Global Metrics for Sustainable Feed

GFLI procedures for Data-in projects

30 January 2023

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Definitions

Database	A subset of datasets within the context of the GFLI database
Dataset	Data of a feed ingredient regarding its environmental impact or data needed to calculate its environmental impact
Life Cycle Assessment (LCA)	Methodology for assessing environmental impacts associated with all the stages of the lifecycle of a commercial product, process, or service.
Sector(al) projects	GFLI project for feed ingredients representative for a certain sector collected from specific companies of that sector
Regional projects	GFLI project for feed ingredients representative for a certain region collected from secondary data
Baseline data	LCI/LCIA data from the Agri-footprint database which uses the PEF modelling rules for agriculture and is also the basis for the EC feed database
Branded projects	LCI/LCIA data for a feed ingredient marketed under a certain brand and owned by a company or other entity
TMC	Technical Management Committee, consisting of GFLI members' technical experts, who hold regular meetings

1 Introduction Global Feed LCA Institute (GFLI)

The Global Feed LCA Institute (GFLI) is an independent animal nutrition and food industry institute with the purpose of developing a publicly available Feed Ingredients Life Cycle Assessments (LCA) database. It supports meaningful environmental assessment of animal nutrition products and stimulate continuous improvement of the environmental performance in the animal nutrition, animal production and food industry. GFLI will maintain and expand its regional and sectoral Animal Nutrition LCA database, ensuring the integrity and quality of the LCA ingredient dataset in accordance with the Food and Agriculture Organization of the United Nations Livestock Environmental Assessment and Performance Partnership (FAO/LEAP) guidelines for animal nutrition and food chain systems and the Product Environmental Footprint Category Rules (PEFCR) Feed for food-producing animals as established by the European Union. The Institute provides public access to the GFLI database, as the recognized global reference for feed ingredients LCA data by the public and private sector (e.g., LCA researchers, industry, NGOs, academia and government bodies). The institute also facilitates GFLI database access for stakeholders in the field of animal nutrition, animal production and food industry, for use in conducting environmental footprint calculations of their products and meaningful comparisons based on a harmonized methodology.

1.1 GFLI governance mechanism

The executive body of the GFLI is the GFLI Board of Directors, composed of representatives of the GFLI members and the (non-voting) Technical Management Committee (TMC) Chair. The GFLI Board of Directors oversees all activities of the database development projects and is supported by the TMC. The TMC advises the Board on multiple technical and methodological aspects. The TMC is made up of experts nominated by GFLI Members. The mandate of the TMC is to act as the gatekeeper of the GFLI Methodology and Procedures guidance documents and to guide the expansion, improvement, and actualization of the database.

To improve objectivity and to strengthen its connection with value chain partners, a Scientific Advisory Council (SAC) was developed and inaugurated on April 26, 2021. GFLI's Scientific Advisory Council is an external expert panel established to support the GFLI Board of Directors and Technical Management Committee (TMC) address critical questions regarding the quality, safeguarding, and improvement of the database. Furthermore, it provides feedback about how to improve the methodology and procedures that govern the maintenance and continual improvement of the database. The SAC is made up of experts in life cycle assessment methodologies and environmental and animal nutrition fields, each possessing a range of regional and sectoral experience.

1.2 GFLI "data-in" projects

GFLI "data-in" projects are carried out to extend, improve and update the GFLI LCA database and the underlying methodology to derive LCI datasets. Figure 1 displays a simplified process to obtain GFLI-compliant data. The steps are detailed in chapter 3.

Three types of "data-in" projects can be distinguished:
1. Regional: covering feed ingredients within a geographical area
2. Sectoral: covering a specific type of feed ingredients (e.g. wheat and its by-products)
3. Branded: providing data for a specific company's animal nutrition product[1]

The focus of a "data-in" project can be:
- First development of LCI datasets not yet available in the GFLI database
- Updating of existing LCI datasets for an improved representativeness (i.e. newer data, different technologies and/or inputs).

