



# Sustainability Certification of SAF

Dr Norbert Schmitz, Managing Director, ISCC System GmbH

ISCC Technical Stakeholder Meeting “Sustainable Aviation Fuels”, 18 November 2021

# ISCC is a leading sustainability certification system



- ISCC is a global **sustainability certification system** operational since **2010**
- ISCC is used by approx. **5,000 companies** in over **100 countries**
- ISCC is governed by the **ISCC Association**, a **multi-stakeholder non-profit organization** with currently more than 180 members

**CORSIA**



- ISCC is **recognized** in important energy markets to demonstrate compliance with sustainability requirements, including **CORSIA**, the **EU**, **Japan** and **Australia** (Queensland)
- ISCC is also recognized by **company specific initiatives** as well as important **standards and platforms** (e.g. Unilever's Sustainable Agriculture Code)



- ISCC has vast **experience in the transportation sector** and supports the certification of **advanced fuels, recycled carbon fuels and e-fuels**
- ISCC uses latest remote sensing technologies to support the **verification of land status, land use change and low LUC risk certification**
- ISCC has comprehensive experience with **reliable greenhouse gas (GHG) emissions calculations** – about 2,000 currently valid certificates are based on actual GHG values

# Robust sustainability requirements need to be applied to ensure a Sustainable Aviation Fuel can live up to its name

## Sustainability certification such as ISCC

- ensures the compliance of **raw material cultivation/generation** with a defined set of sustainability requirements
- provides for the **traceability of sustainable material** through SAF supply chains
- provides for verified and credible **reductions in GHG emissions** of the final SAF



Sustainability in feedstock production



Traceability of sustainable materials through the supply chain



Verified reduction of GHG emissions

# ISCC has been engaged in supporting the aviation industry in achieving its climate targets for several years now

- Several **ISCC members and system users** are active in the field of sustainable aviation and sustainable aviation fuels (SAF)
- With American Airlines, the **first major airline** recently joined the ISCC Association
- ISCC is an active member of the **CAEP Fuels Task Group within ICAO** that is working on the further development of 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 actively supports **various initiatives**, and conducts pilots in supply chain certification
- ISCC currently has 5 certificates under its **CORSIA standards**, 6 certificates covering **co-processed SAF**, 5 covering **HEFA**, and 115 covering **HVO**

## Examples



# The ISCC EU certification system can be used to show compliance with the RED II. Example: ISCC EU certified SAF powered a long-haul flight by Air France-KLM

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## Air France-KLM, Total, Groupe ADP and Airbus Join Forces to Decarbonize Air Transportation and Carry Out The First Long-Haul Flight Powered By Sustainable Aviation Fuel Produced in France

05/18/2021 News

Paris, May 18, 2021 – Air France-KLM, Total, Groupe ADP and Airbus have joined forces to carry out the first long-haul flight powered by Sustainable Aviation Fuel (SAF)<sup>1</sup> produced in France. At 3:40 p.m. today, Air France Flight 342 took off from Paris-Charles de Gaulle airport's Terminal 2E for Montreal with its tanks filled for the first time with sustainable aviation fuel produced in Total's French plants.

This flight is a tangible result of the four groups' shared ambition to decarbonize air transportation and to develop a SAF supply chain in France, prerequisite to the generalization of their use in French airports.

No modifications to storage and distribution infrastructure, aircraft or engines are required to incorporate biofuels. Their gradual introduction worldwide should significantly reduce CO<sub>2</sub> emissions from air transportation, in line with the United Nations' Sustainable Development Goals.

The biofuel used for this flight was made from waste and residue sourced from the circular economy. Total produced the SAF from used cooking oil at its La Mède biorefinery in southern France and at its Oudalle factory near Le Havre, without using any virgin plant-based oil.

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 lessened its CO<sub>2</sub> emissions by 20 tons.

By developing and supporting France's first industrial SAF production, Air France-KLM, Total, ADP Group and Airbus

**AIRFRANCE**

**AIRBUS**

GROUPES ADP

**ISCC - EU INTERNATIONAL SUSTAINABILITY & CARBON CERTIFICATION**

is certified according to ISCC - EU sustainability requirements.

