

Carbon Footprint (CFP) Operational Guidebook for Batteries and Vehicles Using Interoperable Data Infrastructures, Version β

Information-technology Promotion Agency, Japan



Digital Architecture Design Center



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1 Forward/preface

Global warming is now recognized as an urgent issue facing the world, and it will likely continue to affect our lives and businesses over the next several decades. The automotive industry is considering and implementing measures such as electrification, with the aim of achieving carbon neutrality (CN) in order to curb global warming. Demand for batteries is therefore expected to continue to increase. However, there are environmental concerns with regard to manufacturing batteries. The manufacturing process releases large amounts of CO₂ and requires the use of many scarce resources, and refining these resources can affect the environment.

Achieving CN will require not only the efforts of individual companies, but also efforts to determine carbon footprints (CFP) in order to visualize CO₂ released by various processes throughout the entire product life cycle. This is important both for environmental protection and the industrial development of Japan.

In Japan, the Green Growth Strategy to achieve a CN society by 2050 calls for international rules and standards on visualizing CO₂ emissions throughout the battery life cycle, as well as rules and standards on the ethical procurement of materials and the promotion of reuse and recycling. Japan is also currently formulating product and management standards related to battery reuse and recycling. Meanwhile, the “European Battery Rule/Regulation” (hereinafter, European Regulations) has been adopted in Europe, and companies will now need to collect and share data in accordance with regulations in order to conduct economic activities involving batteries in Europe. In addition to CFPs, we will also need to consider future developments in environmental and human rights due diligence (DD), along with requirements to support battery passports including battery traceability.

* Important notes on the content in this document

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2 CFP operational guidebook (purpose of this document)

2.1 Background/purpose

As described previously, a variety of stakeholders (Figure 2.3-1) have begun to request CFPs from companies for various purposes. CFPs are now becoming a means of corporate competition. In addition to the basic CFP requirements now commonly used, companies are increasingly being required to respond to CFP-based regulations and the green procurement activities (CFP disclosure and requests to reduce CO₂) of their customers. Figure 2.1-1 shows the correlation between CFP objectivity and accuracy according to requirements.

This is especially true in responding to European Regulations. Companies in supply chains must calculate data, and the objectivity and accuracy of this data must be ensured through third-party certification. In response, various companies and organizations inside and outside Japan are now required to participate in the standardization of methods for obtaining and exchanging highly reliable data while also protecting confidentiality.

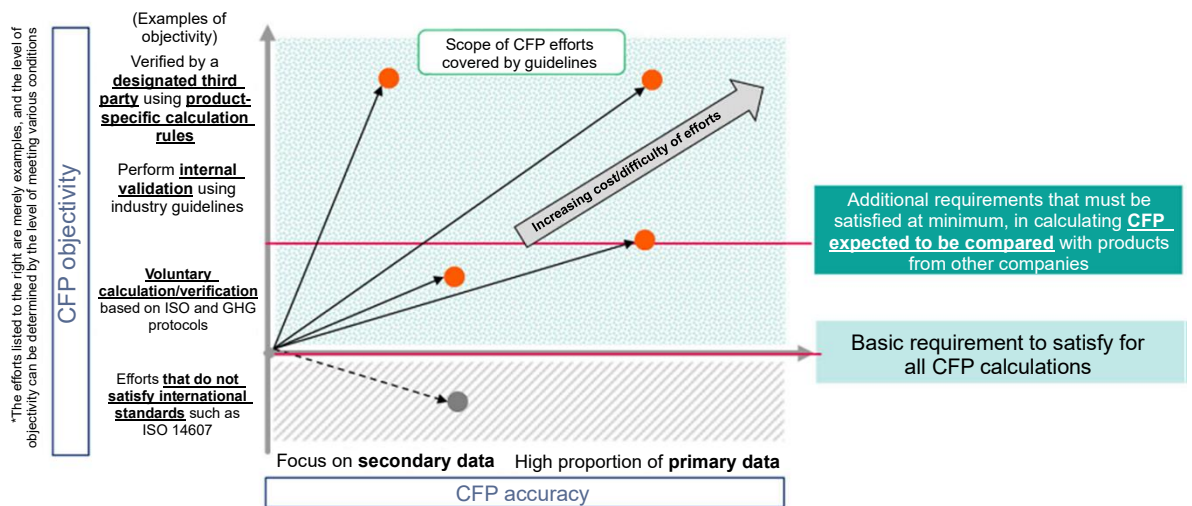


Figure 2.1-1.: Concept of requirements for CFP calculation

[Source: Ministry of Economy, Trade and Industry Carbon Footprint Guidelines]

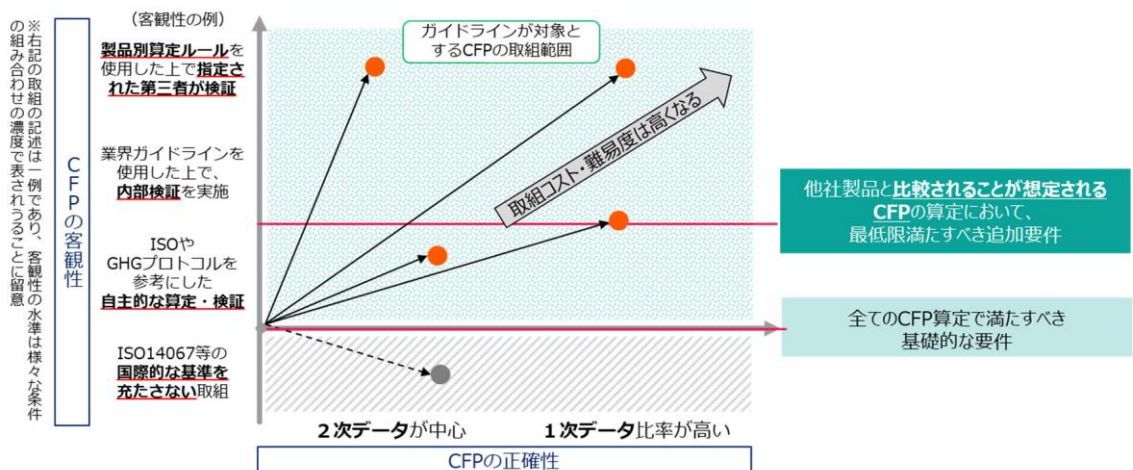


図 2.1-1 CFP の算定に関する要件の考え方

[出典：経済産業省カーボンフットプリント ガイドライン]

*Prefer Japanese language for content in figure.

