

ISCC Certification for Sustainable Marine Fuels

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Regulated markets set sustainability criteria for alternative fuels.

Sustainability certification often plays a key role in showing compliance

Examples

EU RED II



- The **EU Renewable Energy Directive (EU RED II)** defines sustainability criteria and minimum GHG savings for renewable fuels brought to the EU market. Fuels used in the maritime sector can “opt in”
- **EU-recognized certification schemes**, such as ISCC EU, must be used to prove compliance with RED II requirements

EU ETS



- The **EU Emissions Trading System (EU ETS)** is set to extend its scope to cover shipping companies starting from 2024
- Shipping companies will need to surrender so-called “allowances” for a certain quantity of their emissions
- If in line with existing EU ETS precedent, **shipping companies could source RED II compliant fuels**, for the combustion of which they would not need to surrender allowances
- Showing RED II compliance of fuels would likely be **based on EU-recognized certification schemes**, such as ISCC EU

FuelEU Maritime



- The **FuelEU Maritime Initiative** aims to limit the yearly average GHG intensity of energy used on ships
- **FuelEU Maritime** will build on the RED II sustainability framework (and thus EU-recognized certification schemes)

There is growing demand for sustainable marine fuels (SMF) from the voluntary market, too



SCIENCE
BASED
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

- A growing number of companies 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**
- In its recently released guidance for the maritime sector*, **SBTi recognizes biofuels as one of several key levers** in achieving ambitious carbon intensity reduction rates
- SBTi stresses that emissions accounting from biofuels should follow a **well-to-wake analysis** (i.e. on a life cycle basis)
 - *“The SBTi recommends that **companies using or producing biofuel(s) for transport** should support their bioenergy GHG accounting with **recognized biofuel certification**” ***
- For sustainable aviation fuels (SAF), **ISCC certification is explicitly recognized by SBTi** as ensuring compliance with the SBTi criteria***

*Please refer to: SBTi document on science-based target setting for the maritime transport sector, v1.0, November 2022, available via: <https://sciencebasedtargets.org/resources/files/SBTi-Maritime-Guidance.pdf>

**Please refer to: SBTi criteria and recommendations, v5.0, October 2021, available via: <https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf>

***Please refer to: SBTi document on science-based target setting for the aviation sector, v1.0, August 2021, available via: https://sciencebasedtargets.org/resources/files/SBTi_AviationGuidanceAug2021.pdf

Sustainable Marine Fuel must live up to its name. Certification ensures key sustainability parameters are met

