



ISCC PLUS

Version 3.3



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Version 3.3

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Summary of Changes

The following is a summary of all content changes to the previous version of the document. Other changes, e.g. corrections of spelling mistakes, are not listed.

Summary of changes made in version 3.3	Chapter
<ul style="list-style-type: none"> • General: Replacing RED with RED II and respective ISCC document names • Specification of document overlap between ISCC EU and ISCC PLUS 	
<ul style="list-style-type: none"> • Addition: "ISCC will consider benchmarks for potential mutual recognition only with other multi-stakeholder voluntary schemes." • Specification: "Sustainable material coming from ISCC EU or ISCC DE certified raw material providers (Collecting Points or First Gathering Points or individually certified Points of Origin/ Farms/Plantations), which fulfil the above "ISCC Compliant" requirement, shall contain the statement "ISCC Compliant" on its sustainability declaration, in order to be accepted under ISCC PLUS." 	5.1 /13.2
<ul style="list-style-type: none"> • Addition: "When a manufacturer seeks certification of a substance made from a mix of "ISCC PLUS Compliant" and non-compliant raw materials, assurance is needed that the amount "ISCC PLUS compliant" substance does not exceed the quantity and value of "ISCC PLUS compliant" raw material. Further information on possible claims can be found in the ISCC Logos and Claims Document." 	5.1
<ul style="list-style-type: none"> • Clarification on material eligible for ISCC PLUS certification 	5.2
<ul style="list-style-type: none"> • Chapter 9.1 moved and updated to 5.3 "Type of raw material category" 	5.3/9.1
<ul style="list-style-type: none"> • Deletion of ISCC Add-ons mentioned in document (please see website) 	5.4
<ul style="list-style-type: none"> • New chapter "Elements of the supply chain under ISCC PLUS" • Specifications on processing units, final product refinement, warehouse activities and brand owner certification 	5.5
<ul style="list-style-type: none"> • Division into two sub-chapters • "Reuse", "Recovery" and Recycling definition specification according to Waste Framework Directive 	7.1
<ul style="list-style-type: none"> • Re-naming post-industrial to pre-consumer material • Extension of the definition of pre-consumer material • Specifications for recycling treatment options • Inclusion of social criteria for waste picking 	7.2
<ul style="list-style-type: none"> • Specification of mandatory and voluntary requirements for sustainability declarations • Additions on issuance of sustainability declarations 	9.1
<ul style="list-style-type: none"> • Addition: "Sites" refer to locations/addresses of individual legal entities while "scopes" refer to market activities, e.g. collecting, trading and 	9.3

Summary of changes made in version 3.3	Chapter
<p>processing sustainable material (for further explanation please see ISCC System Document 102).”</p> <ul style="list-style-type: none"> • Re-structuring and specification that country of origin and type of raw material category can be forwarded on a voluntary base • Addition: “If a product is processed by chemical synthesis and reactant are derived from both biomass and non-biomass, oxygen (O) and/ or hydrogen (H) and/ or nitrogen (N) element(s) is/ are bound to a carbon structure derived from biomass, its/ their fraction is/ are considered to be part(s) of the bio-based content.” • Specification that if an ISCC certified system user receives sustainable material forwarded under the chain of custody option “mass balance” it is not possible to switch to the chain of custody “physical segregation” for the same material afterwards 	
<ul style="list-style-type: none"> • Specification: “Applicable only for the same kind of outgoing intermediate or final product (the output on the certificate annex has to be the same)” • Addition: “Certificates can be issued by differing certification bodies if full documentation is available” • Specification: “(...) for the latter case is that the company transferring credits to another operational unit (being part of the JV) holds at least 50% in the other company.” 	9.3.1
<ul style="list-style-type: none"> • Specification: “The mass balancing approach determines the sustainable share. It ensures that volumes of outgoing sustainable material do not exceed volumes of incoming sustainable material.” • “Each plant (e.g. a cracker, a polymerization plant), which is combined under one certificate at one site, has its own conversion factor. Depending on which process steps are used to manufacture a product or which plants are passed through, the corresponding conversion factors must be taken into account.” • Specification “equivalence” • Specification: “Consequently, the conversion factor is based on the share all carbon atoms or all atoms that are part of the output molecule, derived from the sustainable input. Operational data of the processing unit must be used to take process losses into account and determine the sustainable output. • By applying one of the three options described above, claims cannot include reference to the content of the output.” • Footnote 	9.3.2
<ul style="list-style-type: none"> • Clarification of system boundaries • Addition: “It is not allowed to use a conversion factor >1 also not when taking into account the tolerance level of neglection.” 	9.3.3
<ul style="list-style-type: none"> • New Chapter “Use of consumption factors” • For the determination of the conversion factor, all process outputs (products) as well as reactants (e.g. water) can be taken into account. 	9.3.4

Summary of changes made in version 3.3	Chapter
Process losses (e.g. gases to flare) are deducted from the conversion factor.	
<ul style="list-style-type: none"> • New chapter “Controlled blending” 	9.4
<ul style="list-style-type: none"> • Deletion of chapter 	9.5
<ul style="list-style-type: none"> • Clarification on emission factor calculation 	11.1
<ul style="list-style-type: none"> • Additions: • “In any case the GHG add-on must be implemented in the entire supply chain up to the entity claiming a value on outgoing product.” • “In case system users have conducted a LCA also for upstream activities based on an ISO standard that differs from the ISCC methodology, the calculated value needs to be communicated separately and cannot be used to replace a GHG calculation based on the ISCC methodology.” 	11.6
<ul style="list-style-type: none"> • Deletion of “Certification approach for small companies” • New chapter “Certification approach for country dealers / limited risk distributors (LRD)” 	12.1

1 Introduction

ISCC – International Sustainability and Carbon Certification (ISCC) is a certification system that offers solutions for the implementation and certification of sustainable, deforestation-free and traceable supply chains of agricultural, forestry, waste and residue raw materials, non-bio renewables and recycled carbon materials and fuels. Independent third-party certification ensures compliance with high ecological and social sustainability requirements, greenhouse gas emissions savings (on a voluntary basis under ISCC PLUS) and traceability throughout the supply chain. ISCC can be applied globally in all markets including the food, feed, chemical and energy markets.

Solution provider for sustainable supply chains

ISCC applies strict rules for the conservation of valuable landscapes as well as the environmentally friendly and socially responsible production of agricultural and forestry raw materials. ISCC does not accept any form of compensation or remuneration for breaches of system requirements.

Entire supply chains and different markets

Since 2006 ISCC has continued to develop through an open multi-stakeholder process involving representatives from agriculture, processing and refining industries, trade, and NGOs with ecological and social backgrounds. Today, ISCC is one of the world’s leading certification systems. The interests of the different stakeholders are represented in the ISCC Association (ISCC e.V.). At regular regional and technical stakeholder committees in Asia, Europe, North- and South America, experiences and improvements of the ISCC System are discussed, and – when possible – lead to continuous improvements of the ISCC system.

No compensation accepted for system breaches

Multi-stakeholder organisation

ISCC operates different certification systems for different markets. These systems are ISCC EU and ISCC PLUS. ISCC EU is a certification system to demonstrate compliance with the legal sustainability requirements specified in the Renewable Energy Directive (RED) II. ISCC PLUS is a certification system for all markets and sectors not regulated by the RED II, such as the food, feed or energy markets and for diverse industrial applications. Under ISCC PLUS, all types of agricultural and forestry raw materials, waste and residues, non-bio renewables and recycled carbon materials and fuels are covered.

Different ISCC systems

ISCC offers a “One-Stop-Shop” solution, as the ISCC EU and ISCC PLUS schemes are widely harmonized. With only one audit an operation can obtain both an ISCC PLUS and ISCC EU certification. The main criteria of the ISCC sustainability scheme are based on the RED II sustainability requirements, with additional sustainability requirements on environmental and social issues, which go beyond legal requirements.

ISCC as a “One-Stop-Shop” solution

During the development of its systems, ISCC considers and complements best practice initiatives like ISEAL Alliance and international standards like

Best practices

ISAE 3000¹ and the International Organisation for Standardization (ISO). This facilitates and enables a consistent and reliable application of ISCC especially with respect to quality control, risk management, planning and conducting of audits as well as sampling processes, surveillance and reporting mechanisms. Furthermore, ISCC operates the ISCC Integrity Program, which is a tool used to continuously monitor the performance of the ISCC System Users and Certification Bodies (CBs) cooperating with ISCC to ensure and maintain the high-quality standard and credibility of ISCC.