When all companies in the supply chain from upstream to downstream are submitting data, if each company builds its own system and uses its own method to request that data be submitted to a business partner company, the upstream companies that receive requests from multiple companies could face a heavy burden both in terms of effort and cost.

Given the current demand for data to be standardized in Europe and other countries, companies will need to exchange data by using a common standard that can be utilized globally. This requires the use of a common industry platform. After careful consideration by public and private entities, a decision has been reached to utilize the Ouranos Ecosystem. This guidebook presents an overview of operations including CFP calculations using the Ouranos Ecosystem.

Data will also likely need to be integrated with overseas suppliers. This Interoperable data system assumes interconnectivity with overseas data integration systems, and preparations are expected to proceed more efficiently using this system than by consulting individually with overseas organizations and designing individual integration systems from scratch.

2.2 Scope

- [1] The scope is limited to the calculation of CFP related to vehicle battery packs (a battery pack used as a battery for driving a BEV/PHEV/HEV/FCEV)
- [2] The scope includes all of the following components of a vehicle battery pack.
 - *The scope will likely expand to industrial batteries and other types of batteries

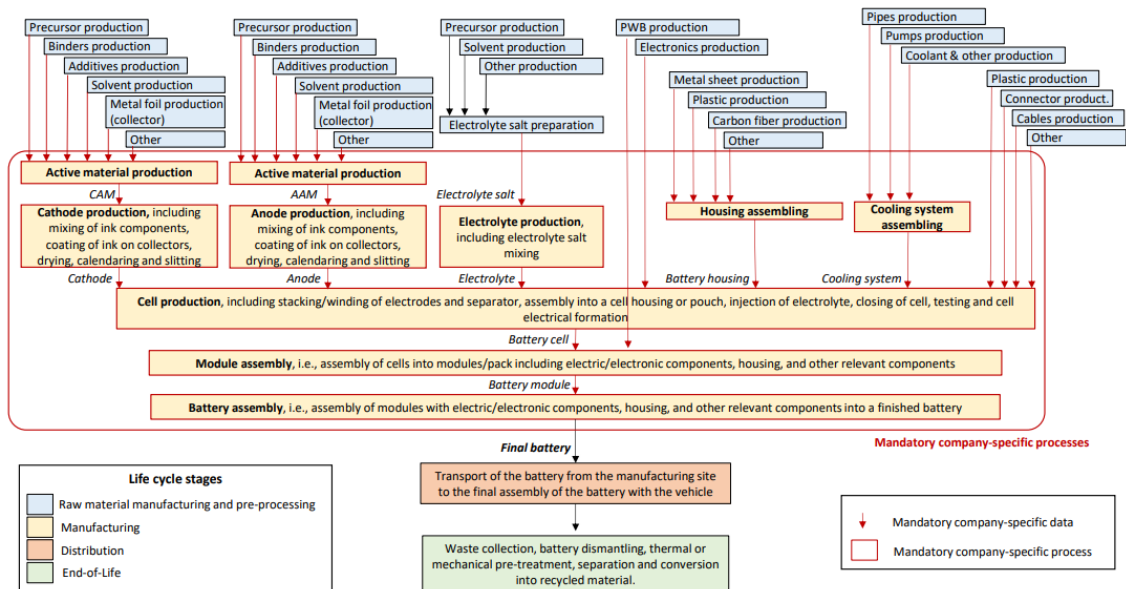


Figure 2.2-1: System boundary diagram

[Source: Joint Research Centre “Rules for the calculation of the Carbon Footprint of Electric Vehicle Batteries (CFB-EV)”]

2.3 Intended user of this guidebook

This guidebook is mainly intended for vehicle manufacturers and other companies operating in the battery supply chain (along with their stakeholders), who calculate, collect and submit data to European authorities. In addition to companies that actually calculate CFP for their products, stakeholders also include suppliers on the upstream side of the supply chain, corporate customers on the downstream side that receive CFP and use this information, and government agencies. This document is also intended for evaluators in a position to assess CFP, and industry groups capable of developing new product-specific rules.

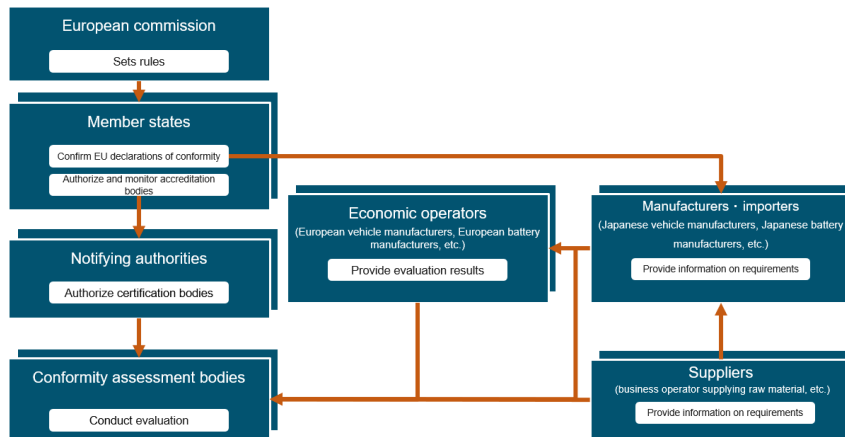


Figure 2.3-1: Stakeholder relationships

2.4 Benefits of using the operational guidebook

- [1] Promoting environmental activities
 - This operational guidebook can be used to accurately communicate to management as well as to workers why environmental measures and data linking are required, in order to promote environmental activities in companies where there is no internal recognition of the need to implement environmental measures (for example, if there is no department responsible for such measures).
- [2] Reducing the burden of complying with European Regulations
 - The burden of collecting data from upstream to downstream throughout the supply chain can be reduced by adopting a unified operational method. More specifically, this would reduce man-hours and the cost of introducing tools for suppliers requested to submit their CFP by multiple companies.
- [3] Streamlining procedures required for third-party certification
 - The aim of this operational guidebook is to comply with certification processes established by the European Commission, thereby making it easier to prevent omissions with regard to requirements necessary for certification, and making procedures easier and more efficient.

