

New in ecoinvent version 3



User meeting, LCM 2013, Goteborg



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Structure of the talk

- New approach
 - ⇒ format
 - ⇒ methodology
- New for data providers
 - ⇒ National Databases Initiative
- New for users
 - ⇒ new datasets

New approach

New for data providers

New for users

New format: ecoSpold2

- Mathematical relationships described by functions within datasets
- All exchanges can have properties, usable within calculations, and additional parameters can be introduced
- Detailed uncertainty and data quality descriptions for all values
- More precise descriptions of geographical areas
- A better documentation within the dataset, including references, sources, description of modelling choices, and pictures

New approach

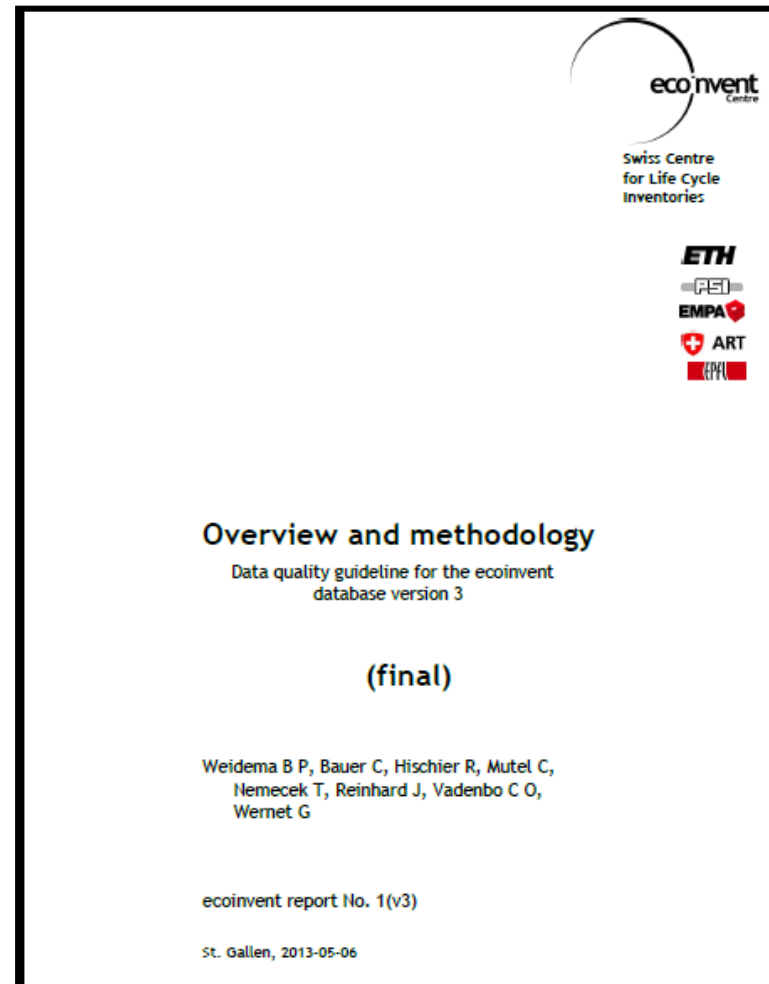
New for data providers

New for users

New methodology

- Data Quality Guidelines:

www.ecoinvent.org



New approach

New for data providers

New for users

New approach for data providers



- Objectives of ecoinvent v3:
 - ⇒ making it easier for 3rd parties to contribute;
 - ⇒ get a broader support for new datasets and/or corrections of existing datasets;
 - ⇒ all data are subject to a very strict quality control, review, and validation procedure (which is free for data provider).
- „Tools“:
 - ⇒ Editorial board
 - ⇒ EcoSpold v2 data format **COMPATIBLE WITH ILCD FORMAT**
 - ⇒ ecoEditor for version 3 **ON OUR WEBPAGE**
 - ⇒ New quality guidelines **ON OUR WEBPAGE**

New approach

New for data providers

New for users

The ecoEditor



ecoEditor for ecoinvent version 3

File Edit View Extras Help

<

New approach

New for data providers

New for users

Internationalisation



- The ecoinvent Centre is building a **network of collaboration partners**
- We wish to support other LCI initiatives by **offering our structure and experience**
- **Integrating** with existing data helps to **create datasets** and to reach **critical mass** for high quality database
- Transparent **unit-process** inventory modeling **facilitates** cooperation and data exchange

New approach

New for data providers

New for users

National Databases Initiatives



- National initiatives are responsible for their own local data collection programme, and retains the right to license the collected data to third parties, while providing the collected data for publication in the ecoinvent database.
- ecoinvent provides the necessary infrastructure for validation and publishing of the data as part of the ecoinvent database.
- Free ecoinvent licenses to all active in the national initiative.