2 Scope and Normative References

As the ISCC PLUS and ISCC EU certification schemes are widely harmonized, the ISCC EU System Documents in general apply for ISCC PLUS. This means that the ISCC EU System Documents also serve as system documents for the ISCC PLUS scheme. There are some different requirements between ISCC EU and ISCC PLUS, especially with regard to traceability, chain of custody, and GHG emission calculation which ISCC would like to emphasize in this document. This document serves as an additional compulsory source of information to the ISCC EU System Documents for a certification under ISCC PLUS. This approach is intended to be a facilitation for companies, certification bodies and other interested parties as they only have to refer to one set of system documents and duplication of requirements is avoided.

*ISCC EU
System
Documents
apply also for
ISCC PLUS*

The ISCC EU System Documents lay down the general ISCC system principles which are (apart from the different requirements specified in this document) also valid under ISCC PLUS. These documents can be found on the ISCC website in their currently valid version.

References made within the ISCC EU System Documents with regard to the RED II requirements for sustainable fuels (for example biofuels, bioliquids or biomass fuels) also apply under ISCC PLUS for all other products such as food, feed or biochemicals (e.g. "... to fulfil the requirements of the RED II is meant comparably for "... to fulfil the requirements of the ISCC sustainability standard"). Any obligatory regulatory requirements that are specific to the EU biofuels sector such as the EU Reporting Obligation or the minimum GHG emission saving requirement do not apply under ISCC PLUS.

*No application of
RED II GHG
saving
requirements
under PLUS*

3 Governance

The ISCC EU System Document 102 "Governance" lays down the general principles according to which the ISCC system is governed globally. It specifies the goals and internal structure of ISCC, as well as the relationship between ISCC and its stakeholders.

*General
principles*

¹ International Standard on Assurance Engagements 3000: Assurance Engagements other than Audits or Reviews of Historical Financial Information.

This System Document applies equally for ISCC EU and ISCC PLUS, with the exception that ISCC PLUS is not a certification scheme recognized by the European Commission and therefore the obligation to report to the European Commission on its activities and status does not exist.

4 Requirements for Certification Bodies and Auditors

The ISCC EU System Document 103 “Requirements for Certification Bodies and Auditors” specifies the requirements for Certification Bodies (CBs) to be allowed to conduct certifications under the ISCC standard, and thus duties of CBs cooperating with ISCC and performing certification services according to ISCC. Furthermore, it lays down the requirements and necessary qualifications for auditors conducting ISCC audits.

*Requirements
for ISCC
recognition*

This System Document applies equally for ISCC EU and ISCC PLUS.

5 System Basics

The ISCC EU System Document 201 “System Basics” describes the fundamentals of the ISCC system. It outlines the basics with respect to the set-up of the ISCC system and the certification criteria regarding sustainability, traceability, and the chain of custody, as well as greenhouse gas emissions (voluntary under ISCC PLUS). The description of participants in the supply chain who are subject to certification is also covered. Additionally, the registration, audit and certification processes are described as well as the requirements for the issue and validity of ISCC certificates.

*Fundamentals of
the ISCC system*

This System Document applies equally for ISCC EU and ISCC PLUS, with some differing requirements under ISCC PLUS which are described in the following sub-chapters.

In order to satisfy certain market requirements, which may not have been covered within the ISCC PLUS system and existing add-ons², ISCC will consider the development of further extensions of the system with respect to voluntary add-ons and scopes.

5.1 Acceptance of other sustainability schemes under ISCC PLUS

Within ISCC PLUS no certification schemes other than ISCC are currently accepted. The recognition of voluntary schemes other than ISCC requires at least a positive equivalence benchmarking result. ISCC will consider benchmarks for potential mutual recognition only with other multi-stakeholder voluntary schemes taking into account governance, sustainability and traceability criteria.

*Acceptance of
certification
schemes*

² Add-ons are additional modules of ISCC, which can be used on top of the ISCC core-requirements

“ISCC Compliant” means that all economic operators along the supply chain must demonstrate that the relevant ISCC standard requirements have been fulfilled. Within ISCC PLUS, it must be guaranteed that the whole upstream supply chain up to the farm/plantation or point of origin is entirely ISCC certified (“ISCC Compliant”). Any material used in an “ISCC Compliant” supply chain must consist entirely of ISCC material.³ Sustainable material coming from ISCC EU or certified raw material providers (collecting points or first gathering points or individually certified points of origin/ farms/plantations), which fulfil the above “ISCC Compliant” requirement, shall contain the statement “ISCC Compliant” on its sustainability declaration, in order to be accepted under ISCC PLUS.

ISCC Compliant

The statement “ISCC Compliant” can only be made if the ISCC certified operator has received an equivalent amount of incoming material with the statement “ISCC Compliant” on the sustainability declaration. First Gathering Points can only make this statement for deliveries from farms or plantations that comply with the ISCC requirements. Collecting Points can only make this statement for materials collected from points of origin that comply with the ISCC requirements.

Incoming material with the statement “EU RED Compliant⁴” cannot be accepted under ISCC PLUS. For outgoing materials, the claim “EU RED Compliant” cannot be applied.

*EU RED
Compliant*

Material certified under any voluntary scheme other than ISCC cannot be accepted in ISCC PLUS supply chains.

When a manufacturer seeks certification of a substance made from a mix of “ISCC PLUS Compliant” and non-compliant raw materials, assurance is needed that the amount “ISCC PLUS compliant” substance does not exceed the quantity and value of “ISCC PLUS compliant” raw material. Further information on possible claims can be found in the ISCC Logos and Claims Document.

5.2 Material eligible for ISCC PLUS certification

Eligible material

Under ISCC PLUS, all types of agricultural and forestry raw materials, bio wastes/residues and fossil materials contributing to the Circular Economy and Bioeconomy can be certified. This refers to all markets not regulated by the RED II, such as the food, feed and energy markets as well as diverse industrial applications (e.g. chemical industry and packaging). The lists of eligible material (one for ISCC EU and one for ISCC PLUS) are not conclusive but aim for the harmonization of the description of material (e.g. on ISCC certificates). System users applying the ISCC PLUS scheme shall refer to the ISCC PLUS list of eligible material. Further, all materials that can be covered under ISCC EU can also be certified under ISCC PLUS. The certification of

³ At least on a quantity bookkeeping basis (see chapter 5 on Traceability and Chain of Custody)

⁴ Sustainable material has to be considered “EU RED Compliant” if the ISCC certified operator receives deliveries from suppliers that are certified to any other recognised voluntary certification scheme in the framework of the Renewable Energy Directive II.

materials and products not stated on one of these two lists is potentially possible after consultation with and confirmation by ISCC.

5.3 Raw material category:

Under ISCC PLUS the following three raw material categories (arising at the beginning of the supply chain) can be certified:

- > **Bio** feedstocks are derived from virgin biomass, whereas biomass refers to the biodegradable fraction of products from agriculture, forestry and related industries including fisheries and aquaculture, e.g. corn, sugarcane, rapeseed etc.
- > **Circular** feedstocks are materials at the beginning of the supply chain considered as a waste/ processing residue that are not landfilled or energetically used, but instead re-used, further used or recycled in a loop without dropping out of the economy.
 - “bio-circular” refers to waste and residues of biological origin from agriculture, forestry and related industries including fisheries and aquaculture, as well as the biodegradable fraction of industrial and municipal waste (e.g. UCO, tall oil, food waste, etc.)
 - “circular “(incl. technical-circular) means feedstock derived from the mechanical and/or chemical processing of recyclable materials of non-biological origin (fossil-based) (e.g. mixed plastic waste, waste textiles, end-of-life tires, etc.).
- > **Renewable** feedstocks cover materials of non-biological origin, derived from a process using renewable energy sources other than biomass (e.g. electricity), in which the input feedstock must not contain usable energy. Electricity generated from renewable energy input like wind, solar, aerothermal, geothermal or water (including hydrothermal sources, waves and tides) (renewable electricity) can be used to produce sustainable materials under ISCC PLUS. The renewability of electricity can be proven via renewable energy obligations, renewable power purchase agreements (PPAs) or via a direct connection/ link of the processing unit with the respective unit producing renewable electricity.

