



Certification of RED II Sustainability Criteria: Preparation and Perspectives of ISCC

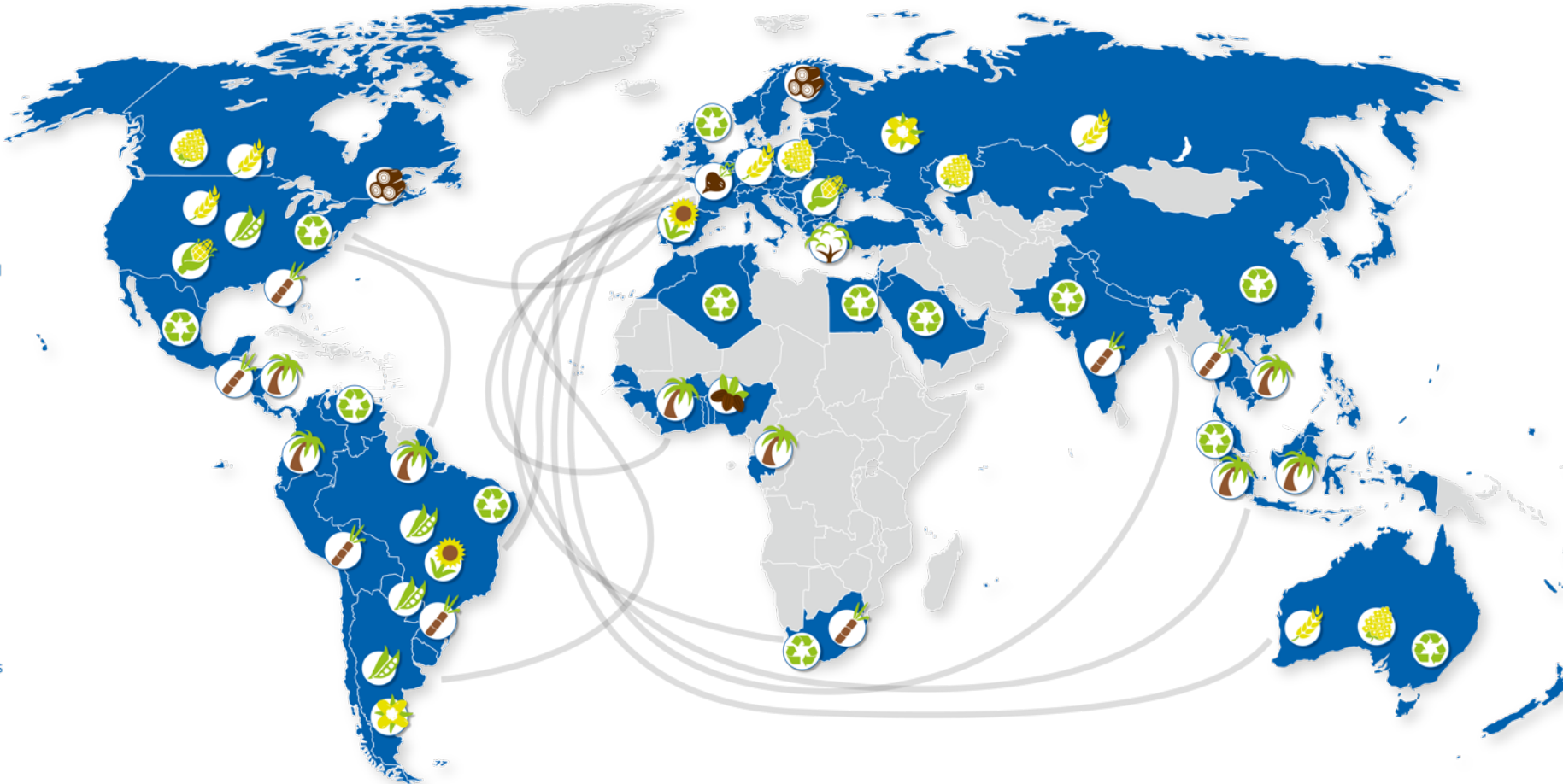
ISCC is one of the leading certification schemes applied on a global scale for different feedstocks and markets

All Feedstocks, including:

- Camelina
- Canola / Rapeseed
- Cereal
- Corn
- Cotton
- Palm
- Shea
- Soy
- Sugarbeet
- Sugarcane
- Sunflower
- Waste & Residues
- Wood

All Markets:

