



Update on ISCC solutions for SAF

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ISCC Technical Stakeholder Meeting Sustainable Aviation Fuels
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A wide range of regulatory frameworks make use of certification schemes to ensure the sustainability of SAF

Examples

ICAO CORSIA

- Offsetting scheme to ensure carbon-neutral growth of international aviation from 2020
- Airlines can use SAF to reduce their offsetting obligations under CORSIA
- Airlines can only reduce their offsetting obligations under CORSIA through SAF that is **certified under an ICAO-approved certification scheme (e.g. ISCC CORSIA)**

ReFuelEU Aviation Regulation

- Sets a mandate on fuel suppliers to supply a defined percentage of SAF to EU airports, starting 2025
- 2% of SAF in 2025, increasing to 70% by 2050
- Fuel suppliers obligated under ReFuelEU must supply SAF that is **certified under an EU RED II-approved certification scheme (e.g. ISCC EU)**

UK SAF Mandate (in development)

- SAF mandate set to start in 2025, requiring 10% SAF blend by 2030
- Under the SAF mandate, UK foresees **use of certification schemes** similarly to those currently accepted under the UK RTFO

SAF blender's tax credit under the US IRA*

- Grants tax credits for SAF that achieves a life cycle emissions reduction of at least 50%
- Mention of **ICAO-approved certification schemes** under CORSIA for demonstrating compliance of SAF (e.g. ISCC CORSIA)

EU Emissions Trading System

- Requires airlines to buy and surrender allowances for each metric ton of CO₂ emitted on intra-EU flights
- Airlines can use SAF to reduce the allowances they will need to buy and surrender
- Airlines can only account for the use of SAF with zero emissions if it is **certified under an EU RED II-approved certification scheme (e.g. ISCC EU)**

UK Emissions Trading System

- Under the UK ETS, similarly to the EU ETS, airlines can use SAF to reduce the allowances they will need to buy and surrender
- Airlines can only account for the use of SAF with zero emissions if it is **certified under an RTFO-approved certification scheme (e.g. ISCC EU)**

*US IRA = US Inflation Reduction Act

There is growing demand for SAF from the voluntary market, too



SCIENCE
BASED
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

- A growing number of corporations commit to ambitious climate targets
- **The Science Based Targets initiative (SBTi)** has become the industry-leading platform for corporate climate action
- Currently, almost **6,000 companies are working with SBTi**
- **SBTi recognizes that SAF can be a key lever** in reducing corporations' Scope 3 air transport-related GHG emissions
- **To report the use of biofuels, and SAF in particular, as progress** against science-based targets, SBTi has established a stringent set of sustainability criteria that must be fulfilled
- **ISCC certification is explicitly recognized by SBTi** as ensuring compliance with these criteria for SAF*

*Please refer to: SBTi Aviation Sector Guidance, v1.0, August 2021, available via: https://sciencebasedtargets.org/resources/files/SBTi_AviationGuidanceAug2021.pdf

Why sustainability certification? Certification can play a key role in ensuring that SAF production is sustainable and leads to GHG emission reductions

