



Update on ISCC solutions for SAF

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ISCC is supporting the aviation industry on its journey towards a net-zero future



Uptake of ISCC CORSIA certification for SAF is growing steadily

- 32 economic operators already certified, including feedstock and SAF producers
- Several fully ISCC CORSIA certified supply chains already established
- With all ISCC standards largely harmonized, ISCC EU or PLUS certified operators are in a prime position to also become CORSIA certified

Major players active in the aviation sector increasingly recognize ISCC's key role in ensuring the sustainability of SAF

- Major fuel producers and suppliers are already ISCC certified and show increasing interest in SAF
- In collaboration with its stakeholders, ISCC is conducting pilot projects for a variety of issues related to SAF certification and market ramp-up
- Supply and use of ISCC certified SAF has been featuring more regularly and prominently in (biofuel) news



ISCC is actively working with regulators to facilitate the SAF claiming process

- The SAF claiming and accounting process is becoming increasingly complex in many scenarios
- ISCC is currently working with different authorities on implementing procedures to allow for transparent, practical and credible accounting and claiming of SAF under different SAF policies



ISCC is supporting the aviation industry on its journey towards a net-zero future



ISCC is an active member of the CAEP Fuels Task Group within ICAO

- The CAEP Fuels Task Group at ICAO level is working on a wide variety of issues around **CORSIA eligible SAF** (including PtL SAF) and **LCAF (lower carbon aviation fuels)**
- As an example, ISCC has been heavily involved in field-testing and further refining the **certification approach for low land use change (LUC) risk feedstocks**
- **ISCC's low LUC risk certification approach has been officially approved by ICAO** earlier this year



Aviation is now included more prominently in the ISCC Board

- The composition of the **ISCC Board, representing all ISCC stakeholders**, has been adjusted to include a position currently dedicated to the aviation sector
- The aim is to have **appropriate consideration of aviation-related aspects** for all strategic decisions made by the ISCC Board



The Technical Committee is a key pillar in ISCC's stakeholder process for SAF

- The Committee provides a platform for ISCC members and other stakeholders to share the latest **expertise on SAF and sustainability certification**
- Co-Chairs elected at the Committee Meeting in 2021 were Karen O'Brien (Gevo) and Robert Boyd (IATA)
- New Co-Chairs up for confirmation at today's meeting are **Karyn Jones (Gevo)** and **Daniel Chereau (IATA)**
- **ISCC plans to establish a dedicated Working Group** under the umbrella of the Committee to allow for more targeted work on a variety of issues

Coverage of SAF in regulated markets is rapidly growing. With many policies prescribing certification for compliance, ISCC covers many major markets

Examples



- SAF that is CORSIA eligible can be used to reduce airline operators' offsetting requirements
- ISCC CORSIA certification system recognized under ICAO CORSIA

EU RED II



- SAF can be counted towards RED II targets in EU Member States under opt-in schemes
- ISCC EU certification system recognized under RED II by EU Commission

EU ETS



- RED II compliant SAF is attributed zero emissions in airlines' emissions reporting
- EU RED II framework applicable, thus ISCC EU certification system can be used

UK ETS



- Zero emissions can be attributed to RTFO compliant SAF
- ISCC EU certification system accepted under RTFO

ReFuel EU



- EU Commission proposal to introduce SAF blending mandate starting from 2025
- EU RED II framework will be applicable, thus ISCC EU certification system can be used