- Food
- Feed
- Energy
- Bio-based products



ISCC facts & figures

**System users in
100+
countries**

**21,000+
certificates
3,300+
system users**

**28 certification bodies
400+
ISCC trained auditors**

**Training Programme
(75 Trainings so far for
auditors and system users)**

**Innovative tools and
procedures to facilitate
audits**



**Use remote sensing to
verify land use change**

**8 Voluntary
add-ons
to address specific
customer requirements**

**Stakeholder dialogue:
116 ISCC Association
members**

**Discussion platform with
4 Regional
and 2 Technical
Committees**

**Integrity Programme
3 auditors**

ISCC is a multi-stakeholder association with 116 members. The association steers the overall development of the ISCC system



ISCC has implemented processes and measures to ensure highest quality, integrity and security of the system



ISCC core principles - a balanced set of ecological and social criteria addressing and going beyond regulatory requirements



Principle 1: Protection of biodiverse and carbon rich areas



Principle 2: Good Agricultural Practice



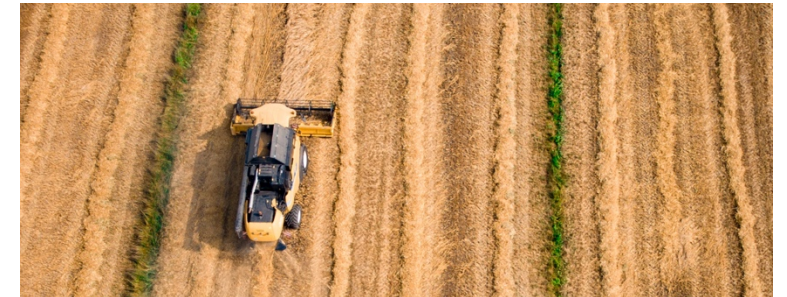
Principle 3: Safe Working Conditions



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

ISCC Principle 1: Ensuring the protection of biodiverse and carbon rich areas



Primary forests and other wooded land



Forested areas



Designated nature protection areas



Highly biodiverse grassland

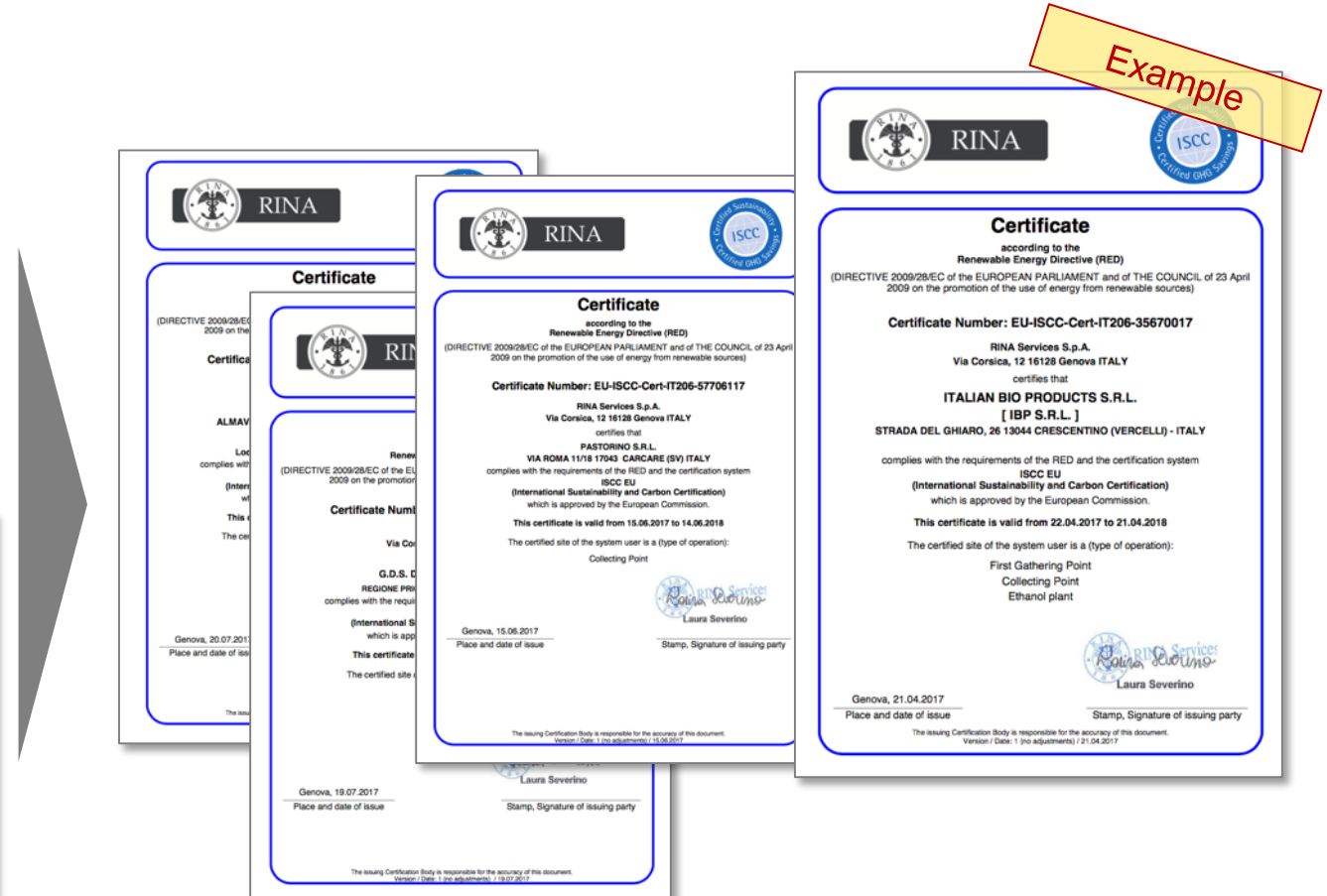


Wetland



Peatland

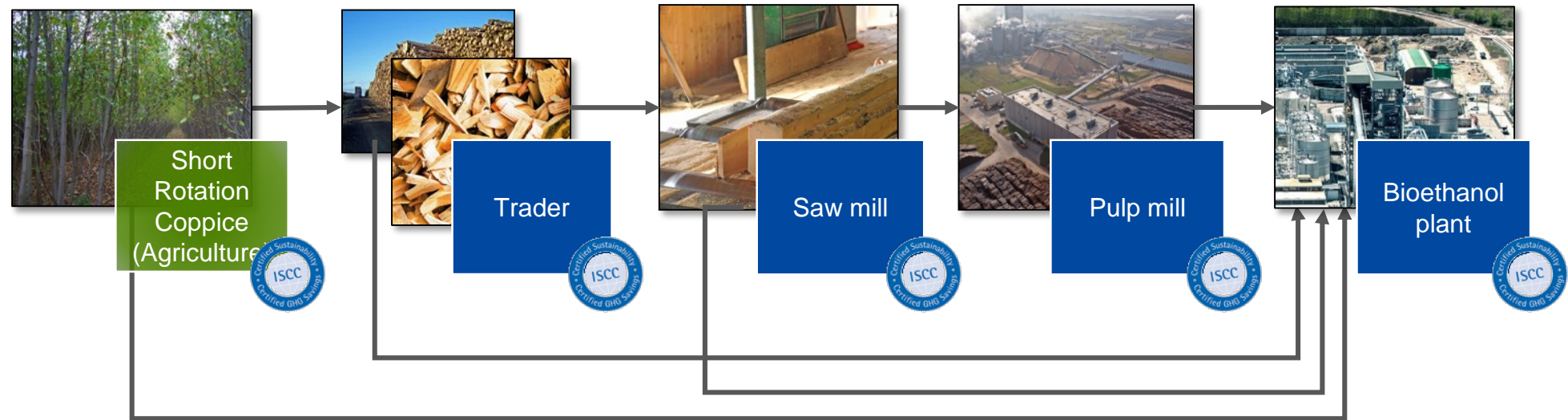
ISCC certified *Italian Bio Products* was producing bioethanol using straw, solid biomass from SRC and processing residues as feedstock



Italian Bio Products, Italy
Bioethanol producer

The bioethanol plant sourced wood from different sources. The whole supply chain was ISCC certified

Example



Another example for an ISCC certified lignofuel is BioVerno, using tall oil as a feedstock

Example



Location: Lappeenranta, Finland
Company: UPM
ISCC System user since 2014

Achievements:

- Advanced biofuel production
- First ISCC certified wood based biofuel
- No food vs. fuel
- Low iLUC

