Global Metrics for Sustainable Feed

November 2024

THE GLOBAL FEED LCA INSTITUTE

supporting the global metrics for sustainable feed

www.globalfeedlca.org

Global Metrics for Sustainable Feed

INTRODUCTION

Laura Nobel

- **GFLI manager**
- **projectmanager at Agribusiness Service**

Responsible for overall management for the Global Feed LCA Institute. Laura's role is contributing to the bigger picture, stimulating companies to prioritize sustainability through the LCA method, and finding synergies with relevant stakeholders. On the day-to-day basis, she engages in nearly all aspects of maintaining and growing the institute. Such as preparing key meetings and working groups like the Technical Management Committee and the Board of Directors, coordinating communication streams, drafting documentations, and developing and maintaining relevant partnerships.

Content

GFLI's mission

What is GFLI

Independent non-profit Institute with the purpose of;

- Providing a globally accessible, evolving animal feed ingredient Life Cycle Analysis (LCA) database;
- Supporting compliant, credible, and transparent environmental assessment of animal feed ingredients and their role in the environmental footprint of animal derived products; and
- Fostering continuous improvement of the environmental performance of animal derived products.

GFLI database

The database allows feed, livestock and aquaculture sectors to:

- use data based on a harmonized methodology;
- calculate the environmental footprint of products in a transparent and trustworthy manner; and
- benchmark and make meaningful comparisons.

Makes it possible to produce feed with a lower footprint; resulting also in food products with a lower footprint/kg (farmed fish/pig/poultry).

GFLI timeline

while the Institute is established in 2019, a long road came before...

2020 onwards
Publication of the database, member-based institute, developments

2019
GFLI as non-profit entity, start of institute

2016-2018
GFLI methodology created according to FAO-LEAP & PEFCR Feed

2015
GFLI established as coalition project

2010-2015
Start of research LCA

GFLI in a nutshell

An Institute

Day-to-day management

Database

Managing and improving the database

gfli

Global Metrics for Sustainable Feed

Partnerships

Partnerships with stakeholders in food and feed

Methodology

Alignment with major developments, flexible but thorough methodological approaches

GFLI AND GLOBAL DEVELOPMENTS

Alignment

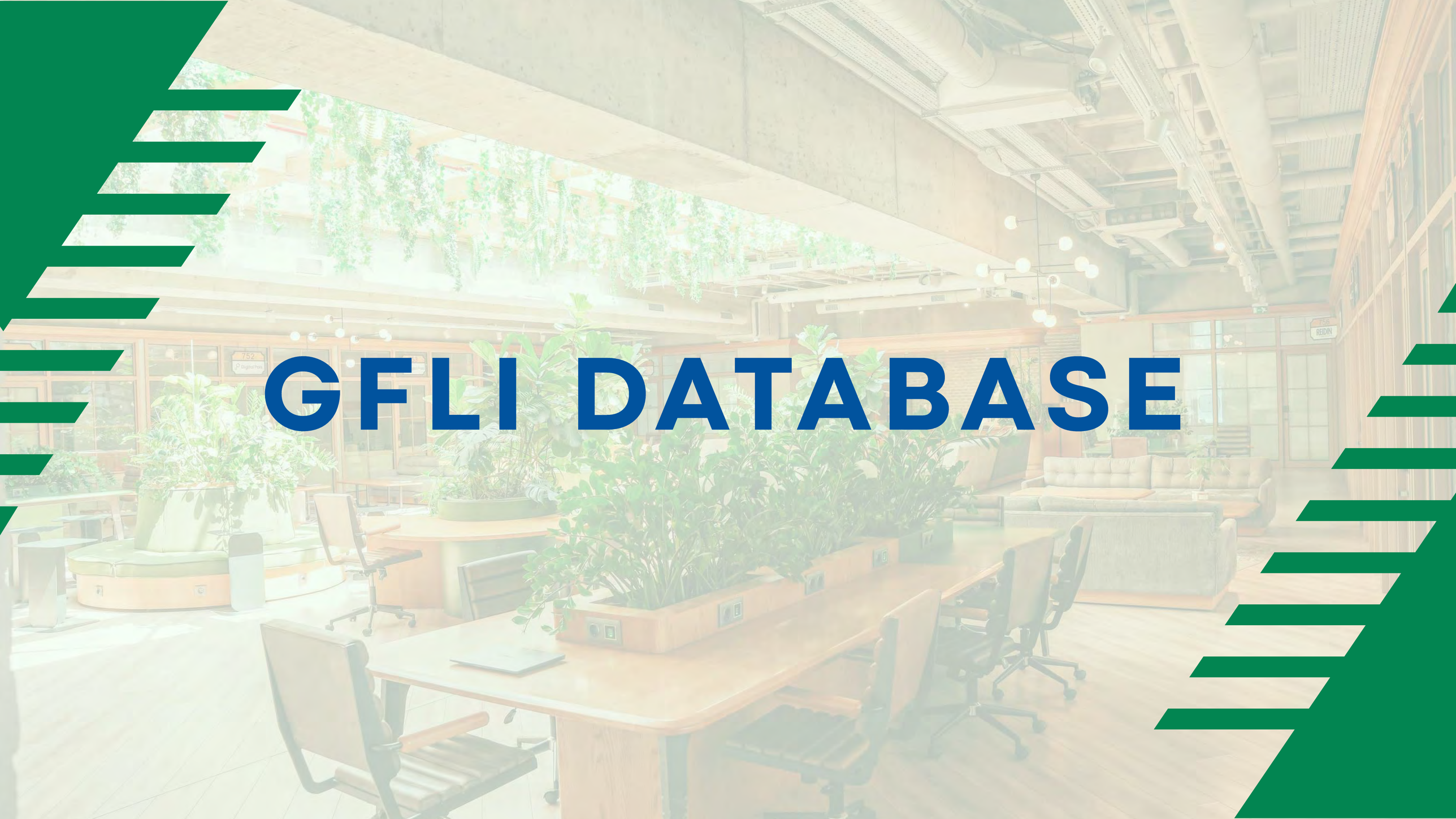
Alignment with major developments to allow compliance with (inter)national regulations and initiatives to simplify reporting duties