New approach

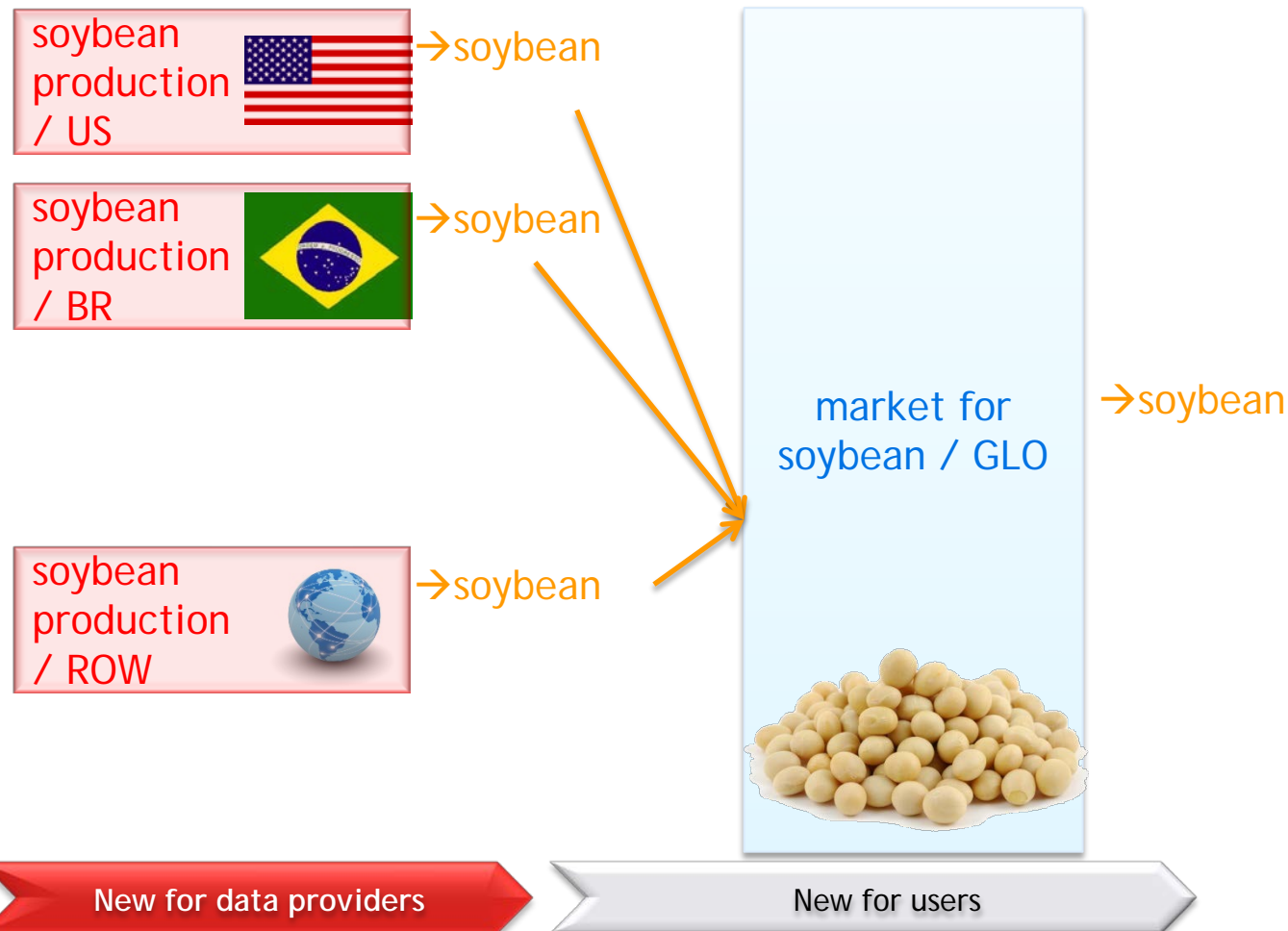
New for data providers

New for users

Why partner with an existing LCI DB?

