

# The European Commission's Competence Centre on Composite Indicators and Scoreboards

## The European Commission's science and knowledge service Joint Research Centre

### JRC Mission

As the science and knowledge service of the European Commission, the Joint Research Centre's mission is to support EU policies with independent evidence throughout the whole policy cycle.



EU Science Hub  
[ec.europa.eu/jrc](https://ec.europa.eu/jrc)



@EU\_ScienceHub



EU Science Hub - Joint Research Centre



EU Science, Research and Innovation



EU Science Hub

The Competence centre on composite indicators and scoreboards (COIN) brings together scientific and analytical expertise that can be applied across policy areas. By doing so, it will help to ensure that all composite indicators are developed sensibly and used responsibly. 'Sensible development' of a composite indicator implies a quality control process based on both conceptual and statistical considerations. 'Responsible use' calls for care in drawing conclusions and recommendations without taking into account the conceptual context in which composite indicators were developed.

The Competence centre examines available methodology within its remit, and provides Commission services with quality-controlled tools that support the conception, implementation and evaluation of EU policy. COIN includes the provision of support and assistance to policy DGs, as well as technical training. Best practices are to be shared across services via communities of practice. Furthermore, COIN will strengthen and extend its strong networks with academia, external research organisations, and practitioners in other policy-making institutions to remain mainstream in its expertise and to provide the Commission with state-of-the-art scientific methodology.

*The European Commission is committed to policy-making based on sound and reliable evidence.*

### Composite indicators

Composite indicators are aggregations of observable variables, which aim to quantify concepts that are not directly observable, such as competitiveness, freedom of press or climate hazards. The resulting figures facilitate country, region, or city comparisons and benchmarking. They help monitoring progress over time and evaluate ex-ante policy options based on multi-criteria analysis.

Scoreboards of indicators have, to some extent, similar objectives to composite indicators, yet they do not consist of a mathematical aggregation of data.

Composite indicators are powerful practical tools that can help policy makers summarise complex and interdependent phenomena.

They provide the big picture, are easy to interpret, easy to communicate, and attractive for the public. They are also drivers of behaviour and of change by forcing institutions and governments to question their standards. On the other hand, caution is needed to avoid situations where composite indicators may send misleading or partial policy messages because they are poorly constructed or misinterpreted.

The use of composite indicators and scoreboards for designing and monitoring policies has gained much interest in recent decades.

The first composite indicator from the Commission dates back to 1987, while today the Commission services have developed more than 100 composite indicators and even more scoreboards, including the Europe 2020 Index, the Regional Human Development Index and the Regional Poverty Index of the Directorate-General for Regional and Urban Policy, and the European Innovation Union Scoreboard and the Small Business Act Principles of the Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs among many others.

If you would like to learn more about the activities of the European Commission's Competence centre on composite indicators and scoreboards (COIN), please contact:

European Commission  
Joint Research Centre

Email: [Jrc-coin@ec.europa.eu](mailto:Jrc-coin@ec.europa.eu)

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

## Towards a centre of reference

The JRC has worked on composite indicators since 2002. It now has international recognition as a centre of methodological expertise.

### First Commission requests

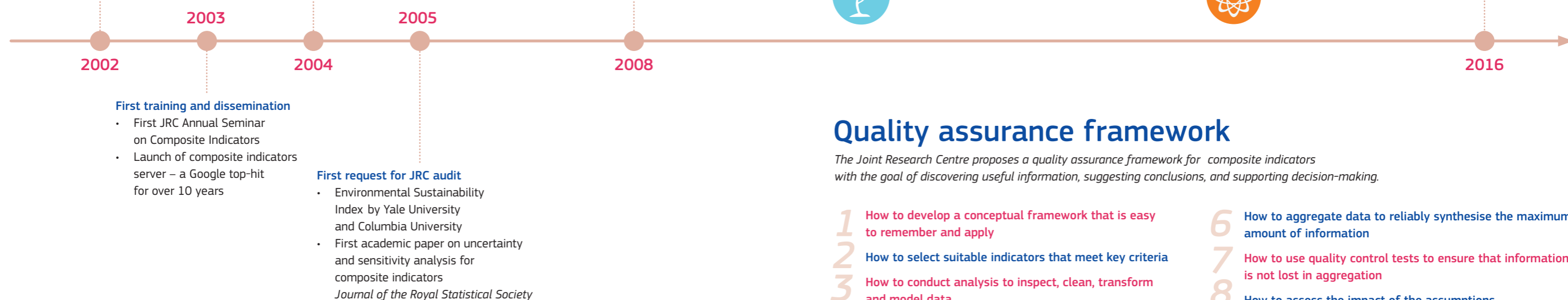
- First JRC state-of-the-art report on composite indicators
- First Commission request to develop the Internal Market Index 1992-2001