ISCC Certification aims to ensure



Sustainability in feedstock production





Traceability of sustainable materials through the supply chain

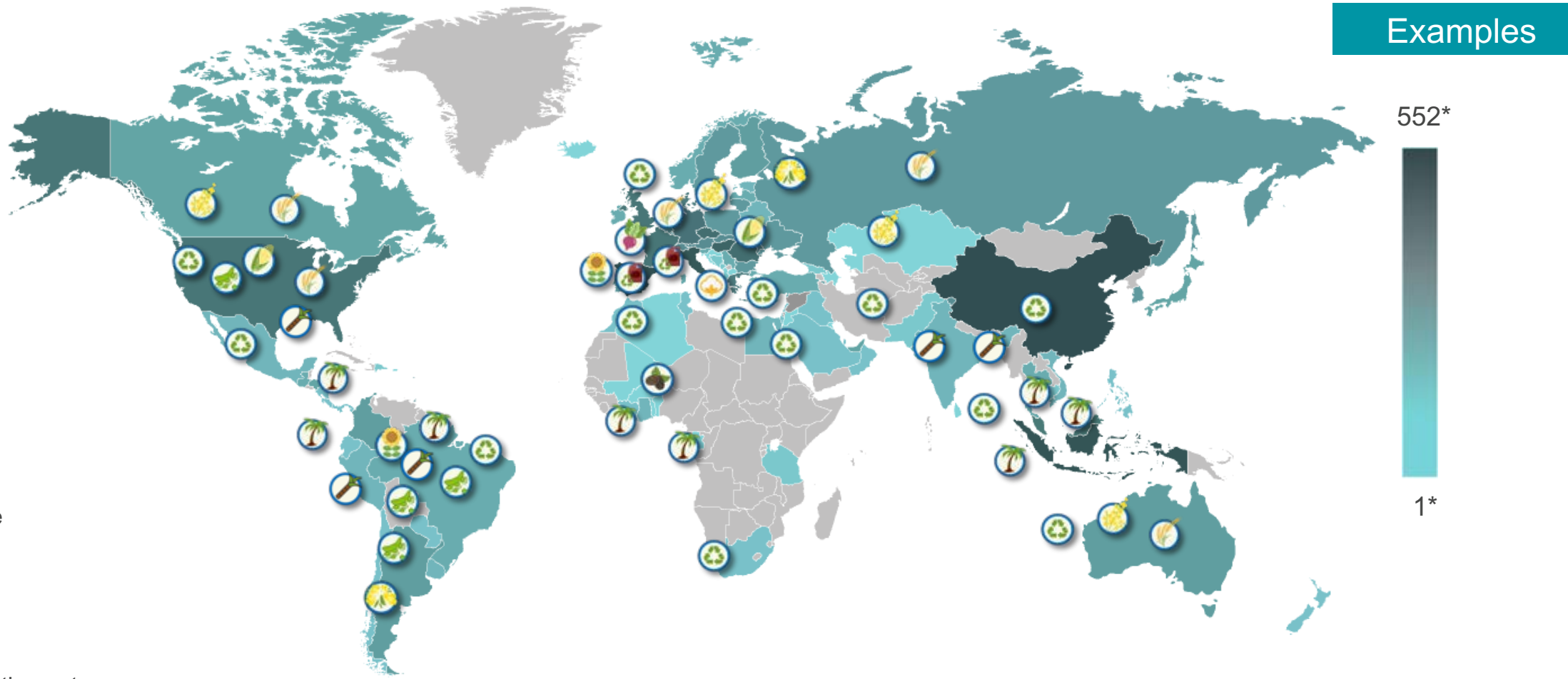


Verified reduction of life cycle emissions

Globally-spanning supply chains need global certification solutions.

Today, more than 7,000 companies in over 100 countries are ISCC certified

-  Camelina
-  Canola
-  Corn
-  Cotton
-  Grains
-  Palm oil
-  Soy
-  Shea
-  Sugarbeet
-  Sugarcane
-  Sunflower
-  Waste
-  Mixed plastic waste



*Colour shade representing number of certified economic operators

Availability of sustainable feedstock will be crucial in scaling up fuel supply.
Under ISCC, a wide range of raw material categories can be (and are!) certified

Examples



Corn



Canola

Bio



Sugarcane



Cotton



Tall Oil



UCO

Bio-circular



Forestry residues



Straw



Mixed Plastic Waste



End-of-life tyres

Circular (technical)



Waste textiles



CO₂ (post-industrial)



Renewable electricity

Renewable



Green hydrogen as energy carrier

Products that could serve as alternative fuels for shipping are certified under ISCC as of today



