **uncertainty** due to methodological assumptions
- **And many other things!**

Up to 300 units, 99 indicators, four aggregation levels (33 sub-pillars, 11 pillars, 3 sub-indexes).

What does it do?

Step 1: Concept definition

Step 2: Indicator selection

Step 3: Data treatment and analysis

Step 4: Normalisation

Step 5: Weighting

Step 6: Aggregating indicators

Step 7: Statistical and conceptual coherence

Step 8: Uncertainty and sensitivity analysis

Step 9: Making sense of the data

Step 10: Visualisation



COIN Tool

Before you start

Before you begin using the COIN Tool, you should have performed the following steps:

- Clearly defined the **concept** to be measured
- Clearly defined the **purpose** of the index, its proposed added value, and who the end users should be (this can help guide methodological decisions)
- Outlined an initial **conceptual framework**
- Populated the conceptual framework with **indicators**, and gathered the data
- **Denominated any indicators** where needed, by size-related quantities such as GDP, population, country area
- Made **initial decisions on methodology**, e.g. on weighting. Equal weights can be used as a starting point (and may indeed be retained in the final version)

Of course, **these steps can be returned to and modified later on**, but you should have initial ideas in place. Once you are at that point, you are ready to begin using the COIN Tool. Good luck!

Tool Rules

The COIN Tool is built in Excel to make it as accessible as possible to the widest range of users. This stretches Excel a bit, so you should follow these rules:

1. To make the CT experience as fast as possible, **disable automatic workbook calculation**. This is done as follows:
 - Go to the “File” menu
 - Go to Options -> Formulas -> Workbook calculation and set to MANUAL
 - Press F9 to recalculate the workbook when needed.
2. The COIN Tool is **friendly-user** software. This means:
 - Do not change cells that are not blue or turquoise
 - You have to enter data in the way the CT expects: e.g. correct structure codes and only ‘n/a’ for missing data.
 - See the FAQ and Troubleshooting sections in the User Guide if errors occur.
3. It might be easier to work in **full-screen mode** on a laptop (View -> Full Screen)



THANK YOU

Welcome to email us at: jrc-coin@ec.europa.eu

COIN in the EU Science Hub

<https://ec.europa.eu/jrc/en/coin>

COIN tools are available at:

<https://composite-indicators.jrc.ec.europa.eu/>

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