Composite Indicators:
Theory, Methodology and Applications

Overview

In the context of the Sixth Framework Programme of the European Commission the project KEI (Knowledge Economy Indicators: Development of Innovative and Reliable Indicator Systems) started on September 2004. The KEI project is part of priority 8 of the policy oriented research under the Framework Programme.

This workshop, the fourth in the KEI workshop series, aims at providing a forum for presenting and discussing recent developments in the construction, interpretation and application of composite indicators.

This workshop will take place on September 5th and 6th, 2006, at the Catholic University of Leuven, FETEW - Faculty of Economic and Applied Economics, Naamsestraat 69, 3000 Leuven, Belgium.

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The Catholic University of Leuven subsequently organizes the 9th International Conference on Science and Technology Indicators Check: www.steunpuntoos.be/leuvenconference/ for details.

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Fourth Workshop on Indicators in the Knowledge Economy

KEI

Workshop Programme

Leuven, 5 - 6 September 2006

More information is available under
http://kei.publicstatistics.net

Day 1: Tuesday 5 September 2006
Morning Programme

9.30 – 10.00 Coffee

10.00 – 10.15 Opening of the KEI Workshop

▶ Dean: **Prof. Dr. Joep Konings**, Catholic University of Leuven (BE)

▶ **Prof. Dr. Wim Moesen**, Catholic University of Leuven (BE)

▶ **Prof. Dr. Ralf Münnich**, University of Trier (DE)

10.15 – 12.15 Session 1:
Theoretical Frameworks for Composite Indicators

▶ Chair: **Andrea Saltelli**, Joint Research Centre, Ispra (IT)

To what extent can composite indicator practitioners counter the criticism that their approach is 'measurement without theory'? This first session presents three theoretical frameworks that may serve as a basis for sensibly constructed composite indicators.

▶ Price and Quantity Indices as Role Models for Composite Indicators
Prof. Dr. Bert M. Balk, Rotterdam School of Management and Statistics Netherlands, Voorburg (NL)

▶ Social Choice Theory and Composite Indicators
Dr. Erwin Ooghe, Catholic University of Leuven (BE) and Groupement de Recherche en Economie Quantitative d'Aix Marseille - GREQAM, Marseille (FR)

▶ Social Multi-Criteria Evaluation and Composite Indicators
Prof. Dr. Giuseppe Munda, Joint Research Centre, Ispra (IT)

12.15 – 13.30 Lunch

Day 1: Tuesday 5 September 2006
Afternoon Programme

Session 2:
Unraveling Composite Indicators' Construction Methodology

This session further highlights some methodological issues that arise in the construction of a composite indicator. How robust is the end-product? How do we combine the sub-indicators? And, on the most fundamental level: how can we assess the statistical quality of the raw indicators that are its building blocks?

13.30 – 15.00 Session 2a:
Benefit-of-the-Doubt Composites

▶ Chair: **Prof. Dr. Bert M. Balk**, Rotterdam School of Management and Statistics Netherlands, Voorburg (NL)

▶ The Benefit-of-the-Doubt Approach to KBE-Composite Indicators
Prof. Dr. Tom Van Puyenbroeck, Catholic University of Leuven, and European University College, Brussels (BE)

▶ Robust Alternatives to Estimate Benchmark Frontiers
Prof. Dr. Léopold Simar, Catholic University of Leuven, Louvain-la-Neuve (BE)

15.00 – 15.30 Coffee Break

15.30 – 17.00 Session 2b:
Indicators and their Statistical Quality

▶ Chair: **Prof. Dr. Ralf Münnich**, University of Trier (DE)

▶ Quality Aspects of Knowledge Economy Indicators
Dr. Nicole Thees, University Trier (DE)

▶ A Multiple Imputation Approach to Indicators
Luis Huergo, University of Tübingen (DE)

19.00 Dinner

Day 2: Wednesday 6 September 2006
Morning Programme

8:30 – 9:00 Coffee

9:00 – 12:15 Session 3:
Composite Indicators at Work: Applications

▶ Chair: **Dr. Asterios Chatziparadeisis**, Greek Ministry of Development, Athens (EE)

The issue in this third session is also challenging: can we learn something from composite indicators? What is there value-added for practitioners?

▶ A Multi-Criteria-Based Index for the Knowledge Economy in the EU25
Michaela Saisana, Joint Research Centre, Ispra (IT)

▶ A Dynamic Assessment of Knowledge Based Economy Indices
Prof. Dr. Laurens Cherchye, Catholic University of Leuven (BE)

▶ The Role of Composite Indicators for Advocacy of EU reform
Andrea Saltelli, Joint Research Centre, Ispra (IT)

11:00 – 11:15 Coffee Break

▶ Science- and technology-indicators. Taking stock: towards evidence based policy-analysis
Prof. Dr. Reinhilde Veugelers, Catholic University of Leuven and European Commission, Brussels (BE)

11:45 – 12:15 End of the Workshop

▶ **Dr. Ian Perry**, European Commission, Brussels (BE)
▶ **Prof. Dr. Ralf Münnich**, University of Trier (DE)
▶ **Prof. Dr. Wim Moesen**, Catholic University of Leuven (BE)