**> LINK TO VIDEO**

Source: <https://www.totalenergies.com/media/news/press-releases/First-Long-Haul-Air-France-Flight-Powered-By-Sustainable-Aviation-Fuel-Produced-by-Total-in-France>

ISCC is proud to be one of only two certification schemes recognized by the ICAO Council to certify SAF under CORSIA



Since November 2020, economic operators and airlines can **demonstrate compliance with the CORSIA Sustainability Criteria for CORSIA Eligible Fuels** by applying the ISCC CORSIA Certification System.

## ICAO document

### CORSIA Approved Sustainability Certification Schemes

| Name of the Sustainability Certification Scheme              | Date of approval | Website   | Applications and other Supporting Information   | Application date |
|--|------------------|---|---|------------------|
| International Sustainability and Carbon Certification (ISCC) | 18/Nov/2020      | <a href="https://www.iscc-system.org/">https://www.iscc-system.org/</a> | <a href="https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-SCS-evaluation-ISCC.aspx">https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-SCS-evaluation-ISCC.aspx</a> | 30/Apr/2020      |
| Roundtable on Sustainable Biomaterials (RSB)                 | 18/Nov/2020      | <a href="https://rsb.org/">https://rsb.org/</a>                         | <a href="https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-SCS-evaluation-RSB.aspx">https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-SCS-evaluation-RSB.aspx</a>   | 30/Apr/2020      |

# The first certificates under ISCC CORSIA have already been issued. Further certifications are currently in the pipeline

**Control Union Certifications Germany GmbH**  
Dorotheastr. 30, D-10318 Berlin  
certifies that  
**BP Oil España S.A.U. Refinería de Castellón**  
Polígono El Serrallo, 12080 Castellón, Spain  
complies with the requirements of CORSIA and the certification system  
**ISCC CORSIA**  
(International Sustainability and Carbon Certification)  
which is approved by the ICAO Council.  
Place of the audit  
on the legal address of the system user as stated above; only applicable for paper traders:  
n.a.  
This certificate is valid from 30.08.2021 to 29.08.2022.  
The site of the system user is certified as:  
Trader  
Co-Processing plant  
CUC Germany GmbH  
Dorotheastr. 30, D-10318 Berlin  
Tel: +49 (0) 30 509 69 88 - 0  
Fax: +49 (0) 30 509 69 88 - 82  
08.2021  
Place and date of issue  
Stamp, Signature of issuing party  
The issuing Certification Body is responsible for the accuracy of this document.  
Version / Date: 1 (no adjustments) / 30.08.2021  
Page 1 of 2