Sustainability certification aims to ensure



Sustainability in feedstock production

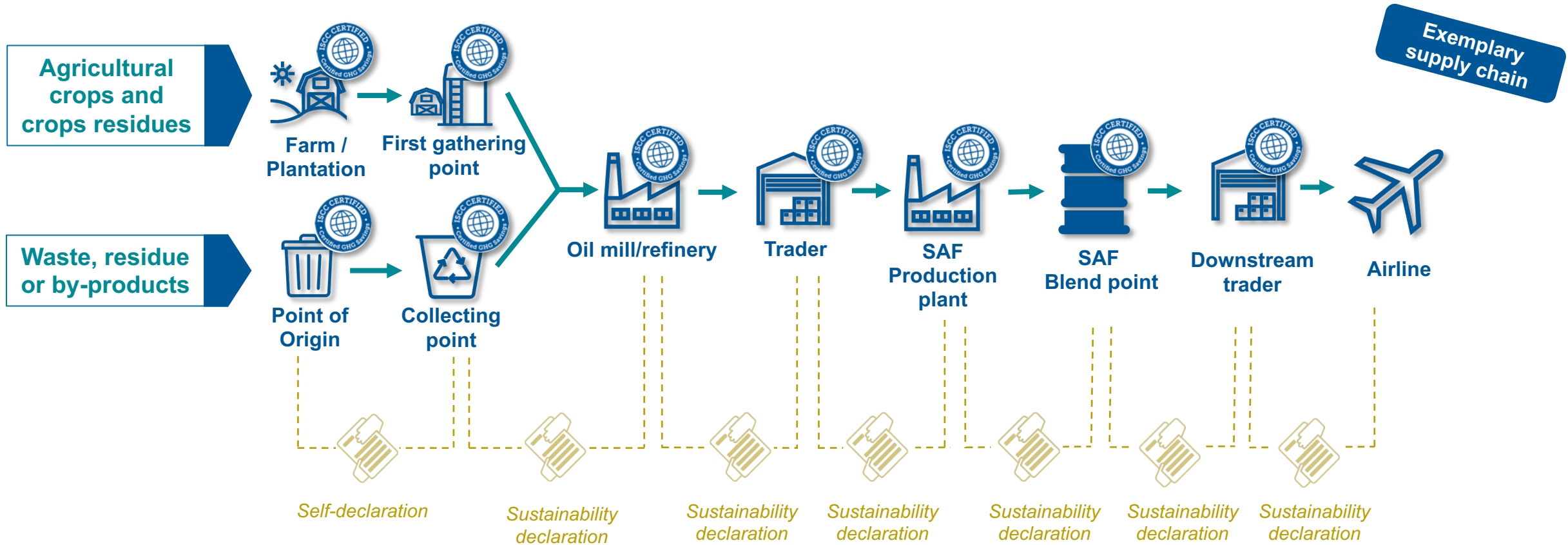


Traceability of sustainable materials through the supply chain

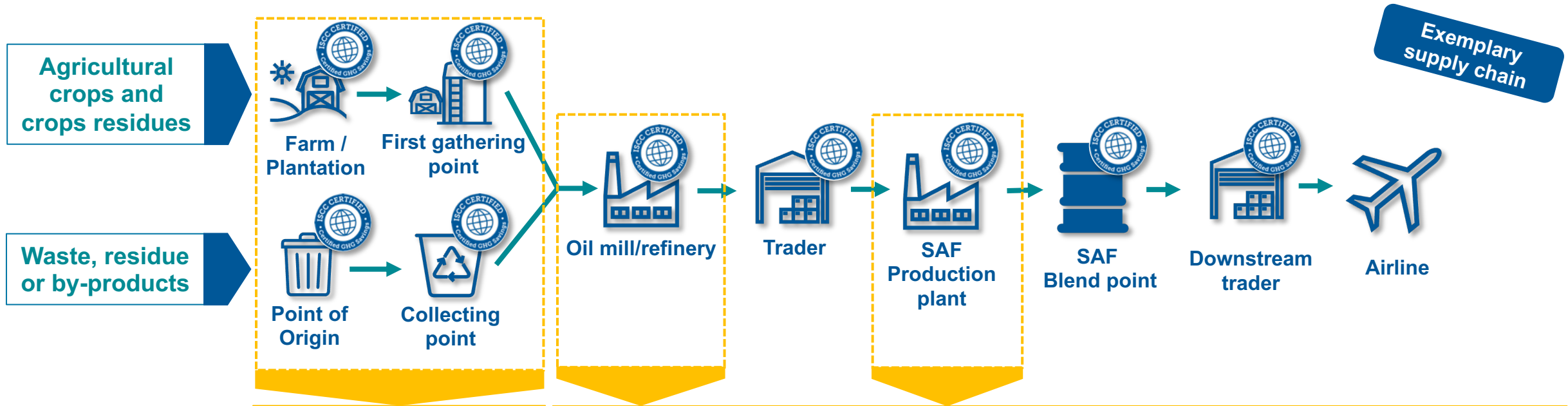


Verified reduction in life cycle emissions

Every supply chain element is certified to ensure full traceability. Information is forwarded through the chain via sustainability declarations



GHG emissions from each life cycle step are calculated and added up along the supply chain to determine the SAF's carbon intensity



- Feedstock production and collection**
- Emissions from **feedstock cultivation**
 - Emissions from **direct land use change (DLUC)**
 - Emission savings from **soil carbon accumulation**
 - Emissions from **upstream transport**

- Processing; upstream and downstream transport and distribution**
- Emissions from **processing**
 - Emission savings from **carbon capture and storage**
 - Emissions from **transport and distribution** (upstream and downstream)
 - Emissions from **combustion**



The GHG emissions value calculated at each step must be audited and verified by a certification body before it can be forwarded in the supply chain.

