



European  
Commission

# JRC Week

## on Composite Indicators and Scoreboards

Auditorium - JRC, Ispra  
05-09 November 2018



# JRC Week

## on Composite Indicators and Scoreboards

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The JRC Week on Composite Indicators and Scoreboards is an *annual five-day event* during which local and international policy and decision makers, academics, think tanks, and practitioners in a wide range of socio-economic fields learn from best practices and showcase their capacity to inform policies through the use of indicator systems that summarise multidimensional concepts from social rights and social trust to innovation and competitiveness.

- ▶ *What are the state-of-art methods to develop and audit indices and scoreboards?*
- ▶ *How much faith can we have in multidimensional frameworks and how can common pitfalls be avoided?*
- ▶ *How can indices and scoreboards better inform policy and be communicated to the wider public?*
- ▶ *What already successful tools can be further adopted?*



3 days

**16<sup>th</sup> JRC Annual Training  
on Composite Indicators  
and Scoreboards**

05 MON

06 TUE

07 WED



2 days

**Composite Indicators  
and Scoreboards  
Community of Practice**

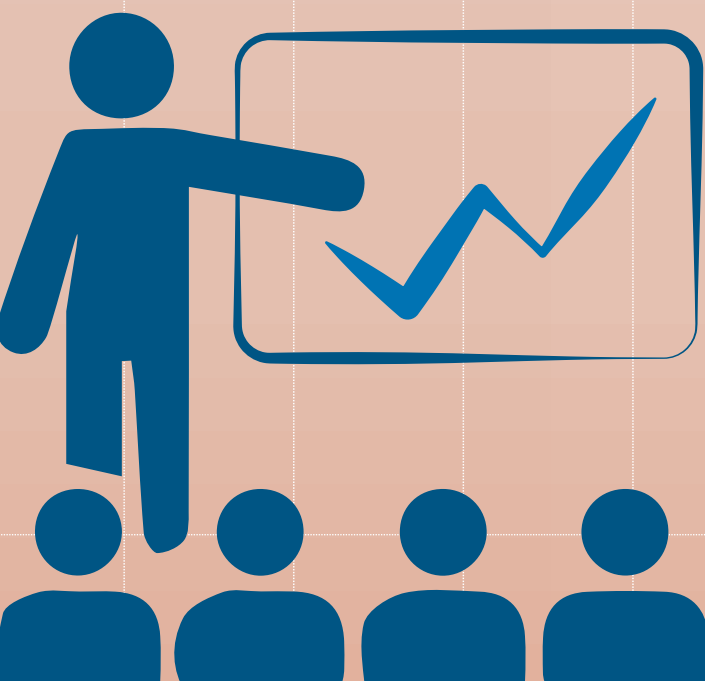
08 THU

09 FRI

# 16<sup>th</sup> JRC Annual Training on Composite Indicators and Scoreboards

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JRC, Ispra  
05-07 November 2018



The 16<sup>th</sup> JRC Annual Training on Composite Indicators and Scoreboards will offer lessons learnt from the JRC assessments on more than 100 well-known composite indicators and scoreboards.

The training consists of presentations, Q&A sessions and a hands-on session using the COIN tool (Excel-based) for developing and statistically assessing a composite indicator or scoreboard. Participants will also have the opportunity to discuss their composite indicators/scoreboards and receive advice from the JRC.

## Objectives

To present the concept of composite indicators, strengths and weaknesses and domains of frequent use;

To provide guidelines on the development of the theoretical framework and selection of indicators;

To offer practical examples on the preparation of the data set, discuss the importance of the analysis of statistical coherence of the framework, the implications of the choice of the weighting and the aggregation method and the robustness and sensitivity analysis;

To learn by best practices on how to ensure transparency and statistical soundness when developing composite indicators;

To offer an Excel-based practical guide for the construction of composite indicators.

## Target Group

Researchers and policy analysts with an interest on multidimensional measures and multi-criteria analysis.