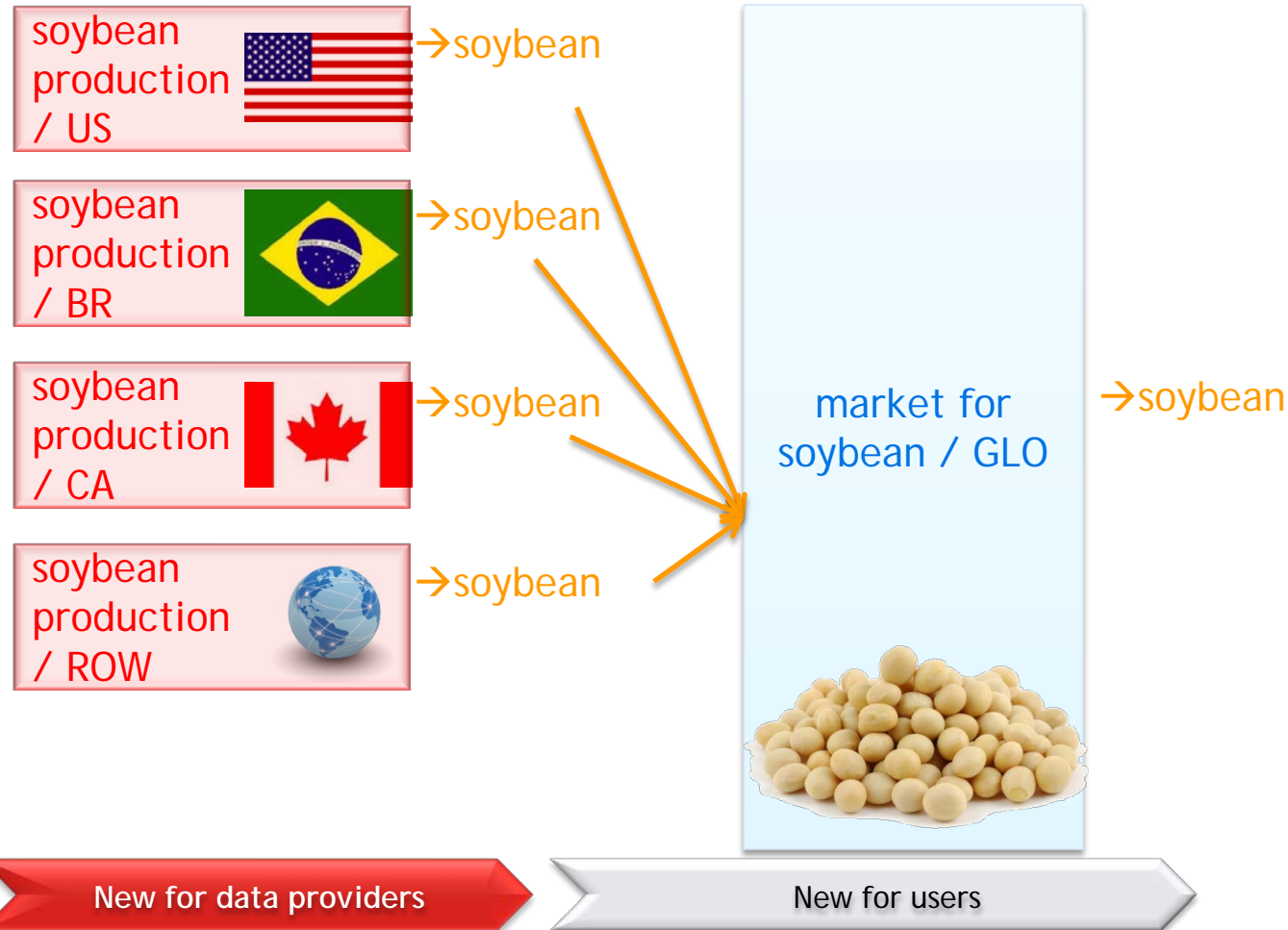
- Echoes from CIRAIG:

- Quicker
- Cheaper
- Instantaneous integration in supply chains

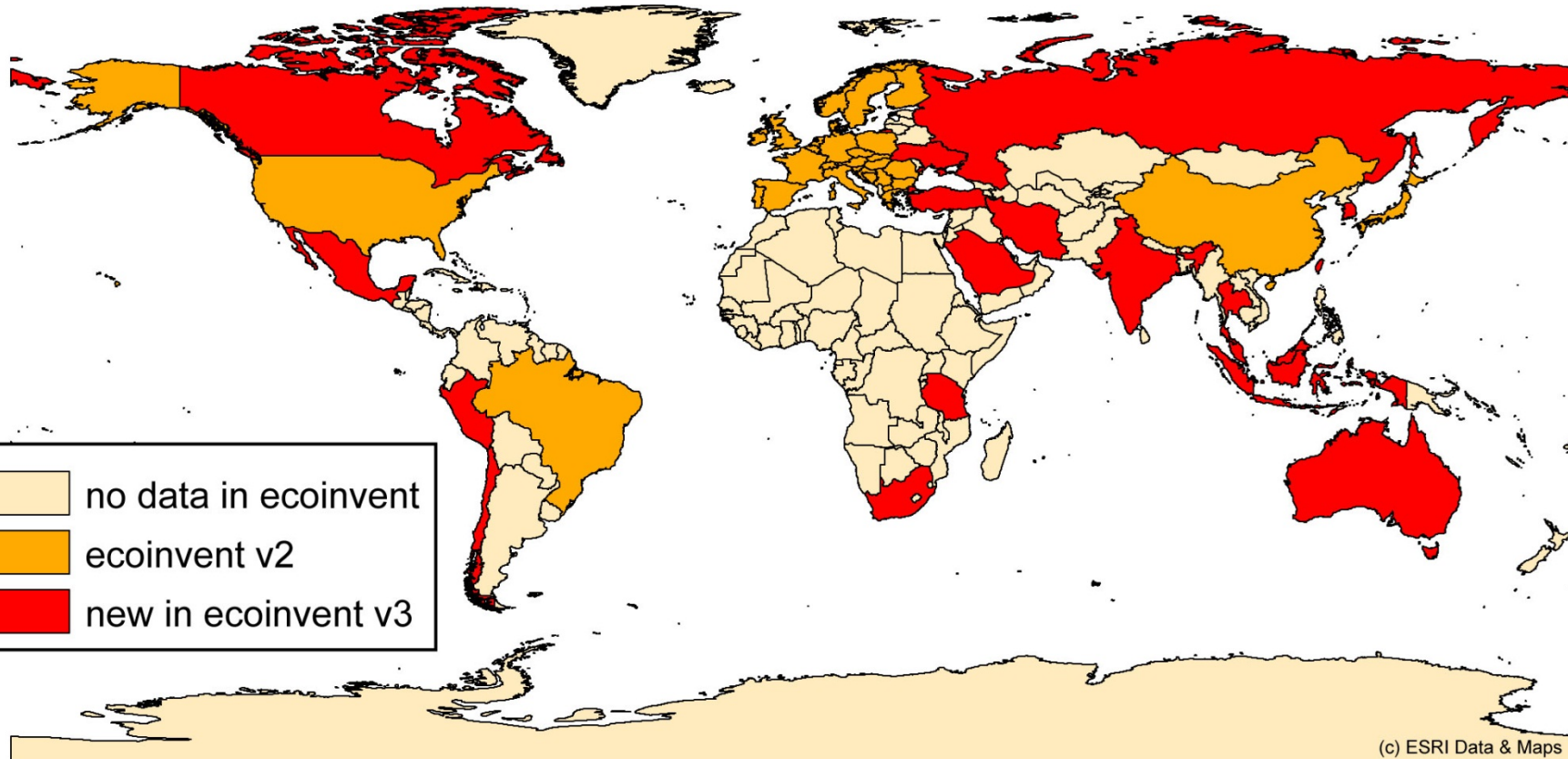


Why partner with an existing LCI DB?

- Echoes from CIRAIG:
 - Quicker
 - Cheaper
 - Instantaneous integration in supply chains