SAF can be (and is!) certified under all three ISCC certification systems. System choice depends on regulatory compliance and/or customer needs

ISCC EU



- Officially approved by the EU Commission
- Used to demonstrate compliance with the **EU RED II sustainability criteria**
- ISCC EU certified SAF can be claimed under **EU ETS, UK ETS and**, once in effect, **ReFuelEU Aviation**

ISCC PLUS



- Applicable for mostly **voluntary markets**
 - Energy and renewable fuels outside the EU RED II market
 - Industrial applications
 - Food and feed markets
- Oftentimes used for SAF claims in **non-regulated markets**

ISCC CORSIA



- Officially approved by ICAO
- Used to demonstrate compliance with the **ICAO CORSIA sustainability criteria**
- ISCC CORSIA certified SAF can be claimed under **CORSIA**
- ISCC CORSIA is referred to in the IRS guidance for the **US IRA's SAF blender's tax credit**
- ISCC CORSIA certified SAF explicitly recognized by the **Science-Based Targets Initiative (SBTi)**

All three ISCC systems are largely harmonized. Combined audits allow for easier access to different markets

ISCC EU



ISCC PLUS



ISCC CORSIA



Multi-stakeholder driven



Quality and risk management



Integrity Program



Requirements for certification bodies

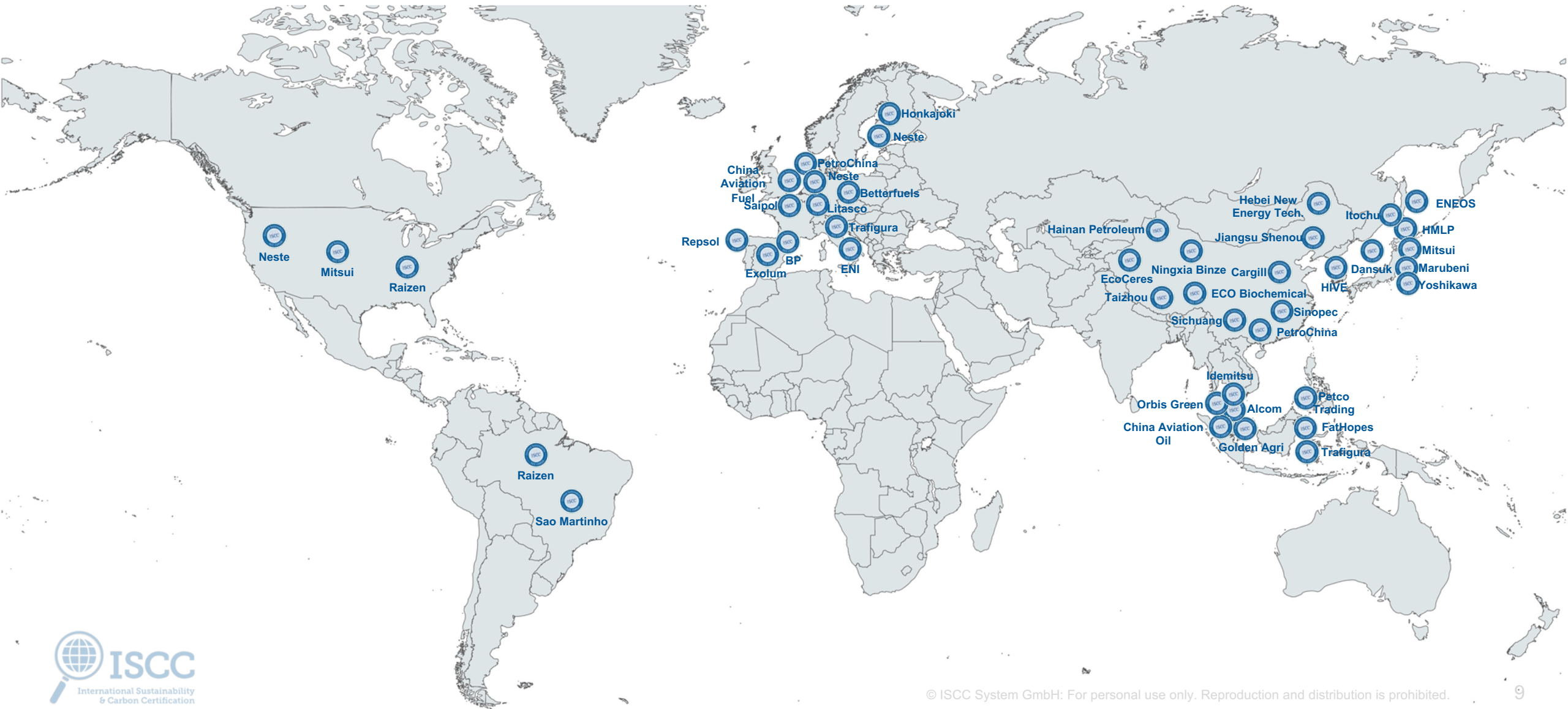


Requirements for conducting audits



Registration and certification process

As of today, 64 economic operators are certified under ISCC CORSIA. Many more certifications in the pipeline



As the SAF market begins to develop, more and more companies choose ISCC for SAF certification



Brazil's Raizen gets certification for ethanol-based SAF

August 21, 2023 — 09:03 am EDT

"The ISCC CORSIA Plus certification issued by the International Civil Aviation Organization (ICAO) proves that the ethanol produced in Piracicaba complies with international requirements to produce SAF," Raizen said.