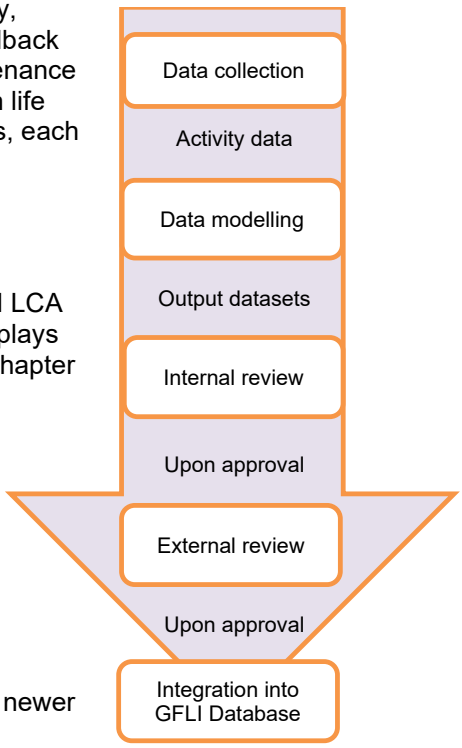

Figure 1 simplified process of a data-in project

[1] Procedures for branded data are currently under development through a branded data pilot phase that will finalize in 2023.

- Improvement or updating of modelling to to extend the current method of evaluating environmental impacts such as additional impact indicators or new methods of measuring emissions.

This document provides guidance on how to initiate and organize “data-in” projects following the steps in table 1.

Table 1 Activities involved in a GFLI ‘‘data-in’’ project

	Steps
Defining a data-in project	Define scope: goal and approach, which feed ingredients, which country or region, data sources, which method, which granularity
	Define data use conditions
	Define project plan (planning, execution team, steering committee, budget, etc.)
	If alternative decisions and/or tier modelling is opted, this will be discussed in the Technical Management Committee for approval of the alternative usage in the GFLI database
	Present the project plan in the Technical Management Committee
Data collection and modelling	Execute activities defined in the project plan
	Collect data from defined sources (databases, primary data from producers), template available through GFLI Secretariat
	Modelling the data
	If alternative modelling is used (and previously approved by GFLI’s TMC), provide a document with evidence of which alternative methods are used and the explanation on why it provides higher quality and/or representativeness than the baseline approach
	Write a report on the data collection, which activities were collected and a clarification of approaches used, and LCA report of how the data is modelled and calculated
Review and integration	Internal review
	External review
	Integration of dataset(s) into database

1.3 GFLI methodology

This procedure guidance document sets the rules on how to properly set up and execute “data-in” projects. The procedures document should be read adjacent to the GFLI methodology. Where the procedures define how to proceed with a ‘‘data-in’’ project, the GFLI methodology describes the technical process of data collection. This includes which activity data is necessary to collect and how to create a representative sample size.

1.4 Version and validity

Version no: 2.0
Publication: January 2023
Valid until: next update

2 Basic principles for GFLI data generation

Since the formation and the maintenance of the GFLI database is done according to a growth model where industries or institutes can bring in new or update existing data, it is important to work according to principles that both maintain the consistency of the GFLI database and motivate “newcomers” to join the initiative. This leads to the following principles:

“Consistent methodology for all datasets”
The LCA methodology to generate datasets is defined by GFLI in the GFLI methodology document. All existing and new datasets shall comply to this methodology.

“Most recent available data supersedes previous versions of same LCI”
Whenever new data is received from a data-in provider for which an existing dataset exists, that existing dataset shall be archived and the GFLI database shall be updated to reflect the most recent dataset.

“Possibility to define specific methodology for datasets”
In regional and sectoral database projects, datasets can be developed using more specific methodology in addition to the baseline methodology, regarding background data and emission modelling. These datasets will be published as higher TIER level datasets in addition to existing datasets. Datasets for branded products should use existing GFLI methodology rules (baseline or available higher TIER level).

“Possibility to submit proposals for adapting the baseline methodology”
In regional and sectoral database projects, a new methodology can be developed to replace the generic existing methodology. The TMC will decide if and when the new methodology will be applied and replace the old one.