### Collaboration with the OECD

- Second JRC Annual Seminar on composite indicators jointly organised with the OECD

### JRC-OECD Handbook

- JRC-OECD Handbook on constructing composite indicators is endorsed by the OECD high level statistical committee



## Quality assurance framework

The Joint Research Centre proposes a quality assurance framework for composite indicators with the goal of discovering useful information, suggesting conclusions, and supporting decision-making.

- 1 How to develop a conceptual framework that is easy to remember and apply
- 2 How to select suitable indicators that meet key criteria
- 3 How to conduct analysis to inspect, clean, transform and model data
- 4 How to map data on a common scale
- 5 How to weigh data to make more balanced decisions
- 6 How to aggregate data to reliably synthesise the maximum amount of information
- 7 How to use quality control tests to ensure that information is not lost in aggregation
- 8 How to assess the impact of the assumptions
- 9 How to make the most of an index by looking back at the data
- 10 How to visualise, interpret and communicate composite indicators

### Examples of JRC support to EU institutions

- Innovation Output Indicator** – DG RTD
- Research Excellence in Science & Technology** – DG RTD
- Consumer Conditions Scoreboard** – DG JUST
- Consumer Markets Scoreboard** – DG JUST
- Europe 2020 Index** – DG REGIO
- Regional Human Development Index** – DG REGIO
- EU Multidimensional Poverty Index** – DG REGIO
- Index for Risk Management** – DG ECHO
- Banks' contributions to EU Single Resolution Fund** – DG FISMA
- Systemic Risk Country Heat Maps** – European Central Bank
- Small Business Act Principles** – DG GROW
- Youth Civic Competence** – DG EAC

### Examples of JRC audits to partners

- Global Innovation Index** – Cornell University, INSEAD Business School, World Intellectual Property Organization (WIPO)
- Human Development Index** – UN Development Programme
- Child Poverty Indices** – UNICEF
- Global Talent Competitiveness Index** – INSEAD Business School
- ICT Development Index** – International Telecommunication Union
- Corruption Perceptions Index** – Transparency International
- Rule of Law Index** – World Justice Project
- Multidimensional Poverty Assessment Tool** – UN International Fund for Agricultural Development (IFAD)
- Alcohol Control Policies Index** – New York Medical School
- European Lifelong Learning Index** – Bertelsmann Foundation
- Environmental Performance Index** – Yale University, Columbia University
- Index of African Governance** – Harvard School of Economics

## New tools and manuals

### ASEM Sustainable Connectivity Portal

An access point to a wealth of connectivity and sustainability-related data covering 51 countries members of the ASEM framework  
<https://composite-indicators.jrc.ec.europa.eu/asem-sustainable-connectivity/>

### Cultural and Creative Cities Monitor

A tool to promote mutual exchange and learning between cities to boost culture-led development  
<https://composite-indicators.jrc.ec.europa.eu/cultural-creative-cities-monitor/>

### Cultural gems

A free, open-source web app for mapping cultural and creative places in European cities  
<https://culturalgems.jrc.ec.europa.eu/>

### Social Scoreboard

A Social Scoreboard for the European Pillar of Social Rights to assess progress towards a social 'triple A' for the EU  
<https://composite-indicators.jrc.ec.europa.eu/social-scoreboard/>

### JRC Week on Composite Indicators and Scoreboards

On new methods for constructing, visualising and interpreting indices and scoreboards  
(4-8 November 2019, Ispra, Italy)

### COIN tool

Excel-based tool to assess some of the statistical and robustness properties of composite indicators 2019  
(beta version: <https://europa.eu/lup44wu>)

### COIN Explorer

platform to visualise and combine dimensions from over 100 indices and scoreboards with Commission relevance (2020)

### JRC-OECD guidelines

On constructing and interpreting composite indicators and scoreboards  
(follow up to the 2008 JRC-OECD Handbook, forthcoming 2020)