**Control Union Certifications Germany GmbH**  
Dorotheastr. 30, D-10318 Berlin  
certifies that  
**Idemitsu International (Asia) Pte Ltd**  
3 Killiney Road, No. 04-03, Winsland house 1, 239519 Singapore  
complies with the requirements of CORSIA and the certification system  
**ISCC CORSIA**  
(International Sustainability and Carbon Certification)  
which is approved by the ICAO Council.  
Place of the audit  
if different from the legal address of the system user as stated above; only applicable for paper traders:  
n.a.  
This certificate is valid from 24.08.2021 to 23.08.2022.  
The site of the system user is certified as:  
Trader  
Berlin, 24.08.2021  
Place and date of issue  
Stamp, Signature of issuing party  
The issuing Certification Body is responsible for the accuracy of this document.  
Version / Date: 1 (no adjustments) / 24.08.2021  
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**RINA**  
Certified Sustainability  
ISCC CORSIA PLUS  
**Certificate**  
according to the  
Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)  
As developed by the International Civil Aviation Organization (ICAO)  
Certificate Number: ISCC-CORSIA-PLUS-Cert-IT206-2  
RINA Services S.p.A.  
Via Corsica, 12 16128 Genova ITALY  
certifies that  
**Jiansu Shenou Environmental Protection Technology Co.,Ltd**  
Room 2206, No. 293-1, Xingye Building, East Yongqing Road, Medical High-tech Zone 220300 Taizhou (ZJ) CHINA  
complies with the requirements of CORSIA and the certification system  
**ISCC CORSIA PLUS**  
(International Sustainability and Carbon Certification)  
which is approved by the ICAO Council.  
This certificate is valid from 10.11.2021 to 09.11.2022.  
The site of the system user is certified as:  
Trader with Storage  
Genova, 10.11.2021  
Place and date of issue  
Stamp, Signature of issuing party  
The issuing Certification Body is responsible for the accuracy of this document.  
Version / Date: 1 (no adjustments) / 10.11.2021  
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**RINA**  
Certified Sustainability  
ISCC CORSIA PLUS  
**Certificate**  
according to the  
Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)  
As developed by the International Civil Aviation Organization (ICAO)  
Certificate Number: ISCC-CORSIA-PLUS-Cert-IT206-3  
RINA Services S.p.A.  
Via Corsica, 12 16128 Genova ITALY  
certifies that  
**Taizhou Keyuan Oil Co. Ltd**  
Yuanzhuang Village, Sarchen Town, Haijing District 325319 Taizhou (ZJ) CHINA  
complies with the requirements of CORSIA and the certification system  
**ISCC CORSIA PLUS**  
(International Sustainability and Carbon Certification)  
which is approved by the ICAO Council.  
This certificate is valid from 10.11.2021 to 09.11.2022.  
The site of the system user is certified as:  
Collecting Point  
Genova, 11.10.2021  
Place and date of issue  
Stamp, Signature of issuing party  
The issuing Certification Body is responsible for the accuracy of this document.  
Version / Date: 1 (no adjustments) / 10.11.2021  
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**RINA**  
Certified Sustainability  
ISCC CORSIA PLUS  
**Certificate**  
according to the  
Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)  
As developed by the International Civil Aviation Organization (ICAO)  
Certificate Number: ISCC-CORSIA-PLUS-Cert-IT206-1  
RINA Services S.p.A.  
Via Corsica, 12 16128 Genova ITALY  
certifies that  
**ENI TRADE & BIOFUELS S.P.A.**  
123 BUCKINGHAM PALACE ROAD SW1W 9SL LONDON UNITED KINGDOM  
complies with the requirements of CORSIA and the certification system  
**ISCC CORSIA PLUS**  
(International Sustainability and Carbon Certification)  
which is approved by the ICAO Council.  
This certificate is valid from 06.07.2021 to 05.07.2022  
The site of the system user is certified as:  
Trader with storage  
Genova, 06.07.2021  
Place and date of issue  
Stamp, Signature of issuing party  
The issuing Certification Body is responsible for the accuracy of this document.  
Version / Date: 1 (no adjustments) / 06.07.2021  
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# Feedstock availability is set to be a crucial issue for SAF scale-up. ISCC covers all types of feedstocks that can be used for SAF production