Database use

Reliable and credible data source for benchmarking, assessments, and scope 3 emissions

Partnership

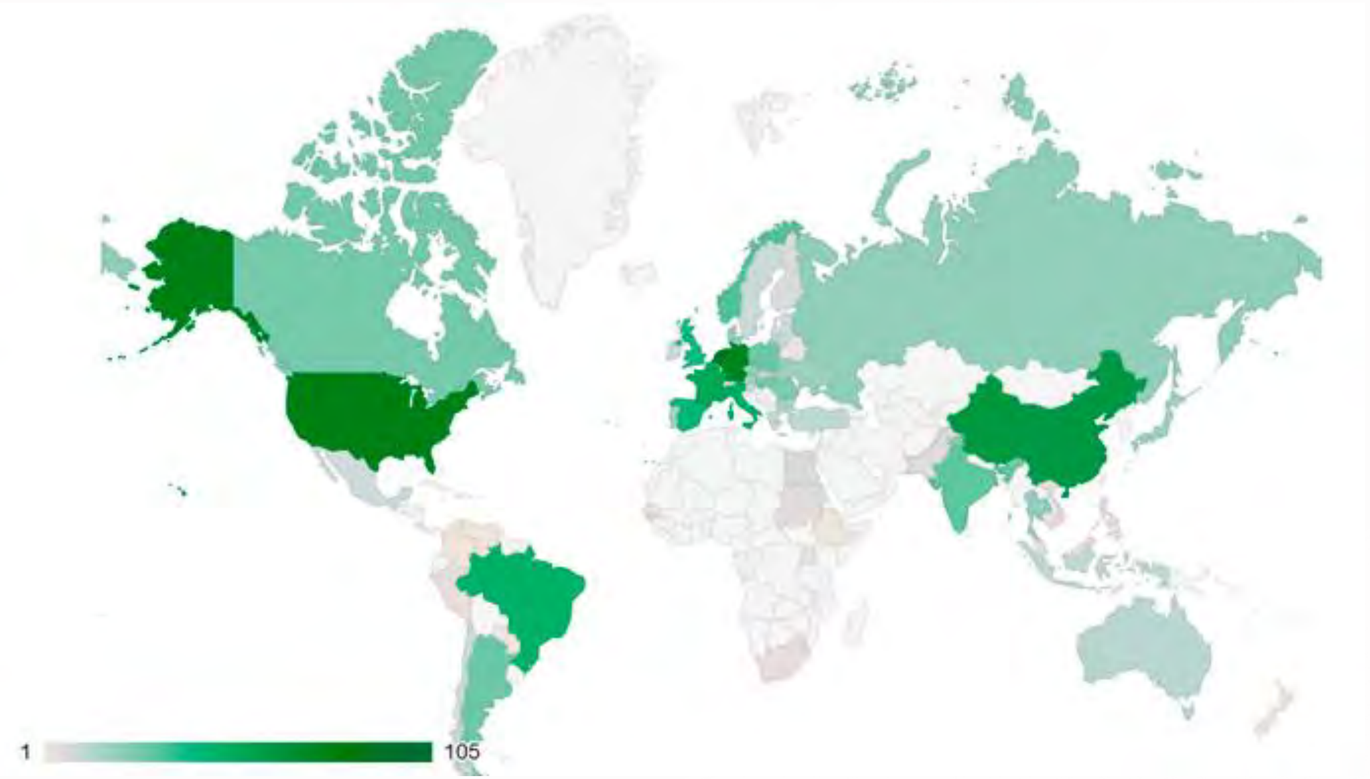
Collaboration to increase interoperability, simplifying supply chain communication, & solving data gaps