2.5 Relationship to existing documents

The purpose is to comprehensively document requirements required for compliance with European Regulations and certification from certification bodies, together with the following three documents.

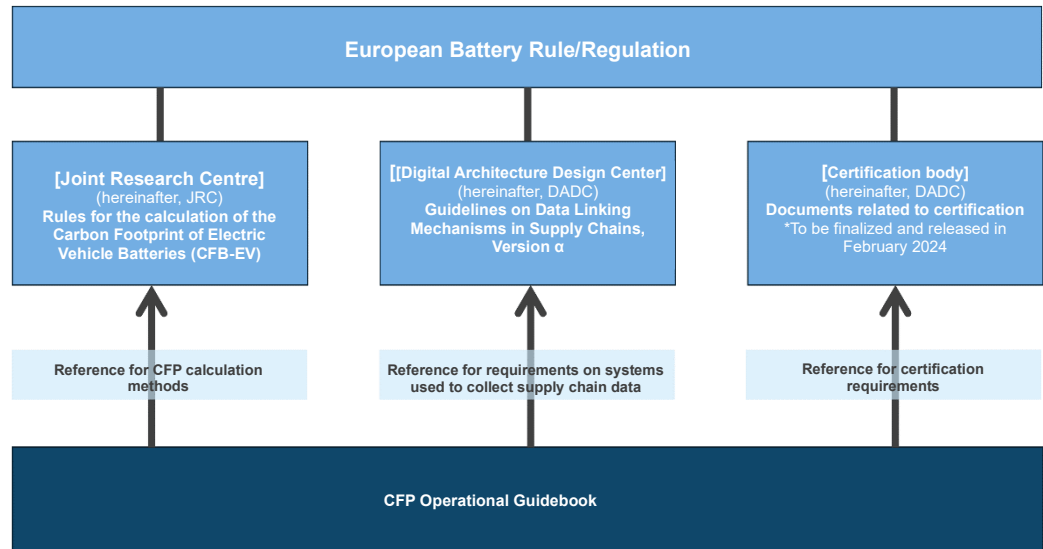


Figure 2.5-1: Document relationship

- JRC: CFP calculation rules
“Rules for the calculation of the Carbon Footprint of Electric Vehicle Batteries (CFB-EV)”

https://eplca.jrc.ec.europa.eu/permalink/battery/GRB-CBF_CarbonFootprintRules-EV_June_2023.pdf

- DADC: System guidelines
“Guidelines on Data Linking Mechanisms in Supply Chains, Version α”
https://www.ipa.go.jp/digital/architecture/Individual-link/ps6vr7000001m4n6-att/guideline_for_datacooperation_in_BattCFPDD.pdf

- Third-party certification authorities: Documents related to certification
(Example) Sustainable Management Promotion Organization (SuMPO) materials

[Japan EPD Program by SuMPO]
https://ecoleaf-label.jp/about/k0sc7i000000005k-att/JapanEPDbySuMPO_Briefing_2304.pdf

[JR-07-05 Calculation and Declaration Rules (General Rules and Requirements)]
https://ecoleaf-label.jp/regulation/k0sc7i00000000ca-att/JR-07-05_QuantificationAndDeclarationRules.pdf

[JR-08-03 Verification Rules (General Rules and Procedures)]
<https://ecoleaf-label.jp/regulation/k0sc7i00000000ca-att/a1649381753905.pdf>

2.6 Version management/revisions

- These guidelines reflect the content of European Regulations as of the end of September 2023. This content will be updated once detailed laws and regulations are finalized in February 2024. They were prepared with reference to the JRC “Rules for the calculation of the Carbon Footprint of Electric Vehicle Batteries (CFB-EV)” and the DADC “Guidelines on Data Linking Mechanisms in Supply Chains, Version α ,” and will be revised to maintain consistency with these documents.

3 Glossary

Table 3-1: Glossary

No.	Term	Explanation
1	Carbon neutral	Refers to balancing the amount of greenhouse gases emitted and absorbed.
2	Carbon footprint (CFP)	An abbreviation that stands for Carbon Footprint of Products. Refers to GHG emissions throughout the entire life cycle of a product or service, from raw material procurement to disposal and recycling, converted into CO ₂ emissions, either as a figure displayed on the product or the mechanism involved. (In this guidebook, CFP refers to both product and component CFP.)
3	Interoperable data system	Systems for use in linking and using data among companies in a supply chain or companies in different industries. A general term for data transaction systems used commonly throughout different fields, and systems for specific purposes (traceability management systems for specific purposes, etc.) for each field.
4	Due diligence (DD)	Due diligence is a series of actions undertaken by companies to identify, prevent and mitigate negative impacts on human rights and the environment within their own companies, group companies, suppliers, etc.; evaluate the effectiveness of their efforts; and explain and disclose information on how issues have been handled.
5	Traceability	Traceability refers to the property of a product whose identity, process or element activity can be tracked throughout a supply chain.
6	Trade secret	Confidential information used in conducting business by a company. For example, in the case of carbon footprints, this refers to information such as emissions and component composition derived from a company's own manufacturing, which could reveal the company's component composition information, utilized technology, knowledge and sales channels by disclosing information to other companies.
7	Battery passport	Refers to efforts to establish a digital twin for physical batteries by providing information on all applicable sustainability and life cycle requirements, on the basis of the comprehensive definition of a sustainable battery.

