



ISCC CORSIA Certification for Sustainable Aviation Fuels

Dr Norbert Schmitz, Managing Director, ISCC System GmbH
ISCC Stakeholder Meeting “Decarbonisation of the Aviation Sector”, 03 December 2020

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“Based on the recommendations of the Committee on Aviation Environmental Protection (CAEP), **the Council** also **approved the organizations** which are **now eligible to certify the sustainability and life-cycle emissions values of CORSIA eligible fuels.**”

”

*ICAO Press release “CORSIA offsetting kept on track for 2021 pilot phase”
(Date: 26 November 2020)*

Source: <https://www.icao.int/Newsroom/Pages/CORSIA-offsetting-kept-on-track-for-2021-pilot-phase.aspx>

The ISCC Association is a diversified multi-stakeholder non-profit organization with 157 members



As of 27 November 2020

The ISCC system is a well-established and credible certification program

**System users in
100+
countries**

**28,000+
certificates
4,300
system users**

**32 certification bodies
500+
ISCC trained auditors**

**Training Programme
(98 Trainings so far for audits
and system users)**

**Innovative tools and
procedures to facilitate
audits**



**Use remote sensing to
verify land use change**

**6 Voluntary
add-ons
to address specific
customer requirements**

**Stakeholder dialogue:
157 ISCC Association
members**

**Discussion platform with
4 Regional
and 3 Technical
Committees**

**Integrity Programme
2 auditors**

ISCC covers all types of raw-materials. RFNBOs and RCFs are already covered under ISCC PLUS

Bio



Corn



Canola



Sugarcane



Cotton

Bio-waste and residue



Tall Oil



UCO



Forestry residues



Straw

RFNBOs



Green Hydrogen



Power-to-X

RCFs



Mixed Plastic Waste



CO2 (post-industrial)

ISCC certification is based on long-term experience in the transport sector, applying GHG calculation methodologies and state-of-the-art technology



Over 83 million tons of certified feedstock basis available which could be used for alternative jet fuels



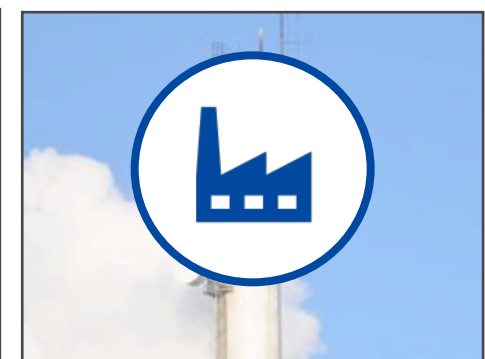
Currently, more than **4,300 companies** using ISCC
Major fuel producers are active users of the ISCC certification system



ISCC has vast **experience in the transportation market** and supports the certification of **recycled carbon fuels**



Latest remote sensing technologies to support the verification of land use change and to ensure that **supply chains are deforestation-free**



Comprehensive experience with **reliable greenhouse gas (GHG) emissions calculations** – over 1,700 certificates based on actual GHG values

Depending on the market, system users can apply the ISCC EU, ISCC PLUS or ISCC CORSIA certification scheme

ISCC EU



- Applicable for **biofuels inside the European Union**
- **Recognised by the European Commission** to demonstrate compliance with the EU's sustainability criteria for biofuels set out in the RED and FQD

ISCC PLUS



- Application for **voluntary** and certain **regulated markets**
 - Energy and biofuels outside the European Union (e.g. Japan, Australia)
 - Industrial applications
 - Food and feed markets