“Multiple data sets for one feed ingredient may exist in the GFLI-database”
Datasets generated with baseline methodology and more specific methodology may exist next to each other in the GFLI-database to support the variety of use purposes of the data and the data requirements of the user, but must be clearly distinguishable. In some cases baseline modelling can be preferred over higher TIER level modelling.

3 Defining a GFLI "data-in" project

The first step of a GFLI ''data-in'' project is an adequate project outline. This chapter defines the project plan for the creation of new datasets and updating old datasets.

Table 2 Activities involved in defining a data-in project

	Steps
Defining a data-in project	Define scope: goal and approach, which feed ingredients, which country or region, data sources, which method, which granularity
	Define data use conditions
	Define project plan (planning, execution team, steering committee, budget, etc.)
	If alternative decisions and/or tier modelling is opted, this will be discussed in the Technical Management Committee for approval of the alternative usage in the GFLI database
	Present the project plan in the Technical Management Committee

3.1 Define goal and scope

The first step for every GFLI "data-in" project is about defining the goal and scope. In the goal of the project it should become clear what type of project is aimed for. Table 3 shows some examples of projects and which typology would apply. It should also become clear whether it is a first development or an actualization of data and/ or an extension of modelling.

Furthermore, it should be explained whether the data-in project has a regional, sectoral, or branded focus:

- Regional focus: data or methodology represents (sub)states, (a) country (ies) and/ or region(s).
- Sectoral focus: any selection of feed ingredients or technology represented by a sector. Full market coverage is not a criterion, but it should be made clear which fraction of the market is covered by the data and how these data are better in terms of data quality than the data in existing GFLI datasets.
- Branded focus: the technology and environmental performance of the supply chain specific for a certain brand (company specific product or scheme).

The scope also includes the selection of feed ingredients and/ or technologies the GFLI ''data-in'' project aim to gather, as well as a description of the data sources which will be used for the database development.

Granularity of database developments shall be defined and motivated. It shall be based on stratified data sampling. (see chapter 3.8 of the GFLI methodology)

The selection and definition of methodologies are part of the scope as well. A GFLI project can use GFLI methodology, but alternative methodology regarding background data and emission modelling can also be used for regional and sectoral database developments, if more appropriate. Any deviation from GFLI methodology must be clearly documented and approved by the GFLI TMC, see chapter 6. Choices regarding data sources and methodology should be explained and motivated.

Table 3 Examples of types of GFLI projects

	First development	Update	Modelling subproject
Regional	The European feed sector aims to add feed ingredients commonly fed in Europe to the GFLI-database	Brazil provides better data on the cultivation of soy	Implementing new characterization factors developed for water depletion in the North American region
Sectoral	The fish sector aims to include a selection of fish feed ingredients in the GFLI-database	The crushing industry provides better data for crushing of oil seeds	The fish sector aims to include an impact category for marine resource depletion for fish feed ingredients

Branded	Company/organization X produces feed ingredient Y and aims to align their company specific data in compliance with the GFLI branded data methodology	Company X wants to update its existing data on feed ingredient Y to maintain representativeness and/or realign after methodological changes	N/A

Review of existing data (data update)
If the ‘’data-in’’ project is focused on updating of existing datasets in the GFLI database, it is relevant to assess the improvement updated datasets would bring. This will likely be applicable for datasets that have been sourced a time ago, but may also have better representative data on improved technologies or have more granularity. This step should make clear which data sources will be used, what life cycle stages, processes or background data will be improved and why the aimed data sources will lead to an improvement of the GFLI database. Statistically, this could be shown with a lower Data Quality Rating (DQR). In decisions, this would translate to amount of primary industry data used, (more) regionalized secondary data sources (databases, scientific literature), use of higher than baseline methodological approaches (as read as specific and semi-specific approaches in the GFLI methodology).

Based on the outcome of this review a plan can be made that defines which data should be collected and which data should be updated for the life cycle stages (farming, processing, logistics) and background data (energy, transport and auxiliary materials).