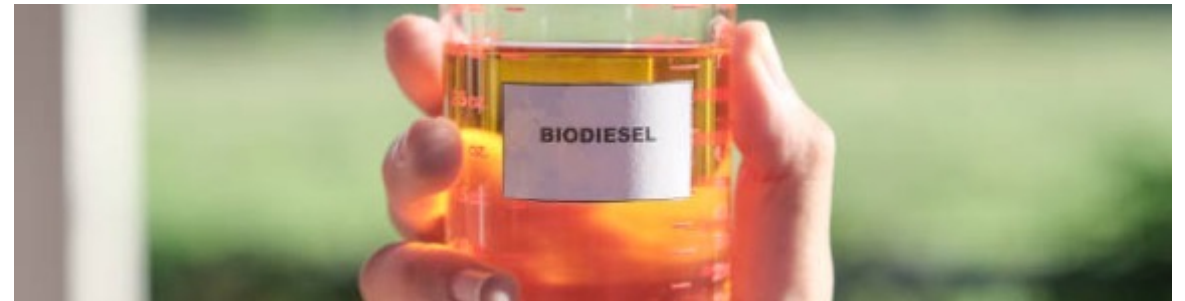
Bio-methanol



Bio-LNG

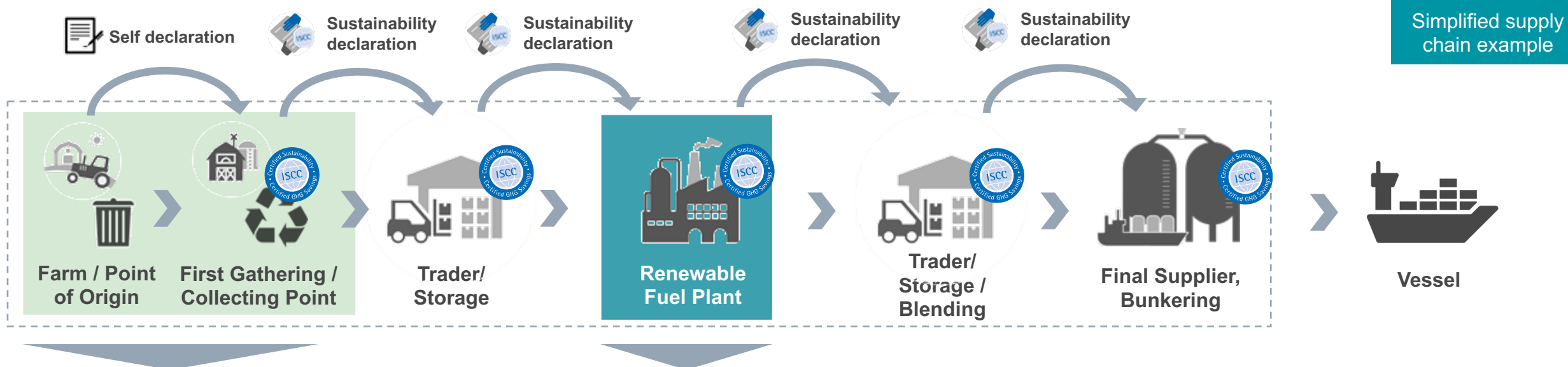


**Green hydrogen and derivatives
(e.g. green ammonia)**



Biodiesel

Individual certification of supply chain elements allows for full traceability and accounting for complete life cycle emissions



Feedstock production & collection

- Emissions from **feedstock cultivation**
- Emissions from **land use change**
- Emissions savings from **soil carbon accumulation**
- Emissions from **upstream transport** (from collection)

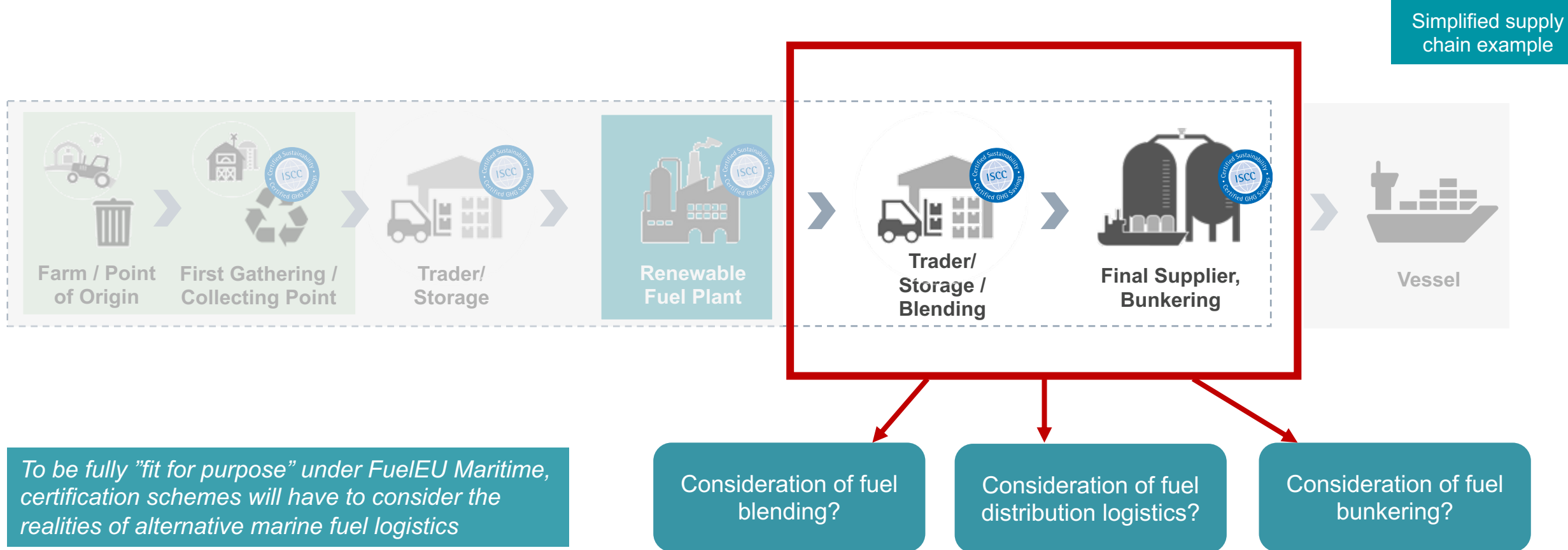
Processing & transport

- Emissions from **processing**
- Emissions from **upstream/downstream transport & distribution**
- Emissions savings from **CCR***
- Emissions savings from **CCS****