NEW

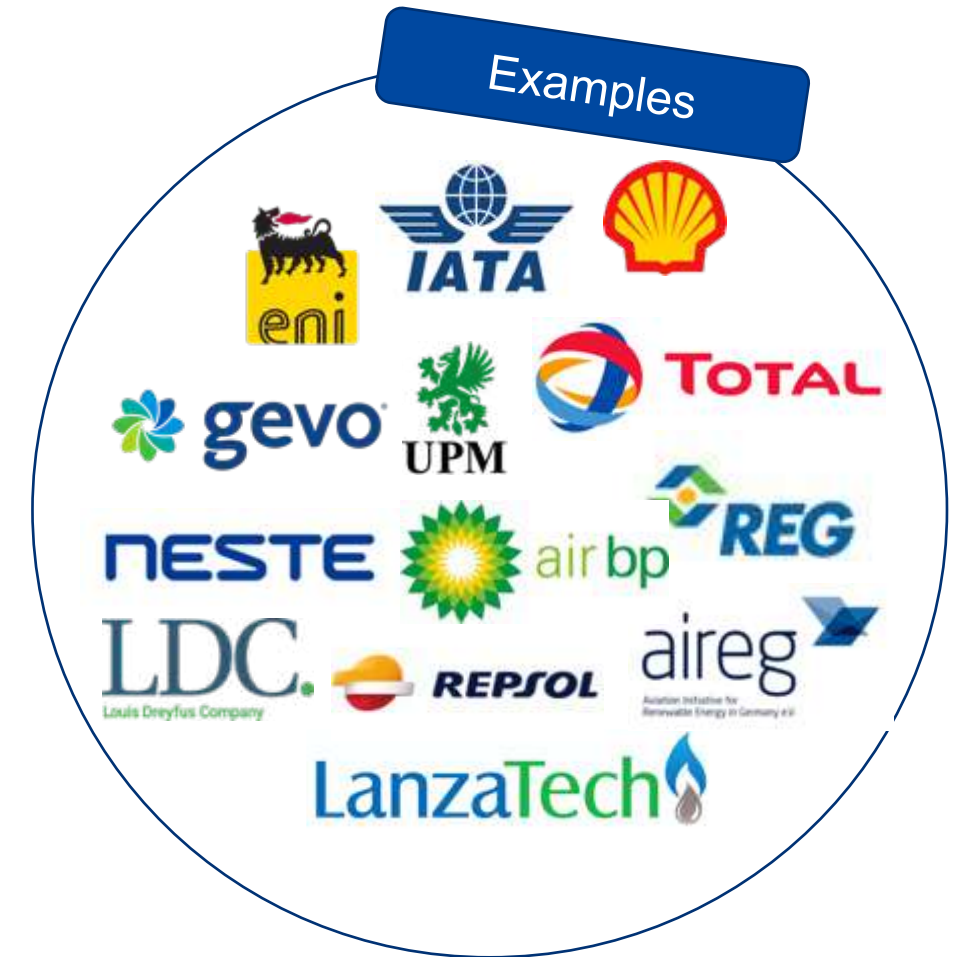
ISCC CORSIA



- Applicable for **sustainable aviation fuels (SAF)** under ICAO **CORSIA**
- To **demonstrate compliance** with the sustainability and GHG criteria for CORSIA eligible fuels

ISCC is engaged in supporting the aviation industry in achieving its climate targets

- Several ISCC members and system users are active in SAF
- ISCC is an active member of the CAEP Fuels Task Group that is working on CORSIA eligible SAF and LCAF (lower carbon aviation fuels)
- ISCC was involved in a scientific project analysing reporting requirements in supply chains of aviation fuel multi-blends
- ISCC is actively supporting various initiatives, and conducts pilots in supply chain certification
- ISCC currently has 6 certificates covering co-processed SAF, 2 covering HEFA, and 73 covering HVO which can be converted into HEFA



Sustainability certification schemes must fulfil a certain set of criteria to become recognized under CORSIA and certify CORSIA eligible fuels