## Examples

Crops



Rapeseed

Agricultural and forestry residues



Cobs

Wastes



Used cooking oil

By-products



Palm fatty acid distillate

Processing residues



Empty palm fruit bunches

Advanced non-bio feedstocks



Green hydrogen



Soybean



Bark



Municipal solid waste



Tallow



Tall oil



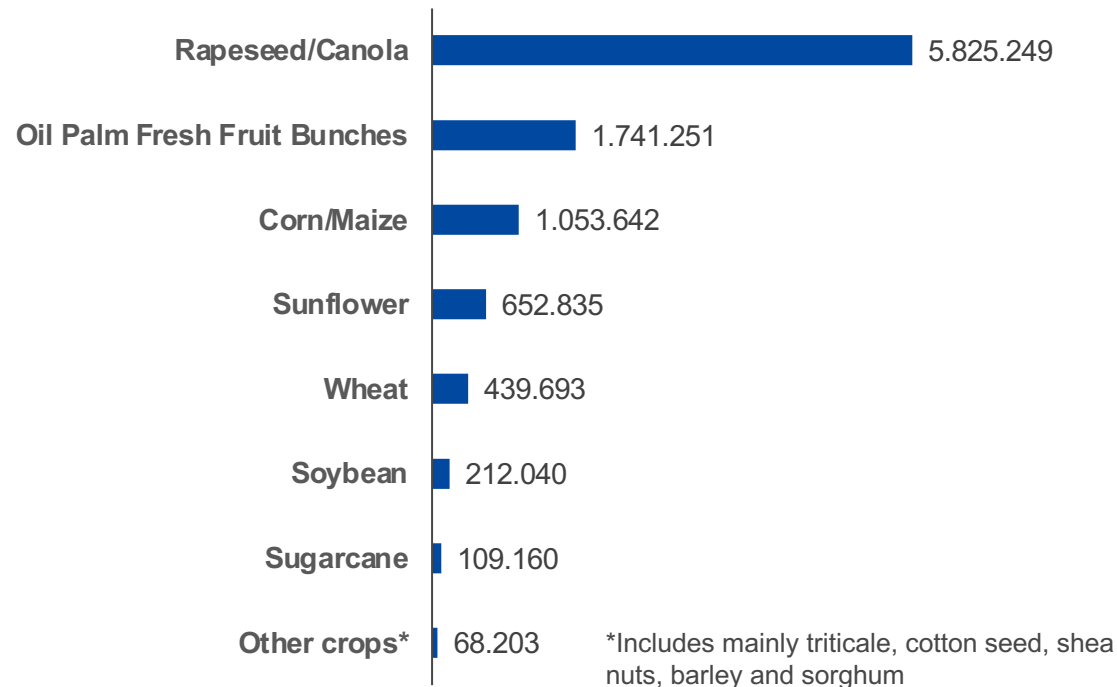
CO<sub>2</sub>



# In 2020, around 86 million metric tons of feedstock and more than 15 million metric tons of biofuels were ISCC certified

More than **70 million metric tons of crops** were certified under ISCC in 2020

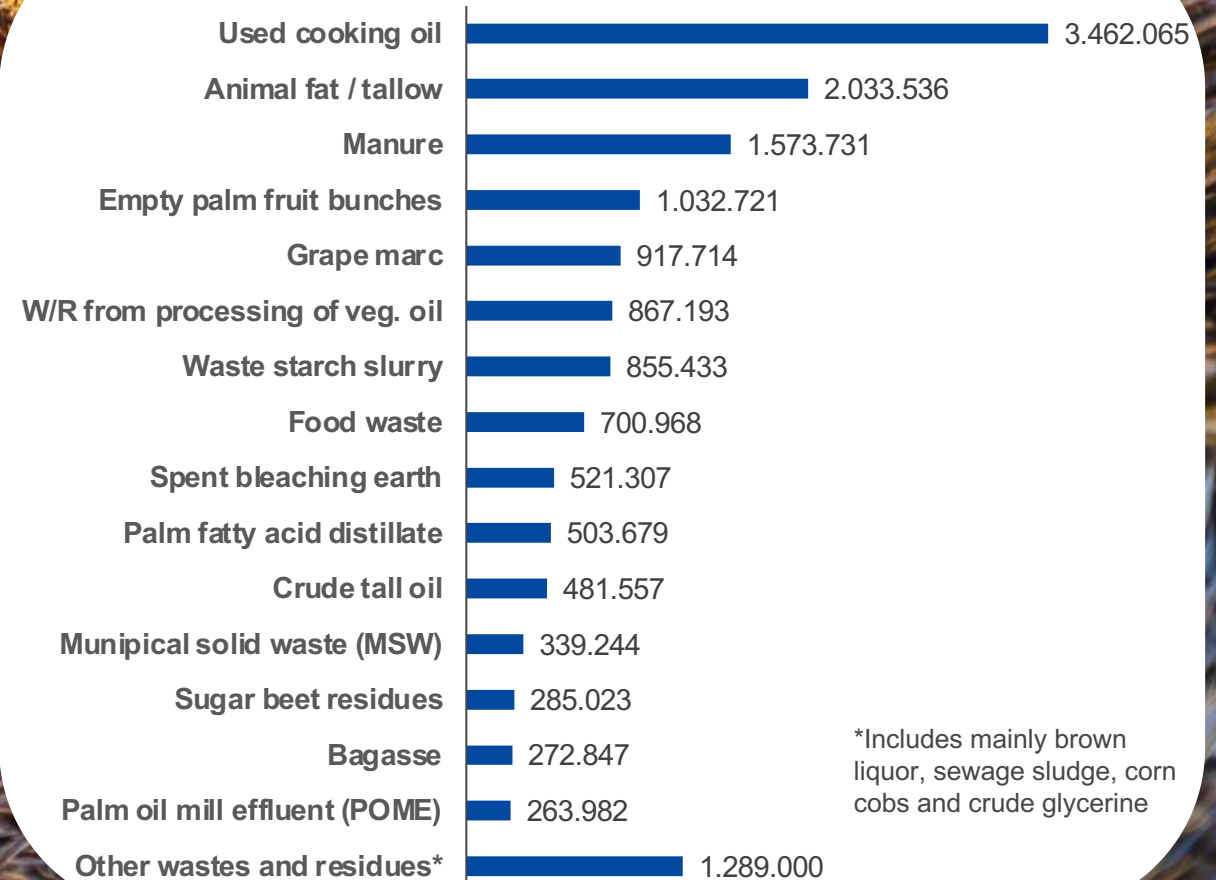
## Crops – Certified Cultivation Area (in hectare)



