

# Certification as a Crucial Element for Sustainable Marine Fuels

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# Many markets define sustainability criteria for alternative fuels. Certification often plays a key role in showing compliance

## Examples

### In regulated markets ...

EU RED II



FuelEU  
Maritime



EU ETS



- The **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 regulations, such as **FuelEU Maritime**, will at least partly be based on the RED II framework
- In the future, certified marine fuels may be used in the **EU Emissions Trading System**

### In voluntary markets ...



SCIENCE  
BASED  
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

- The **Science-based targets initiative** (SBTi) provides target setting methods and guidance to companies to set science-based targets in line with the latest climate science, with more than 3,000 companies having set a science-based target so far
- “*The SBTi recommends that **companies using or producing biofuel(s) for transport should support their bioenergy GHG accounting with recognized biofuel certification***” \*
- **ISCC certification already explicitly recognized** for sustainable aviation fuels (SAF)\*\*

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

## ISCC Certification ensures



Sustainability in feedstock production



Traceability of sustainable materials through the supply chain

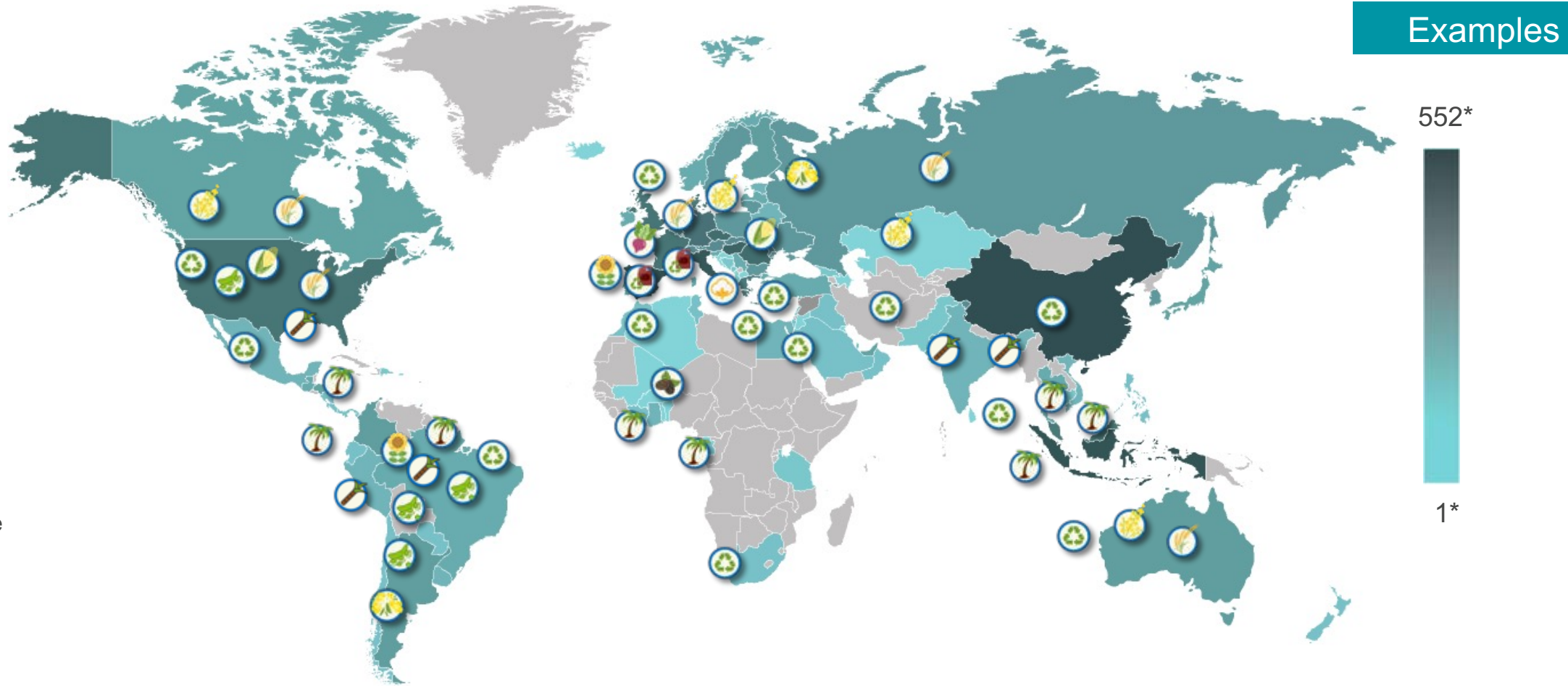


Verified reduction of life cycle emissions

# Globally-spanning supply chains need global certification solutions.

Today, almost 6,000 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

# Under ISCC, a wide range of different raw materials as well as the resulting fuels 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 tires