General requirements for SCS



Documentation & Management & Transparency



Annual reports, Monitoring & System Review



Stakeholder Engagement



GHG Reporting & Accounting



Complaint Procedure



Risk Management Plan

Requirements set by SCS for economic operators



Mass Balance & Supply Chain Traceability



(Group) Audits & Certificate Issuance



Transparency on other SCS used



Assurance Level & handling Non-compliances

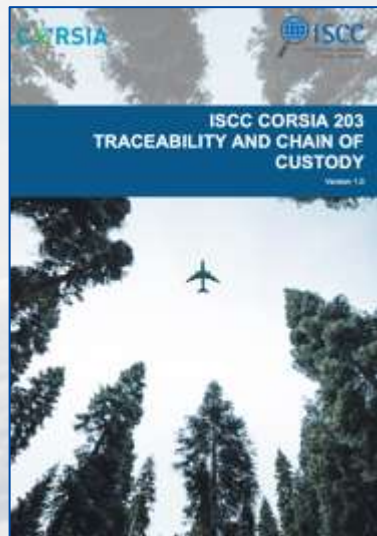
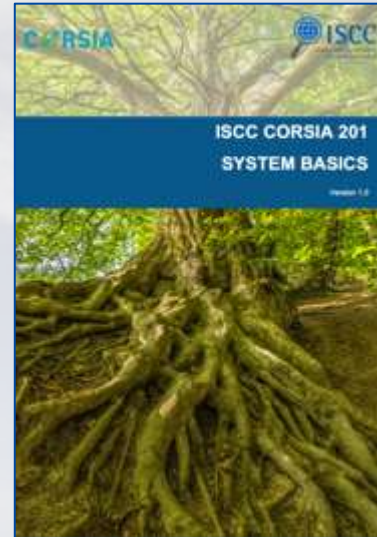
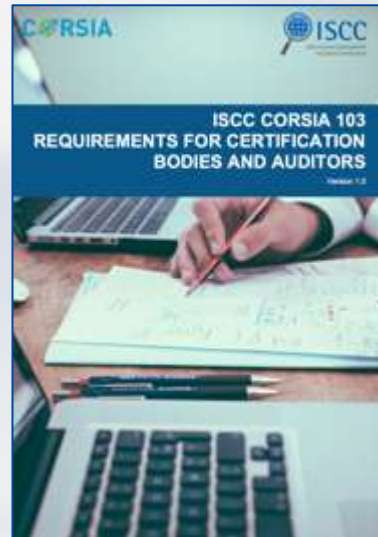


Accreditation & Auditing Standards



CORSIA Certification Requirements

The ISCC CORSIA system documents have been developed to address the requirements set by ICAO



ISCC CORSIA 202 SUSTAINABILITY REQUIREMENTS

Version 1.0



ISCC CORSIA covers all sustainability requirements requested by ICAO

- CORSIA eligible fuels should **not** be made from biomass obtained **from land with high carbon stock**
- **No land use change** of land with high carbon stock (primary forests, wetlands and peatlands) **on or after 01 January 2008**
- CORSIA sustainability requirements are fully covered by ISCC Principle 1
- ISCC Principles 2-6 even go beyond the sustainability requirements requested under CORSIA
- Additional sustainability requirements for CORSIA are being discussed (e.g. on water, soil, air, waste & chemicals, human & land rights, food security, etc.)
- ISCC Principles 2-6 already offer a good basis to meet additional CORSIA criteria in the future

