



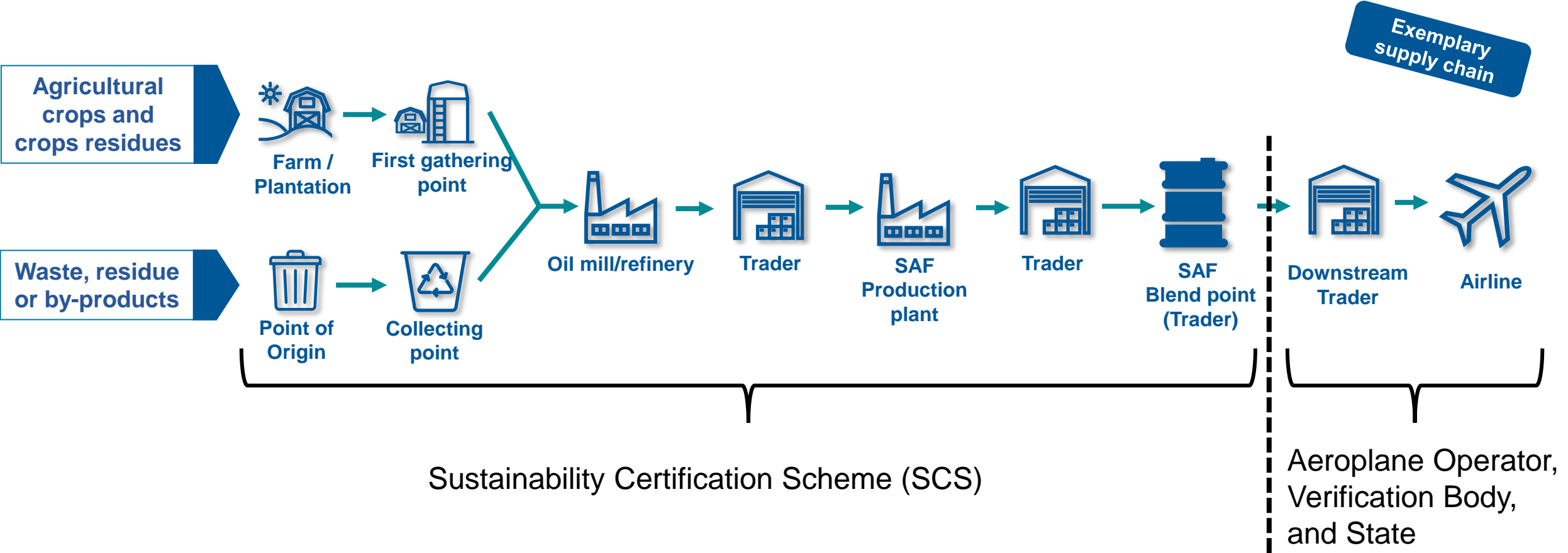
Certifying Sustainable Fuels

Ensuring feedstock sustainability, chain of custody, and GHG emissions savings

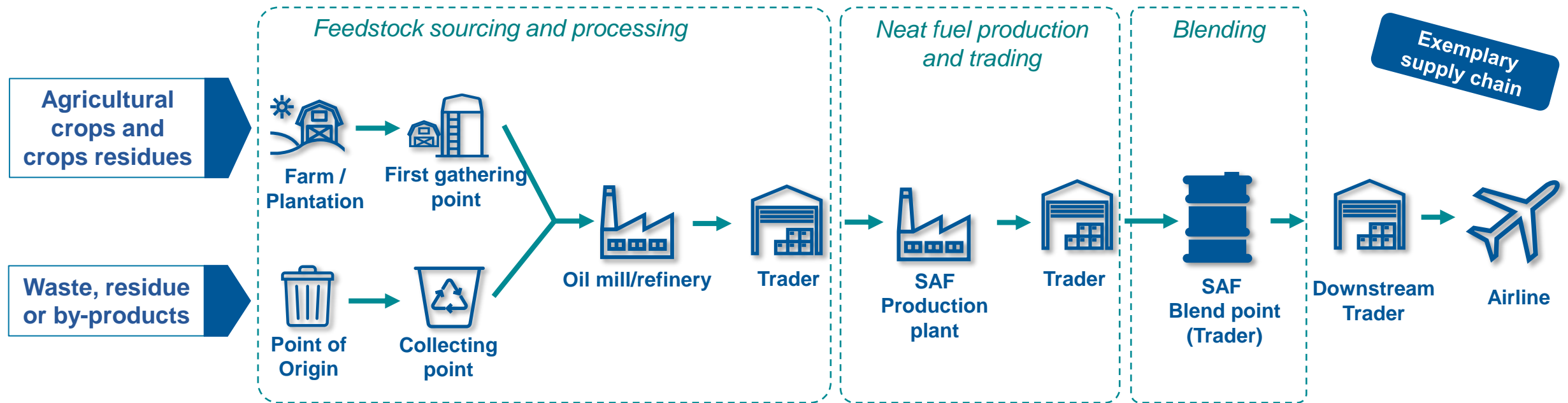
Thomas Bock, Senior System Manager, ISCC System