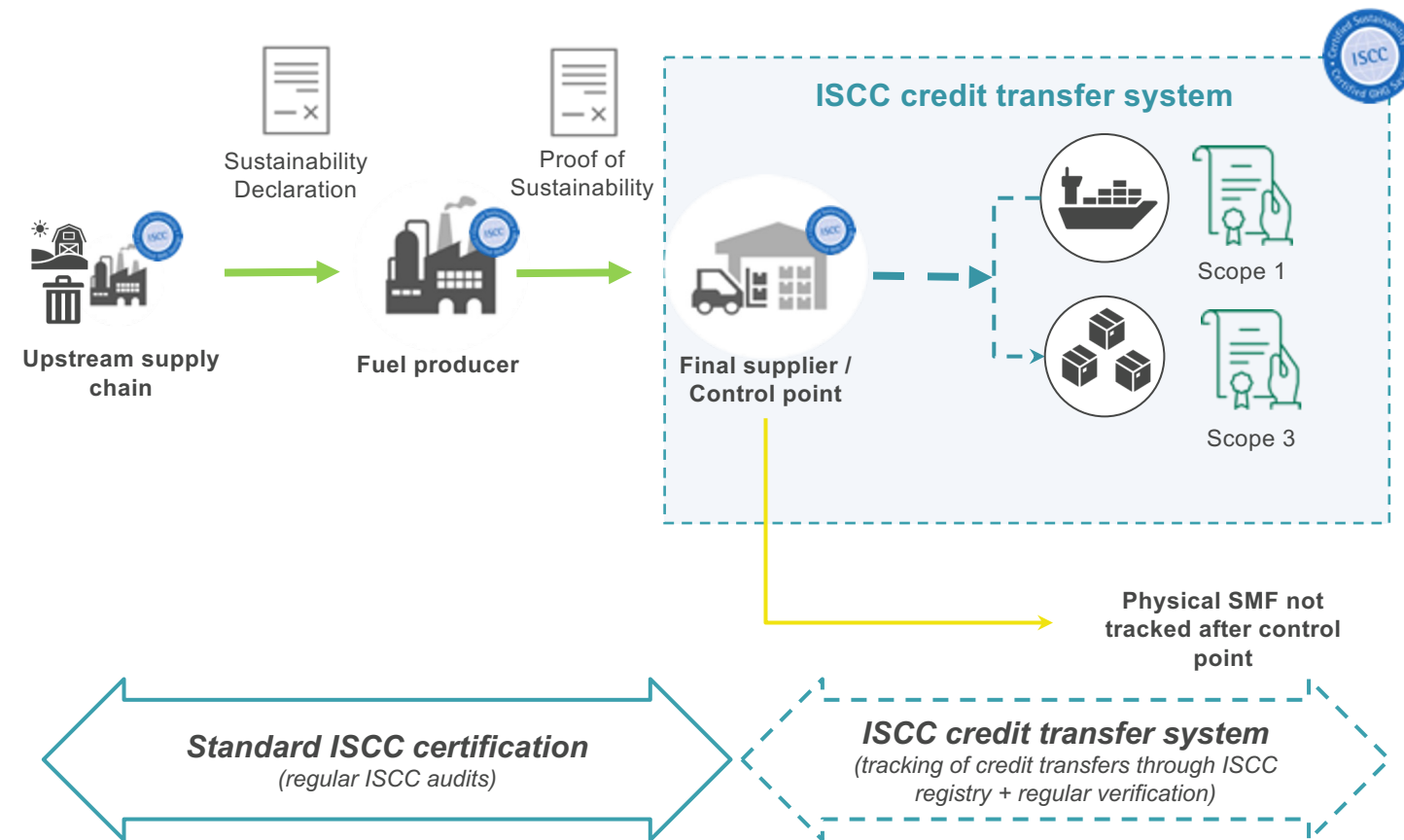
*To calculate the **life cycle emissions value of a sustainable fuel**, GHG values are forwarded in the supply chain step by step*

*CCR: Carbon Capture and Replacement
 **CCS: Carbon Capture and Storage

ISCC will support the implementation of FuelEU Maritime, contributing to the development of technical elements for FuelEU GHG marine fuel certification



ISCC is developing a system to allow for full end-to-end traceability and verification of renewable fuel claims, covering claims in voluntary markets



What is the challenge?

- **Ship owners and shipping end-customers** (e.g. companies that have their products shipped) wish to purchase and claim emissions reductions from SMF use
- Unlike the upstream SMF supply chain, ship owners and end-customers do not become individually certified, which creates the **risk of insufficient traceability and false claims**
- SMF suppliers, shipping companies and end-customers demand **solutions for fully traceable end-to-end SMF transactions and verified claims**

What is ISCC developing to address this?

- **Robust end-to-end approach** by combining the new system with the „tried-and-true“ upstream ISCC certification
- Transaction and claiming process 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 fuel volumes will be registered, transferred, claimed and verified

ISCC is dedicated to further support certification for sustainable marine fuels