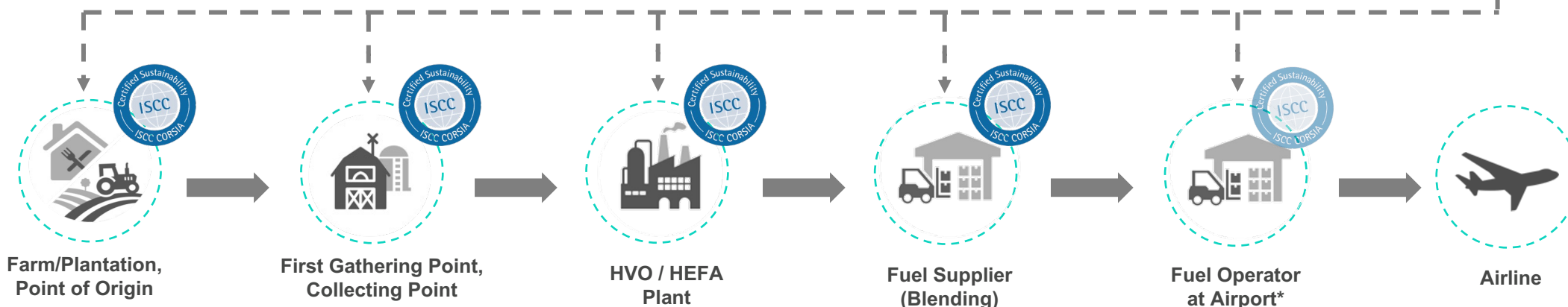
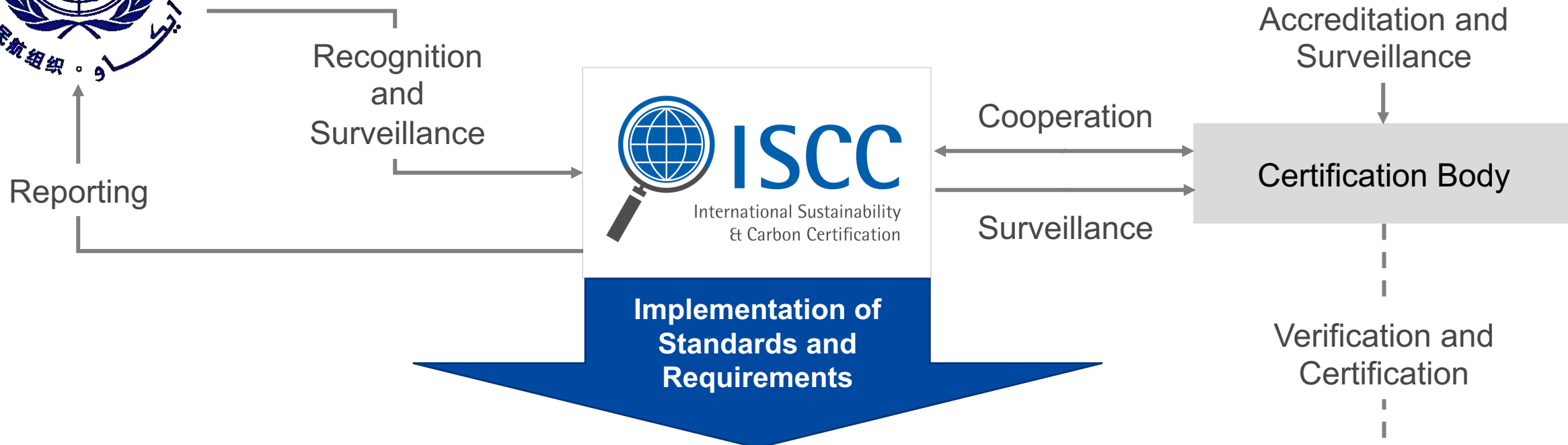
National mandates



- Different individual countries have implemented SAF mandates (e.g. Norway, Sweden, France) or plan to do so (e.g. UK, the Netherlands)
- ISCC certification accepted under many of these mandates (e.g. France, Nordics)



Certification allows for robust verification of sustainability criteria in SAF supply chains



*Certification after SAF blend point not mandatory under CORSIA, but possible under ISCC to allow for full traceability

Increasingly, there is significant 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 **4000 companies are working with SBTi**
- **SBTi recognizes that SAF can be a key lever** in reducing corporations' Scope 3 GHG emissions (including from business travel and air freight)
- 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

SAF certification under ISCC – some quick facts



20+ Certification bodies conduct ISCC audits in SAF supply chains

Certificates issued under ISCC's CORSIA standard, incl. for feedstock and SAF producers

32



80+ Auditors trained in ISCC CORSIA trainings




Feedstocks certified for SAF under ISCC so far include mostly waste materials, particularly UCO and tallow



90% ISCC certificates in SAF supply chains issued in Europe, US and Asia

ISCC Certificates issued in SAF supply chains so far (across all ISCC systems)

50+



As the SAF market develops, more and more companies choose to become certified for SAF under the different ISCC certification standards

Examples

NESTE

American Airlines 

Neste delivers first ever CORSIA certified SAF to American Airlines

exolum

Exolum strides forward in its backing of sustainability by obtaining the ISCC Plus and ISCC Corsia certifications

RINA

RINA issued the first ISCC CORSIA certificate in China

 **TotalEnergies**

This first 100% French SAF received ISCC-EU certification from the International Sustainability & Carbon Certification System, an independent organization that guarantees sustainability. The 16% blend on this flight avoided the emission of 20 tons of CO₂.