New electricity data: 90% produced electricity in the world



Work and Slide by PSI

New approach

New for data providers

New for users

More than 30 new fruits and vegetables



Work done by: ETH

New approach

New for data providers

New for users

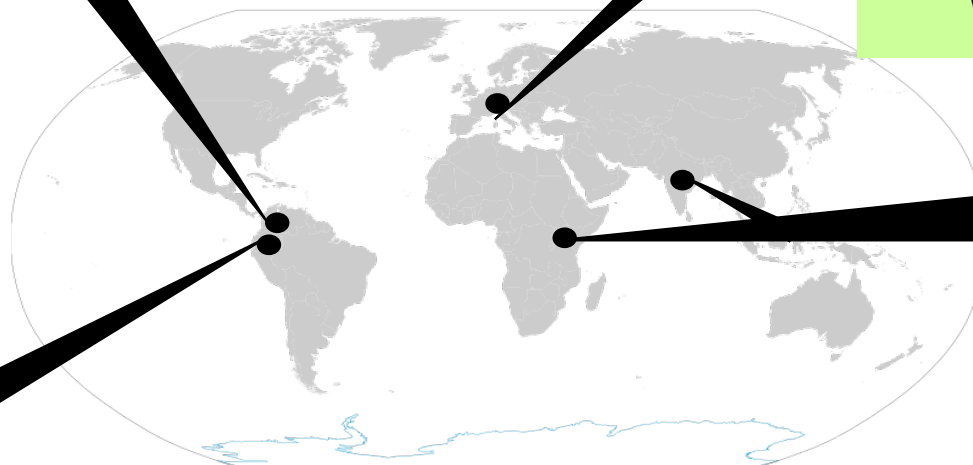
New inventories on biofuels



Sugar cane
Colombia



Alfalfa-grass
mixture, CH
Miscanthus, DE
Willow, DE



Oil palm
Colombia



Jatropha
India
East-Africa

Work done by: EMPA, ART
Slide: Thomas Nemecek, ART.

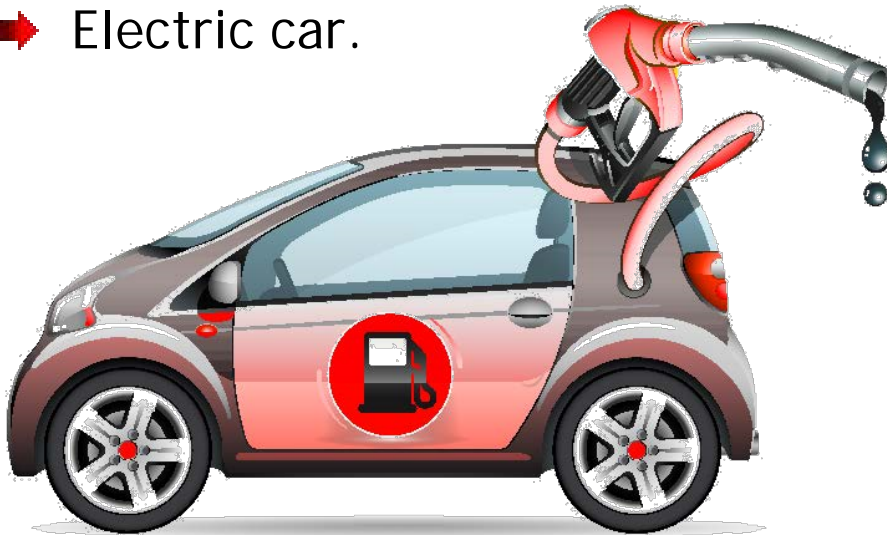
New approach

New for data providers

New for users

Passenger transport

- ➡ Work done by Empa & PSI.
- ➡ Combustion Engine Cars (petrol, diesel, natural gas); different Sizes ("small", "medium", "large"); different European Norms (3, 4, 5).
- ➡ Electric car.



New approach

New for data providers

New for users

Chemical Products

- More than 80 new chemicals (some are confidential datasets)

⇒ citric acid (confidentiel)