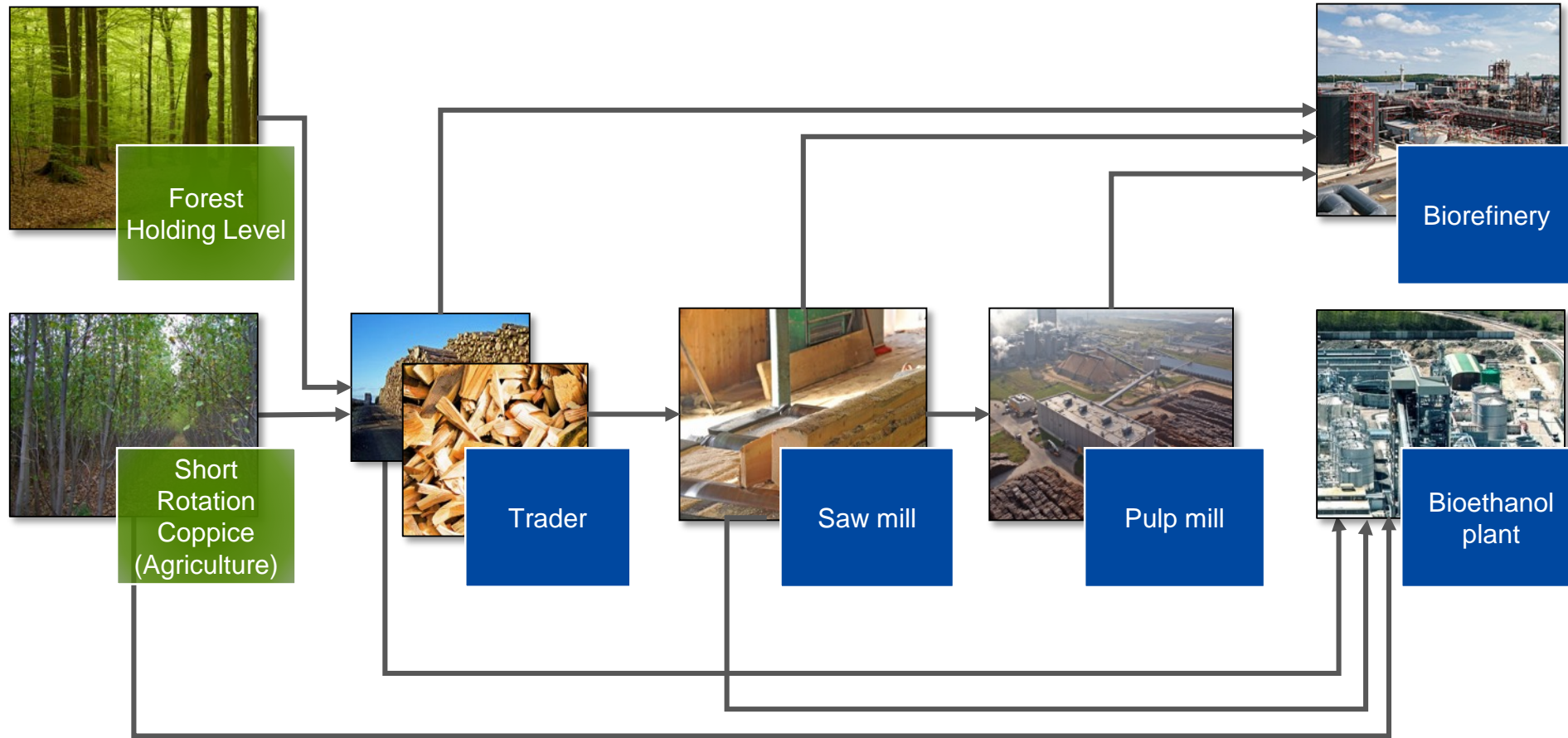
Prospects:

- ISCC PLUS certification for wood based biomaterials

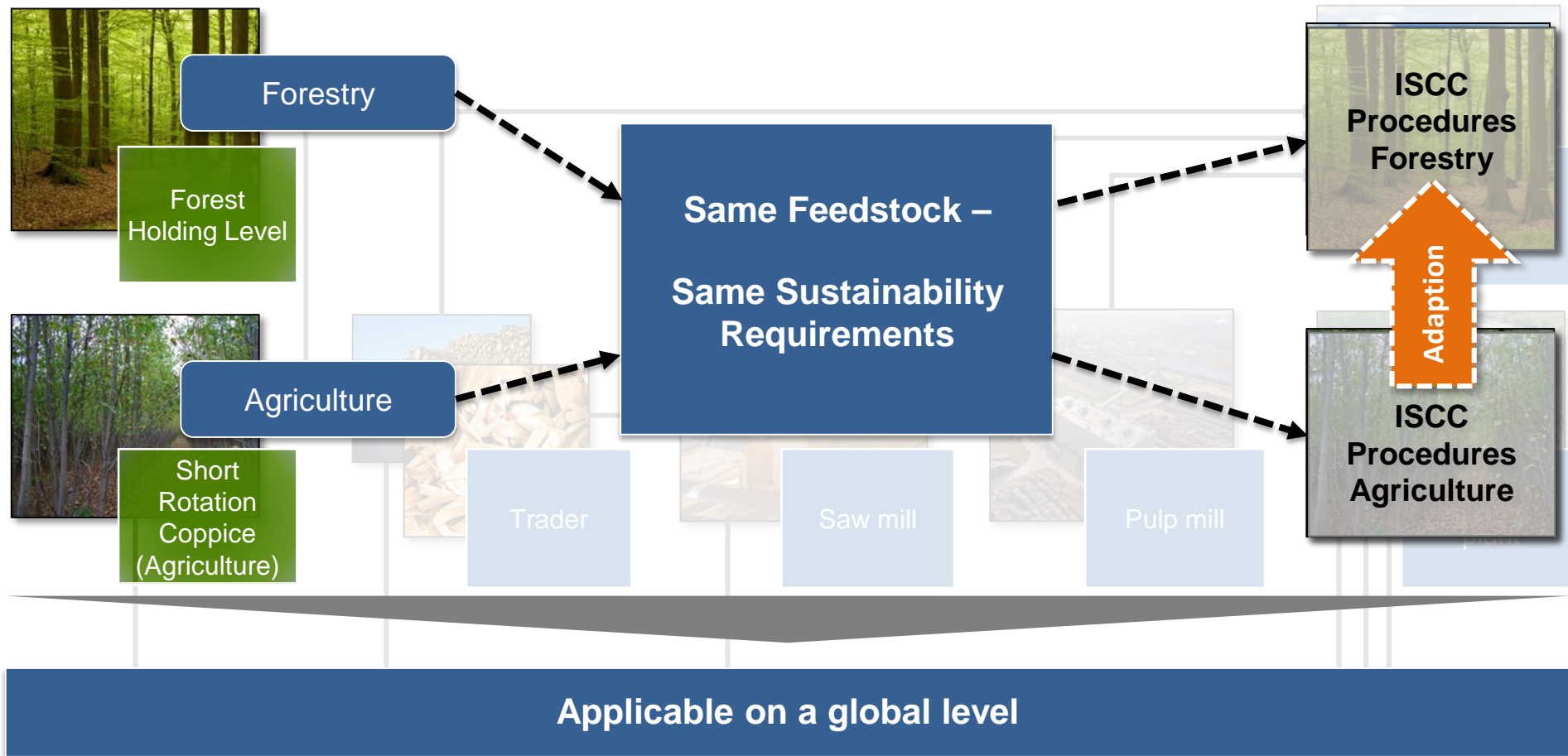


Solid biomass can be cultivated in agriculture (SRC) and forestry.

Certification starts on the level of biomass production



In order to ensure the “same level playing field” for both production systems under ISCC, equal sustainability requirements are applied



ISCC developed system documents for the certification of forest biomass based on RED I requirements



ISCC
Pilot Audit

ISCC Procedures for Forest Management Units

- ISCC certified lignofuels with high GHG emission savings available
- Certification based on w/r process or solid biomass from SRC (agriculture). Option: certification process based on forest biomass
- ISCC developed procedures for Forest Management Units (FMUs)

Starting in 2021, the RED II will be the legal framework for the bioenergy sector in the EU

RED II timeframe:
2021 - 2030

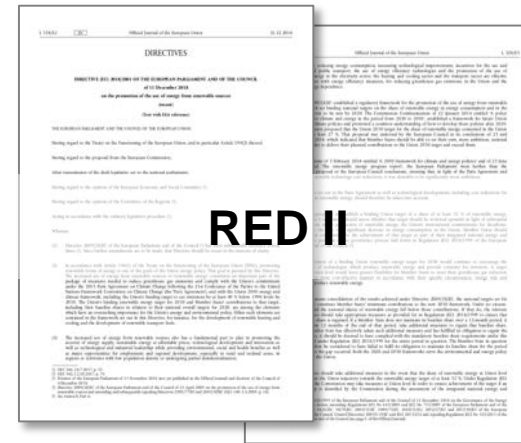
Higher GHG emission
savings targets

Amended fossil fuel
comparators

Assessment for
additional Annex IX
feedstocks to be
introduced

At least **32%** RE by
2030 at EU level

Sub-target of **3.5%**
advanced biofuels in
2030 (mandatory)



New sustainability
requirements for solid
biomass from forest

At least **14%** RES-T;
obligation on fuel
suppliers

7% cap on crop-based
biofuels with strings
attached

Low iLUC risk biofuels
excluded from phase-
out (not from cap on
crop-based biofuels)

Double counting for
Annex IX, Part A+B
biofuels possible

Various multipliers set
(shipping, aviation,
rail, EVs etc.)