Circular (technical)



Waste textiles



CO<sub>2</sub> (post-industrial)



Power-to-Gas

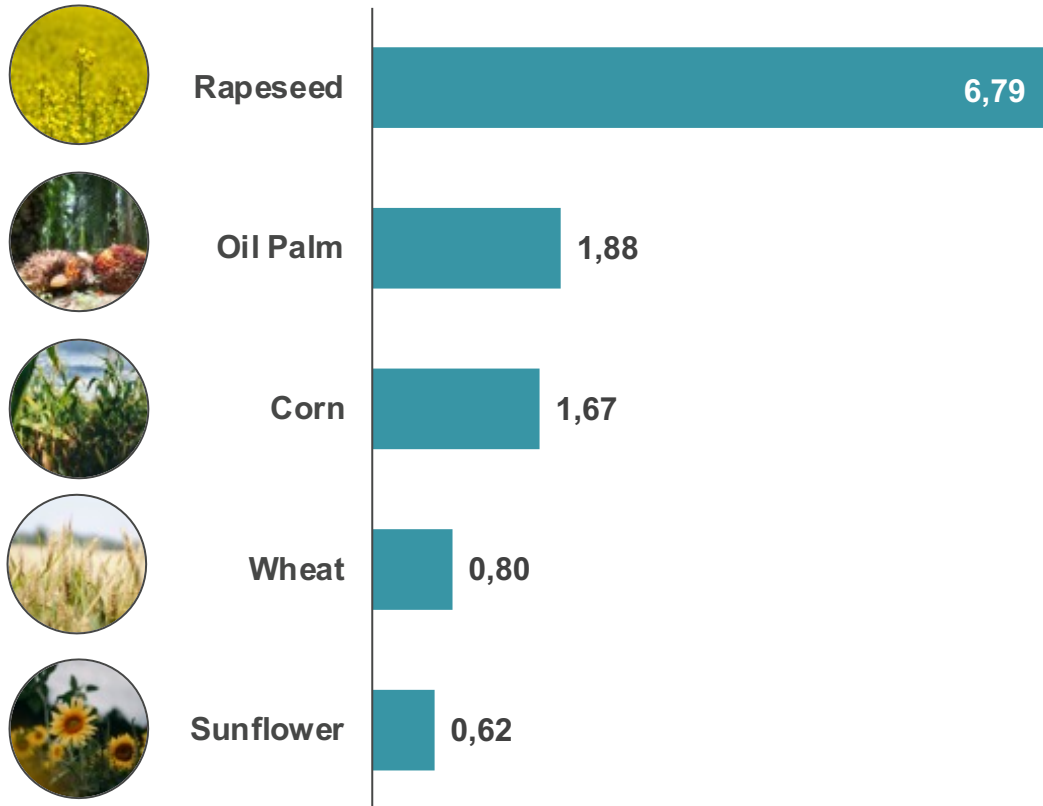
Renewable



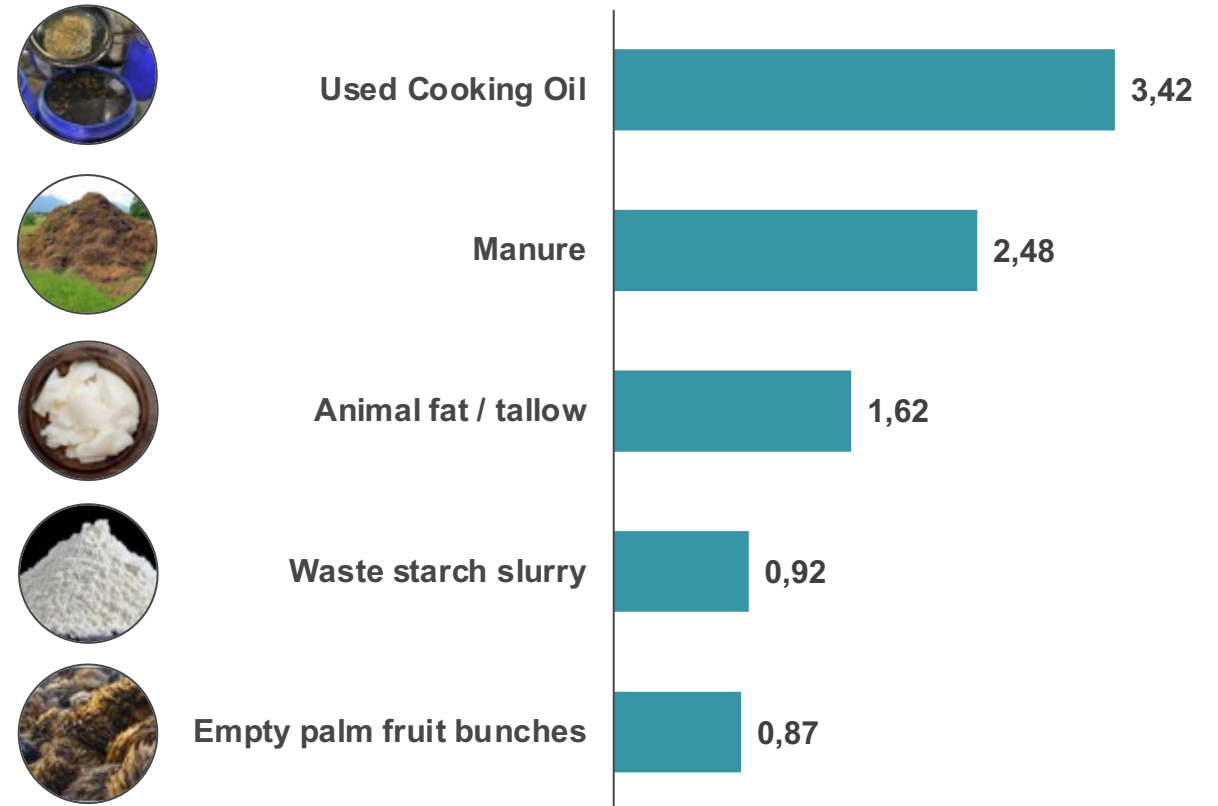
Power-to-Liquid

# In 2021, more than 88 million metric tons of raw material were ISCC certified, including more than 16 million metric tons of waste and residues

## Crops – Certified Cultivation Area (in million hectare)



## Waste and Residues (amount in million MT)\*



# Under ISCC, sustainability in biomass production is ensured through the application of the six ISCC Principles



**Principle 1:** Protection of biodiverse and carbon rich areas



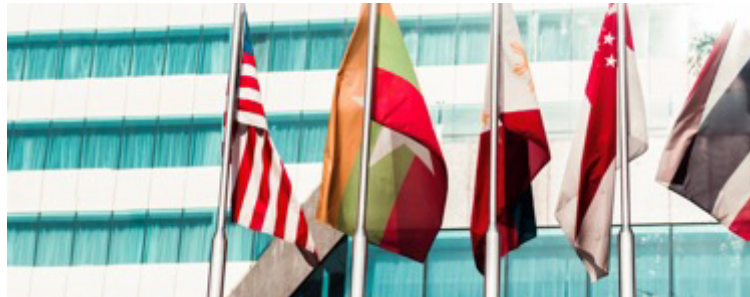
**Principle 2:** Good Agricultural Practice