3.2 Define data use conditions for GFLI license

Within a GFLI data-in project, it is essential to gain concession about the use of the datasets once made available. This is formalized through a ‘’data-in’’ license agreement, signed by the running chair of the GFLI Board of Directors, and the legal representative of the GFLI data-in project leader/organization in charge. The contract can be requested at the GFLI Secretariat.

Sectoral & regional data availability and conditions of use
The GFLI ‘’data-in’’ provider may consider in which format the data is made available in the database. This can be categorized and made accessible through the following options:
1) aggregated data (environmental impact data (LCIA) and inventory data (LCI)) will be freely accessible to the public;
2) aggregated data may be licensed for use in tooling (i.e. commercially sold LCA calculation tools)
3) the disaggregated Feed/Food LCA Dataset(s) (unit process inventory data) of the Client presented in accordance with the GFLI methods and procedures; these data will only be made available to parties which procure a license for the use of the Global Feed LCA Database. In this option only the outcome of the calculation will be shared;
4) the disaggregated Feed/Food LCA Dataset(s) (unit process inventory data) of the Client presented in accordance with the GFLI methods and procedures and the calculations made in accordance with the GFLI methods and procedures; these data will only be made available to parties which procure a license for the use of the Global Feed LCA Database. In this option both the outcome and calculation will be shared.
5) Disaggregated data may be licensed for use in tooling (i.e. commercially sold LCA calculation tools).

Branded data availability and conditions of use
The options for data availability for branded data are currently still explored in the GFLI branded data pilot, and will be updated when the pilot ends in 2023.

Intellectual properties
The datasets that make-up the GFLI Database remain the intellectual property of the data provider, where usage is granted through the license agreement. Data providers have no intellectual property rights over any of the outcomes of processed data that are part of the GFLI database (downstream products calculated (in part) with data of the data provider, LCA calculated products based on data from the database, etc.). The data provider has the right to withdraw their data from the GFLI database at any time.

3.3 Project plan

The defined goal and scope, as well as the data use, are to be included in the project plan. The project plan details the plan of approach for a successive ‘’data-in’’ project. This includes information interesting for all partners involved and what can ease confusion due to the level of details involved in LCAs.

The project plan should ideally contain at least the following:

- Scope

The selection of feed ingredients and/ or technologies, the system boundary of selected feed ingredients as stated in chapter 3.1.

- Data collection procedure

The data collection procedure is to understand who is collecting which data and which approach is used. This also forms the baseline for the data collection report to be created during data collection which will be subjected to review (chapter 5).

- Methodology aspects

After review of the methodology, a data-in provider might face issues with the methodology for their data alignment. Any ‘’data-in’’ projects that use higher tier modelling and/or alternative methodological approaches that are deemed to be of higher quality than the baseline GFLI methodology, are to be discussed in the Technical Management Committee for approval of variability of the data. Ideally, this would lead to continuous improvement of the GFLI methodology and allow for the local differences in LCAs (relevant of certain factors like land use conversion, climate, soil, etc.). If this alternative method is potentially robust enough to become the baseline methodology applicable for all data-in projects (global), methodology development will be considered (read more in chapter 6).

- Work plan with concrete activities and deliverables

Data collection and modelling of activity data is reliant on timely data collection through communication with relevant partners.

- Time schedule, including milestones

The time schedule is highly dependent on the availability of data, the amount of participants, and the level of communications between all relevant parties. As the estimated time necessary will be reliant on successive data collection, a generous timeslot should be accounted for. This also includes any verifying quality checks to assure the data is correctly listed and filled in.

- Participants

All relevant participants should be described, with ideally a description of their role or expertise during the data-in project.

- Budget estimate

A budget planning may reduce the chance of additional costs during the data-in project. More information on estimates of each step of the procedures will be considered for the next update.

In annex 1 a template for a project plan can be found. For help or feedback regarding the project plan, you’re welcome to reach out to the GFLI Secretariat (info@globalfeedlca.org).

