

# BONSAI WG on Input Output Framework (IOF)

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## Minutes of first meeting; 2015-09-24 15:00-16.30 CET

via GoToMeeting. Minutes by Bo Weidema

### Abbreviations used

LCA: Life Cycle Assessment

LCC: Environmental Life Cycle Costing

LCI: Life Cycle Inventory

LCIA: Life Cycle Impact Assessment

LCSA: Life Cycle Sustainability Assessment

WG: Working Group

## 1. Presentation

Present:

Keisuke Nansai [nansai.keisuke@nies.go.jp](mailto:nansai.keisuke@nies.go.jp) (KN)

José Manuel Rueda-Cantuche [josem.rcantuche@ec.europa.eu](mailto:josem.rcantuche@ec.europa.eu) (JC)

Badri Narayanan Gopalakrishnan [badri@purdue.edu](mailto:badri@purdue.edu) (BNG)

Richard Wood [richard.wood@ntnu.no](mailto:richard.wood@ntnu.no) (RW)

Bo Weidema [bweidema@plan.aau.dk](mailto:bweidema@plan.aau.dk) (BW)

BW shortly presented the objectives of BONSAI and the state of development, including the result of the recent expert activist workshop in Amsterdam (short minutes also available in the BONSAI LinkedIn group), with special emphasis on what was relevant in the context of IO data.

BW outlined the objectives of the IOF WG:

- **To develop and maintain procedures to ensure that the best possible Input-Output data are available as a basis for the BONSAI database (and for any other user groups)**
  - To use and advocate for open data
  - To develop procedures for (automatic) harvesting of annual updates
  - To develop standardised procedures for harmonising IO data sources and for integration with more process-specific data sources
  - To work towards completeness in terms of coverage of human activities, geographical coverage and multiple balanceable properties
- **To design tools for aggregated presentation of the Input-Output data and model results (per industry, per country, per environmental impact category)**

## 2. Principles

The following principles were discussed and agreed as the basis for the work:

- Free access (free and gratis as in “free beer”)
- Open source. While the ambition is to provide a fully open database on a CC-BY license, where the only requirement is attribution, where the trail to the raw data is fully transparent, and where data can be reused by anyone, also for commercial purposes, this does not prevent the possibility to also store and use data with more restrictive license types that allow academic – but not commercial – use, and to show how these data may lead to different – but less transparent – footprint results.
- Based on Supply-use data (prior to any constructs). For countries where only the constructed direct requirement matrices are available, the options to develop meaningful procedures for back-calculating supply-use data was shortly discussed and identified as an area that requires further research. RW mentioned that this had been tried for EXIOBASE but not followed through. It could be especially interesting to look at the options that occur when economic and physical data are combined, in order to discriminate between combined and joint co-production in the back-calculation.
- Non-fixed classification, as in the Eora MRIO database. JC mentioned that the activity and product structure is very country-specific and changes from year to year, which makes it difficult to use default breakdowns based on other countries, when combining data across countries.
- Non-exclusive algorithms and data (allowing more competing algorithms to be applied on the same data; allowing conflicting data sources to co-exist; using algorithms for quality scoring and consolidation)
- Public editing (wiki-data principles). This principle relies on the ability of the balancing, consistency and consolidation algorithms to handle many different data sources. This has been done in the Eora MRIO database.

## 3. Relation to existing MRIO initiatives

KN asked in what way BONSAI was duplicating or complementing EORA. BW pointed out that EORA is not completely open source, but only open for degree-awarding academic institutions. However, the idea is not to duplicate efforts whenever there are options for cooperation. EORA has been invited to join the WG.

JC pointed out that there would be very little value added in building up another global supply-use table, even if open and free. JC provided information on the Eurostat/OECD initiative that within the next two years will provide Global supply-use tables for 2010 and then every 5 years thereafter, as well as annual IO-intermediates. These tables would be at either 38 or 64 sector detail. JC stressed that the relevance of BONSAI was to go beyond this level of detail, providing tools and data to modify the supply-use tables to a more detailed classification relevant for product footprints. In this context BNG also found it relevant that BONSAI aims to continuously update data via Big Data Harvesting tools (scraping, textmining, etc.).

BW pointed out that for BONSAI the production of MRIO tables is not an *end* in itself, but rather a *means* to the objective of providing science-based “product footprinting” data. The BONSAI work plan complement that of existing MRIO initiatives in several ways, beyond the free and open access to the supply-use data:

- By including both economic and physical supply-use data in the same framework
- By focussing on integration of more detailed activity data from other sources

- By providing algorithms and software to build, maintain, and bridge classifications, beyond existing concordance tables
- By creating an NGO network of open source advocates to improve quality and open access to supply-use data in each country

#### **4. Membership**

BW stressed that the WG is open and asked for anyone else to invite.

KN mentioned Satoshi Inomata (IDE-JETRO) and JC proposed to invite Isabelle Remond-Tiedrez (Eurostat) and Nadim Ahmad (OECD), but suggested that the objectives of the BONSAI IOF WG should be further refined before addressing them.

BW and RW will prepare a more detailed description of the objectives of the WG and the relation to the rest of the BONSAI initiative, and will circulate this for comments.

#### **5. Next meeting**

After invitations to the above-mentioned persons have been sent out, a new meeting will be scheduled via a doodle.

The next meeting should focus on the remaining points on the agenda, particularly following up on the development of the beta-version of the BONSAI database, budget issues, and planning of further deliverables.