**Principle 3:** Safe Working Conditions



**Principle 4:** Compliance with Human, Labour and Land rights



**Principle 5:** Compliance with Laws and International Treaties

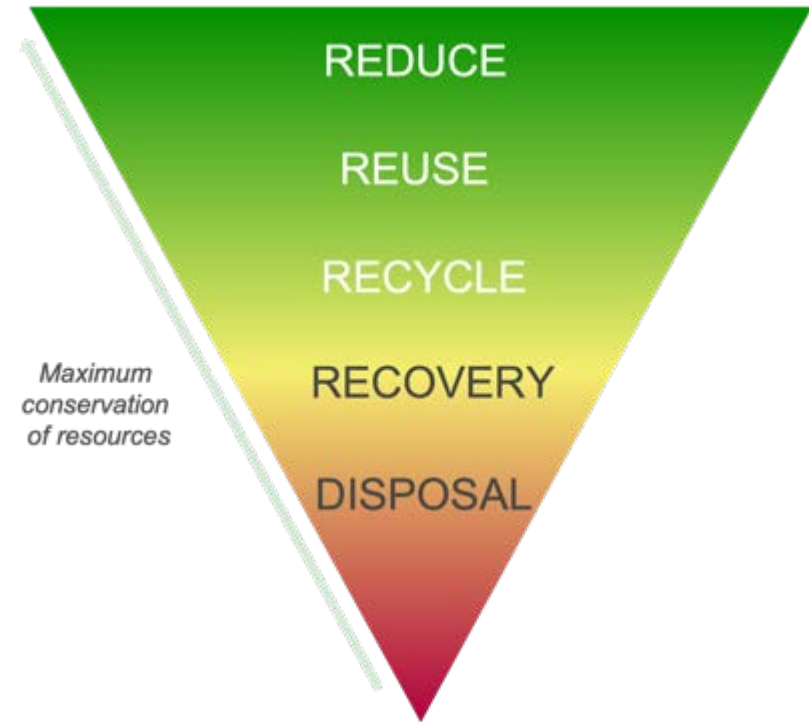


**Principle 6:** Good Management Practices and Continuous Improvement

Waste and residues must be ***genuine*** waste and residues



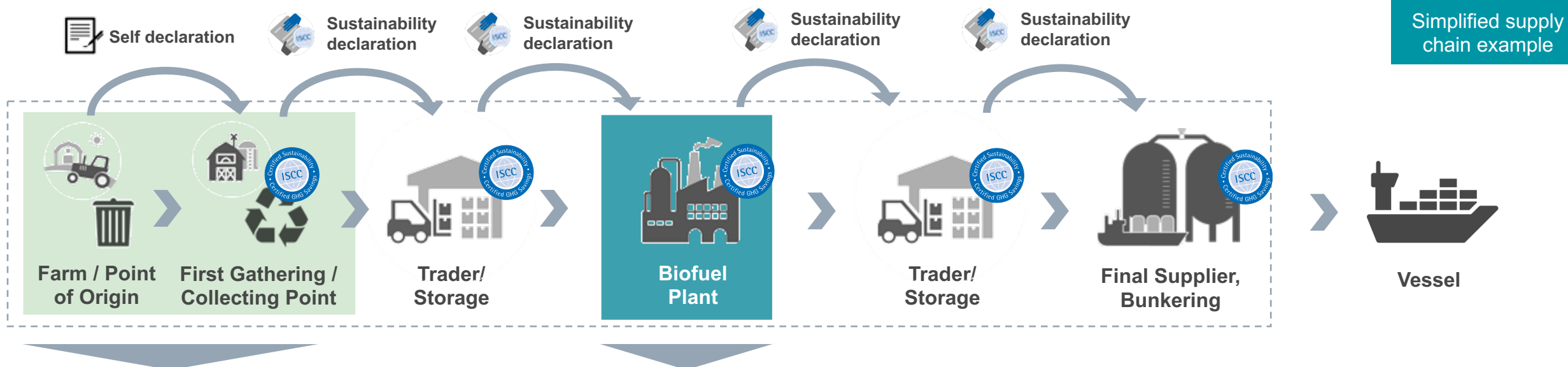
The use of waste and residues must follow the **waste hierarchy**



Source: Own depiction referring to waste hierarchy according to Article 4 Waste Framework Directive



# Traceability of sustainable materials as well as accounting of full life cycle emissions of the fuel must be guaranteed