## Lecturers & organising team

V. Alberti, M. Alvarez, W. Becker, G. Caperna, C. Cocco, G. Damioli, P. De Pedraza, M. Del Sorbo, B. D'Hombres, M. Dominguez-Torreiro, V. Montalto, C. Moura, A. Neves, H. Norlen, F. Panella, E. Papadimitriou, D. Vertesy, and M. Saisana

## MONDAY | 05 November 2018

**12:00** Registration & Welcome Lunch

**13:00** Opening & Introduction

Sven Langedijk, Head of Unit

**13:30** Interactive Q& A session

**13:45** Indices & Scoreboards: Ten steps guide

(uses and misuses, framework, indicators, data treatment, weighting, aggregation, statistical coherence, communication, transparency)

**14:45** Steps 1 & 2: Framework & Indicators

(definition, added-value, multidimensionality, selection criteria for indicators)

**15:30** Coffee break

**16:00** Step 3: Outliers & Missing data

(Outliers: winsorization, trimming, Box-Cox; Missing data: mean/median, hot-deck, EM, cross-sectional trend analysis.)

**17:00** Audit your index: JRC-COIN tool (I)

(an Excel-based guide for assessing, partially, the soundness of composite indicators and scoreboards)

**18:00** End of first day

## TUESDAY | 06 November 2018

**09:00** Welcome Coffee

**09:30** Step 4: Normalisation

(min-max, distance to best performer, z-scores, categorical, ranking)

**10:15** Step 5: Weighting methods (I)

(statistical: principal component analysis)

**11:00** Coffee break

**11:30** Step 5: Weighting methods (II)

(participatory: budget allocation, analytic hierarchy process)

**12:45** Lunch break

**14:00** Step 6: Aggregation rules

(generalized mean, median ranking, Borda, Condorcet, Copeland, Arrow-Raynaud, Kemeny)

**15:30** Coffee break

**16:00** Step 7: Statistical coherence (I)

(correlations, cross-correlations)

**17:00** Audit your index: JRC-COIN tool (II)

(an Excel-based guide for assessing, partially, the soundness of composite indicators and scoreboards)

**18:00** End of second day

## **WEDNESDAY | 07 November 2018**

**09:00 Welcome Coffee**

**09:30 Step 7: Statistical coherence (II)**

(principal component analysis, reliability analysis)

**11:00 Coffee break**

**11:30 Step 8: Quality control & Robustness**

(Pearson correlation coefficient, non linear Pearson correlation ratio, uncertainty and sensitivity analysis)

**13:00 Lunch break**

**14:00 Steps 9 & 10**

Visualization & Communication (back to the data, radar plots, scatterplots, heatmaps)

**15:00 Coffee break**

**15:30 Audit your index: JRC-COIN tool (III)**

(an Excel-based guide for assessing, partially, the soundness of composite indicators and scoreboards)