Flexibility for MS is
included

High iLUC risk
biofuels to be **0%** by
2030

Annex IX defines advanced feedstocks and fuels, several of which are already covered by ISCC certification

Annex IX	
Part A (“Advanced”) targets: at least 0.2% in 2022, 1% in 2025 and 3.5% in 2030	
<ul style="list-style-type: none">• Algae if cultivated on land in ponds or photobioreactors• Biomass fraction of mixed municipal waste but not separated household waste subject to recycling targets• Bio-waste as defined in Article 3(4) of Directive 2008/98/EC from private households subject to separate collection• Biomass fraction of industrial waste not fit for use in the food/feed chain, including material from retail/ wholesale and the agro-food and fish and aquaculture industry, excluding feedstocks listed in part B• Straw• Animal manure and sewage sludge• Palm oil mill effluent and empty palm fruit bunches• Tall oil pitch	<ul style="list-style-type: none">• Crude glycerine• Bagasse• Grape marcs and wine lees• Nut shells• Husks• Cobs cleaned of kernels of corn• Biomass fraction of wastes and residues from forestry and forest-based industries, i.e. bark, branches, pre-commercial thinnings, leaves, needles, tree tops, saw dust, cutter shavings, black liquor, brown liquor, fibre sludge, lignin and tall oil• Other non-food cellulosic material• Other ligno-cellulosic material except saw logs and veneer logs
Part B (Not considered as “advanced”) capped to 1.7% but exemption possible	
<ul style="list-style-type: none">• Used Cooking Oil (UCO)	<ul style="list-style-type: none">• Animal fats classified as categories 1 and 2 in accordance with Regulation (EC) No 1069/2009

Source: RED II (Directive 2018/2001)

RED II includes criteria for forest biomass. Guidance on the implementation of these criteria will be published in January 2021



Legality of
harvesting
operations

Forest regeneration

+

Party to Paris
agreement

Submitted NDC to
UNFCCC

or

Laws in place to ensure
that reported LULUCF
sector emissions do not
exceed removals

or

Individual verification at
forest sourcing area
level

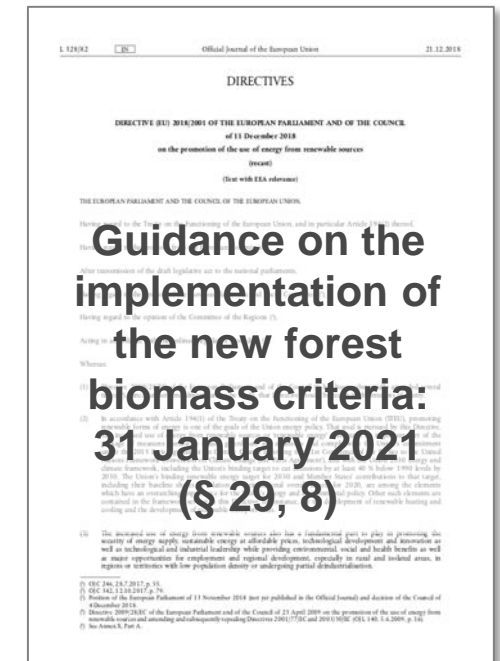
Maintenance of
soil quality and
biodiversity

Harvesting
maintains or
improves long-term
productivity

Protection of areas
designated by laws,
etc. for nature
protection purposes

or

Individual verification at forest sourcing area level



ISCC procedures for solid biomass already cover the five sustainability criteria for forest biomass set out in the RED II



Legality of harvesting operations

Forest regeneration

Maintenance of soil quality and biodiversity

Harvesting maintains or improves long-term productivity

Protection of areas designated by laws, etc. for nature protection purposes

or

Individual verification at forest sourcing area level

• RED II criteria for forest biomass are already addressed via existing ISCC requirements