8	European Commission	The executive branch of the European Union (EU).
9	European Battery Rule/Regulation	In December 2020, Europe published a draft battery rule/regulation. It was adopted in July 2023. In addition to the proposed regulation that will be enforced in member countries, the draft proposes regulations on greenhouse gas emissions during manufacturing and disposal (carbon footprint regulations), responsible material procurement (due diligence) and recycling. The aim is to promote the production and recycling of batteries in Europe.
10	Other data space	A dataspace managed and operated by a foreign government, group, company or organization.
11	Activity data	The amount of material or energy input. For example, this may refer to an amount of electricity used, an amount transported, an amount of waste or the mass of raw materials.
12	Carbon intensity factors value	GHG emissions per unit of activity. For example, this may refer to GHG emissions per kilowatt-hour of electricity, per ton-kilometer of cargo or per ton of waste incinerated.
13	Raw materials supplier	A business operator that supplies raw materials.
14	Most downstream purchaser (OEM/supplier)	A business operator that produces finished items, and that is closest to the consumer in the manufacturing process, within a supply chain.
15	Most upstream purchaser (Supplier)	A business operator located closest to the production of raw materials in the manufacturing process, within a supply chain.
16	Downstream purchaser (OEM/supplier)	In a supply chain, this refers to a business operator located relatively closer to the consumer from the viewpoint of the company concerned.
17	Upstream purchaser (OEM/supplier)	In a supply chain, this refers to a business operator located relatively closer to raw material manufacturing from the viewpoint of the company concerned.
18	Middlestream purchaser (OEM/supplier)	In a supply chain, this refers to a business operator at the intermediate production and distribution stage between upstream and downstream.
19	Supplier	An entity from which a company purchases goods for sale or manufacture. In other words, the supplier would be the entity from which a company purchases finished products, materials or components. In the battery supply chain, this refers to entities such as raw material manufacturers and component manufacturers.
20	Client	An entity to which a company sells goods. This would correspond to downstream companies, from the perspective of one's own company.
21	Business partner	Refers to a company with which another company has a transactional relationship, such as a supplier or recipient of products.
22	Vehicle manufacturer	A business operator that manufactures vehicles (a finished vehicle manufacturer).
23	Manufacturer	A business operator that manufactures or designs a product (or has the product manufactured), and sells the product under its own

		name or trademark.
24	Battery manufacturer	A manufacturer of vehicle batteries.
25	Battery supplier	An individual or company responsible for manufacturing, preparing for reuse, preparing for repurpose, reusing, repurposing, remanufacturing, distributing, selling (releasing) and supplying (or providing as a service) a battery.
26	Certification body	An organization responsible for conformity assessment activities, including calibration, testing, certification and inspection. For example, an organization that assesses the conformity of CFP/DD data and certifies interoperable data systems and applications.
27	Accreditation body	An organization that evaluates and certifies certification bodies.
28	BOM	An abbreviation that stands for Bill Of Materials. Refers to the list of components (and, in some cases, the hierarchical structure) required to make a product.
29	Tree diagram	A diagram showing the entire transactional relationship going back from the most downstream company (finished item manufacturer) to the most upstream company (raw material manufacturer).
30	Proxy input	This refers to when a downstream company that is a direct business partner inputs CFP on behalf of another company within the sales channel that cannot participate in the interoperable data system or cannot input data.
31	PCR	An abbreviation that stands for Product Category Rules. Refers to rules and requirements for the development of a Type III environmental or CFP declaration for a product category.
32	Primary data	Refers to the quantified values of processes, activities and emission factors derived from calculations calculated on the basis of data actually obtained within the product system.
33	Secondary data	Refers to data that does not meet the requirements for primary data. Examples of information sources for secondary data include data about the same product category or process that is found in external databases and research papers, etc., as well as proxy data (extrapolated, scaled-up or customized).
34	GHG	An abbreviation that stands for GreenHouse Gas. Greenhouse gases that affect climate change. A gas contained in the atmosphere (regardless of whether it is natural or manmade) that absorbs and emits radiation at specific wavelengths in the infrared spectrum emitted by the Earth's surface, atmosphere and clouds.

4 Basic policies on the use of data

Transaction information and other confidential information of each company must be protected in environments requiring data sharing among companies in a supply chain, such as when complying with European Regulations. Measures for the creation of a sustainable society must also not overburden corporate activities with implementation and operation. The two basic policies are described below.

[1] Protect data (reliability and safety)

Transaction information and other confidential information of each company must be protected in environments requiring data sharing among companies in a supply chain, such as when complying with European Regulations. Our aim is therefore to protect the data of each company through operating in accordance with the following policies.

- Share information necessary for compliance with domestic and international laws and regulations, at the minimum scope required on the basis of appropriate agreements
- Require the consent of the data provider with regard to the scope of data disclosure, and consider the wishes of the data user as a general rule
- Require the consent of the data provider in providing data, even if the data is for the benefit of a company or the industry
- Business operators that handle data as third parties operate under organizations, processes and governance mechanisms that ensure fairness and equity for data users and data providers
- Required data items stored in an interoperable data system are as defined in the following guidelines, which also include European Regulations

“Guidelines on Data Linking Mechanisms in Supply Chains, Version α (for Storage Battery CFP/DD)”

https://www.ipa.go.jp/digital/architecture/project/btob/btob-conference/transaction_futurevision_202305_1.html

[2] Attempt to reduce burden and improve efficiency

- The complete switch to digital is expected to make it easy to compile data with little effort, reduce data omissions and human error, and enhance the confidentiality and reliability of information
- Make use of the interoperable data system to easily transfer data between supply chain companies, reducing the workload of companies complying with European Regulations

5 Overview of data calculation, certification and submission

The basic concept for this operation is to sequentially request work from downstream to upstream, and handle work from upstream to downstream (CFP calculation, certification and submission), on the basis of transactional relationships within the supply chain.

<Overall process>

- [1] Conclude basic agreement
- [2] Request CFP calculation
- [3] Calculate, certify and submit CFP
- [4] Handle CFP changes (when there is a change to components, specifications, etc.)