Only marginal amounts of jatropha (700 mt) and no camelina or miscanthus were ISCC certified in 2020

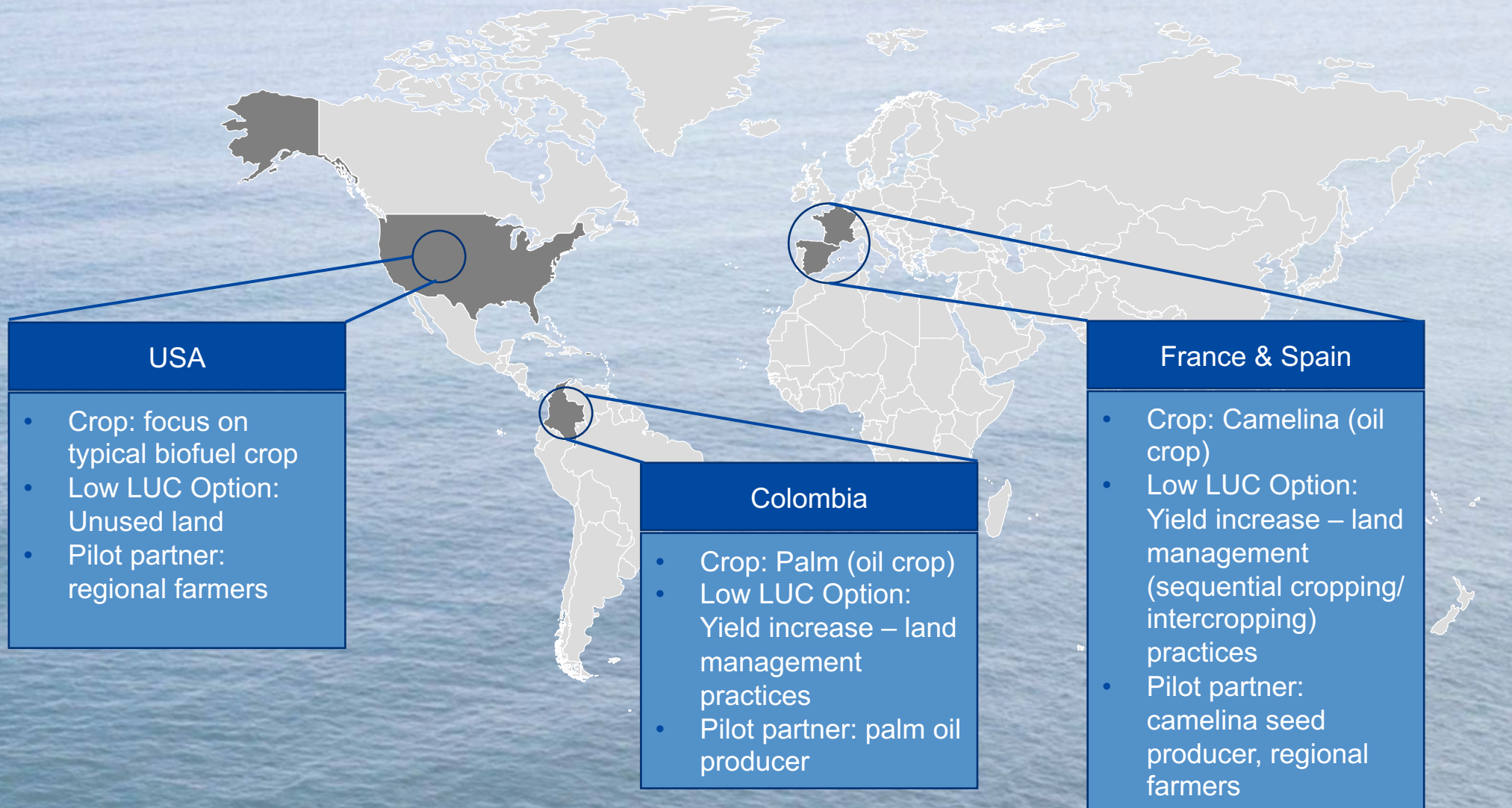
More than **15 million metric tons of waste and residues** were certified under ISCC in 2020