**ISCC CORSIA 203
TRACEABILITY AND CHAIN OF
CUSTODY**

Version 1.0



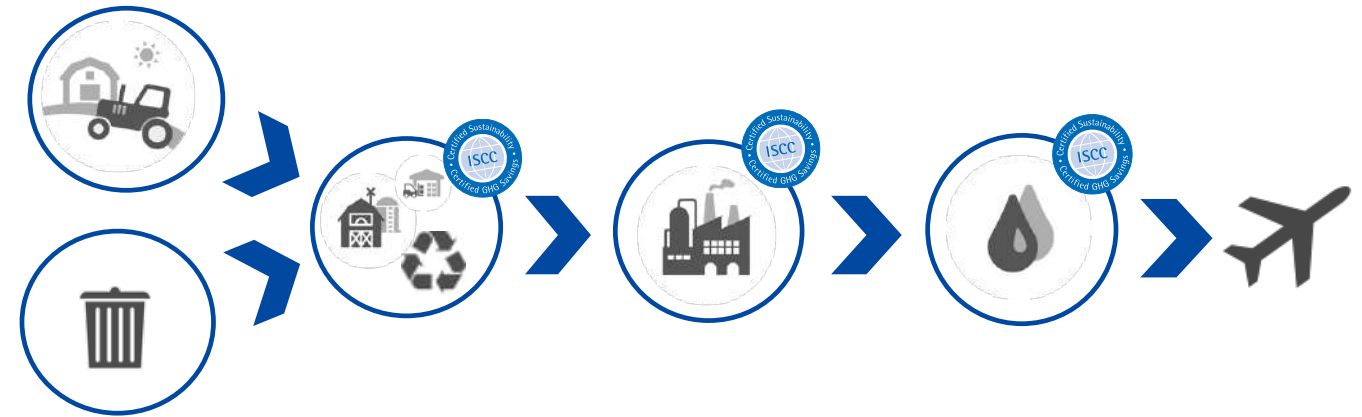
ISCC CORSIA certification provides full traceability of information and materials along the supply chain

From the origin of biomass/waste...

... to collectors, traders...

... and producers...

...to the final market!



The use of sustainability declarations by all operators along the supply chain ensures a high level of traceability and transparency of information!

ISCC CORSIA 205 LIFE CYCLE EMISSIONS

Version 1.0

ISCC CORSIA allows for consistent and credible verification of emission reductions

- CORSIA eligible fuels (CEF) must achieve at least **10% net GHG emissions reductions** compared to the baseline life cycle emissions values for aviation fuel on a life cycle basis
- The system boundary of the **core LCA value calculation** shall include the full supply chain of CEF production and use
- To calculate the **life cycle emission value of a SAF** (LS_f), GHG values are forwarded in the supply chain step-by-step
- Economic operators can apply **default values or calculate actual values**
- **ISCC CORSIA provides the methodology** for calculating, verifying and forwarding GHG emissions of each life cycle step
- A land use change (ILUC) LCA value is included in the CORSIA methodology

$$LS_f (gCO_2e/MJ) = \text{Core LCA value} + \text{ILUC LCA value}$$

The ISCC CORSIA standard is ready for take-off. All necessary documents are finalized



The ISCC CORSIA certificate shows compliance of the economic operator with all relevant CORSIA requirements

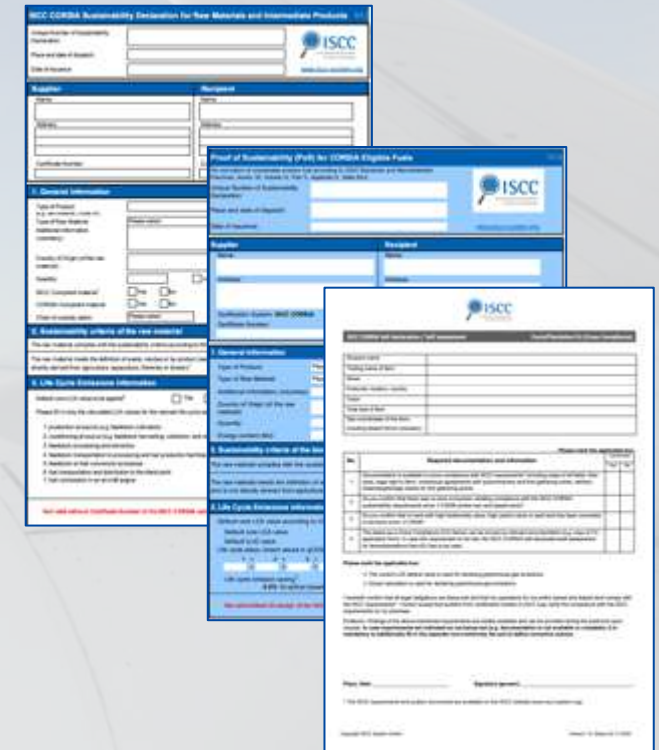
The ISCC CORSIA audit procedures facilitate an efficient, consistent and reliable audit.