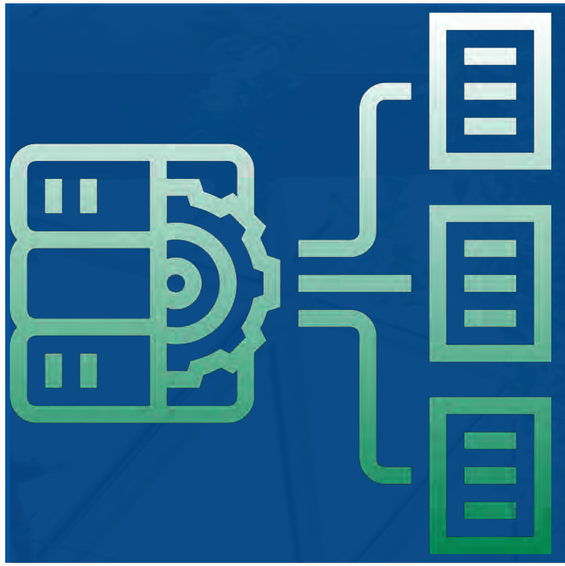


GFLI DATABASE

DATABASE

- ≥1,830 datasets covering main ingredients for European countries and North American states/provinces, but also regional averages (global, Europe, North America)
- Three allocations: economic, mass matter, gross energy
- Includes Data Quality Rating (DQR), (EU PEF Method)





DATABASE FORMATS

Life cycle assessment

- Output of emissions per ton/ingredient
- 2 impact assessment methods included (ReCiPe & EF3.1)
- Ingredient comparisons
- Measuring average environmental footprint for compound feed

Lifecycle inventory (system processes)

- The system processes is the aggregated inventory of inputs and outputs of each dataset
- allows for flows to be manipulated to perform contribution or sensitivity analysis
- the resources (input), output (ingredient and emissions related to its production) are shown
- to see the changes to the end-product's environmental footprint

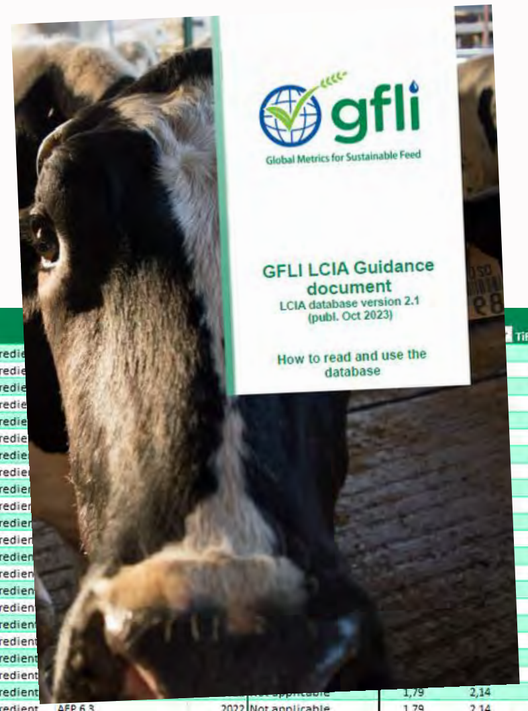
Unit process level

- The disaggregated inventory of inputs and outputs to the level used for modelling
- all details of how each dataset has been established and its linked processes are included
- allows for contribution or sensitivity analysis

Not all ingredients will be available in unit process level due to sensitivities for industry data

How can the GFLI data be used?

With the LCIA database format, you can calculate a compound feed based on the available ingredients in the database. Read the LCIA guidance document on website (url)!