**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\*\***

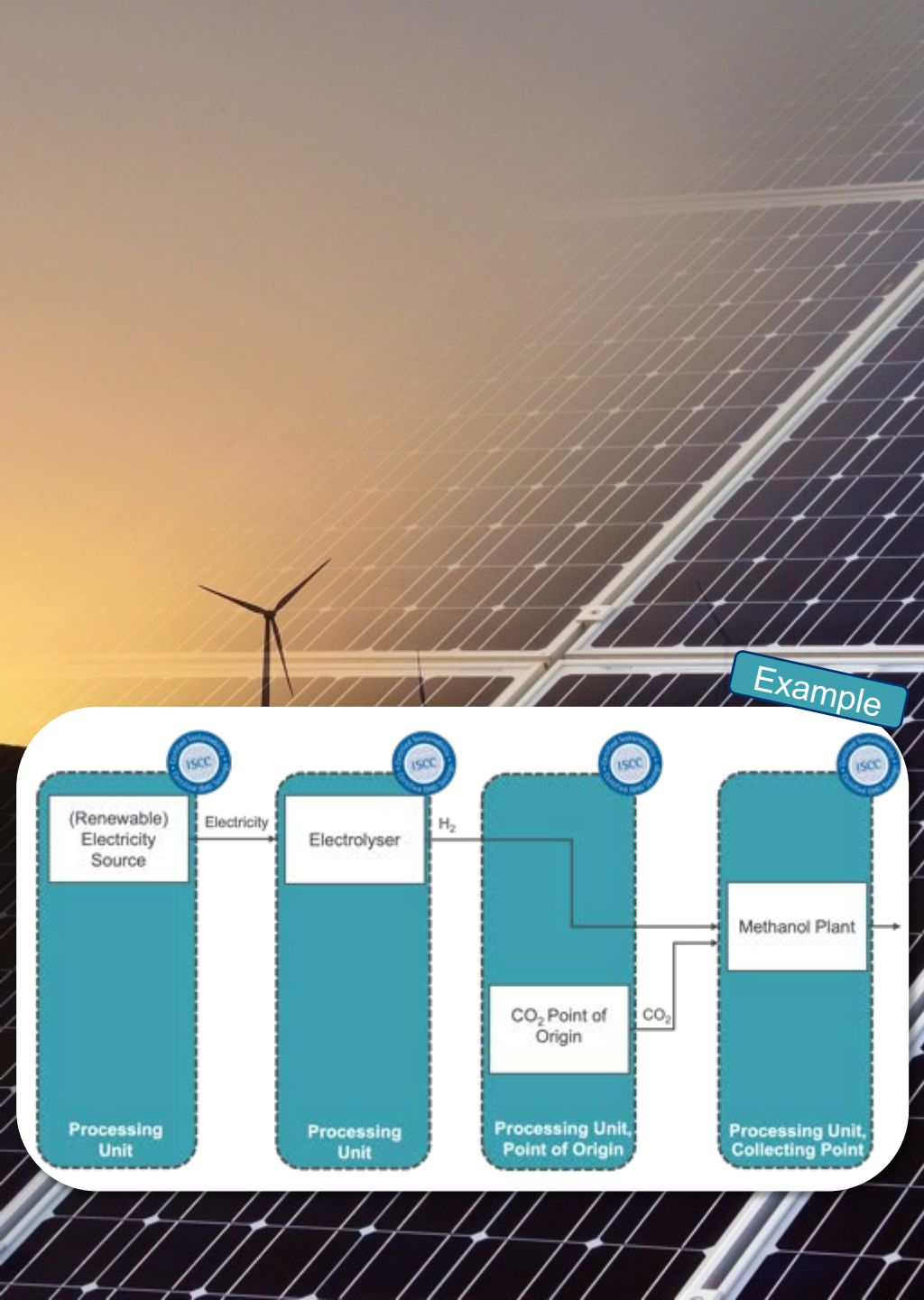
*To calculate the **life cycle emissions value of a sustainable fuel**, GHG values are forwarded in the supply chain step by step*

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

# Powerfuels represent one of the most viable options to defossilise maritime transport

- **Fuels based on (renewable) electricity**, including hydrogen, e-methanol and e-ammonia, represent promising low-carbon options
- Use of a **comprehensive certification system worldwide** can help ensure continuous compliance of global hydrogen and e-fuel production with the desired sustainability & traceability requirements
- Under its ISCC PLUS standard for the voluntary market, ISCC has already **certified both renewable electricity and CO<sub>2</sub>**, as well as **green hydrogen, methanol and ammonia**
- Based on its experience under ISCC PLUS and following the rules laid out in the Delegated Act on RFNBOs\*, **ISCC is currently developing a certification approach applicable under the REDII framework**

\*RFNBOs: Renewable fuels of non-biological origin



# ISCC is dedicated to further support certification for sustainable marine fuels