23 August 2024

The responsibility of SCSes encompasses all supply chain steps from feedstock production to CORSIA eligible fuel (CEF) blending

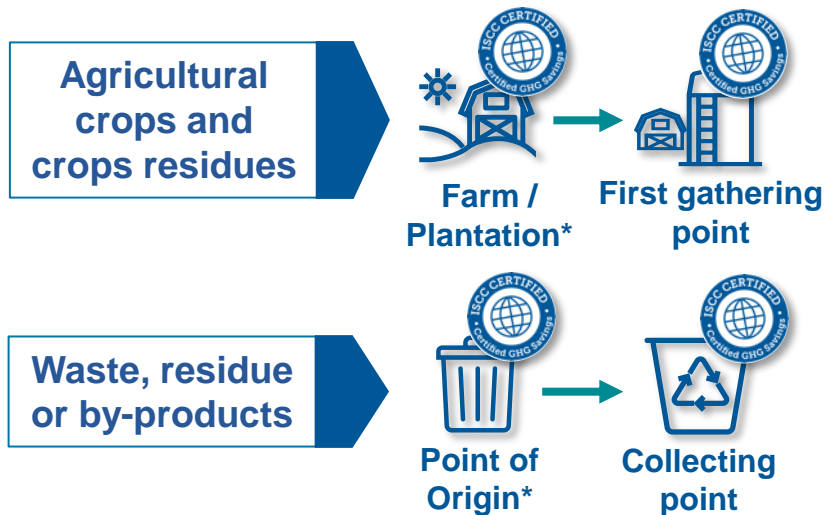


To enable certification, SCSeS classify different supply chain elements according to their scope of operation



- Virtually all elements in alternative/renewable fuel supply chains can be covered and thus be made “certifiable” by the supply chain scopes depicted above
- For each certification scope, clear and publicly available certification requirements have been defined – the compliance with which are checked during regular audits

As a first step, feedstock production must be audited to ensure only eligible (= sustainable) raw materials enter the supply chain



**Farms/plantations and points of origin can be individually certified. However, in many cases they are covered under a group certification approach.*

Sustainable crops must comply with the CORSIA sustainability criteria



Auditor verifies through, e.g.,

- Remote sensing tools
- Databases (e.g., biodiversity databases)
- On-site inspection
- Interviews with personnel

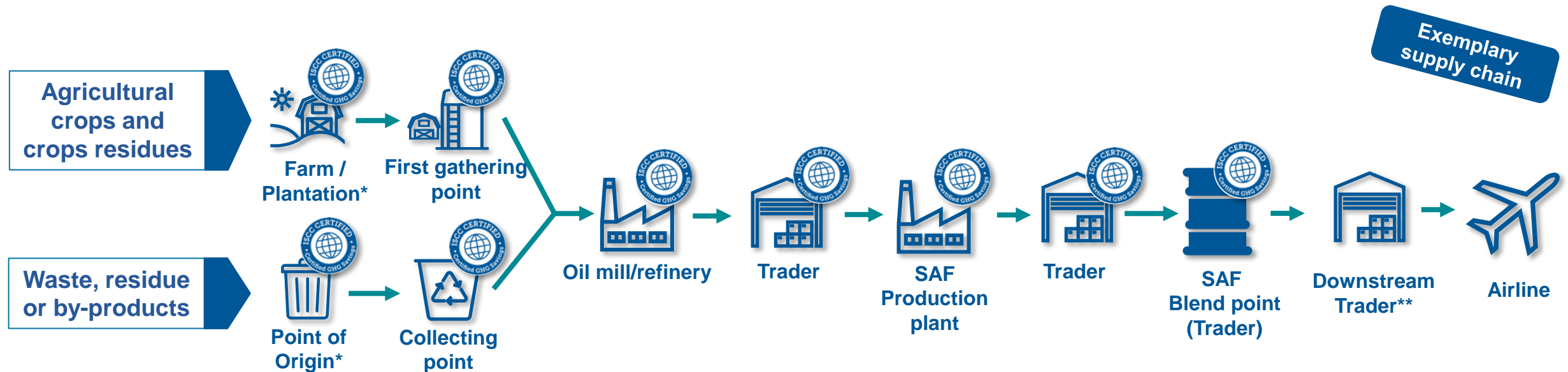
Sustainable waste/residues must be *genuine* waste/residues