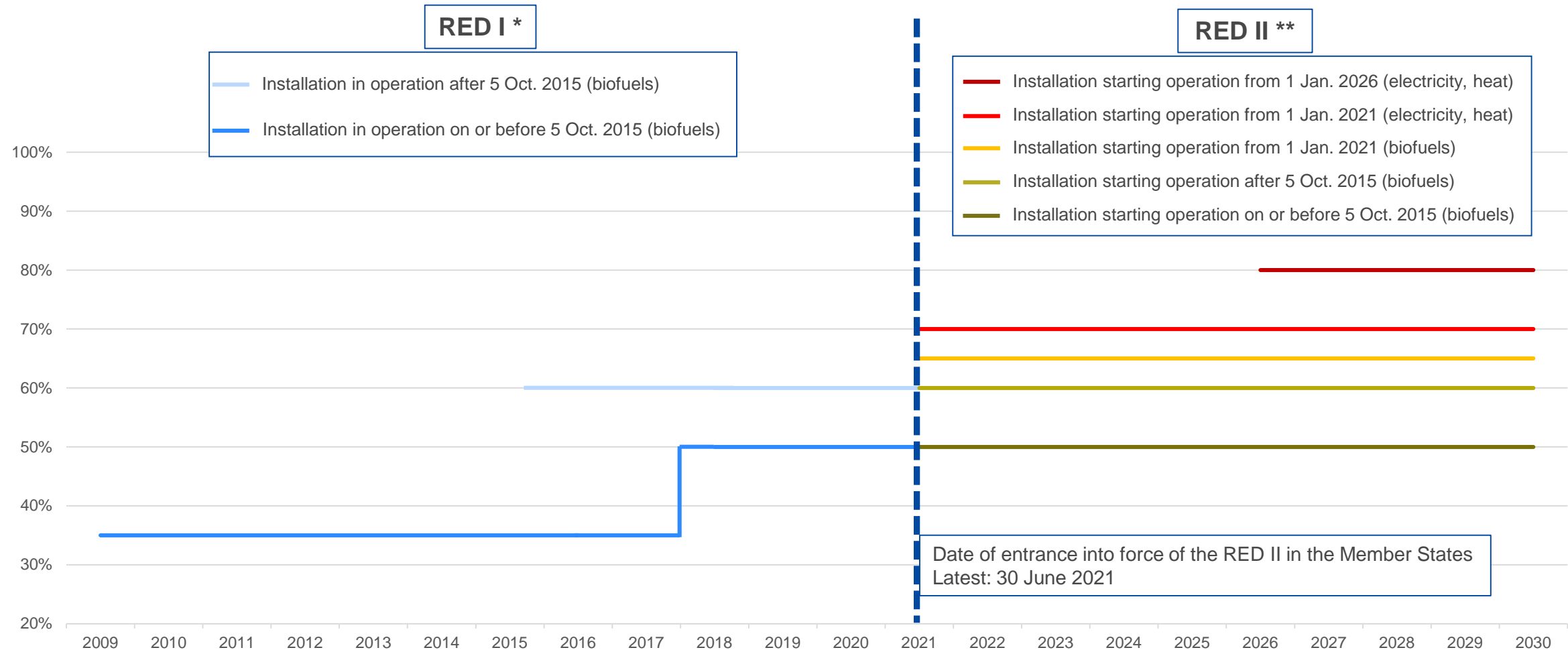
• ISCC certified producers are well prepared for the forthcoming regulation

Individual verification at forest sourcing area level



RED II applies new requirements for the GHG emission savings including exemptions for "biomass fuels"

GHG emission savings requirements in RED I and RED II

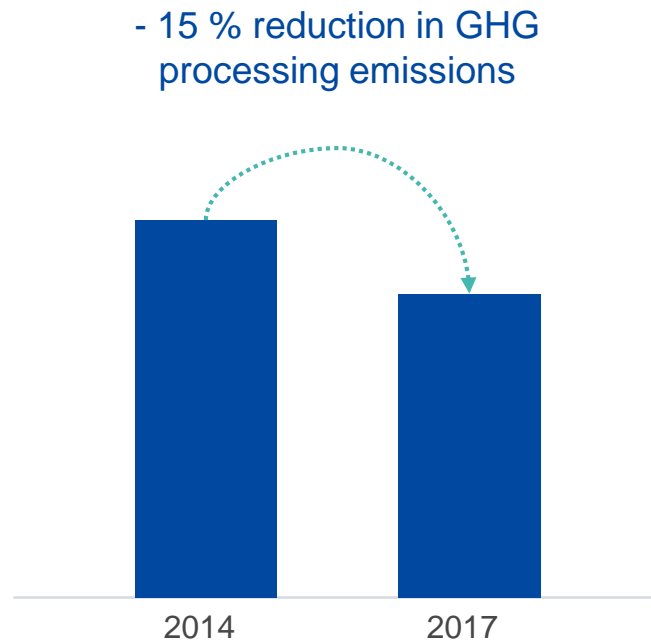


* RED I – 2009/28/EC lately amended by 2015/1513/EC from October 2015 (Fossil reference GHG value: 83.8 gCO_{2e}/MJ)