⇒ glycine

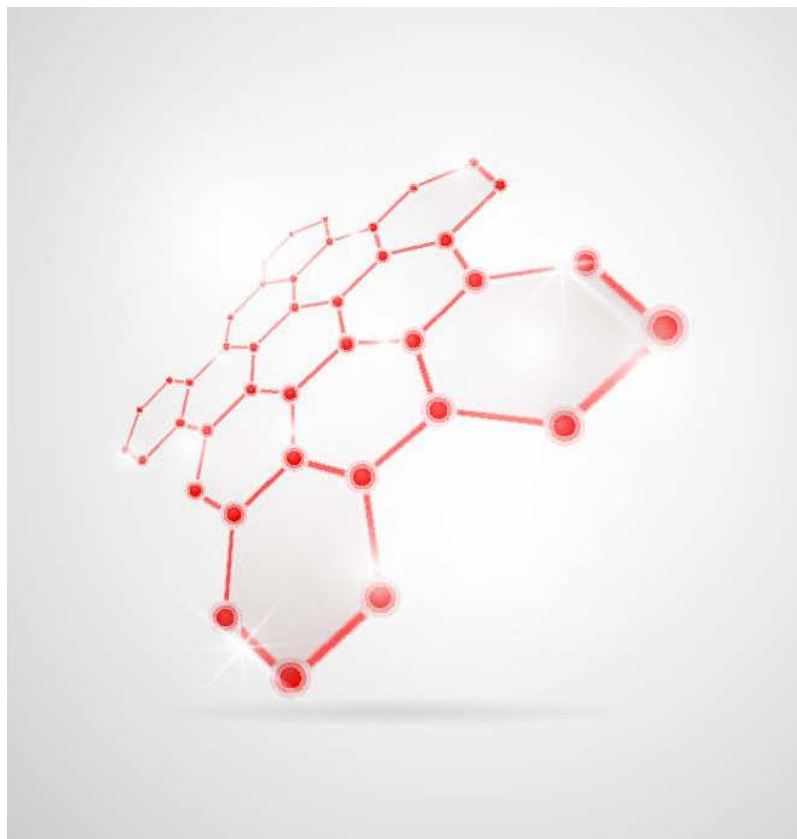
⇒ sodium amide

⇒ acrolein

⇒ trifluoroacetic acid

⇒ lactic acid

⇒ ...



New approach

New for data providers

New for users

Update in other sectors

- cement
- aluminium (data from IAA)
- paper and cardboard (data from FEFCO)
- vegetal oils
- agriculture (emissions)
- local markets (version 3.0.1)

New approach

New for data providers

New for users

Central updates

- Global data added for each technology
- Consistent modeling of global transport requirements, improving the representation of global trade flows
- Relevant by-products have been added to many activities
- Annual **production volumes** and **prices** calculated
- Six mandatory properties are added to all products present in the database
- Consistent water use data have been introduced for most activities and water withdrawal data have been updated, allowing an assessment of water use and consumption