*Categories for
the type of raw
material*

5.4 Voluntary add-ons under ISCC PLUS

In addition to the core requirements of ISCC PLUS, ISCC provides the option to adapt ISCC PLUS certificates to specific market requirements through voluntary add-ons. Depending on the respective add-on, they can be applied for the agricultural production area and for the entire supply chain on a voluntary basis. The modular approach ensures the fulfilment of different

*Specific market
requirements*

market requirements and continuous improvement. All voluntary add-ons can be found on the ISCC website.

5.5 Elements of the supply chain under ISCC PLUS

5.5.1 Point of origins for waste material

Depending on the upstream origin and collection of the waste, waste management plants are defined as point of origin or as collecting point.

Points of origin are the extractor of material for downstream supply chain elements. Points of origin may aggregate waste, prepare waste for further processing, mechanically process waste without chemically transforming it (e.g. shredding, densifying or pelletizing) or provide quality assurance services (e.g. ensuring that waste conforms to agreed upon specifications). Waste plastic is prepared for introduction to the certified recycling collecting point" at the Point of Origin. In any case, it must be proven at the Point of Origin that the first material in the supply chain is a waste, meaning that among others the material was not intentionally produced, and its further use requires an additional processing step other than normal industrial practice. Further precondition for certification is compliance with national regulations for the respective material handling. The point of origin must hold appropriate licenses and permits to act as a legal waste management company or is an entity that generates recovered material as defined in ISO 14021:2016. Recovered material is defined by this ISO norm as "material that would have otherwise been disposed of as waste or used for energy recovery but has instead been collected and recovered as a material input, in lieu of new primary material, for a recycling or manufacturing process". This means, the material enters a supply chain again as a feedstock for further production, promoting in this way the circular economy.

*Point of origin
definition*

Non-individually certified points of origin need to fill out the ISCC PLUS self-declaration to the Collecting Point of the certified material and specify the material produced according to the ISCC PLUS material list.

Here, it also needs to be indicated if post- or pre-consumer material is handled:

- > For post-consumer waste (definition in chapter 7.2) municipal collection of private household / post-consumer plastic waste is not part of the certified supply chain and therefore does not need to issue a self-declaration. In that case, the waste management company providing the sorted plastic waste to next entity in the supply chain is the point of origin.
- > For other types of collection of waste material, the entity where industrial waste / processing residues (pre-consumer material – definition in chapter 7.2) occurs / is generated usually is defined as a point of origin.

5.5.2 Processing units and final product refinement

Chemical supply chains consist of different entities changing the properties of relevant materials/ products. Different types of feedstocks and products allow for diverse possible setups. For ISCC certificates the following types of processing units can be applied:

<p>Pyrolysis plant</p> <ul style="list-style-type: none"> Processing solid feedstock into liquids Output: e.g. circular/ bio. pyrolysis oil 	<p>(Plastic) waste processor</p> <ul style="list-style-type: none"> Processing of (plastic) waste into (other than pyrolysis oil) products Output: e.g. circular /bio cellulose esters 	<p>Refinery</p> <ul style="list-style-type: none"> Processing of bio-based liquid feedstocks (refining) Output: e.g. refined oils, waste/ processing residues (e.g. PFAD) 	<p>Speciality chemical plant</p> <ul style="list-style-type: none"> E.g. phenol plant, PVC site, polymer coating plant, thermal insulating plant (expanded polystyrene) Output: e.g. bio-circular butyraldehyde, propionaldehyde
<p>HVO plant</p> <ul style="list-style-type: none"> Processing of vegetable oils Bio-based process Crops, waste and residue-based liquid feedstocks Output: HVO 	<p>Cracker</p> <ul style="list-style-type: none"> Breaking long-chain hydrocarbons into shorter/ simpler molecules Different methodologies possible (thermal/steam) Output: e.g. ethylene, propylene 	<p>Polymerization plant</p> <ul style="list-style-type: none"> Processing unit reacting monomer molecules into polymers (polymer chain) Output: e.g. polypropylene (PP), Polyethylene (PE) 	<p>Converter</p> <ul style="list-style-type: none"> Bringing polymers into bioplastics/ plastic products Output: e.g. bioplastics, milk boxes, films

Figure 1: Overview on typical processing units in chemical supply chains

For speciality chemical plants it is possible to add a more specific definition on the certificate. At the downstream end of the supply chain the last unit to be certified under the scope of a processing unit is the converter that significantly changes the physical properties of their input by putting polymer granulates into different forms (film, bottles, tubs, etc.).

If material is treated with mechanical recycling, processing units shall have the scope “Mechanical Recycling Plant”.

Mechanical recycling

It is also possible to apply tolling agreements under ISCC PLUS where a processing unit is converting sustainable material on a contractual basis for the material owner (different legal entity). Further information on those setups is provided in ISCC EU 203 “Traceability and Chain of Custody”.

Tolling agreements

Different types of companies after the converter exist that receive an ISCC certified product in order to manufacture a final product.

Final product refinement

Example activities:

- Assembling
- Laminating
- Printing (e.g. the ISCC logo on pack)
- Sealing
- Other packaging activities

Audit requirements for final product refinement include among others correctness of conversion factors, mass balance calculations and traceability aspects.

Warehouse activities

In addition, market operators often store material in external warehouses. Those can be covered according to the options as laid down in ISCC EU 203 “Traceability and Chain of Custody. If all relevant documentation can be fully verified remotely by the auditor and the CB decides that no additional on-site visit is necessary to confirm compliance with ISCC requirements the sample audit(s) for warehouses can be conducted remotely. Precondition is a regular risk setup (lowest risk according to ISCC EU 204 Risk Management) with low complexity of market activities, clear documentation reflecting all traceability requirements (e.g. centralized barcode database) and a structured management system containing relevant critical control points and responsibilities.

5.5.3 Brand owners

Brand owners that receive a finished product and would like to make an ISCC claim (on-pack/off-pack) must either be covered by certification with the trader scope (in case no physical changes are made to the product) or participate in the ISCC licensing scheme.

Brand owner certification

6 Waste and Residues

The ISCC EU System Document 202-05 “Waste and Residues” provides the principles for the certification of raw materials and feedstocks qualifying as “waste” or “residue” as their supply chains and specific certification requirements may differ from those of the conventional crop-based materials.

Certification of waste and residues

This System Document applies equally for ISCC EU and ISCC PLUS.

According to the Waste Framework Directive 2008/98/EC (Article 3) a “waste” can be understood as “any substance or object which the holder discards or intends or is required to discard”. The material has reached the end of its intended life cycle. This has to be proven by relevant documentation if the material shall be eligible for an ISCC certification. System users and auditors shall use the “ISCC Flow chart for waste and residues” (Figure 2) to determine whether the ISCC w/r process can be applied.