	Products GFLI 2.1 database - economic allocation	Type	TiR	TeR	GR	Unit
2	Barley grain, dried, at storage/AR Economic	Feed ingredie	1,92	1,42	1,68	ton
3	Barley grain, dried, at storage/AT Economic	Feed ingredie	1,92	1,42	1,68	ton
4	Barley grain, dried, at storage/AU Economic	Feed ingredie	1,92	1,42	1,68	ton
5	Barley grain, dried, at storage/BE Economic	Feed ingredie	1,92	1,42	1,68	ton
6	Barley grain, dried, at storage/BG Economic	Feed ingredie	1,92	1,42	1,68	ton
7	Barley grain, dried, at storage/BR Economic	Feed ingredie	1,92	1,42	1,68	ton
8	Barley grain, dried, at storage/CA Economic	Feed ingredie	1,92	1,42	1,68	ton
9	Barley grain, dried, at storage/CH Economic	Feed ingredie	1,92	1,42	1,68	ton
10	Barley grain, dried, at storage/CN Economic	Feed ingredie	1,92	1,42	1,68	ton
11	Barley grain, dried, at storage/CY Economic	Feed ingredie	1,92	1,42	1,68	ton
12	Barley grain, dried, at storage/CZ Economic	Feed ingredie	1,92	1,42	1,68	ton
13	Barley grain, dried, at storage/DE Economic	Feed ingredie	1,92	1,42	1,68	ton
14	Barley grain, dried, at storage/DK Economic	Feed ingredie	1,92	1,42	1,68	ton
15	Barley grain, dried, at storage/EE Economic	Feed ingredie	1,92	1,42	1,68	ton
16	Barley grain, dried, at storage/ES Economic	Feed ingredie	1,92	1,42	1,68	ton
17	Barley grain, dried, at storage/FI Economic	Feed ingredie	1,92	1,42	1,68	ton
18	Barley grain, dried, at storage/FR Economic	Feed ingredie	1,92	1,42	1,68	ton
19	Barley grain, dried, at storage/GB Economic	Feed ingredie	1,92	1,42	1,68	ton
20	Barley grain, dried, at storage/GR Economic	Feed ingredie	1,92	1,42	1,68	ton
21	Barley grain, dried, at storage/HU Economic	Feed ingredie	1,92	1,42	1,68	ton
22	Barley grain, dried, at storage/IE Economic	Feed ingredie	1,92	1,42	1,68	ton
23	Barley grain, dried, at storage/IT Economic	Feed ingredie	1,92	1,42	1,68	ton

01 Leverage GFLI data for feed formulation ingredients

02 Integrate GFLI data in LCA studies or software tools

03 Define local footprint of feed and animal protein

04 Identify opportunities for impact reduction (scenario analysis)

05 Deliver sustainability reports and innovate

06 Communicate impact results and impact reduction

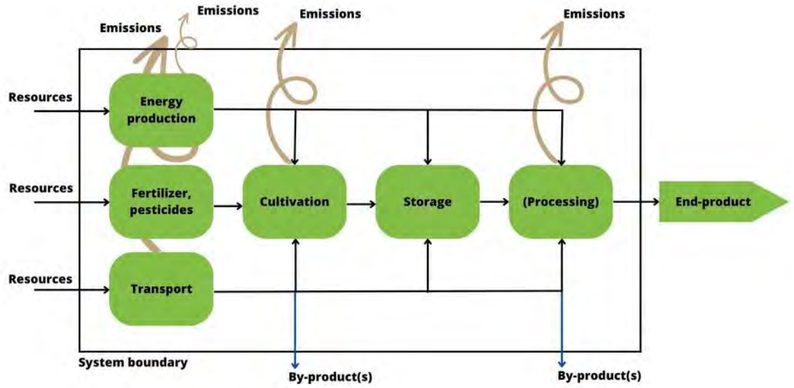
How can the GFLI data be used?