Auditor verifies through, e.g.,

- Plausibility checks (e.g., amount of input of virgin oil vs amount of used cooking oil)
- On-site inspection
- Checks whether products were intentionally contaminated/modified
- Interviews with personnel

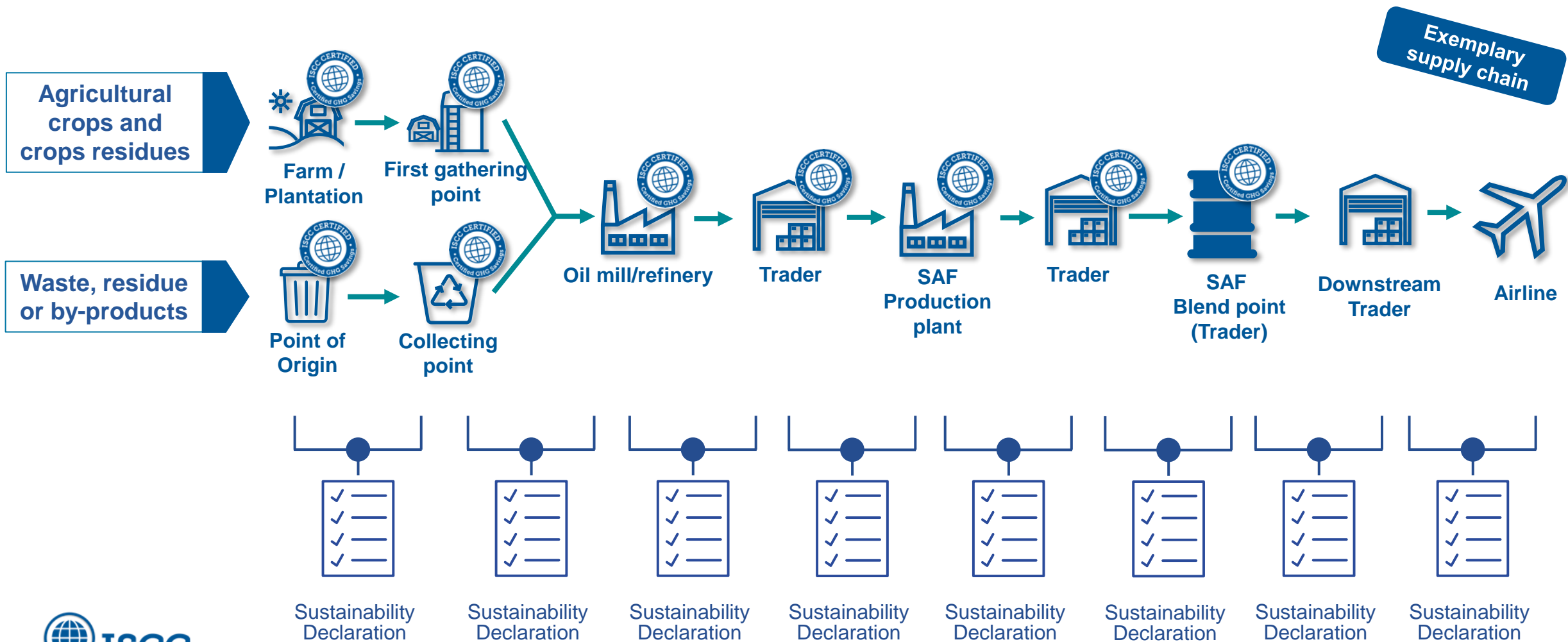
Every supply chain element until and including the CEF blend point is certified for compliance with the SCS' CORSIA certification standard



*Farms/plantations and points of origin can be individually certified. However, in many cases they are covered under a group certification approach.