Waste definition

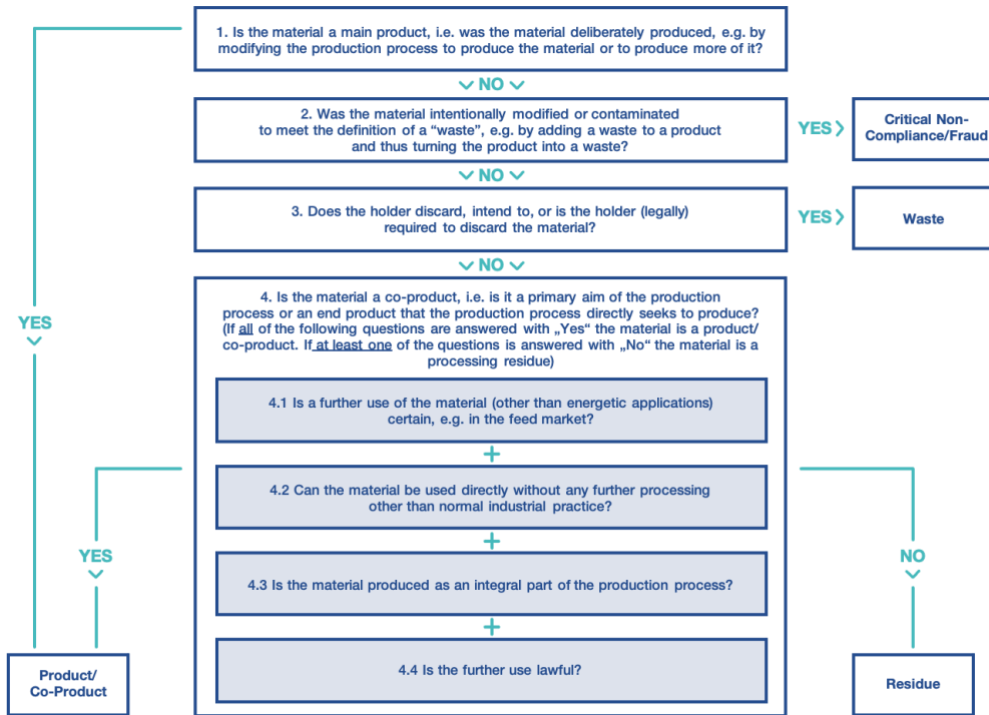


Figure 2: ISCC Flow chart to determine whether the ISCC w/r process can be applied

7 The Circular Economy

ISCC supports the development of the circular economy and consequently reuse, recovery and recycling with its certification approach.

The concept of circular economy aims at transitioning the actual linear value chains in our economy into a circular form. This means, economic activity shall be decoupled from the use of finite resources leading to the idea of keeping materials and products in use. Ideally, no waste is generated but material is reused, recovered or recycled.

7.1 Reuse, Recovery and Recycling

Reuse “means any operation by which products or components that are not waste are used again for the same purpose for which they were conceived”.

Recovery “means any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy”.

Recycling is defined as “any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations.”⁵

Definitions

⁵ Waste Framework Directive 2008/98/EC, Article 3 (13-17)

The concept of reuse, recovery and recycling is part of the waste hierarchy approach⁶ introduced by the Waste Framework Directive 2008/98/EC which shall be taken into account in the framework of ISCC. The waste hierarchy approach aims to reduce and to manage waste according to a cascading use of resources. When possible, reuse should be favored over recycling. Recycling should only take place if the further use of the waste would have required an additional processing step. The use of recycled material (e.g. recycled plastic waste) decreases the extraction and use of additional carbon from finite sources. Reducing the exploitation of fossil resources implies also less associated extraction emissions and mitigates environmental pollution caused by waste incineration or waste disposal on landfill sites. In addition, it contributes to the development of a circular economy and reduces overall wastes.

7.2 Mechanical and chemical recycling

Recycling of plastic waste is a process intended to save resources (e.g. virgin raw materials, energy) and minimize harmful emission to the environment. Thus, the collection and sorting of plastic waste should be properly designed to deliver recyclable plastics waste fractions fitting reasonably well with the available recycling technologies and with the needs of the identified market outlets, preferably at minimum costs for the environment and society.

*Types of
recycling
operations*

The Waste Framework Directive (DIR 2008/98/EC) sets out a general order of priorities for waste management. According to this document, recycling of plastic material is more advantageous than energy recovery. The recycling of plastics covers mechanical and chemical recycling technologies and processes.

Mechanical recycling of plastic covers processes in which the polymer structure is not significantly changed and the plastic is preserved as a material. **Chemical recycling** refers to the conversion of polymers into their monomers or chemical building blocks or basic chemicals e.g. via depolymerization by means of thermochemical or other chemical processes.

In consideration of the total energy consumption, the minimization of harmful process emissions, the social and health protection of workers and the avoidance of disproportionate costs, mechanical recycling should be preferred in comparison to chemical recycling of plastic waste, i.e. the use of chemical recycling should be complementary to mechanical treatment methods. Sorting companies must have sufficient measures and processes in place to take these issues into consideration and to determine, how plastic waste will be recycled. Chemical Recycling should be applied where mechanical recycling is not technically feasible, economically viable, leads to low-quality products or has a higher negative environmental impact.

⁶ Waste Framework Directive 2008/98/EC (31)

Because mechanically recycled quantities are preferred in the cascade utilization and due to the advantages described, chemically and mechanically recycled batches of materials and products quantities should be documented separately in the mass balance documentation.

7.3 Post-consumer and pre-consumer materials

The ISCC approach covers post-consumer and pre-consumer waste. This can also include inorganic waste materials entering the circular economy.

Post-consumer material is defined as material generated by households or by commercial, industrial, and institutional facilities in their role as end-users of the product which can no longer be used for its intended purpose. This includes returns of material from the distribution chain.

Pre-consumer material that falls under the definition of „waste or processing residues“ according to the "ISCC Flow chart to determine whether the ISCC w/r process can be applied" (see graph above) can also be named as „circular material/ products“ under ISCC. Pre-consumer material covers e.g. material derived from waste streams during the system user's manufacturing processes. Material that is reused in the same production process and can be assigned to the categories of rework, regrind or scrap generated cannot be claimed as "circular". Treatment of pre-consumer material needs an additional process step in order to be claimed as "circular", e.g. by an official waste management company or an external company. Precondition for internal processing of waste streams is the existence of an official waste code for the material.

With respect to marketing, companies must claim their input materials and products as specific and transparent as possible to internal and external stakeholders, e.g. referring to post-consumer and/or post-industrial feedstock. The requirements of the currently valid ISCC Logo and Claims need to be followed.

Examples of a recyclable input material are plastic waste or industrial waste. "Mixed Plastic Waste (MPW)" originates for example at waste management companies where it is separated from other waste materials and can be recycled by further mechanical or chemical processing. This provides additional options to promote the circular economy if a direct reuse of the plastic waste is not possible. Material covered under "MPW" has to be essentially free of paper, biomass and/ or used tires. The point of origin has to provide information on the applicable Resin Identification Code (RIC) categories on the self-declaration if applicable. Non-individually certified Points of Origin generating MPW have to sign the respective ISCC self-declaration confirming in this way that the material is a waste. In case waste material is collected by individuals in public places, e.g. close to riversides or ocean(bound) plastic social criteria apply. ISCC Principle 4 has to be verified in addition to the framework of the audit.

*Mixed plastic
waste*

With regard to supply chains based on reuse and recycling of material all ISCC requirements regarding traceability and chain of custody and all other relevant ISCC requirements are fully applicable.

8 Sustainability Requirements

The ISCC EU System Documents 202 “Sustainability Requirements”⁷ provide among others information on the sustainability requirements for farms/plantations, comprising of six sustainability principles:

Sustainability principles for farms/plantations

1. Protection of land with high biodiversity value or high carbon stock
2. Environmentally responsible production to protect soil, water and air
3. Safe working conditions
4. Compliance with human, labour and land rights
5. Compliance with laws and international treaties
6. Good management practices and continuous improvement

These system documents under compliance of the RED II apply equally for ISCC EU and ISCC PLUS.

9 Traceability and Chain of Custody

The ISCC EU System Document 203 “Traceability and Chain of Custody” covers the requirements for the traceability and chain of custody applicable to all elements of the supply chain of sustainable materials that have to be covered by certification. Within ISCC two chain of custody options exist: physical segregation and mass balance. Additionally, under ISCC PLUS, controlled blending (see chapter 9.4) can be used⁸.

Mass balance and physical segregation

This System Document applies equally for ISCC EU and ISCC PLUS, with some differing requirements under ISCC PLUS which are described in the following sub-chapters.

9.1 Requirements for Sustainability Declarations

Under ISCC PLUS, specific information is required for sustainability declarations.

Information to be forwarded

⁷ISCC EU 202-1 – Agricultural Biomass: ISCC Principle 1; ISCC EU 202-2 – Agricultural Biomass: ISCC Principles 2-6 (v.4.0, 01 January 2022): Until this date the ISCC EU System Document 202 “Sustainability Requirements” (v.3.1) has to be applied for the verification of the ISCC Principles 2-6 for agricultural biomass and residues from agriculture, fisheries and forestry.

⁸ Please also see ISO 22095 for further information on Chain of Custody options. From ISCC perspective the approaches are in general aligned with the standard. ISCC Standard requirements prevail for ISCC audits.