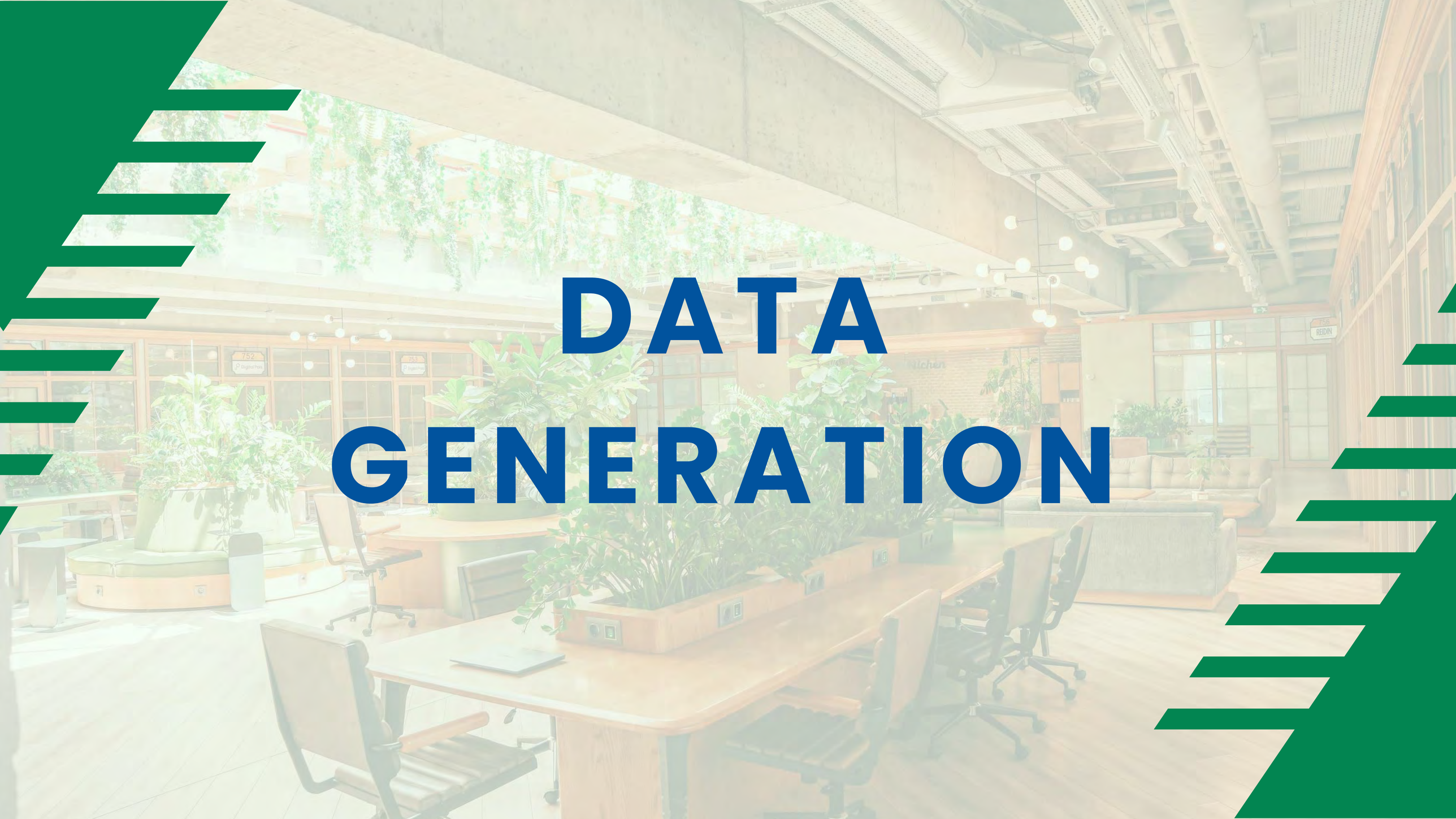
Unit process level

Through the unit process level data, underlying processes become available, such as:

- Water use
- Land use
- Manure & fertilizer input
- Pesticides use
- Energy input
- etc.