 **air bp**

Air bp Announces NetJets Europe First to Purchase Its ISCC PLUS Certified Sustainable Aviation Fuel

Recently, ISCC handed in updated ISCC CORSIA documents to ICAO

One update aims to incorporate recent CORSIA changes in the ISCC CORSIA standard for the **remainder of the pilot phase (until end of 2023)**.

The **main updates** concern the inclusion of:

- A **co-processing** methodology
- A methodology to calculate emissions from **direct land use change (DLUC)**
- Amendments of **low land use change (LUC) risk certification** approach
- **Alignment** in key aspects to other ISCC systems



Another update aims to incorporate the expanded CORSIA sustainability criteria in the ISCC CORSIA standard for **CORSIA's first phase (from 2024)**.

Concretely, this includes requirements for **further sustainability themes**:

- Water quality and availability
- Soil health
- Air quality
- Human and labour rights, social aspects
- Etc.

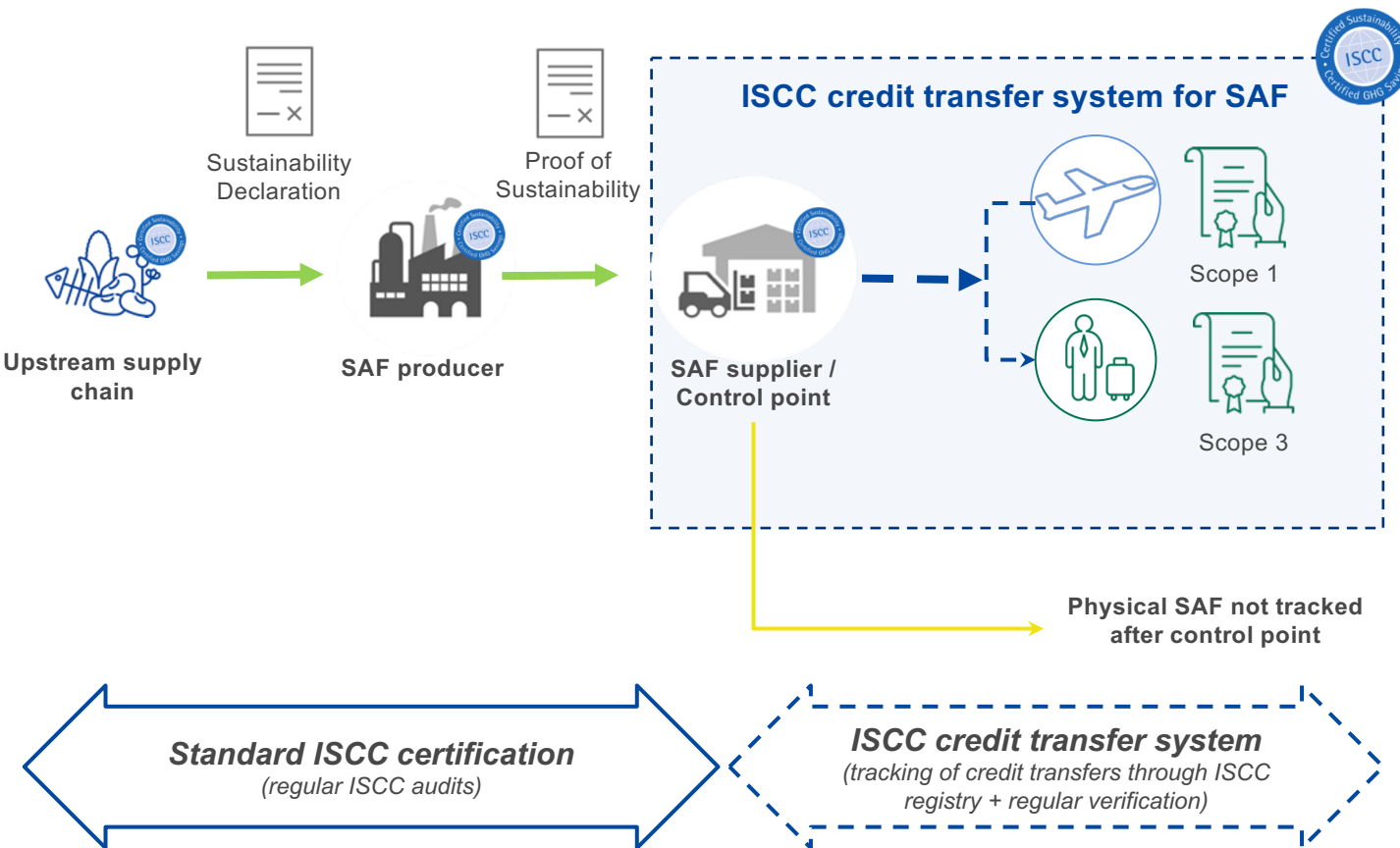


As part of a project commissioned by the Japanese Civil Aviation Bureau, ISCC will issue targeted guidance to Japanese SAF producers for CORSIA certification



- With the project, the Civil Aviation Bureau (CAB) aims to **build capacities of SAF producers in Japan** to have their fuels certified as CORSIA eligible fuels
- **Project will start soon and run until Q1 2023**, to be facilitated by the Mitsubishi Research Institute (MRI)
- **ISCC will help to**
 - provide clear and detailed **guidance on the certification process** for CORSIA eligible fuels under ISCC CORSIA
 - prepare for **certification of feedstocks with a low risk for land use change (LUC)** via ISCC's dedicated low LUC risk approach
 - provide clear guidance on the **inclusion process of new feedstocks** under CORSIA, of interest to Japanese SAF producers
 - set up case studies to **showcase ISCC CORSIA certification in practice**

New: ISCC is currently developing a system to allow full end-to-end traceability and verification of SAF claims, including for aviation end-customers