General information

- > Name and address of the supplier
- > Name and address of the recipient
- > Related contract number
- > Date of dispatch of the sustainable material
- > Address of dispatch/shipping point of the sustainable material
- > Certificate number of the supplier
- > Date of the issuance of the Sustainability Declaration
- > The number of the group member (in case of group certification)
- > Unique number of the Sustainability Declaration
- > Statement "ISCC Compliant"

Product related information

Mandatory information:

- > Type of product (e.g. raw material, crude oil, etc.)
- > Quantity of delivered sustainable product in metric tons or m3 at 15°C or MWh (for biogas/biomethane)
- > Raw material category (see chapter 5.3)
- > For all circular materials:
 - Statement "The raw material meets the definition of waste or residues, i.e. was not intentionally produced and modified, or contaminated, or discarded, to meet the definition of waste or residues (applicable to waste and residues and products produced from those)
 - Status post-consumer / pre-consumer material/ mixed
- > For bio materials:
 - Statement "The raw material complies with the sustainability criteria according to the ISCC requirements as laid down in ISCC System Document(s) 202 "Sustainability Requirements" (see www.iscc-system.org)
- > Information on chain of custody option applied: "physical segregation" or "mass balance"
- > Type of mass balance (option)
- > If multi-site credit transfer was applied

- > Type of recycling operations (if applicable)

Voluntary information:

- > Raw material (e.g. corn, UCO, MPW)
- > Country of origin of the raw material
- > Statement on applied add-ons in case of the application of add-ons under ISCC PLUS, the following additional product-related information can be stated on the sustainability declaration:
 - 1) Name(s) of add-on(s), under which the equivalent amount of material has been certified or acquired
 - 2) For add-on 205-01 “GHG Emissions”:
 - Statement of GHG emissions of product in kg CO₂eq emissions per ton of product (either use of disaggregated default value or individually calculated GHG value)
 - Means of transport and transporting distance (only in case the disaggregated default value for transport is not applied)
 - 3) For add-on 202-03 “SAI Gold”:
 - “ISCC Compliant” material including the add-on “SAI Gold” can be claimed as “Equivalent to FSA 2.0 Gold Level”
 - 4) For add-on 205-02 “Consumables”:
 - Relevant consumables, which are transferred (e.g. water consumption) and individual value in the respective unit per product (e.g. in litre water/ton product)

Deliveries of ISCC certified material must always be accompanied by the issuance of a sustainability declaration. If material is sold as sustainable to not certified clients, it must be ensured that a transparent system is in place allowing the verification of certified sold material. Relevant documentation must be issued to allow third party verifiers to trace incoming and outgoing flows of material even if buyers of sustainable material do not require to receive a sustainability declaration (e.g. retail). Documentation must at least refer to evidence on other types of delivery documents as well as book-keeping requirements for the mass balance(s).

*Provision of
sustainability
declarations*

The indication of the certified material must always be included in metric tons or m³ on the sustainability declaration. If necessary, it is possible to indicate the total quantity of the delivery and the percentage of the certified part additionally. However, it must be very clear how much of the material is ISCC certified.

To handle returns of sustainable material the following options exist:

Material returns

Option 1: The intended recipient of the product does not accept the (defective) goods, i.e. they are returned to the supplier. In case a sustainability declaration has already been issued (30 days timeframe), the supplier could re-book the goods in its mass balance, as long as the refused acceptance is documented and verifiable for the auditor.

Option 2: The goods are returned and the customer issues a sustainability declaration to the supplier. In this case, the supplier must have booked out the corresponding quantity in the mass balance. The returned goods can then be booked in again (based on the information provided on the new sustainability declaration).

9.2 Self-declarations/ Self-assessment for Farms or Plantations

Farms/plantations covered under the certificate of a First Gathering Point or Central Office conduct an annual self-assessment and provide the signed self-declarations to the First Gathering Point or Central Office. If for farms/plantations voluntary add-ons are additionally certified, the respective farms/plantations additionally have to complete the "ISCC PLUS self-declaration for add-ons" and provide it to the First Gathering Point or Central Office. The templates of the self-declarations are available on the ISCC website.

Annually signed self-declarations

During the audit, the First Gathering Point or Central Office has to provide a list of all farms/plantations with names and addresses of contact persons who signed the ISCC self-declaration within the past twelve months. If farmers apply one or more of the ISCC PLUS add-ons, this must be clearly indicated on the list.

9.3 Mass balance calculation

Under the mass balance system, the sustainability characteristics remain assigned to batches of material on a bookkeeping basis while the physical mixing of material with different sustainability characteristics and the mixing of sustainable and non-sustainable material is allowed. Any kind of mass balance operation and calculation shall only be related to sustainable material. Under ISCC, the maximum timeframe for a mass balance calculation is three months. A mass balance must be site-and scope-specific, i.e. a separate mass balance shall be set up for every production site, even if they are under the same legal entity. "Sites" refer to locations/addresses of individual legal entities while "scopes" refer to market activities, e.g. collecting, trading and processing sustainable material (for further explanation please see ISCC System Document 102).

Mass balance

The same sustainability characteristics as provided on sustainability declarations have to be distinguished in the bookkeeping (see chapter 9.1).

Sustainability characteristics

It is possible to downgrade sustainable material with a higher sustainability category (i.e. add-ons were covered by certification), for example to compensate a negative mass balance of sustainable material with a lower sustainability category (i.e. less or no add-ons applied) (see figure 1). However, this is only possible if all other sustainability characteristics are identical. If an ISCC certified system user receives sustainable material forwarded under the chain of custody option “mass balance” it is not possible to switch to the chain of custody “physical segregation” for the same material afterwards.

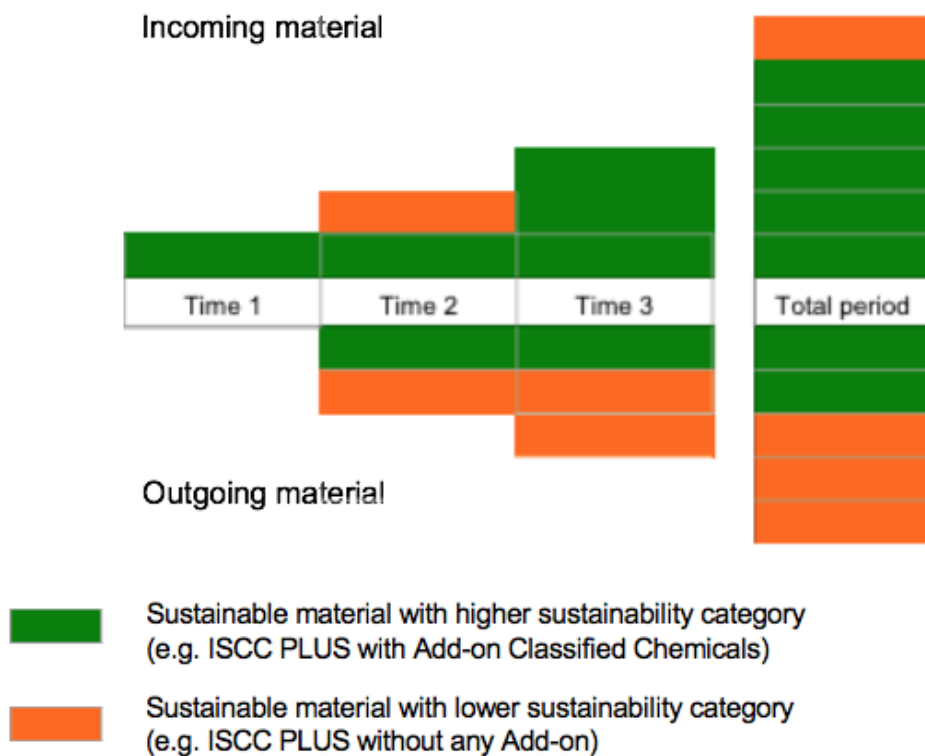


Figure 3: Negative balance of sustainable material can be balanced by sustainable material with a higher sustainability category (all other sustainability characteristics have to be identical)

9.3.1 Credit transfer

If more sustainable material was received than dispatched within one mass balance period, the surplus of sustainable material in the bookkeeping is called “credit”. It is possible to transfer credits from one mass balance period to the next. This is possible regardless of the amount of material in stock (sustainable and unsustainable) at the end of the mass balance period. It should be ensured that a company is continuously certified, i.e. that no time gaps between certification periods occur.