The ISCC CORSIA sustainability declaration and self-declarations allow for full traceability along the supply chain



The image shows two versions of the ISCC CORSIA Audit Procedures. The top one is for 'Chain of Quality' and the bottom one is for 'Chain of Origin'. Both documents are tables with columns for 'No.', 'Clause', 'Remarks', 'Risk level', and 'Audit intensity'. They detail various audit requirements and risk levels for different aspects of the supply chain.

No.	Clause	Remarks	Risk level	Audit intensity
1.	Basic data	Basic data of the operational unit to be audited	low	initial
2.	Management system	MS assessment according to ISCC CORSIA MS and ISM	medium	initial
3.	Sustainability	within Chapter No. 2, 3 and 4 the ISCC CORSIA documentation has to be audited. The audit objectives are to ensure that the ISCC CORSIA documentation is complete and up-to-date. The audit objectives are to ensure that the ISCC CORSIA documentation is complete and up-to-date. The audit objectives are to ensure that the ISCC CORSIA documentation is complete and up-to-date.	high	initial
4.	Final declaration	Final declaration of the system user	medium	initial
5.	Initial audit	Initial audit of the system user	medium	initial
6.	Final audit	Final audit of the system user	medium	initial



→ ISCC CORSIA System Documents are available for System Users on the ISCC Website

More information can be found on the ISCC website, including updates on further developments, conferences and publications

The screenshot shows the ISCC website's page for Sustainable Aviation Fuels Certification. At the top left is the ISCC logo (International Sustainability & Carbon Certification). To its right is a navigation menu with links for About, Process, Certificates, Trainings & Events, Stakeholders, and Smallholder Academy. Below the navigation is a large hero image of an airplane wing against a sunset sky. A white box on the hero image contains the text 'About · Sustainable Aviation Fuels' and 'Sustainable Aviation Fuels Certification with ISCC'. Below the hero image, the main content area features the same title 'Sustainable Aviation Fuels Certification with ISCC' in blue. To the left of the main text is a vertical image of an airplane flying between two skyscrapers. The main text consists of two paragraphs. The first paragraph discusses the challenges of climate change and the need for lower greenhouse gas emissions, mentioning ICAO and CORSIA. The second paragraph discusses the increasing number of flights and passengers, citing reasons like low-cost carriers and airport infrastructure. To the right of the main text is a vertical sidebar menu with links for About, Objectives, The Impact of our Work, Governance & Transparency, Food Security, Circular Economy and Bioeconomy, Sustainable Aviation Fuels (highlighted), Benchmarking, News, and Career.

ISCC
International Sustainability
& Carbon Certification

About Process Certificates Trainings & Events Stakeholders Smallholder Academy

About · Sustainable Aviation Fuels

Sustainable Aviation Fuels Certification with ISCC

One of the greatest challenges of our time is the fight against climate change. The urgent need to lower greenhouse gas emissions has also been recognised by the International Civil Aviation Organization (ICAO) and the aviation industry. ICAO Member States have set ambitious targets to mitigate greenhouse gas emissions from air transportation, including carbon-neutral growth from 2020 and beyond. CORSIA, the Carbon Offsetting and Reduction Scheme for International Aviation, is ICAO's instrument to address the increase in total CO2 emissions from aviation.

The figures show that these targets are challenging. Until 2020, the global number of flights has been rising for decades. In 2018 alone, over 4.3 billion passengers got on a plane – 62% more than in 2010. Three main reasons are often cited to explain these developments: booming low-cost carriers, a growing global middle class, and an increasing airport infrastructure (led by the Asia Pacific region). It is expected that the global passenger traffic will return to pre-COVID levels in 2014, and subsequently further increase.

About

- Objectives
- The Impact of our Work
- Governance & Transparency >
- Food Security
- Circular Economy and Bioeconomy >
- Sustainable Aviation Fuels**
- Benchmarking >
- News >
- Career



Many thanks for your attention!

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