Source: Reuters

DHL GF and IAG Cargo partner on SAF

13 / 06 / 2023

DHL said that SAF being purchased is certified by International Sustainability & Carbon Certification (ISCC) and produced from used cooking oil and food waste and has at least 80% lower lifecycle emissions than conventional jet fuel.

Source: Air Cargo News



Examples of recent press releases



Source: Greenairnews.com

Air bp makes first ISCC EU sale of co-processed SAF to LATAM Cargo from its Castellon refinery in Spain

By Christopher Surgenor · 8 March 2023 · 3 min read

Montana Renewables Achieves ISCC CORSIA Certification for SAF

NEWS PROVIDED BY
Calumet Specialty Products Partners, L.P. →
03 Aug, 2023, 07:30 ET



Source: PR Newswire

Certification bodies cooperating with ISCC provide auditor capacities all over the world, including for SAF



- 58 certification bodies currently cooperating with ISCC on a world-wide level
- 1100+ auditors trained
- ISCC cooperating auditors are qualified via comprehensive ISCC Trainings (ISCC Academy)

CORSIA News: ISCC's recognition under the CORSIA scheme has been extended by ICAO to cover CORSIA's *post-pilot* phase



The ISCC CORSIA certification system was first recognized by ICAO in November 2020, applicable to **CORSIA's pilot phase from 2021 to 2023**.

In June 2023, ISCC CORSIA's recognition was extended by ICAO to cover **CORSIA's post-pilot phase from 2024 to 2026**.

Economic operators and airlines can **demonstrate compliance with the CORSIA Sustainability Criteria for CORSIA Eligible Fuels** by applying the ISCC CORSIA Certification System.



Name of the Sustainability Certification Scheme	Date of approval	Website	Scope of approval
International Sustainability and Carbon Certification (ISCC)	16 Jun. 2023	https://www.iscc-system.org/about/sustainable-aviation-fuels/corsia/	Certification of CORSIA Sustainable Aviation Fuels economic operators covered by Chapters 1 and 2 of the ICAO document "CORSIA Sustainability Criteria for CORSIA eligible fuels"



ISCC is continuously developing its certification approach for Power-to-Liquids

- Integration of **electricity as a feedstock** is gaining importance, including for SAF production
- **ISCC is in the position to certify PtX**, ensuring that key sustainability parameters are met along global supply chains
- Under **ISCC PLUS**, several companies have been certified for renewable electricity as feedstock to date
- Under the EU RED II, **ISCC has applied for the recognition of RFNBOs*** – approval by the EU Commission pending
- ISCC supports the **ongoing work at ICAO to integrate PtL under CORSIA**
- ISCC has set up a dedicated **Stakeholder Committee on RFNBOs** – subscribe to the ISCC Newsletter to stay up-to-date!



Jointly with IATA and RSB, ISCC is developing guidance on SAF certification

- Goal: To promote consistency in **understanding around SAF certification processes**
- Work includes but is not limited to:
 - Promote consistent **definitions of certification concepts**
 - Explain **applicability of different certification standards** under different regulatory (and voluntary) frameworks
 - Explain **supply chain certification** and important **concepts around mass balancing and life cycle emissions**
 - **Clarify documentation flow** between SAF producers/suppliers and airlines
 - and much more

ISCC is working together with major players in the aviation and SAF space. New members very welcome!

- Many frontrunner organizations active in the field of SAF are **ISCC Association Members and System Users**
- ISCC is part of the **CAEP Fuels Task Group within ICAO** that is working on the further development of CORSIA eligible fuels
- ISCC is an active partner of **ICAO's "ACT-SAF" programme**, helping States in developing their full potential in SAF deployment
- With its members, ISCC is conducting pilot projects on a variety of topics, including for **innovative feedstocks, smart agricultural practices and Power-to-Liquids**
- ISCC is committed to further supporting the certification of sustainable aviation fuels!

Examples





Thank you!

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