*Surplus
sustainable
material*

Mass balances shall be kept strictly site-specific. Credits achieved within one site’s mass balance cannot be transferred to another site’s mass balance. An exception applies for processing units and storage facilities certified under

*Site-specific
mass balances*

ISCC PLUS. They can transfer credits between different sites under the following conditions:

- > Supplier and recipient of credits must be part of the same company/corporate group/joint venture (see specification below)
- > Sites must be located within national borders, or within neighbouring countries (sharing an inland border)
- > Applicable only for the same kind of outgoing intermediate or final product (the output on the certificate annex has to be the same)
- > Mass balances must be kept site-specific
- > ISCC certification must be in place for all sites
- > Certificates can be issued by differing certification bodies if full documentation is available

Under ISCC PLUS it is also possible to transfer credits between sites that are part of the same or corporate group or joint venture. A corporate group is defined as a number of consolidated legal entities guided by a parent company. Precondition for the latter case is that the company transferring credits to another operational unit (being part of the JV) holds at least 50% in the other company. This has to be proven accordingly to the auditor. The other additional requirements for multi-site credit transfer under ISCC as stated above remain unchanged and have to be equally fulfilled.

Simultaneous processing of different feedstocks

Operations that are both certified under ISCC EU and ISCC PLUS can transfer credits from ISCC EU to ISCC PLUS mass balances, if the material is “ISCC Compliant” and the other sustainable characteristics are identical. However, it is not possible to transfer credits from ISCC PLUS to ISCC EU mass balances.

9.3.2 Mass balancing approach under ISCC PLUS

The mass balancing approach determines the sustainable share. It ensures that volumes of outgoing sustainable material do not exceed volumes of incoming sustainable material. For allocating the correct amount of sustainable output, the sustainable share must be calculated. The sustainable share is the amount of sustainable input material multiplied with the respective conversion factor (CF) of the processing unit. The CF is the amount of all outputs divided by the amount of all inputs. For the determination of the conversion factor, all process outputs (products) as well as reactants (e.g. water) can be taken into account. Process losses (e.g. gases to flare) are deducted from the conversion factor.

Calculation of conversion factors

The determination of the CF must be conducted based on the operational data of the processing unit. It is not allowed to determine the CF based on theoretical data. Each plant (e.g. a cracker, a polymerization plant), which is combined under one certificate at one site, has its own conversion factor. Depending on which process steps are used to manufacture a product or

which plants are passed through, the corresponding conversion factors must be taken into account. Conversion factors do not need to be calculated for each single product. „Product groups“ can be defined to determine „simplified conversion factors“ for all products from this group. The conversion factor for the whole group of products can be determined based on the data for the most relevant product from this group or via determining a „weighted“ average. Precondition for the use of simplified conversion factors is that a transparent description of the defined product groups exists and as there must be a clear link to respective data in the documentation system for the third party verifier to be provided during the audit.

There must be an equivalence between the “ISCC Compliant” input and the respectively claimed output (on a mass balance basis). If the final product does not achieve 100% “ISCC Compliant” equivalence, the percentage must be stated (e.g. on- and/or off-product). Equivalence means that the respective amount of input to output has been sourced.

ISCC PLUS offers different options to conduct the mass balancing for a certified processing unit and to determine the sustainable output of co-processed products. In general, ISCC PLUS allows the free attribution for the determination of the sustainable share of input material to the output material. Free attribution means that the sustainable share can be attributed to one or several output materials⁹.

Options for mass balancing under ISCC PLUS

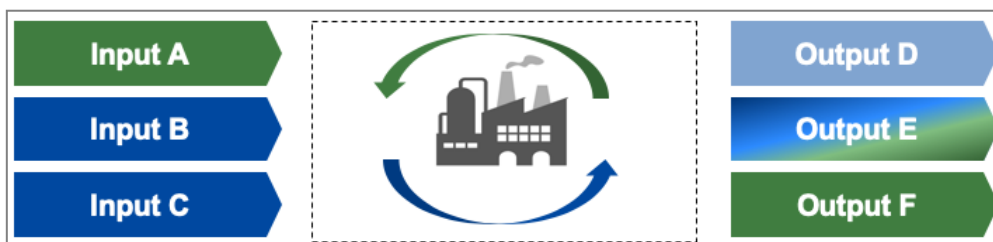


Figure 4: Schematic view on the free attribution approach under ISCC PLUS

The sustainable output can be determined using an “attributing approach” (Option 1 and 2, see Figure 3). In this case, the site processing unit defines the system boundaries”. The specific processes (e.g. chemical reactions) within the system boundaries of the respective processing unit are not taken into account for the determination of the sustainable share. Thus, the focus of the analysis is exclusively on the relevant input, output and losses of the process. In order to calculate the sustainable share, the amount of sustainable input, output and the losses can be described based on their mass (**Option 1, Mass Determination**) or based on their energetic value (**Option 2, Energetic Determination**).

Mass balancing based on input, output and losses

⁹ The free attribution approach can be further specified and handled in a more restrictive way, i.e. by excluding fuels in the calculation of sustainable shares. Information on a more restrictive approach can be included on the sustainability declaration.

Alternatively, the **Trace-the-Atom option (Option 3, see Figure 3)** can be used to determine the conversion factor. The equation of the chemical reaction used for the production of the sustainable product is followed. Consequently, the conversion factor is based on the share all carbon atoms or all atoms that are part of the output molecule, derived from the sustainable input. Operational data of the processing unit must be used to take process losses into account and determine the sustainable output.

Mass balancing based on chemical reactions

By applying one of the three options described above, claims cannot include reference to the content of the output.

Using isotope measurements of the output, the share of the co-processed bio-based feedstocks can be determined in the final product. A **$^{12}\text{C}/^{14}\text{C}$ isotope measurement (Option 4, see Figure 3)** is used to determine the bio-based share in a product. In contrast to the option of calculating the process yield based on an analysis of in- and output materials, this option measures the “physical” bio-content in a product. Here, in contrast to Options 1-3, claims on the bio-based content can be made because it can be proven that the product physically contains a certain sustainable input. Further information on accepted methods, measurement and sampling regimes can be found in ISCC Guidance Document 203-01 “Co-Processing”.

Mass balancing based on bio-content measurements

Option	Approach	Principle
1 Mass Determination	Attribution Approach	Free attribution to one or several outputs
2 Energetic Determination		
3 Trace-the-Atom	Molecular Approach	Determination based on chemical reaction
4 $^{12}\text{C}/^{14}\text{C}$ Analysis	Measurement	Measurement of sustainable share

Figure 5: Overview on mass balancing options under ISCC PLUS

For all options eligible under ISCC PLUS, the attribution/ determination is limited to:

Limitations for mass balancing

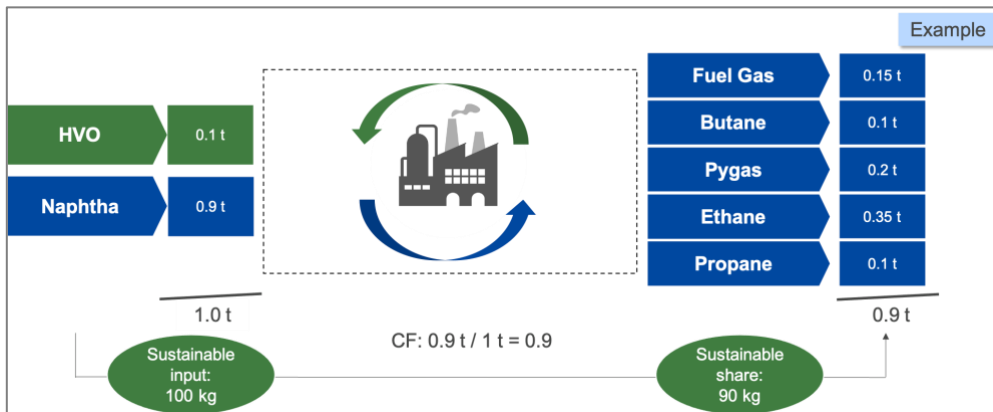
- > process outputs that can potentially contain parts (molecules/atoms) of the sustainable input after its processing/chemical reaction (→ no attribution to output, which cannot (chemically/ technically) include the sustainable input).
- > physical output (sustainable and non-sustainable) produced in the respective mass balance period (→ no attribution to a quantity of output, which is not produced at the site within a mass balance period).