3.4 Coordination with the TMC

During the creation of the project plan for regional or sectoral data-in projects, the data-in provider may request guidance, feedback, or recommendations, from the GFLI Technical Management Committee (TMC). The TMC comes together each month online, and is prepared to tackle discussion points relevant for the process. After finalization of the project plan, the data-in provider is requested to present their project plan or share the executive summary with the TMC for preemptive discussion on new datasets and how to proceed with older datasets (when relevant) or new methodological approaches, which improves the structure in which GFLI acts as a knowledge center as well as provide the data-in provider with a panel of experts to express their thoughts with.

The TMC Chair presents the start of a data-in project within the Board of Directors (in a Board meeting or through e-mail). In the small chance of a new data-in project being debatable in quality (lower than already existing data), scope, or otherwise, the Board of Directors may decide to decline the data-in project on evidential basis.

Companies applying for branded data are welcome to start such discussions or request feedback as well, but may need to consider confidentiality issues. In such case, they can discuss how to anonymize their (technical) question with the GFLI Secretariat. Before presenting to the TMC, the GFLI Secretariat will provide the TMC feedback to the requestor.

4 Data collection and modelling

After a robust project plan is set, the next step is its execution through the various activities stated. The choice of tools used in this process affects the technical execution of the integration into the GFLI database.

Table 4 activities for data collection and modelling

	Steps
Data collection and modelling	Execute activities defined in the project plan
	Collect data from defined sources (databases, primary data from producers), template available through GFLI Secretariat
	Modelling the data
	If alternative modelling is used (and previously approved by GFLI's TMC), provide a document with evidence of which alternative methods are used and the explanation on why it provides higher quality and/or representativeness than the baseline approach
	Write a report on the data collection, which activities were collected and a clarification of approaches used, and LCA report of how the data is modelled and calculated

4.1 Execute data collection

For data collection, the newest version of the Methodology document is used. If already working on a data collection when a newer version is published, it is necessary to re-align the data and methodology with this newest version. GFLI strives to inform running data-in projects on upcoming updates and the possible impact the changes might have on the data collection

A data collection template is available for crop cultivation and processing. The template is a leading document but for the collection additional data might be required depending on the product (e.g., peat oxidation of peatlands for cultivation of crops or product specific data like fleet vessels for fishing).

4.2 Already collected data

Existing LCA datasets that have not been formulated by the GFLI methodology may be introduced through a data-in project. Such data-in projects usually will require some modelling and a more thorough internal review, depending on which methodology followed and how the sources have been documented. EU PEF-compliant studies, for example, would be more easily integrated than other LCA studies based on other methodological approaches. Data alignment to the GFLI methodology can be executed by an LCA expert with experience in the GFLI methodology. If you have any available data relevant for the GFLI database, please reach out to the GFLI Secretariat to discuss the options.

4.3 Data modelling

Data collected, through the collection template or otherwise, is then molded into an LCA model formulated in a software tool. Multiple models may be necessary depending on the complexity of the ingredient and its processing. During this process it is essential to analyze the data for completeness and representativeness. In some cases, additional data may be necessary to complete the full scope when the data is being modelled.

For data modelling, access to the GFLI background data is necessary. This could also be adjusted during the internal review, but that may require additional costs for alignment. A license agreement can be signed with the GFLI data manager for this background data.

4.4 Alternative modelling

During the data collection and/or modelling phase, alternative modelling may be considered to increase the representativeness of the data. Please read chapter 6 of this document on how to proceed on this.

4.5 Report writing

Reporting on which data is collected, which sources, and which approaches, are crucial for the next step. For the review it must be clear where data is sourced from and which methodological approaches are taken to result in the lifecycle inventory and impact assessment data. A template of the data collection document is available by contacting info@globalfeed.lca.

5 Review and integration

After data collection and alignment to the GFLI methodology, all datasets will go through a process of review. The internal review is executed by a GFLI LCA expert or the GFLI database manager, and followed by an external review by a reviewer shortlisted on the GFLI website.

