

Toolshop: The Excel COIN Tool

19th JRC Annual training on Composite Indicators and Scoreboards

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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://knowledge4policy.ec.europa.eu/composite-indicators_en

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).

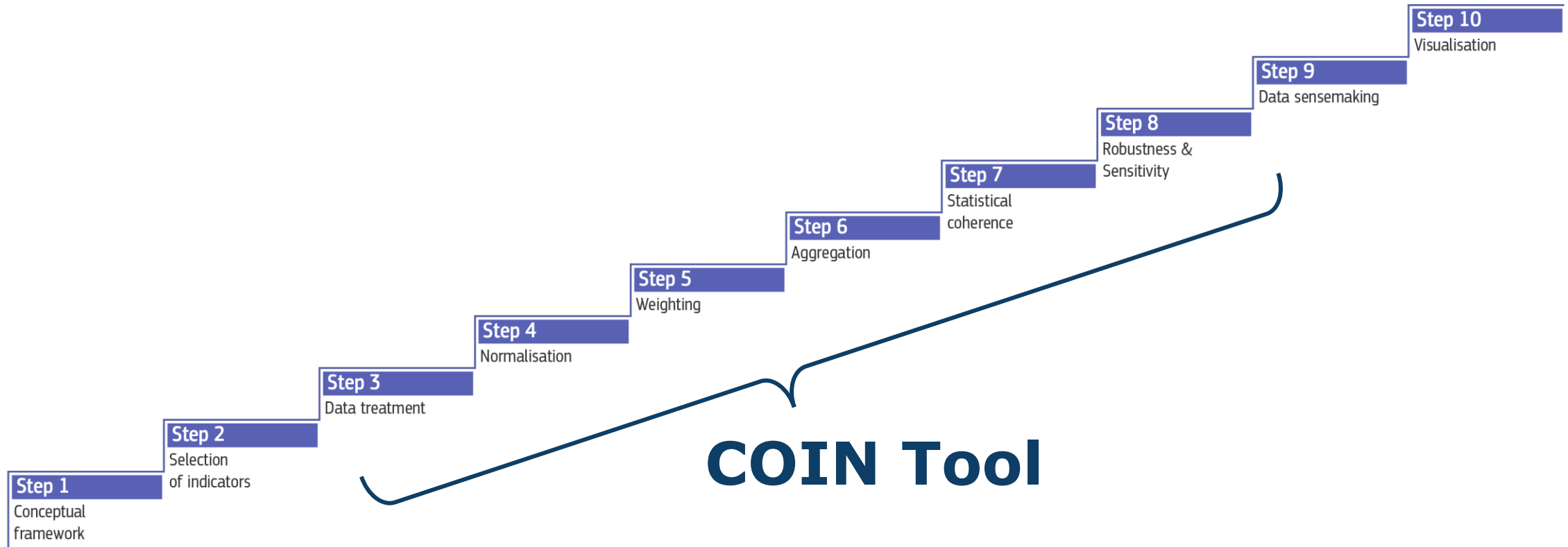
What does it do?

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)
- Some imputation
- 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).

10 STEPS to build a Composite Indicator



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)

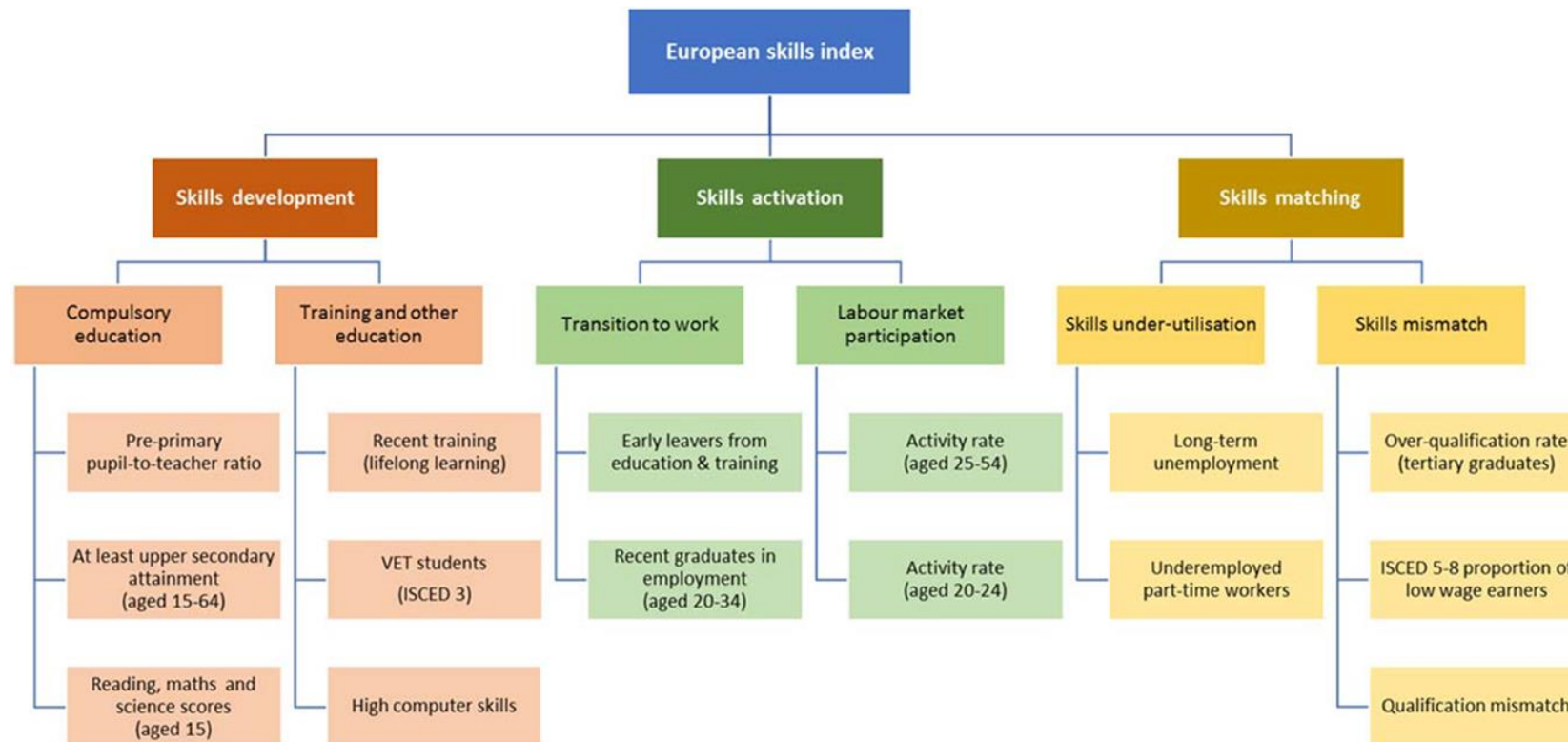
Of course, **these steps can be returned to and modified later on**, but you should have initial ideas in place. Once you are at that point, you are ready to begin using the COIN Tool. Good luck!

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 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.

Example: European Skills Index



Source: *European Skills Index (2020), Cedefop.*