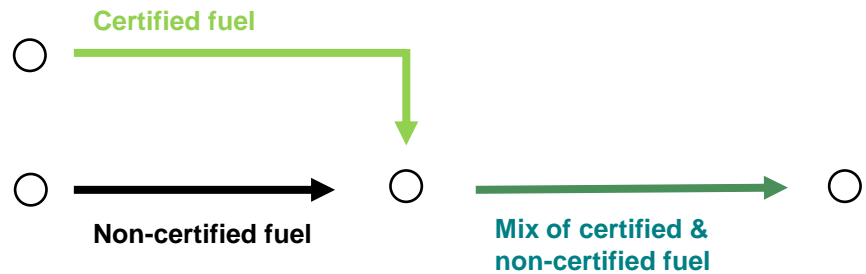
**SCSes are in the position to certify up to the Airport fuel operator should this be necessary (e.g. to enable full traceability)

CORSIA-relevant sustainability documentation is forwarded through the CORSIA certified supply chain



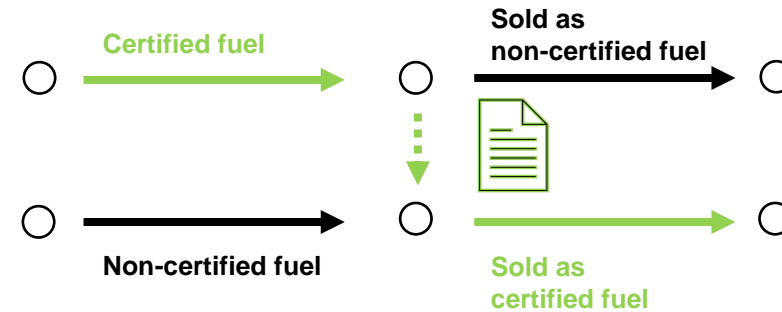
Sustainability information about the certified fuel is tracked along the supply chain via so-called chain-of-custody systems

Mass Balance



- **Certified fuel can be physically mixed with non-certified fuel** (e.g., in processing steps, storage facilities, pipelines, etc.)
- **Best of both worlds:** Sustainability information follows the physical flow of certified fuel while not requiring physical segregation (which could be very costly and difficult to implement in fuel supply chains)
- **Prevalent chain-of-custody system for renewable fuels in many markets** (road transport fuels, SAF, marine fuels)
- **Regular SCS auditing** ensures that companies maintain a proper mass balance and avoid double counting

Book & Claim



- **Completely decouples the physical flow of certified fuel with the associated sustainability information**
- **Very flexible system, however with little physical traceability of fuels**
- At the “decoupling stage”, the certified fuel is decoupled from its sustainability certificates (e.g., 1 credit is generated for each metric ton of certified fuel)
- Physical flow of certified fuel is then no longer tracked in the supply chain, fuel can be freely mixed with other fuels
- Sustainability certificates are sold and traded independently from the physical fuel on which they are based (often through an online platform)
- **Regular SCS auditing** ensures that sustainability certificates are properly “decoupled” and no double counting occurs

Several standardized documents are key for claiming CORSIA eligible fuels

Aeroplane Operator Emissions Report

2 AEROPLANE OPERATOR IDENTIFICATION AND DESCRIPTION OF ACTIVITIES
(Annex 16, Volume IV, Appendix 4, 2.1)

a) **Name of the aeroplane operator**
Please enter the name of the aeroplane operator. This name should be the legal entity engaged in the aeroplane operation, or the legal entity willing to be the single entity for the CORSIA administration under a parent-subsidiary arrangement.

b) **Address of the aeroplane operator**
Please enter the address of the aeroplane operator.

c) **Legal representative**
Please enter a contact address of a representative who is legally responsible for the aeroplane operator for official correspondence.

d) **Aircraft identification of the aeroplane operator for international flights (Item 7 of the flight plan)**
Select the options planned to be used for reporting flight attribution to the aeroplane operator.

ICAO Designator
Does Item 7 (aircraft identification) of the flight plan begin with an ICAO Designator according to Doc 8585 – Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services? If yes, please select "ICAO Designator" from the drop down list and complete (d).

Registration marks
Does Item 7 (aircraft identification) of the flight plan correspond to the nationality or common mark, and registration mark, as explicitly stated in an AOC (or equivalent)? If yes, please select "Registration marks" from the drop down list and complete (d).

ICAO Designator and registration marks

- Must be submitted annually by the aeroplane operator to the State
- Subject to verification by verification bodies (different from certification schemes!)

CORSIA Eligible Fuel (CEF) Claim Form

CORSIA ELIGIBLE FUEL CLAIM FORM
Note: for each claim of emissions reductions from the use of CORSIA eligible fuels, please replicate this form and fill separately.