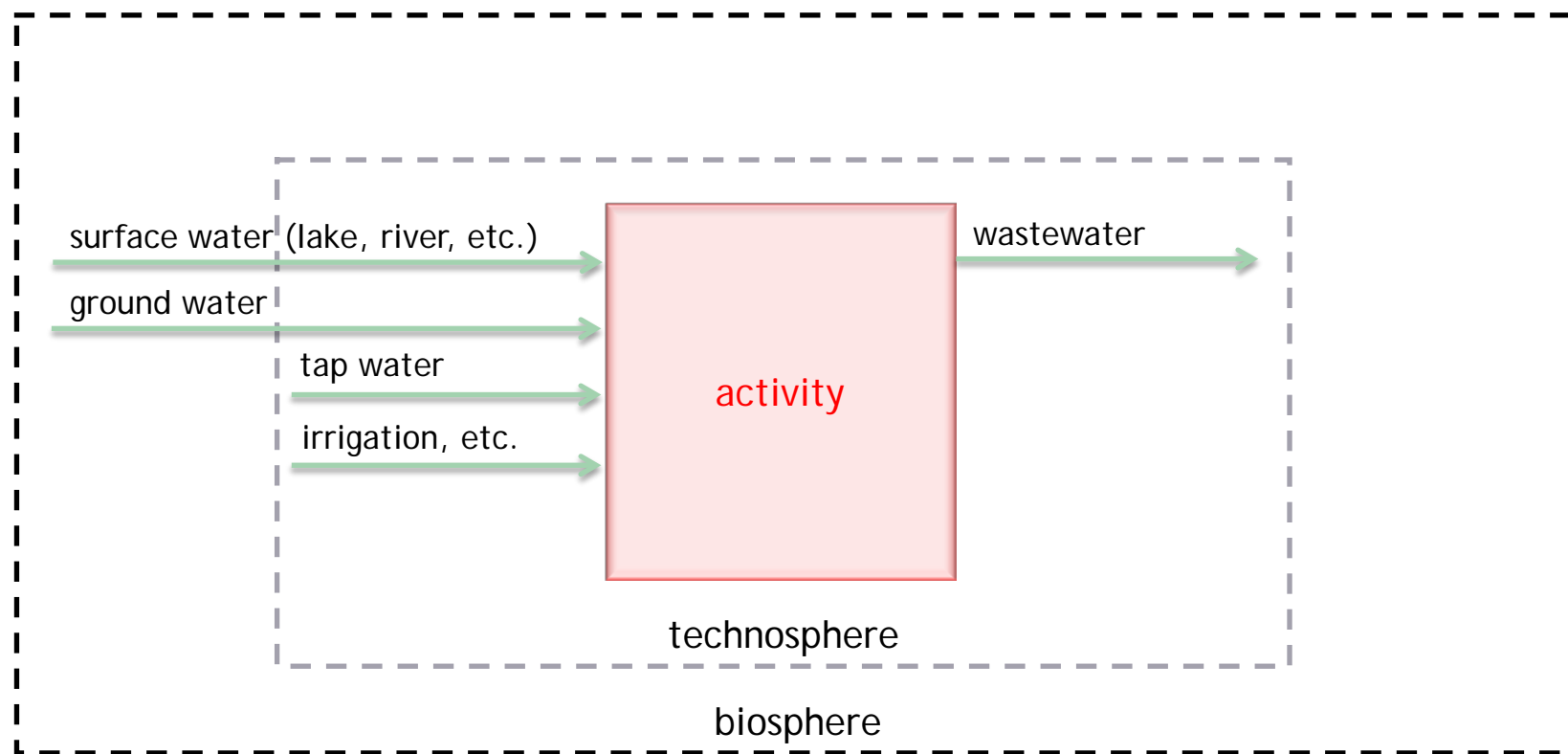
New approach

New for data providers

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Water flows update

ecoinvent version 2



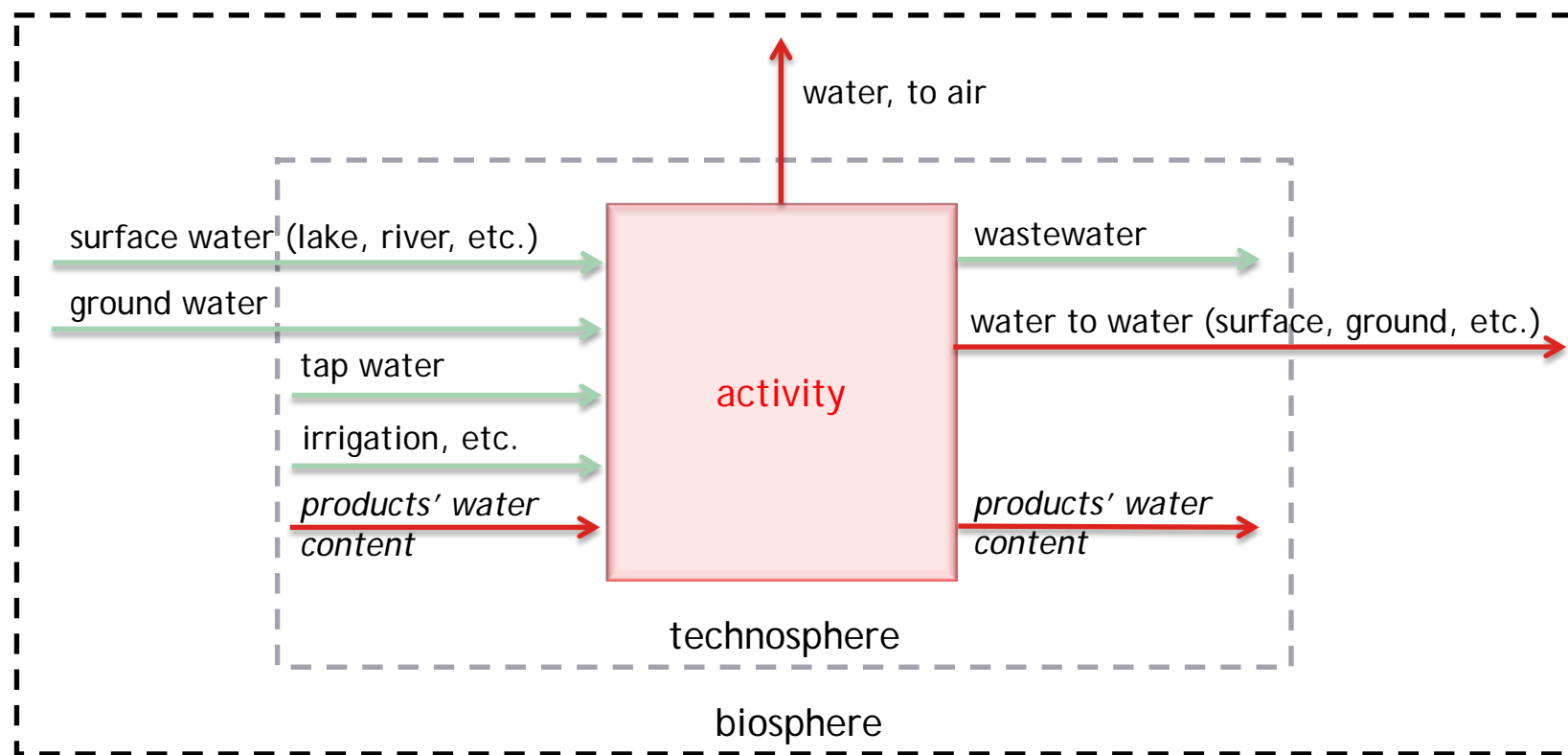
New approach

New for data providers

New for users

Water flows update

ecoinvent version 2 ➡ ecoinvent version 3



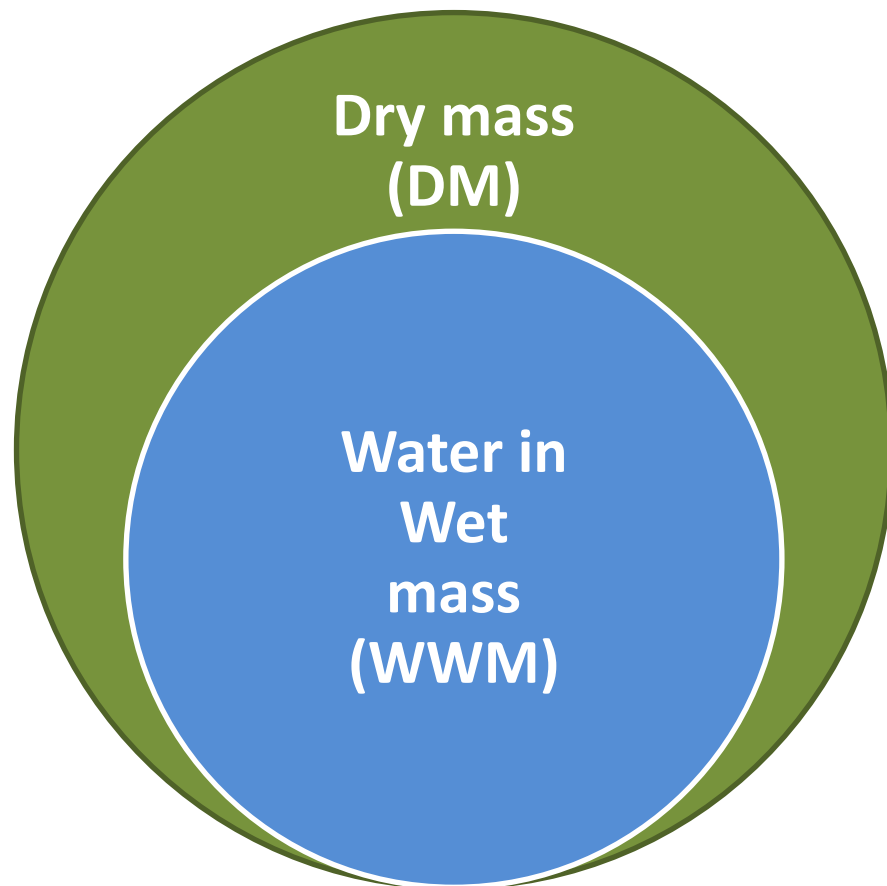
New approach

New for data providers