<Workflow from “Calculate CFP ((2))” to “Submit CFP of final product ((3))”>

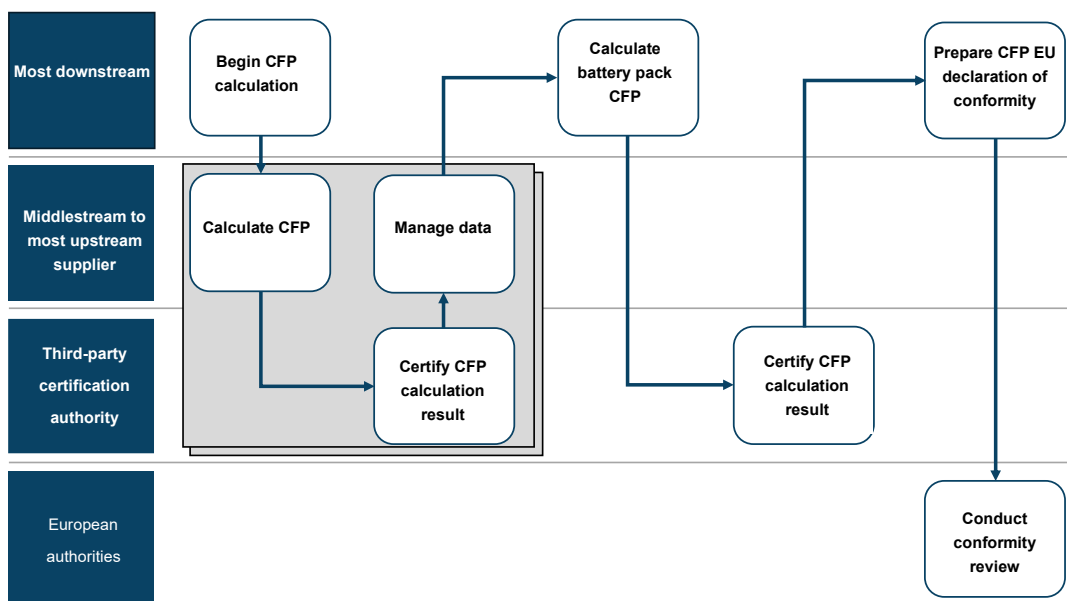


Figure 5-1: Overview of data calculation, certification and submission

Table 5-1: Overview of data calculation, certification and submission

Operation	Details
Begin CFP calculation	Identify target battery pack and request CFP calculation (request made only to direct suppliers)
Calculate CFP	Calculate CFP for in-house emissions
	Identify purchased items and request business partner to calculate CFP
	Receive CFP and certificate by third-party certification authority from business partner
	Calculate CFP of own product for each life cycle, by summing the in-house emissions CFP and the CFP of purchased items
	Request certification from third-party certification authority
Certify CFP calculation result	Certify CFP authenticity
	Issue certificate
Manage data	Manage CFP, along with certificate received from third-party certification authority
	Submit CFP and certificate for each life cycle to client
Calculate battery pack CFP	Calculate battery pack CFP
	Calculate CFP for each life cycle (manufacturing, distribution and disposal/recycling stages)
Prepare official documents	Collect necessary data and prepare CFP technical document and EU declaration of conformity
	Submit to European authorities
Conduct conformity review	Review CFP technical document and EU declaration of conformity

6 Procedures for using system to calculate, certify and submit data

6.1 Registering to use system

*Companies in the supply chain register to use the system

*The specific registration process will be discussed later during system development

6.2 Requesting CFP calculation

(Following work assumed to be done mostly by data entry personnel)

1. The most downstream company registers the product as well as the components they purchase, and requests the middlestream company to calculate the CFP of each component
2. Upon receiving the request, the middlestream company associates the components registered by the downstream company with the components which are included in them and are purchased from the upstream company, and register them
3. The middlestream company requests the upstream company to calculate the CFP (this continues up to the most upstream company)