Fuel Claim #:

a) **Purchase date**
Please enter the date when the neat CORSIA eligible fuel was purchased. Use the format yyyy-mm-dd.

b) **Identification of the producer of the CORSIA eligible fuel**

b1) **Name of producer of the neat CORSIA eligible fuel**
Please enter the name of the fuel producer.

b2) **Address of the producer of the neat CORSIA eligible fuel**
Please enter the address of the producer of the neat CORSIA eligible fuel.

c) **Fuel production**

c1) **Date of production of the neat CORSIA eligible fuel**
Please enter the date of production of the neat CORSIA eligible fuel. Use the format yyyy-mm-dd.

c2) **Location of the production of the neat CORSIA eligible fuel**
Please enter the address of the production of the neat CORSIA eligible fuel.

c3) **Batch identification number:**

c4) **Mass of each batch of neat CORSIA eligible fuel produced**
Please enter the total mass of each batch of neat CORSIA eligible fuel produced (in tonnes).

d) **Fuel type**

- Must be submitted in addition to the Emissions Report, if aeroplane operator wishes to claim emissions reductions from use of CEF
- Subject to verification by verification bodies

CEF Proof of Sustainability (PoS) Document

Proof of Sustainability (PoS) for CORSIA Eligible Fuels
For use with automatic emissions reduction from the use of CORSIA eligible fuels, please replicate this form and fill separately.

Supplier

Participant

1. General information

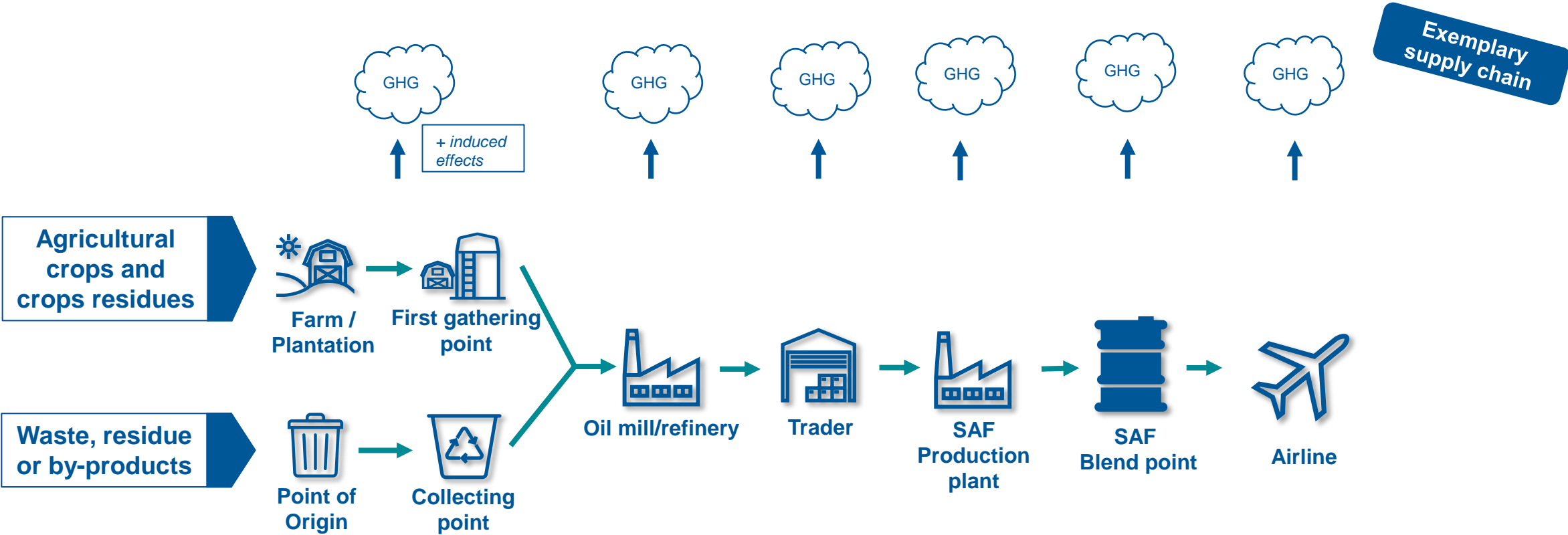
2. New material compliance of new material