What is the challenge and associated risks?

- Airlines and aviation end-customers (e.g. business travelers) wish to purchase and claim GHG emissions reductions from SAF use
- Unlike the upstream SAF supply chain, airlines and end-customers do not become certified, which creates the **risk of insufficient traceability and false claims**
- SAF suppliers, airlines and end-customers demand **solutions for fully traceable end-to-end SAF transactions and verified claims**

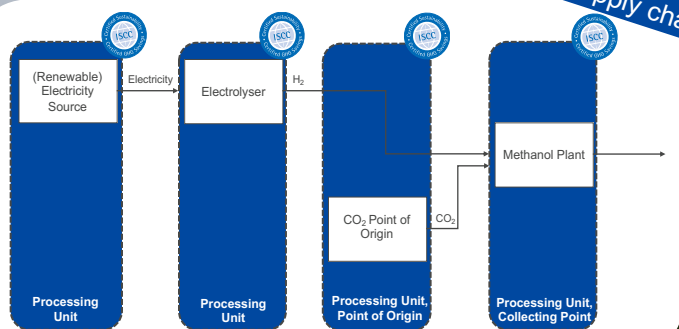
What is ISCC developing to address this?

- ISCC as leading scheme with most major suppliers certified uniquely positioned to offer end-to-end solution
- **Robust end-to-end approach** by combining the new SAF system with the „tried-and-true“ upstream ISCC certification
- Transaction and claiming process will be governed by **clear and robust rules** and be **subject to credible verification**
- A **key piece of the puzzle will be the dedicated ISCC registry** (currently in development), in which SAF volumes will be registered, transferred, claimed and verified

ISCC EU 202-6 Renewable Fuels of Non-Biological Origin (RFNBOs)

ISCC is developing and piloting its RFNBO* certification approach, including for PtL SAF

- 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**, two RFNBO certificates have been issued to date
- Based on the (draft) EU rules as well as ISCC's experience under ISCC PLUS, **ISCC has drafted both System Documents and audit procedures** to allow for the certification of renewable hydrogen and its derivatives as per RED II rules
- Pilot audits field-testing the certification approach are currently ongoing
- **ISCC will hold an event dedicated to RFNBOs** on December 1st (please register [here!](#)), including on
 - Regulatory framework (featuring input from e.g. the EU Commission)
 - ISCC certification approach and learnings from pilots
 - Experience of companies (both under ISCC EU & ISCC PLUS)





Thank you for your attention!

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