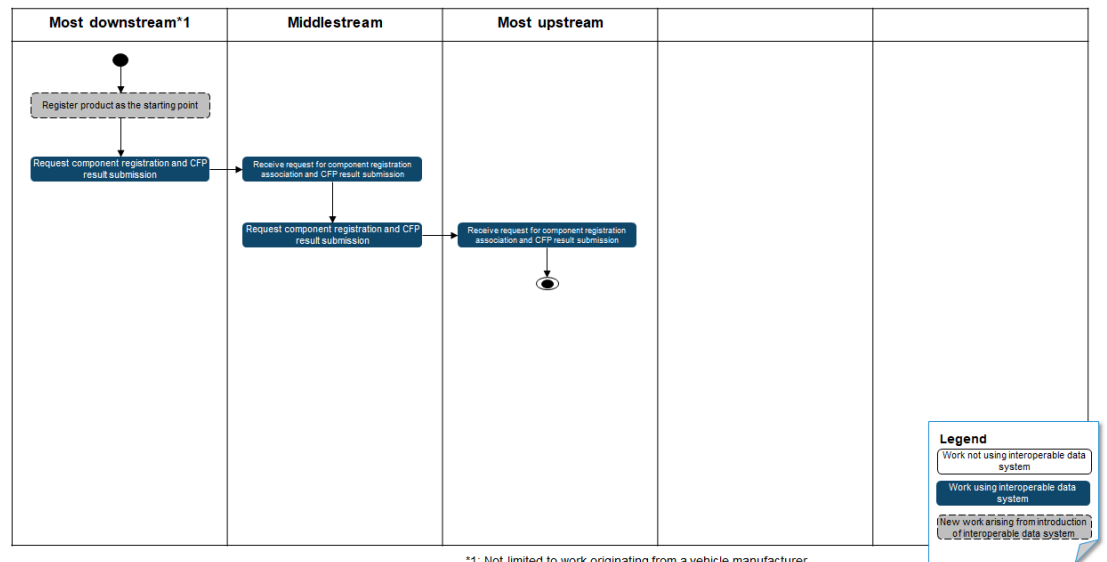


Figure 6.2-1: CFP calculation request process

Tasks of primary concern

- Transactional relationship registration
 - It is up to each company to decide whether to make its information disclosed or closed
 - Prevent the system from being freely searched, and display results only to authorized companies, in consideration of trade secrets
- Creation of transactional tree diagrams, items/scope to display for transactional relationships
 - When requesting product/component registration, a transactional relationship diagram between companies from upstream to downstream is created for the purpose of summing the final CFP (transactional tree diagram)
 - By default, the scope of disclosure of a tree diagram is limited to what was created in-house. If a company desires access to information outside of this scope, it is planned to enable this through a process in which the applicable companies request and approve disclosure.
- BOM integration
 - Although CFP calculation requires a list of components and information on parent-child relationships, BOM specifications vary from company to company. For this operation, standard data items are defined for the interoperable data system. Each company will provide data accordingly.

6.3 Calculating, collecting and submitting CFP

1. The most upstream company that receives the calculation request calculates the CFP of its own production process on the basis of the proposed basic law for European Battery Rule/Regulation and detailed CFP laws and regulations, and registers it in the interoperable data system
2. The company applies for certification of the registered CFP value by the certification body, and after receiving the certificate registers it in the interoperable data system Refer to the certification body document (to be released in February 2024) for details on certification
3. The most upstream company submits CFP information (CFP and certificate) to the middlestream company
4. Upon receipt of CFP information, the middlestream company follows the same process as the most upstream company and submits CFP information to the downstream company
5. Upon receipt of CFP information, the most downstream company registers the CFP and certificate for the finished item, and submits this to European authorities

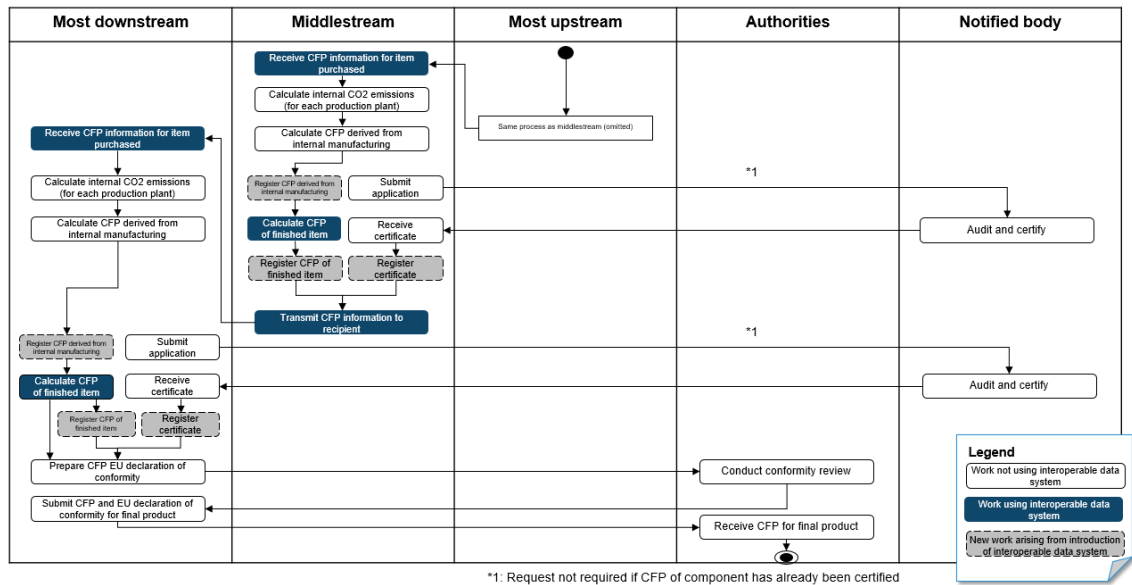


Figure 6.3-1: CFP calculation, collection and submission process

6.4 Handling CFP changes (when there is a change to components, specifications, etc.)

- Data update frequency

Detailed information on the frequency of data updates has not yet been clarified in the European Battery Rule/Regulation. We will update industry operational rules by confirming the detailed regulations (planned for release in February 2024) and exchanging information with experts