Table 5 Activities for review and integration

	Steps
Review and integration	Internal review
	External review
	Integration of dataset(s) into database

5.1 Internal review

Upon completion of the data collection, the data-in provider and GFLI Secretariat discuss who will execute the internal review. The datasets in its final impact assessment form, the lifecycle inventory, and supporting documents such as the data collection report and, if relevant, (part of) the project plan are reviewed.

The data is reviewed for:

- Consistency with GFLI methodology
- Completeness of numerical data (including DQR)
- Completeness and clarity of qualitative descriptions in meta data

Feedback will be provided by the data provider, in which if the data is not consistent or complete, will be requested to adjust. When the data is aligned according to the internal review, the external review may take place. The data provider reports the suggestions for improvement and implemented changes in a review report that will be also added to documentation for the external review.

5.2 External review

The external review is a critical review of the data collection process, the methodological choices made, and the documentation provided by the data provider, in order to verify the quality of the data as suggested in the documents and the end result (LCI, LCIA). The GFLI website (www.globalfeedlca.org) shortlists the current available external reviewers familiar with the GFLI methodology. The data provider may choose the reviewer and reach out individually, or in communications with the GFLI Secretariat. The list includes the expertise and location of the reviewer to allow for matching the expertise with the type of datasets to be reviewed. The reviewers are educated on the GFLI methodology and process. They follow a data review template, but may add additional review points when relevant to the feed ingredient, product, or technologies. The external review may also include suggestions for potential future improvements of the data, collection process, or data-in project.

The review is completed with a positive review statement of GFLI-compliancy in the data collection, modelling, and alignment. Any changes to the data based on the external review statement must be corresponded in a final review report, to be shared with the data manager for data integration.

The external reviewer should be a proven LCA expert and have sufficient background knowledge of the feed ingredients in scope and meet the following requirements:

- performed at least 3 reviews of LCA/LCI datasets in the past 5 years;
- have at least 5 years of experience with LCA methodology and practice;
- have at least 3 years of experience in the private or public sector related to the feed ingredients or technologies.

The last two requirements may be met within an organisation in one or more persons.

5.3 Integration into the GFLI database

After the external review the new datasets are integrated into the GFLI database by the GFLI database manager. Additional costs apply, and may range dependent on the data formatting.

When the datasets are finalized and ready for integration, sectoral and regional datasets will be published separately onto the GFLI website until they are integrated into the database. The data integration is dependent on the GFLI database updates set to happen every 1-2 years. However, if there is a large pool of datasets available for integration, the GFLI Secretariat may consider a periodical update.

5.4 Updating of data

All data in the GFLI database is subject to updates to upkeep the representativeness of the datasets and allow for improvements to show in the figures by the industry efforts of sustainable production.

Data updates are relevant due to the changing of activity data such as crop yield, fertilizer use, climatical and geographical changes, as well as innovations in technologies and processing. Within the GFLI database, this is measured through the Data Quality Rating (DQR). This measures the quality of the data based on four pillars: technological, geographical, and time representativeness, and precision (level of uncertainty of data derivation) in a rating from 1.0 to 5.0. When the DQR of a product becomes too high, therefore being insufficiently representative in the market, the product/dataset should be updated. GFLI follows the EC PEFCR guidelines, where accordingly a total DQR ***≤3.0*** for relevant processes in secondary data is desirable, with other processes needing a total DQR of ***≤4.0***. The DQR in the GFLI database will be updated every two years based on the time representativeness, with the current trajectory a dataset will lose relevancy in DQR measurements after four to six years.

The main contacts from the data-in projects will be contacted when their data is subject for an update. An estimated time for update may be included in the data collection report which may be referred for the update. Datasets not updated timely might be subject to a transition period, in which the data provider receives additional time to update the datasets in favour of not having them removed from the database. A data-in provider may decide to not update the data. In this case, the Technical Management Committee (TMC) may consider the continued existence of the datasets in the database beyond its ‘end-date’ when the datasets thusly remain relevant for database users. However, the data-in provider is within its rights to request removal of the datasets at any point in the future.

Any updated datasets are subject to the temporary publication on the GFLI website until a database update, meaning two of the same datasets may exist as GFLI-compliant.