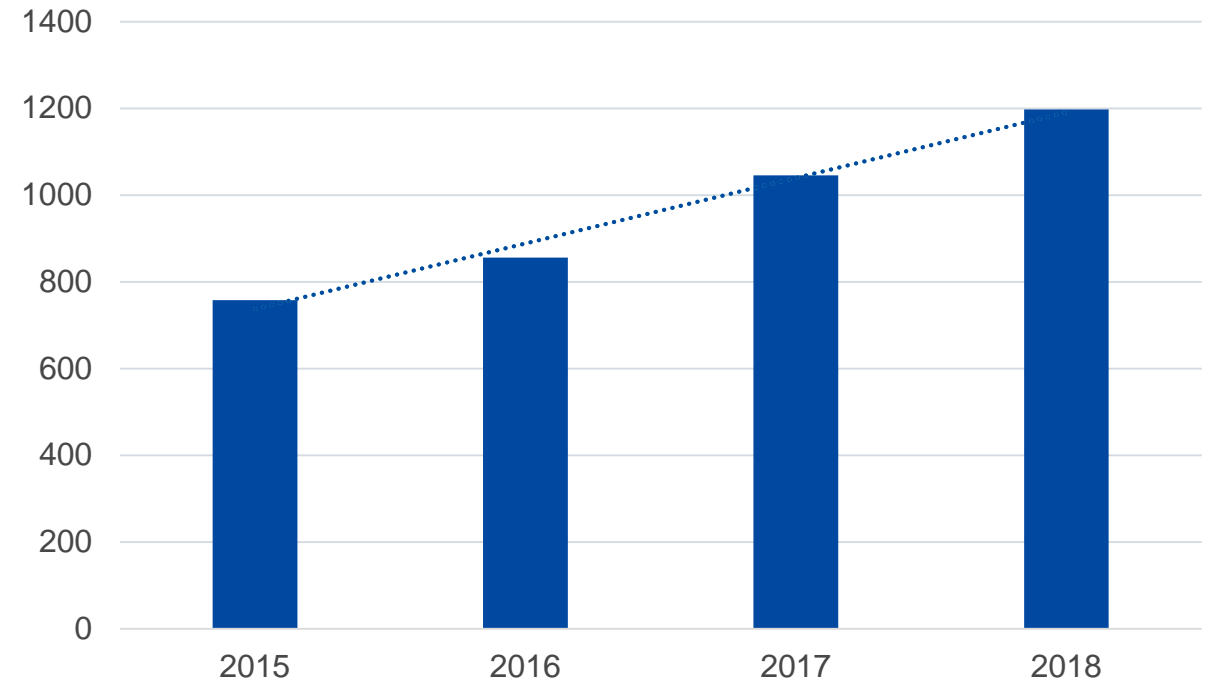
** RED II – Directive (EU) 2018/2001 from 11 December 2018 (Biofuels fossil reference GHG value: 94 gCO_{2e}/MJ; Electricity, heat fossil reference GHG value: 183 gCO_{2e}/MJ)

ISCC data shows a reduction in processing emissions and an increase in the use of actual values

Sum of GHG Processing Emissions per t
Example Biodiesel Supply Chain



GHG Calculation based on Actual Values
Number of Issued Certificates





Netherlands Enterprise Agency



Guidance Chain of Custody sustainability criteria for solid biomass for energy applications

Commissioned by the ministry of Economic Affairs and Climate Policy

In The Netherlands, sustainability criteria for solid biomass are already set out

- The *RVO (The Netherlands Enterprise Agency)* asked companies to apply for a subsidy under the SDE+ (Sustainable Energy production)
- In order to receive this subsidy, companies have to prove compliance with sustainability requirements for solid biomass
- Companies have to be certified by one of the certification schemes being approved by the *Minister of Economic Affairs and Climate Policy*, who is advised by the the *Advisory Committee on the Sustainability of Biomass for Energy Applications (ADBE)*
- Currently, ISCC is applying for recognition by the ADBE/ RVO

ISCC SOLID BIOMASS NL

Version 1.1

New ISCC Solid Biomass NL document in Public Consultation

- New ISCC document focussing e.g. on:
 - Material eligible including solid biomass from forestry and residues from nature and landscape management
 - Requirements for sustainable forest management
 - Introduction of a risk based approach for small scale forest management units
 - Options for group certification
- ISCC Stakeholders are asked to provide feedback as part of the public consultation on this document:

<https://www.iscc-system.org/stakeholders/public-consultation/>

- Next steps: ISCC aims to finalize the approval process



RED II: General implications for ISCC

- An update of ISCC EU is required to become recognized under the RED II, particularly to implement:
 - Delegated acts on:
 - ILUC (published on 13 March 2019)
 - Renewable fuels of non-biological origin and recycled carbon fuels (due in January 2021)
 - Co-processing (due in December 2021)
 - Sustainability requirements for solid biomass
 - Adjusted fossil fuel comparator and default values
- Transposition of RED II into is **due by 30 June 2021**
- **Practical challenges require guidance from the EC:**
 - How to deal with a non-harmonized transposition by different MS (i.e. with respect to time and content)?
 - Certification under RED I and RED II required to supply all MS?
 - Transition periods (for schemes, operators, deliveries)?



Open questions for solid biomass certification under RED II

- Verification of wood origin – How to address the risk of fraud without individual verification?
- Actual GHG calculation as a main driver for improvement along supply chains – Relevant for forest biomass in the future?
- Additional requirements by individual EU Member States (further market fragmentation)?



Many thanks for your attention!

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