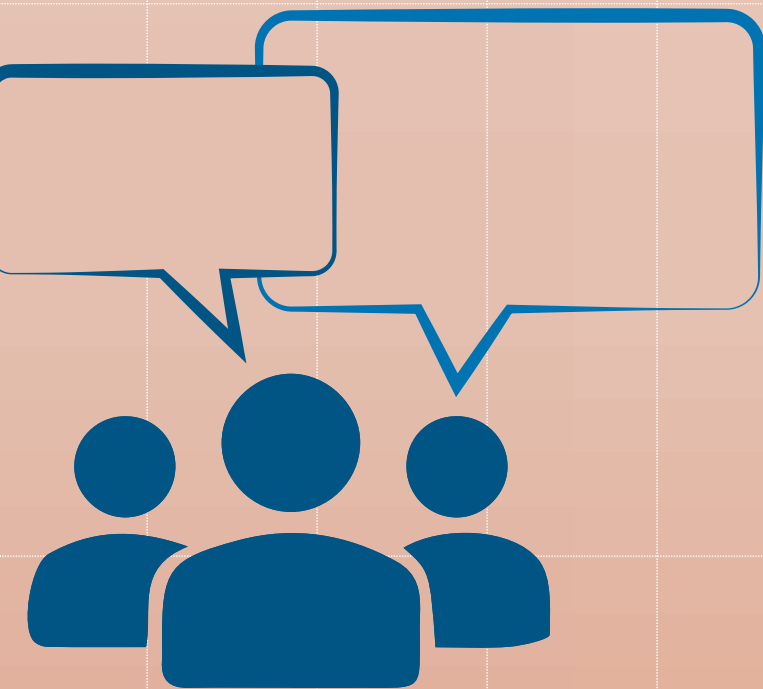
**18:00 End of training**



# Composite Indicators and Scoreboards Community of Practice

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JRC, Ispra  
08-09 November 2018



## Purpose and Scope

The purpose of the Community of Practice on Composite Indicators and Scoreboards (COINCoP) is to bring together policy analysts and researchers from the European Commission, international organizations, think tanks and the academia, to foster a practical exchange of experiences across a wide range of key policy areas that are monitored through composite indicators and scoreboards.

- ▶ *How should indices and scoreboards be used for policy and what should be avoided?*
- ▶ *How can indices and scoreboards be communicated to the wider public?*

This year's discussion topics include:

- ▶ Fairness & Inequality
- ▶ Social Rights & Social Trust
- ▶ Resilience & Risk Management
- ▶ Sustainable Development & Sustainable Governance
- ▶ Education & Skills
- ▶ Ageing societies & Migration
- ▶ Innovation & Digital Transformation
- ▶ SMEs & Competitiveness

COINCoP will facilitate collaboration between scientists and policy makers on the sensible development and responsible use of indices and scoreboards, encapsulating the 'big picture' on matters that are crucial for the EU and helping to shape policy and monitor progress.

## THURSDAY | 08 November 2018

**09:00** Registration & Welcome coffee

### **09:30 Panel I: Fairness & Inequality**

Moderator: Beatrice D'HOMBRES, *European Commission Joint Research Centre*

Commitment to Reducing Inequality Index. A global ranking of governments based on what they are doing to tackle the gap between rich and poor

Chiara MARIOTTI, *Oxfam*

Corruption Perceptions Index. Putting the issue of corruption on the international policy agenda

Coralie PRING, *Transparency International*

Financial Secrecy Index: A tool for understanding global financial secrecy and illicit financial flows

Markus MEINZER, *Tax Justice Network*

### **11:00 Coffee Break**

### **11:30 Panel II: Social Rights & Social Trust**

Moderator: Maria DEL SORBO, *European Commission Joint Research Centre*

Social Justice Index. Social Justice in the EU – The state of play

Thorsten HELLMANN, *Bertelsmann Stiftung*

Global Slavery Index. Putting the spotlight on modern slavery – a hidden, everyday problem

Katharine BRYANT, *Walk Free Foundation (via VC)*

The Human Freedom Index, where is the freedomland? The definition and measurement of freedom, and relationship among personal freedom, economic freedom, democracy, and well-being

Tanja PORČNIK, the *Cato Institute*

### **13:00 Lunch buffet and discussions**

## **14:00 Panel III: Resilience & Risk Management**

Moderator: Eleni PAPADIMITRIOU, *European Commission Joint Research Centre*

Resilience Framework. The Resilience of EU member states to the Global Crisis

Anna Rita MANCA, *European Commission Joint Research Centre*

The Global Conflict Risk Index: A global quantitative assessment of risk for violent conflict

Marie SCHELLENS, *European Commission Joint Research Centre*

INFORM: An Index for Risk Management

Karmen POLJANSEK, *European Commission Joint Research Centre*

FM Global Resilience Index: A country ranking of enterprise resilience to disruptive events

Cédric LENOIRE, *FM Insurance Europe (via VC)*

## **15:30 Coffee Break**

## **16:00 Panel IV: Sustainable Development & Sustainable Governance**

Moderator: Ana Rita NEVES, *European Commission Joint Research Centre*

SDG Index & Dashboard: Tracking progress of UN member states towards the 17 Sustainable Development Goals