Branded data is moreover based on primary data and requires a faster turnover of new data to maintain its representativeness. As the branded data pilot is ongoing, the desirable update speed of branded data is not yet confirmed.

6 Methodology development

This chapter is not part of a data-in project, but may be included if the data-in provider wishes to use alternative methodological approaches that better represent their region and/or sector, for example more detailed emission modelling. Through this approach the GFLI may continuously improve its methodology and database.

Examples of the types of methodological development:

1. *Detailing existing methodology* for modelling emissions and resource use: this could be, for instance, more accurate emissions modelling for LUC or emissions of nutrients and pesticides.

2. *Alternative methodology* for modelling emissions and resource use: this is a methodology that does not fit into the baseline approach but that does generate meaningful emissions or resource use estimates.

3. *New methodology* for modelling emissions and resource use: this is a methodology on environmental interventions or environmental impacts that is not included in the GFLI methodology (and underlying framework). It involves, for instance, a new methodology for measuring carbon sequestration, soil depletion (loss) or biodiversity loss.

4. *Improved background data* as baseline data such as newer or higher quality, or representing regional areas more.

5. *(re)Alignment with acknowledged methodologies* such as recommendations from FAO/LEAP guidelines or EU-PEFCR Feed, or other new regulating systems such as STBi, stating alternative measurements or methods of calculations.

The GFLI considers methodology development when there is evidence the suggested development may be a better baseline consideration for the GFLI methodology. The GFLI can uptake suggestions for an internal process, or interested party(ies) may show its interest for methodology development. With complex matters such as alignment with acknowledged methodologies or streamlining a new method for all data, a (GFLI) working group can be considered. Interest in such participation can be shared with the GFLI Secretariat or a request for participation can be sent to all GFLI members.

Substantial evidence of an improvement must be delivered to consider methodology development. This may be verified by (published) scientific articles and/or scientific-based reports. The alternative should be compared to the current methodology and this should be documented to indicate the differences in steps and in outcome. When the development considers more detailed emission modelling, applicability on a broader geographical or sectoral scope should be taken into account. For example, additional emission modelling requires more data on a variety of factors, and is that obtainable for other countries besides the region it was based on.

Any developmental options will go through the GFLI Technical Management Committee (TMC) for consideration. The TMC may decide upon discussing the matter with GFLI's external panel of experts on the Scientific Advisory Council (SAC). The final decision is always made by the TMC.

The pillars for methodology development are:

a) Verified sources and/or acknowledged methodologies
b) Usability by the feed industry
c) Feasibility on global scale, or otherwise large geographical region
d) Alignment with governmental and sectoral regulations where possible

These are established to allow for development, but also to make sure the GFLI database is applicable for those with a different starting point. The GFLI intends to be the global reference and has attention for regional differences and developments regarding LCA and carbon footprinting.

Annex 1. Project plan

This is an example format of a project plan, including the information that is either mandatory or desirable to provide.

General information

	To be filled in
Participating organisations	(Any organisations participating in data collection,
Main contact during data process	(name and e-mail)
Main contact after data validation1	(name and e-mail)
Main LCA consultant	(name and e-mail)
What level of data is made available for the GFLI database	(LCI, unit process level data)
Which level of data is made available for commercial use by third parties	(LCIA, LCI, unit process level data)

1 in case methodological changes occur and/or new data is desired

Scope

Type of project	(regional, sectoral, branded data)
Specify above type:	(room to specify which region, sector, or which brand is included; which products does the project include
Selection of feed ingredients	(which ingredients are selected for the LCA)
Selection of technologies	(what defines this specific product in terms of technologies used. E.g,, no tillage for cultivation, processing steps for feed additives)
Data sources	(where is the data sourced from, which statistical databases are used for baseline and/or secondary improved data)

- Executive summary
- Scope
- Data collection procedure *if applicable*
- Methodology issues *if applicable*
- Work plan with concrete activities and deliverables
- Time schedule, including milestones
- Participants
- Budget estimate

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