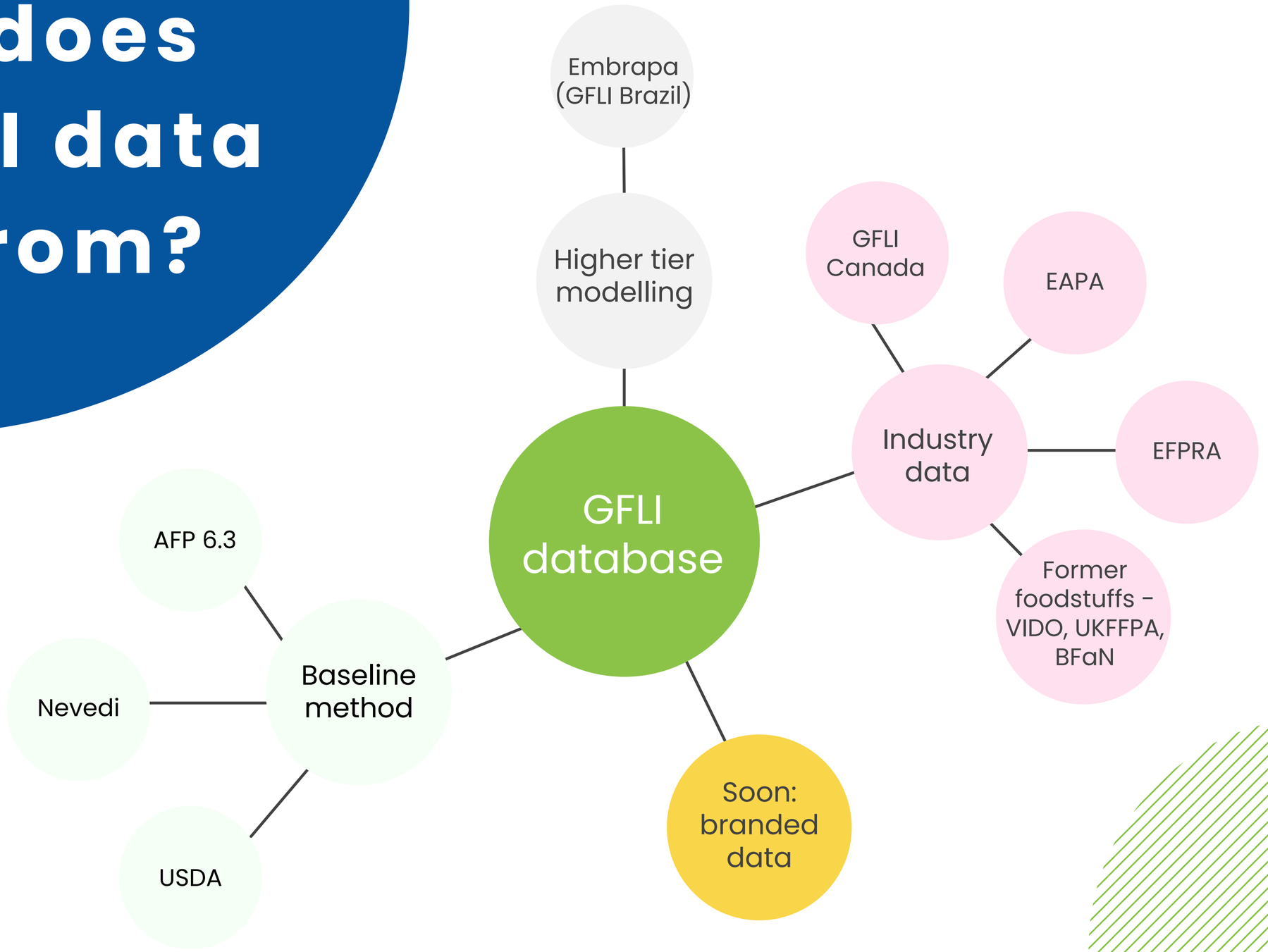
With this information, contribution or sensitivity analysis can be researched for process improvements





DATA GENERATION

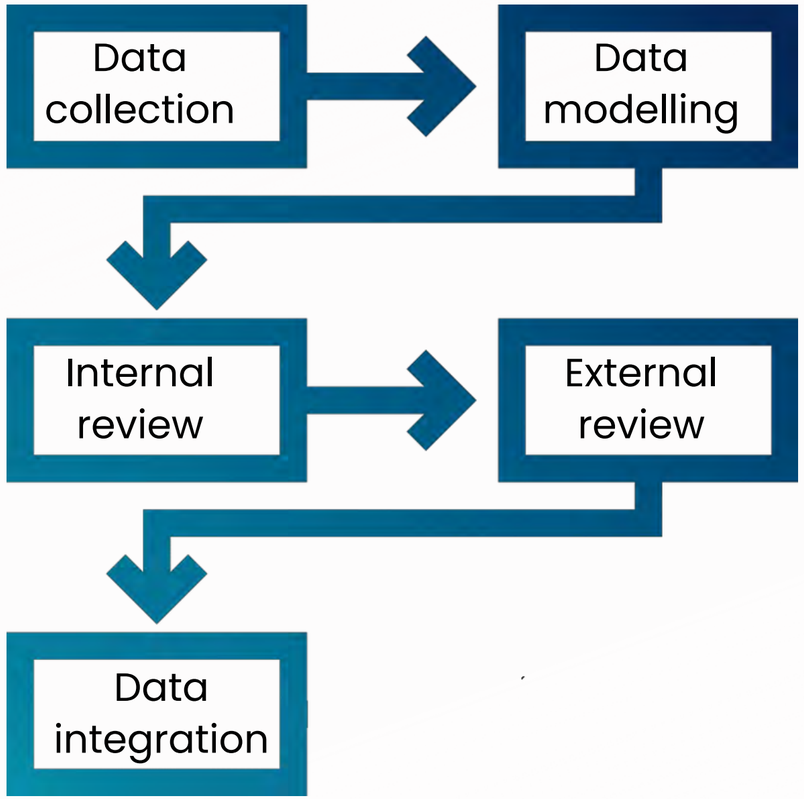
Where does the GFLI data come from?