## Wastes and Residues (in metric tons)

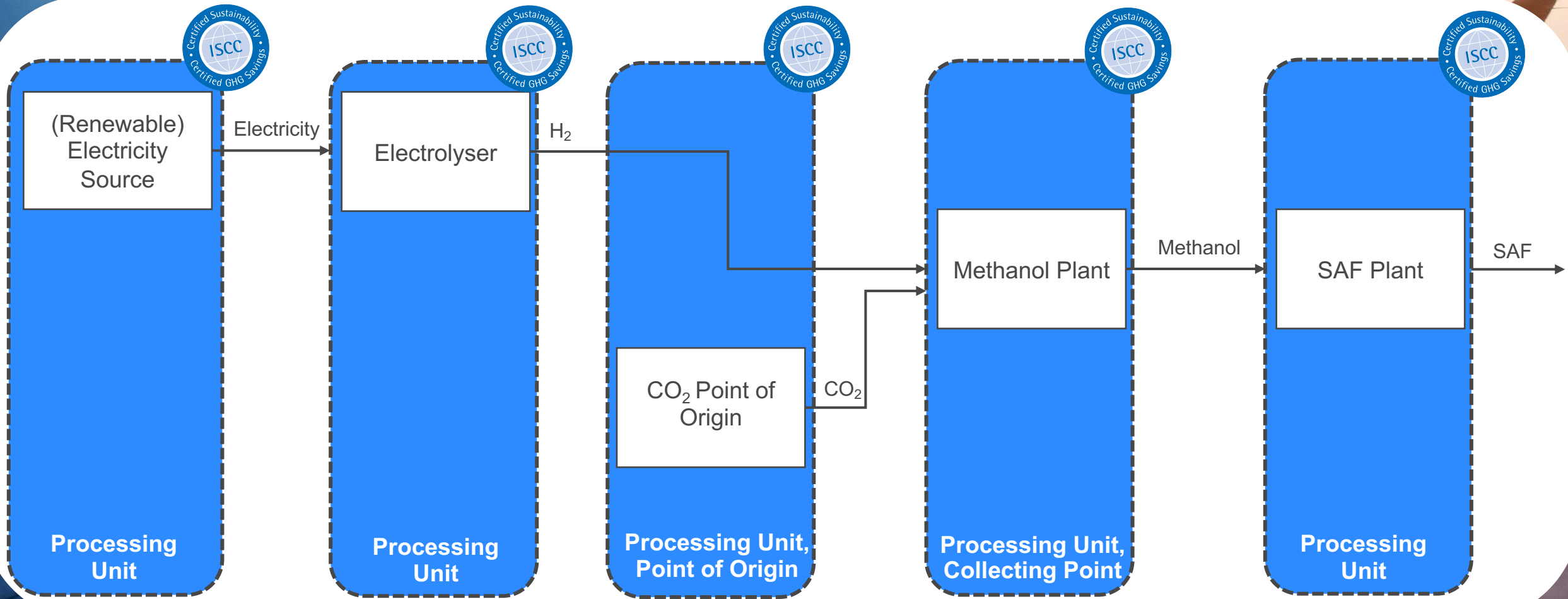


# Feedstocks with low LUC risk can contribute to decarbonizing aviation.

## Different low LUC risk approaches have been tested in ISCC CORSIA pilot audits



PtL SAF is emerging as a promising option. Certification can ensure that key parameters, such as electricity and CO<sub>2</sub> origin, meet sustainability standards



Please note: Key issues will be addressed by the EU Delegated Act on RNFBOS due by the end of this year. ISCC will adjust its certification approach accordingly.



## Certification can play an important role in ensuring the sustainability of SAF

- ISCC provides **different certification options** for SAF, such as ISCC EU and ISCC CORSIA
- ISCC ensures the **compliance of both feedstock and final SAF** with defined sustainability criteria
- ISCC supports the **development of innovative pathways**, such as power-to-liquid SAF
- ISCC offers **low LUC risk certification** to help make additional feedstock available for SAF production
- ISCC allows for **robust chain of custody certification** of SAF supply chains
- ISCC allows for a **credible credit transfer**, while ensuring environmental integrity
- ISCC has comprehensive experience with **GHG calculation and verification**, readily available for SAF supply chains



Thank you for your attention!

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