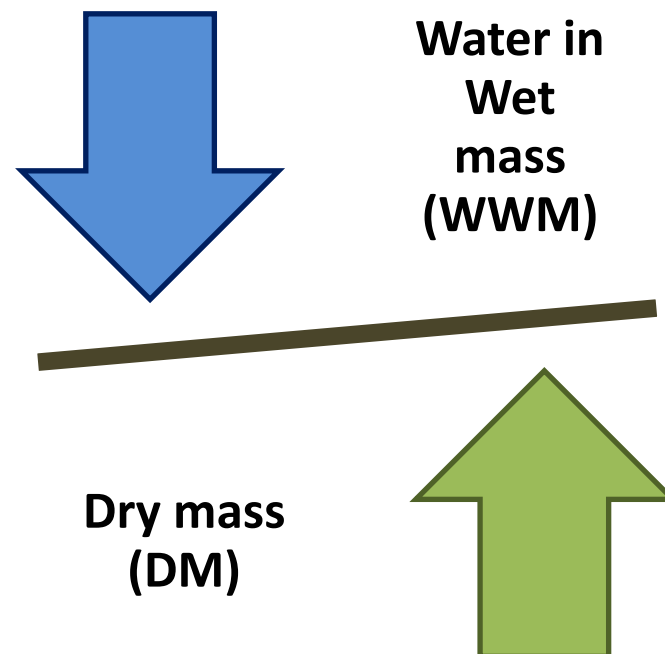
New for users

Compulsory properties: mass

Wet mass (WM)



Water content (U)



New approach

New for data providers

New for users

Compulsory properties: carbon content



Fatty alcohol



carbon content, fossil

carbon content, non-fossil

New approach

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New for users

Thank you for your attention!

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