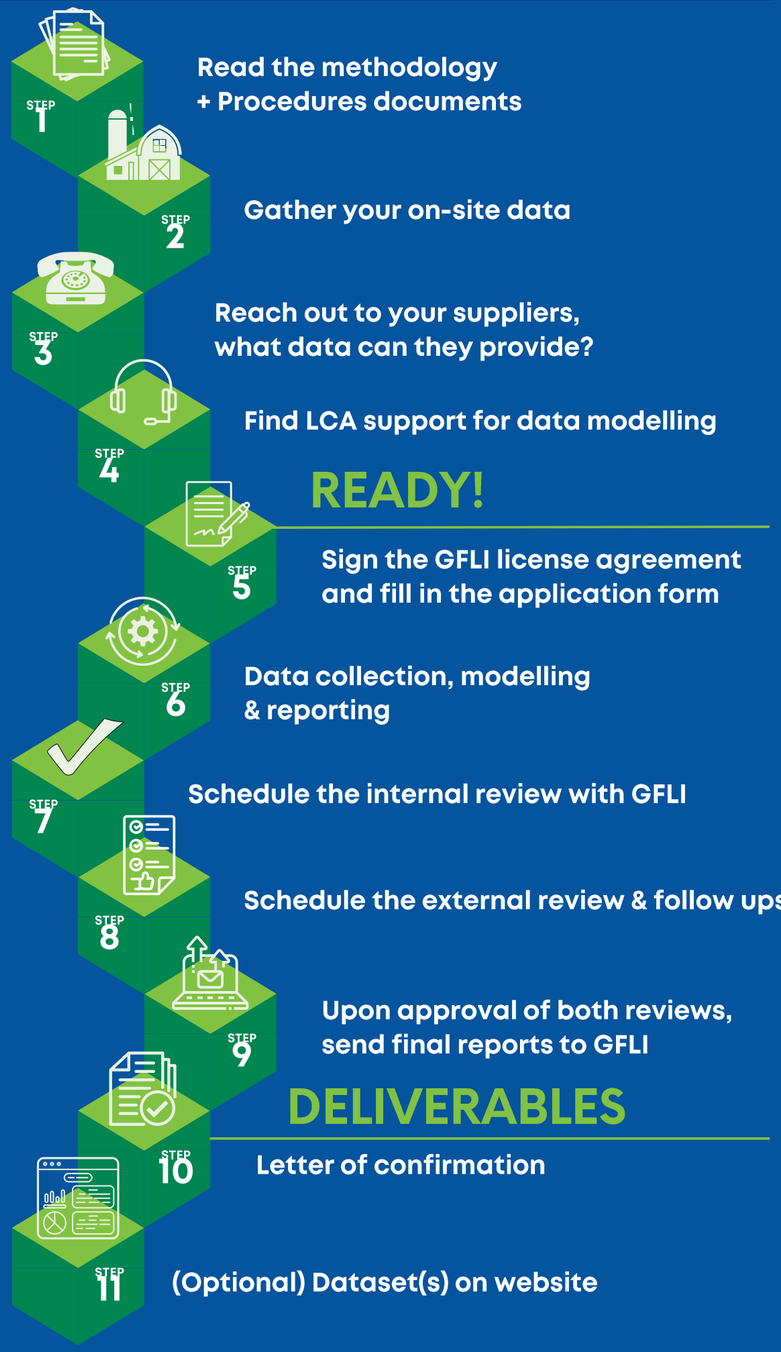
DATA GENERATION

- LCA data from various sources, which are contributed by data providers.
- Data providers may be research institutes, universities, associations, companies, a consortium of entities.
- Goal: collect and model data per GFLI methodology to fill gaps, improve existing datasets, or improve methodology (i.e. regionalized modelling).
- Branded data: product-specific data

To come: Data-in Generator tool to automatize (part of) the data modelling



HOW TO PREPARE FOR BRANDED DATA



GFLI Branded data

The basic principle for branded data is to use as much primary data as possible. Branded data allows producers of feed ingredients to be transparent about the impacts of their specific products and provides credibility to their customers.

- Give insight to the company's emissions in order to track sustainability over multiple years
- Allow for sustainability reporting through a recognized methodology
- Allow for comparison with the industry averages in the GFLI database & able to use primary data alongside secondary data
- Insights on own supply chain, and be the driver of sustainability
- Marketing and communication purposes

WHAT'S MORE TO COME

Current developments

With more members and funding, the GFLI will invest in further development of the database, a robust and sound methodology, and more partnerships within the feed and food chain to accommodate interoperability of systems and simplifying sustainability reporting.