3. Life Cycle Emissions Information

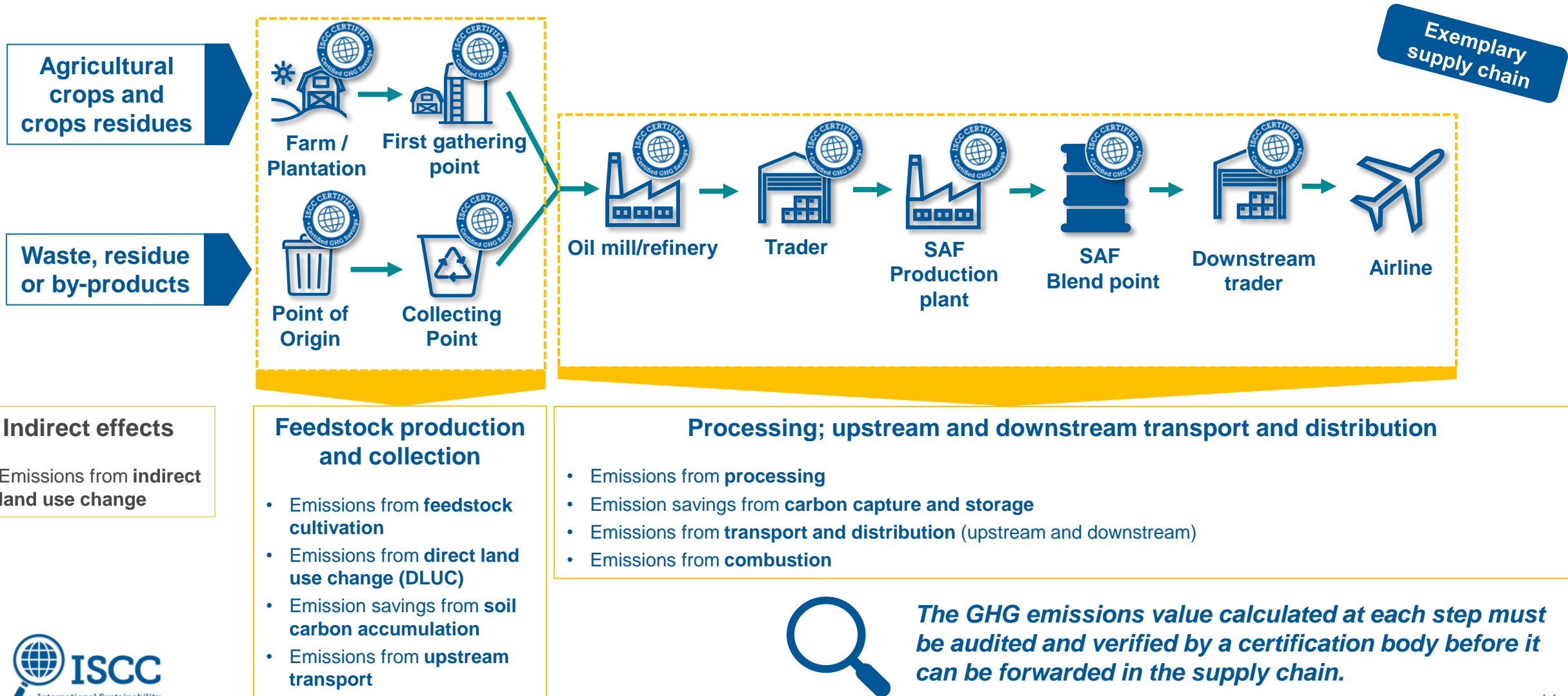
For use with automatic Emissions Reduction from the use of CORSIA eligible fuels, please replicate this form and fill separately.

- Confirms that a specific batch of SAF meets the CORSIA sustainability criteria
- Implies the whole supply chain of SAF has been certified under an ICAO-approved certification scheme
- Must be attached to the CEF Claim Form for every batch of CEF claimed

GHG emissions are emitted along the whole life cycle of SAF and must be accounted for



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





The certification "footprint" in Latin America has been growing significantly in the past years

From an ISCC perspective:

- As of today, **more than 250 companies are certified under ISCC's standards in Latin America** (mostly in Brazil, Argentina and Colombia)
- **Around 150 of those companies are ISCC certified in the biofuels space** (mostly according to the EU Renewable Energy Directive Framework)
- **14 companies are already certified under ISCC's CORSIA standard in LATAM** (12 in Brazil, 2 in Colombia)
- In short, **many feedstock and fuel producers are already in a favourable position to achieve CORSIA compliance** and access both the CORSIA and other renewable fuel markets



Thank you!

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