<p>Site specific</p> <p>Mass balancing must be site-specific.</p>	<p>Process feasibility</p> <p>It must be chemically/ technically possible, that the input molecular/ atoms are included in the attributed output.</p>
<p>Operational data</p> <p>The conversion factor is determined based on operational data.</p>	<p>Physical output</p> <p>Attributed sustainable output cannot be higher than the physical output in a mass balance period.</p>
<p>Transparency</p> <p>Information on the used option for MB (attribution) and on multi-site MB must be provided via sustainability declaration.</p>	

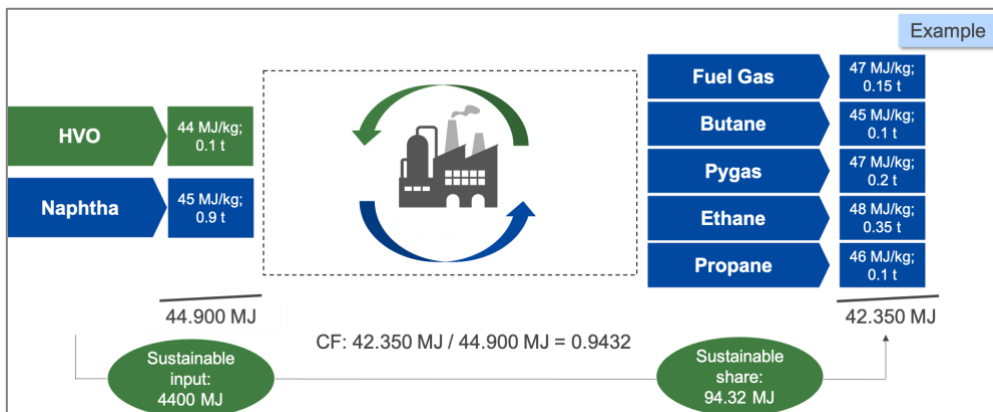
Figure 4: Basic conditions for the ISCC PLUS mass balancing approach

Example calculations

a) Mass determination



b) Energetic determination



9.3.3 Consideration of additives and non-sustainable organic content for mass balancing

The sum of all additives and other non-sustainable organic compounds must be less than 3% of the total mass or energetic value in order to be neglected from the mass balance calculation. In addition, a single additive or non-sustainable organic compound cannot exceed 1% of the total mass or energetic value. Otherwise, it has to be taken into account for mass balance calculation.

Taking into account the tolerance level of neglectation it is not allowed to use a conversion factor >1.

9.3.4 Use of consumption factors

In case of a multistep reaction network at one site (e.g. chemical park) both, bills of materials and/ or process orders may not allow to use the above stated approach for the determination of the conversion factor of the site/ processing unit. In such a case, each process step can be analysed individually, leading to specific consumption factors for each individual input component of the process step. Consumption factors reflect, how much input material (also taking material losses due to chemical reactions or process inefficiencies into account) must be used to produce a specific amount of the desired material/ component. For some processes and sites, consumption factors can be more accurate in terms of raw material consumption than an overall conversion factor for the whole processing unit. The determination of consumption factors must always be site specific and based on bills of material and/ or process orders being updated and adjusted based on actual consumption data on a regular basis (e.g. annually).

9.3.5 Electrolysis processes

For processes in which electricity enables chemical reactions and is used to produce one or several products, mass balancing is limited to a “proportional approach” or “stoichiometric approach”. This means that the sustainable share must be attributed to all process products in the same ratio in which these products are generated per unit of consumed electricity. A “re-attribution” or “shift” of attributed sustainable share from one product of the process to another is not allowed.

For example, in case of a chloralkaline processing unit in which renewable electricity, sodium chloride and water are used to produce chlorine as the main product, the process yields equivalent amounts of chlorine, sodium hydroxide and hydrogen (for every mole of chlorine produced, one mole of hydrogen and two moles of sodium hydroxide are also produced). In this case it is not allowed to e.g. transfer sustainable credits from chlorine to hydrogen or vice versa.

9.3.6 Bio-based atoms

If a product is processed by chemical synthesis and reactant are derived from both biomass and non-biomass, oxygen (O) and/ or hydrogen (H) and/ or nitrogen (N) element(s) is/ are bound to a carbon structure derived from biomass, its/ their fraction is/ are considered to be part(s) of the bio-based content¹⁰.

9.4 Controlled blending

Besides physical segregation and mass balance, controlled blending is the third Chain of Custody option available under ISCC PLUS. Controlled blending refers to a planned blending regime resulting in constant and verifiable content of bio, circular and renewable feedstock in the final product. Blending is obtained by mixing the feedstocks/ products without a chemical or biological reaction.

Only the sustainability characteristics “bio-based content” (raw material categories bio and bio-circular) can be verified via “controlled blending”. As controlled blending can be used with physical ISCC compliant bio-based feedstocks, monitoring of this physical characteristic can be conducted via C14-isotope analysis.

For controlled blending, the quantity of the physical inputs and outputs at the site must be monitored and documented. Incoming percentage of controlled blending input shall be known beforehand in order to determine the percentage of the output before delivery.

Clear documentation of the sustainable percentage of each output must be ensured. The percentage of controlled blended output shall be achieved by:

- Physical segregation of blended material or product in terms of production, transport and storage
- Clear identification of the blended material or product during the process

Controlled blending will be used by companies to make a stronger claim on the physical characteristics of the product. This must be monitored and documented.

10 Audit Requirements and Risk Management

The ISCC EU System Document 204 “Risk Management” covers the requirements of how ISCC audits are to be conducted at different elements of the supply chain, the risk management process under ISCC applicable to all activities of ISCC, and the implications of risks for ISCC audits.

This System Document applies equally for ISCC EU and ISCC PLUS.

*Chain of
Custody option
controlled
blending*

*Conduction of
audits*

¹⁰ For further information please see DIN EN 16785-1

11 GHG Emissions

The ISCC EU System Document 205 “Greenhouse Gas Emissions” explains the options of stating greenhouse gas (GHG) emissions along the supply chain and provides the methodology, rules and guidelines for calculating and verifying GHG emissions and emission reduction.

Options on GHG emissions

Within ISCC PLUS, the verification of GHG emissions is voluntary and can be added by applying the add-on 205-01 “GHG Emissions”. If the add-on is applied, this System Document applies equally for ISCC EU and ISCC PLUS, with some differing requirements under ISCC PLUS which are described in the following sub-chapters.

11.1 Deviations with respect to emission factors

Within ISCC PLUS, emission factors can be individually calculated or come from official sources like the Renewable Energy Directive (RED) or Annex I of the ISCC EU System Document 205 “GHG Emissions”. Furthermore, values based on Ecoinvent or other relevant databases or peer-reviewed literature can be used, if applicable. Recognized methodologies for individual calculations are next to the RED II or ISCC also ISO 14040/44 or ISO 14064/67. The methodology used must always be verified according to the ISO standard or alternatively the supplier must be ISCC certified so that relevant requirements have been verified during an ISCC audit.

Emission factors

11.2 Calculation of regional GHG values for cultivation (e_{ec})

Additionally, for regional averages for cultivation that can be calculated for countries outside the European Community, where no typical emission values for cultivation (NUTS2 values) exist, it is possible under ISCC PLUS for third parties (e.g. companies, plantation owners, associations) to calculate typical GHG emissions for cultivation. The methodology shall follow ISCC’s requirements and ISCC should be informed whenever such values are calculated. However, a submission of the typical GHG emissions values to the European Commission is not required.

Typical GHG emissions for cultivation

11.3 Calculation of individual GHG values for cultivation (e_{ec})

In case of individual GHG emission calculations for a group of farms or plantations, the averaging of input values and GHG emission values is accepted under ISCC PLUS.