Concrete examples:

- Integration of a Data-in Generator tool, simplifying the data generation process
- Creating and evaluating a robust methodological approach for novel feed ingredients
- Forming an IT framework for easy and secure access of the GFLI database
- Collaborations for high-quality emission models & the acceptance of higher tier modelling in the database
- Fill data gaps, such as vitamins, feed additives, novel feed ingredients, pasture-based ingredients
- And more...

GFLI membership benefits

Strategic partnerships

The GFLI is also looking for strategic partnerships to accelerate uptake of the database and brand familiarity in order to become thé global reference for feed LCA.

Research & partnerships

Research institutes and Universities can use the GFLI database for reduced pricing (limited to research purposes);

How to become a GFLI Member:

GFLI offers membership to allow corporate and association front runners to collaborate pre-competitively to help maintain and improve the GFLI database as well as engage with other stakeholders in the feed and food chain.

- Be recognized as a catalyst for continuous improvement
- Contribute to the resilience of the entire feed and food chain

Associations

$ 5.000

- Discount for data access
- 2 hours of consultancy with our LCA expert to reach your sustainability goals
- Discounts on additional consultancy hours
- Eligible to participate actively in the Institute by nominating representatives to the GFLI Board of Directors and Technical Management Committee
- Participation in working groups
- Invitation to the Annual Membership Meeting
- Members-only newsletter

Corporate members

Prices based on turnover of total revenues - $ 6.500 – 11.500

- Access to the GFLI LCIA database (1 user)
- 30-50% discounts for commercial and developer use of the database in all 3 formats of the database
- 2 hours of consultancy with our LCA expert to reach your sustainability goals
- Discounts on additional consultancy hours and internal review for branded data
- Eligible to participate actively in the Institute by nominating representatives to the GFLI Board of Directors and Technical Management Committee
- Participation in working groups
- Invitation to the Annual Membership Meeting
- Members-only newsletter

Research Institutes

- Research license for discounted data use
- Partnership to further data generation and pre-competitive network for sustainable development

***Pricing based on 2023 fees.**

Join the GFLI!

Interested in membership, providing or accessing data, or becoming a strategic partner? Let us help you meet your sustainability goals! Contact the GFLI Secretariat for more information at: info@globalfeedlca.org

40+ MEMBERS

Check out our website!

GFLI Corporate members

GFLI Association members

FEFAC
Experts in Animal Nutrition

AFIA
American Feed Industry Association

Animal Nutrition Association of Canada
ANAC
Association de nutrition animale du Canada

SjømatNorge
Norwegian Seafood Federation

USSOY

IFIF
Feed the world

USSEC

DVT
DEUTSCHER VERBAND
TIERNAHRUNG E.V.

sindiraçoes
Sindicato Nacional da Indústria
de Alimentação Animal

aic
agricultural
industries
confederation

Nevedi

U.S. GRAINS
COUNCIL

IFFO
THE MARINE INGREDIENTS ORGANISATION

NARA
NORTH AMERICAN RENDERERS ASSOCIATION

DAKOFO
Danish Grain & Feed

Global Metrics for Sustainable Feed

THANK YOU

Contact:

+31 (0)68 684 65 81

info@globalfeedlca.org

www.globalfeedlca.org

Louis Braillelaan 80, 2719 EK
Zoetermeer, The Netherlands

Resources

Relevant documents

- **Methodology for regional/sectoral data-in projects**: https://globalfeedlca.org/wp-content/uploads/2023/01/GFLI-Methodology-and-Project-Guidelines.V2.pdf
- **Procedures for a data-in project**: https://globalfeedlca.org/wp-content/uploads/2023/01/GFLI-Procedures-for-Data-in-Projects.V2.pdf
- **Methodology + procedures of branded data**: https://globalfeedlca.org/wp-content/uploads/2023/10/GFLI-Branded-Data-Methodology-and-procedures.V1-20231016-1.pdf
- **LCIA guidance document** (how to read the GFLI database): https://globalfeedlca.org/wp-content/uploads/2023/11/GFLI-LCIA-Guidance-Document-version-2.1-20231127.pdf

Overviews

- **Overview of available datasets in V2.2 database**: https://globalfeedlca.org/wp-content/uploads/2023/10/Overview-of-datasets-in-GFLI-database.pdf
- **Fee structure for database access**: https://globalfeedlca.org/wp-content/uploads/2023/12/Fee-structure-20231220.pdf
- **GFLI leaflet**: https://globalfeedlca.org/wp-content/uploads/2024/09/GFLI-Leaflet.onlineversion.pdf