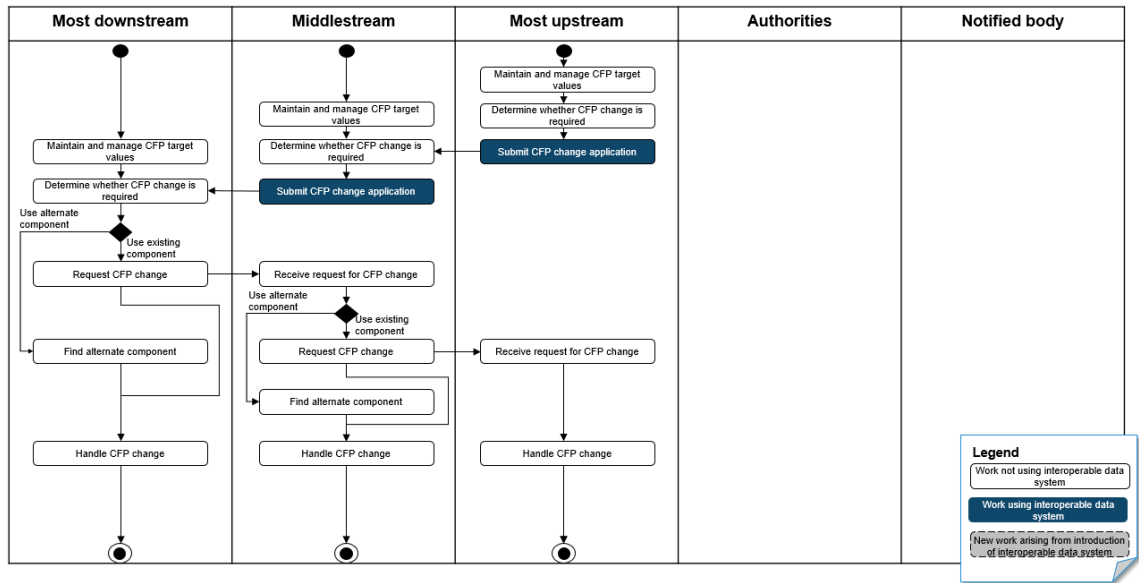


Figure 6.4-1: Process for part changes or CFP changes

6.5 Workflow example: [Middlestream] Company A battery component company

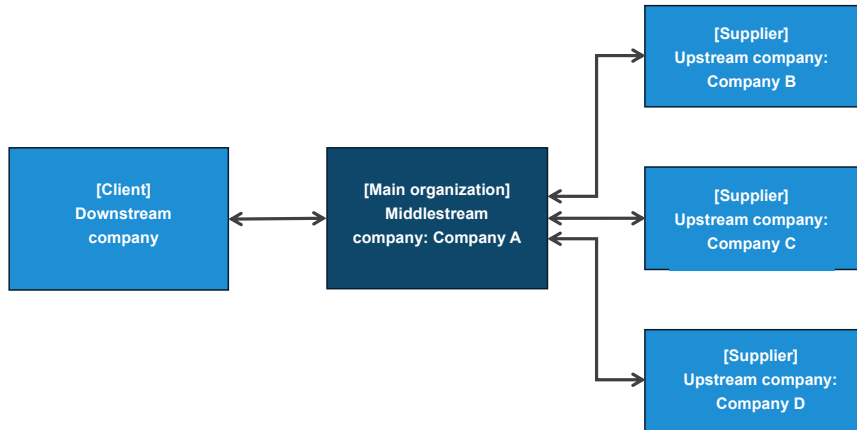


Figure 6.5-1: [Middlestream] Relationship diagram for Company A battery component company

1. Register to use system
 - (a) Receive request from recipient downstream company to register to use system
 - (b) Complete registration, and request usage registration from supplier upstream company (Company B/C/D)
2. Request CFP calculation
 - (a) Receive CFP calculation request from recipient downstream company
 - (b) Associate components delivered to downstream company with included components purchased from upstream company (Company B/C/D), and register them
 - (c) Request upstream company (Company B/C/D) to calculate CFP
3. Calculate, certify and submit CFP
 - (a) Upon receipt of CFP from supplier upstream company (Company B/C/D), calculate CFP of own production process on basis of proposed basic law for European Battery Rule/Regulation and detailed laws and regulations on CFP, sum supplier CFPs, and register finished item CFP in interoperable data system
 - (b) Apply for certification of registered CFP by certification body, and register in interoperable data system after receiving certificate
 - (c) Submit CFP information (CFP and certificate) to downstream company
4. Handle CFP changes
 - (a) Regular updates: Update once a year in XX *Set common industry update month
 - (b) Update as needed:
 - [1] (Example 1) Component change: When adding or changing a supplier other than existing supplier upstream company (1), (2) and (3)
 - [2] (Example 2) CFP increase/decrease: Update when there is an increase/decrease due to a supplier change, or a decrease in own manufacturing process

6.6 Certification process *To be added once confirmed by certification body

7 Afterword

As efforts to achieve carbon neutrality spread across the globe, the situations and applications for which CFP is required are expected to become more complex. We created this guidebook with the goal of increasing the number of companies making use of CFPs and reducing CO₂ emissions throughout product life cycles. This requires tracing CFPs and exchanging data throughout the entire supply chain, which is an extremely difficult task for a single company. It cannot be achieved without the cooperation of all companies and groups participating in the supply chain. We hope that this guidebook will gain a wide audience, and we ask for your support and active participation in related activities.

8 Contact information

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*Passed away on August 20, 2023

9 FAQ (typical questions and answers will be added following reviews conducted by each association)

• Operational rules

#	Question	Answer
1	Questions about CFP calculation (Calculation rules, databases, applicable timing, calculation units, plant definitions, etc.)	The scope of this guidebook is the European Battery Rule/Regulation. Any information yet to be clarified in the European Battery Rule/Regulation is still under investigation. We will update industry operational rules by confirming detailed regulations as they are finalized and exchanging information with experts. Detailed regulations for PCR and certification processes under European Regulations will be finalized around February 2024.
2	Questions about CFP updates (Timing, regular/irregular processes, specific actions when updating, etc.)	
3	How much confidential information must be registered?	The minimum amount to register would be whatever information is required to comply with the European Battery Rule/Regulation. If the system is used more frequently, there may also be cases where confidential information is registered but not disclosed.
4	When using recycled materials, is there any case where the positioning of downstream to upstream companies would be different from that of ordinary sales channels (described in pages 17 and 18 of the guidebook)?	Sales channels may sometimes differ. If the scope of CFP primary data collection is extended to product recycling, there could also be cases where the OEM would not be the most downstream, or where the recycler would be upstream.
5	Must foreign business partners also register data in the Ouranos Ecosystem?	Yes, foreign companies are also included.
6	If purchasing components or materials through trading companies (if purchasing indirectly), must the trading companies enter data in the Ouranos Ecosystem?	Trading companies may also need to enter data. Data registration would require an agreement between the company that actually calculated the CFP and the trading company.
7	What should be done if a sales channel company cannot register data (for example, the company refuses to participate, has difficulty doing work digitally, or cannot obtain primary data)?	This would be handled in accordance with the certification process and rules. We do plan on including information on handling situations in which companies are unable to register data, in “Guidelines on Data Linking Mechanisms in Supply Chains.” Examples might include the use of proxy input or secondary data.
8	If an upstream company changes its CFP, how could the downstream company be contacted?	CFP is basically updated each year. There is currently no set method of communication for this purpose. However, operational and system implementation would depend on the application.

- **System**

System specifications are described in “Guidelines on Data Linking Mechanisms in Supply Chains” for reference. The interoperable data infrastructure for battery traceability is implemented in a layered manner consisting of an application layer (IT vendor area of competition) and interoperable data system layer (area of cooperation).