Averaging of GHG values

11.4 Aggregation of different GHG values

Under ISCC PLUS, the aggregation of different incoming GHG values is possible for all input materials of the same kind.

Aggregation of GHG values

11.5 Allocation of GHG emissions

Under ISCC PLUS, the allocation of emissions to main and co-products can be based on the energy content of both products (see 4.3.8.1 ISCC EU System Document 205 “GHG Emissions”), but other types of allocation (e.g. based on mass) are also possible. The most suitable allocation method should always be used, e.g. if the main product is used energetically an energetic allocation should be applied.

*Allocation of
GHG emissions*

11.6 Life cycle coverage

Under ISCC PLUS, the GHG emission calculation can either cover the whole life cycle of the product (from cradle-to-grave), or only the emissions up to the factory gate (from cradle-to-gate). In any case the GHG add-on must be implemented in the entire supply chain up to the entity claiming a value on outgoing product. It must always be clearly highlighted on the sustainability declaration of the product if the cradle-to-gate approach is used. If required, further information on the additional emission to be included for the product must be provided to the recipient of the material.

*Life cycle
coverage*

Under ISCC PLUS, the calculation of GHG emission covering the whole life cycle of the product (Life cycle assessment, LCA) must be conducted according to the requirements of ISO 14040/ 14044/ 14067. In case system users have conducted a LCA also for upstream activities based on an ISO standard that differs from the ISCC methodology, the calculated value needs to be communicated separately and cannot be used to replace a GHG calculation based on the ISCC methodology.

12 Group Certification

The ISCC EU System Document 203 “Traceability and Chain of Custody” specifies requirements for the certification of groups. So far, the group certification approach is applicable for farms/plantations, points or origin of a waste/residue material, and warehouses. For ISCC PLUS this concept is expanded to the two following approaches listed in this chapter.

*Certification of
groups*

12.1 Certification approach for country dealers / limited risk distributors (LRD)

LRDs are own legal entities and are active in certain countries (sales regions) for corporate groups having a business principal that acts as central trader and therefore is in charge of all the purchasing and selling operations (among others). Business principals control a centralized ERP system but do not receive physical ownership of sustainable material. The sustainable material is sold to the paper traders in all relevant sales markets who then sell the sustainable product to a third party in the country. For such organized setups a group certification is possible if all required documentation is available at the

Definition LDR

business principal and not at an office in the respective country the LRD is active in. In this case, a separate trader certificate for the group sales entity can be issued. A list of all paper traders belonging to the group must be verified in the audit and provided to ISCC together with other relevant audit documentation.

Specifications for LRDs:

Preconditions

- > must be part of the corporate group (certificate holder has at least 50% equity share)
- > publicly available information that links traders to the corporate group (e.g. annual financial reports)
- > must be part of the central material flow documentation system of the corporate group in a way that all relevant data can be approached from the certificate holder headquarter
- > only act as a paper trader, meaning they buy and sell the certified material in the central system while the physical flow of the material is straight from the production unit to the customer. The processing unit issues the sustainability declaration to the recipient of the physical material respectively (the LRD does not issue any delivery documents and/or sustainability declarations)
- > only sells products produced by a processing unit that is part of the corporate group and invoices these upon selling
- > must not be active for other companies, i.e. trader is contracted as sole provider of distribution for the manufacturing company

The LRD does not need to be audited separately in case all relevant data can be accessed from the business principal's system where the audit takes places. Audit requirements and required documentation remain according to all other relevant ISCC Documents (including ISCC EU 201, 203, 204) so that during the audit of the business principal it is among others verified that deliveries of sustainable material from the processing units are balanced with the sum of sales of sustainable material by all entities involved. The business principal needs to keep a list of all LRDs and document all purchases and sales of ISCC sustainable material.

Audit requirements

There must be a link between the LRD invoicing and the dispatch of product at the processing unit. It needs to be ensured that the customers of the sustainable material are aware under which ISCC certificate the LRD is covered in order to be able to check the certificate's validity on the ISCC homepage. For this, the verified list can be provided to clients of LRDs. In case additional LRDs are added between two ISCC PLUS audits, this needs to be reported to the CB and the updated list needs to be provided to ISCC by the CB.

13 ANNEX – ISCC EU and ISCC PLUS: Overview Differences

13.1 General differences between ISCC EU and ISCC PLUS

Issue	ISCC EU	ISCC PLUS
Recognition and Accreditation	<p>ISCC EU has successfully passed the preliminary assessment of the European Commission for the formal recognition under the RED II¹¹.</p> <p>Accreditation by ANSI</p> <p>Surveillance by German BLE</p>	<p>ISCC PLUS is a voluntary certification standard for non-regulated markets</p> <p>Accreditation by ANSI</p>
Scope of application	Biofuel markets in the EU	Biofuel markets outside EU and bioenergy, food, feed, chemicals/technical applications
Acceptance of other certification schemes	Acceptance of all national and voluntary schemes that are recognized by the EC. For waste and residues, schemes are only accepted upon a positive benchmark. So far, only RedCert EU, RSB and 2BSVs have been positively benchmarked	Only ISCC (ISCC certification of the whole upstream supply chain required). ISCC will consider benchmarks for potential mutual recognition only with other multi-stakeholder voluntary schemes.
Materials currently covered	<p>Coverage of all types of agricultural and forest biomass, biogenic waste and residues (including agricultural, aquaculture, fisheries and forestry residues), ligno-cellulosic and non-food cellulosic materials, including feedstocks listed in Part A of Annex IX of the RED II</p> <p>Coverage of raw materials of non-biological origin, such as liquid and solid waste streams,</p>	All types of agricultural and forestry raw materials, waste and residues, non-bio renewables and recycled carbon materials and fuels

¹¹ Formal recognitions of certification schemes are expected to take place in the short term. For the latest list of recognised systems see: https://ec.europa.eu/energy/topics/renewable-energy/biofuels/voluntary-schemes_en

	waste processing and exhaust gas and energy derived from renewable sources other than biomass	
Application of GHG emission requirements	Mandatory for all elements of the supply chain	Voluntary coverage (add-on “GHG Emissions”)
Reporting Requirements to the EC	Yes. Annually reporting of sustainable material for producer of final biofuel and certified elements at the beginning of the supply chain (e.g. FGPs, CPs)	Not applicable

13.2 Differences between ISCC EU and ISCC PLUS with regard to traceability and chain of custody

Issue	ISCC EU	ISCC PLUS
Transfer of positive credits to the next mass balance period	Only, if at least the equivalent amount of physical material (sustainable and unsustainable) is in stock	Positive credit transfer possible with no time limit even if no physical material is in stock
Transfer of credit between different sites	Transfer of credits between different sites not allowed	Transfer of credits to other sites of the same company, corporate group or joint venture possible for processing units and storage locations under certain conditions ¹²
Mutual acceptance of ISCC EU and ISCC PLUS	Deliveries solely from ISCC PLUS certified companies not accepted	Under ISCC PLUS entities handling “ISCC compliant” material can be accepted under ISCC PLUS
Applicable claims	“ISCC Compliant” and “EU RED compliant”	“ISCC Compliant”. If applicable, claims for voluntary Add-ons used (ISCC claims and logos document)
GHG information on sustainability declaration	Mandatory (special requirements for final biofuels see table below)	Only if the voluntary Add-on “GHG emissions” is applied

¹² Conditions in chapter 9.3.1

13.3 Differences between ISCC EU and ISCC PLUS with regard to GHG emission calculation

Issue	ISCC EU	ISCC PLUS
Application of GHG requirements	Mandatory for all elements of the supply chain	Voluntary application of add-on “GHG Emissions”
Specific GHG requirements for final products	Yes. Producer of final fuel and downstream supplier have to report GHG emissions of fuel, relevant fossil fuel comparator, GHG emission savings (compared to relevant fossil fuel), and statement on start of operations ¹³	No. Voluntary if requested by final customer/market. Application of add-on “GHG Emissions” along the supply chain is precondition

¹³ According to the RED II an installation shall be considered to be in operation once the physical production of fuel, heat or cooling, or electricity has started (i.e. once the production of fuels including biofuels, biogas or bioliquids, or production of heat, cooling or electricity from biomass fuels has started). shall be considered to be in operation if the physical production of biofuels has taken place.