Guillaume LAFORTUNE, *UN Sustainable Development Solutions Network*

ASEM Sustainable Connectivity Portal: An online tool to support policy debate on sustainable connectivity between Asia and Europe

William BECKER, *European Commission Joint Research Centre*

Natural Resource Governance Index: Measuring country-level quality of governance in the oil, gas and mining sectors

Anna FLEMING, Liz MCGRATH, *Natural Resource Governance Institute*

Sustainable Governance Indicators: Measuring sustainable governance across OECD and EU countries

Julia SCHMIDT, *Bertelsmann STIFTUNG*

## **17:30 End of first day**

## FRIDAY | 09 November 2018

### 09:00 Registration & Welcome coffee

#### 09:30 Panel V: Education & Skills

Moderator: Hedvig NORLÉN, *European Commission Joint Research Centre*

European Skills Index: A monitoring framework for measuring the performance of skills systems in the EU

Ilias LIVANOS, *European Centre for the Development of Vocational Training*

Mobility Scoreboard in Higher Education: A tool to monitor national action supporting learning mobility

Anna HORVATH and David CROSIER, *European Commission Education, Audiovisual and Culture Executive Agency (via VC)*

Human Capital Index: A framework that quantifies the contribution of health and education to the productivity of the next generation of workers

Nicola DEHNEN, *World Bank*

### 11:00 Coffee Break

#### 11:30 Panel VI: Ageing societies & Migration

Moderator: Giulio CAPERNA, *European Commission Joint Research Centre*

Building a protection vulnerability formula

Osama ABDELHAY, Hania SAHNOUN, *UN High Commissioner for Refugees*

Simone DEL SARTO, *University of Perugia*

Active Ageing Index: a tool to measure the untapped potential of older people across countries

Olga KHARITONOVA, *United Nations Economic Commission for Europe*

Ettore MARCHETTI, *European Commission DG Employment, Social Affairs & Inclusion*

Migrant Integration Policy Index: a tool to assess how countries are promoting Integration of Migrants

Giacomo SOLANO, *Migration Policy Group*

## **13:00 Lunch buffet and discussions**

### **14:00 Panel VII: Innovation & Digital Transformation**

Moderator: Daniel VERTESY, *European Commission Joint Research Centre*

Inclusive and sustainable industrial development platform/SDG9 indicators: challenges in aggregating economic, environmental and social indicators into synthetic indices

Nicola CANTORE, *United Nations Industrial Development Organization*

Well-being in the digital age: towards a measurement framework of the opportunities and risks of the digital transformation for well-being

Vincent SIEGERINK, *Organisation for Economic Co-operation and Development (OECD)*

Mapping Museums and Nightlife: building interactive maps to understand policy issues

John DAVIES, *NESTA*

## **15:30 Coffee Break**

### **16:00 Panel VIII: SMEs & Competitiveness**

Moderator: Pablo DE PEDRAZA, *European Commission Joint Research Centre*

Access to Finance Index. Monitoring SMEs' access to financial resources in the EU

Wouter TORFS, *Research & Market Analysis Division, European Investment Fund*

Single Market Scoreboard. Measuring performance of the Single Market

Javier PALMERO ZURDO, *European Commission, DG for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW)*

Global Entrepreneurship Monitor. Understanding the entrepreneurial phenomenon and its transformative benefits

Alicia CODURAS, *GEM Consortium*

Small Business Act Fact Sheets. Monitoring and assessing countries' progress in implementing the Small Business Act (SBA)

Martin MULLER, *European Commission, DG for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW)*

**17:30** Concluding Remarks

**17:45** End of the Community of Practice Meeting

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 us by:

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Tel: **+39 0332 78 6448**

Web: [\*https://ec.europa.eu/jrc/en/coin\*](https://ec.europa.eu/jrc/en/coin)

[\*https://composite-indicators.jrc.ec.europa.eu/\*](https://composite-indicators.jrc.ec.europa.eu/)

For logistics: [\*Susanna.Loffelholz@ec.europa.eu\*](mailto:Susanna.Loffelholz@ec.europa.eu)

## 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.



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