- Version α : Released on May 12, 2023
- Version β : Planned for release in December 2023
- **V1: Planned for release in April 2024**

No	Question	Answer
1	What will be the policy for reviewing system interconnectivity with other data spaces? Who will conduct these reviews?	Interconnectivity with other data spaces will be coordinated by industry groups, national governments and cooperating IT vendors. The policy is to work with priorities set based on factors such as how popular the space might become, its compatibility with the objectives of Japanese efforts and its technical ease. Progress will be shared at a later time with regard to feasibility and schedule.
2	Will there be any other usage manuals or other documents explaining how to use the system, other than the guidebook?	Application usage manuals fall into the IT vendor area of competition, and would therefore depend on the provider. We will consider preparing a usage manual for the interoperable data system, as we confirm the status of future development and testing.
3	Can each division within a company obtain an account? Or is the account for the company as a whole?	An account obtained for the interoperable data system for CFP calculation is for the company as a whole. Accounts for applications will depend on the individual service type.
4	How exactly will processes such as BOM integration, transaction information registration and part number association between commerce companies be implemented?	“Component relationships between products and components” and “transactional relationships between business operators” are managed as trace identifiers. (Guidelines on Data Linking Mechanisms in Supply Chains, Version α , page 32) How a company implements processes such as BOMs, transaction information registration and trace identifier association will depend on the method of implementation of the application.
5	Is there any functionality to follow up on requests/confirmations and exchanged messages between companies, or any errors or missing input values?	Functionality to follow up on exchanged messages and other data by using data exchange functionality provided by the interoperable data system will depend on the application.
6	Does the automatic CFP update function also obtain certification automatically? Does certification have to be obtained separately?	Automatic certification performed in conjunction with the certification body system is not expected at launch. Certification will need to be obtained separately

7	How can the scope of disclosure of information be set (for example, hiding sales channels or companies that are not direct business partners)?	In addition to distributing, processing and using data efficiently, the interoperable data system also ensures data sovereignty. Ensuring data sovereignty means being able to decide (1) valid users, (2) conditions of use and (3) storage locations of information. Specific setting methods will be provided a later date.
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• Other

No	Category	Question	Answer
1	Certification bodies	To what extent has the European Battery Rule/Regulation finalized third-party certification (certification body, process, period, etc.)?	Although the European Battery Rule/Regulation is the scope, battery PCR and the certification process have yet to be clarified and details are still under investigation. Detailed regulations for PCR and certification processes under European Regulations will be finalized around February 2024.
2	Domestic certification	How is it determined whether a domestic or overseas certification body is the appropriate body?	Information on certification bodies approved by accreditation bodies accredited by member state authorities will be released. However, individual certification of CFP, etc. may also be subcontracted in some cases.
3	Mutual certification	Is mutual certification compliant with domestic and European rules possible?	Ministry of Economy, Trade and Industry (including G2G negotiations) plans to work with industry groups for this purpose.
4	Rules/agreements	Have rules for handling the confidential information (trade secrets) of each company when using the interoperable data system been finalized?	As described on pages 43 and 44 of Version α of “Guidelines on Data Linking Mechanisms in Supply Chains,” requirements related to trade secrets that should be reflected in the system will be provided as either interoperable data system or application functionality, while requirements that should be formulated as rules will be formulated as [terms of use of data] between the system operator and users. The goal is to provide this information in March of next year.
5	Fees	Are there any fees for using the data infrastructure? If so, how much? How are fees billed (flat rate, measured rate, etc.)?	An operating company will be formed as terms of use and contracts are developed. This company will provide more details.

6	Applications	Are there any recommended CFP calculation or certification applications?	This falls under the area of competition for IT vendors. DADC and industry groups do not recommend any particular applications.
7	Schedule	Will applications and interoperable data system services launch in time to comply with the European Battery Rule/Regulation?	In order to launch in time to comply with European Regulations, we plan to build the interoperable data system and establish an operator, with minimum functions required to comply with regulations launched in April of next year, and main operation launching in July. We will share information for applications with development vendors, and expect that applications will be developed in time for the launch of the interoperable data system.
8	Operations	Will each company need to provide individual explanations to overseas suppliers?	As a general rule, each company will need to provide individual explanations to business partners. This guidebook could be used along with information session materials for this purpose (we also plan to provide an English translation).
9	Operations	Are overseas suppliers expected to use a Japanese data infrastructure? What should be done if they cannot?	We are preparing to implement mutual certification and interconnectivity, with systems such as Catena-X, but we still need to obtain consent from partners. Over the short term, we hope that overseas suppliers would agree to use the Ouranos Ecosystem.

List of reference materials

- METI: Ouranos Ecosystem
https://www.meti.go.jp/policy/mono_info_service/digital_architecture/ouranos.html
- Joint Research Centre (JRC): “Rules for the calculation of the Carbon Footprint of Electric Vehicle Batteries (CFB-EV)”
https://eplca.jrc.ec.europa.eu/permalink/battery/GRB-CBF_CarbonFootprintRules-EV_June_2023.pdf
- DADC: “Guidelines on Data Linking Mechanisms in Supply Chains, Version α ”
https://www.ipa.go.jp/digital/architecture/Individual-link/ps6vr7000001m4n6-att/guideline_for_dataoperation_in_BattCFPDD.pdf
- (Example) Certification body materials: Sustainable Management Promotion Organization (SuMPO)
[Japan EPD Program by SuMPO]
https://ecoleaf-label.jp/about/k0sc7i000000005k-att/JapanEPDbySuMPO_Briefing_2304.pdf
[JR-07-05 Calculation and Declaration Rules (General Rules and Requirements)]
https://ecoleaf-label.jp/regulation/k0sc7i00000000ca-att/JR-07-05_QuantificationAndDeclarationRules.pdf
[JR-08-03 Verification Rules (General Rules and Procedures)]
<https://ecoleaf-label.jp/regulation/k0sc7i00000000ca-att/a1649381753905.pdf>