



Exploring Export Opportunities for Waste and Residue-Based Raw Materials and Biofuels

ISCC's Risk based Certification Approach for Waste and Residues

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Key learning points

- 1 Recipients of material have to verify the validity of suppliers' certificates
- 2 ISCC website provides full transparency (valid, fake, withdrawn lists of certificates)
- 3 Waste/residue classification depends significantly on EU Member States
- 4 ISCC System Updates outline important changes in regulations and documents
- 5 Points of origin have to be audited if supplying > 10T/month (<120T/year)

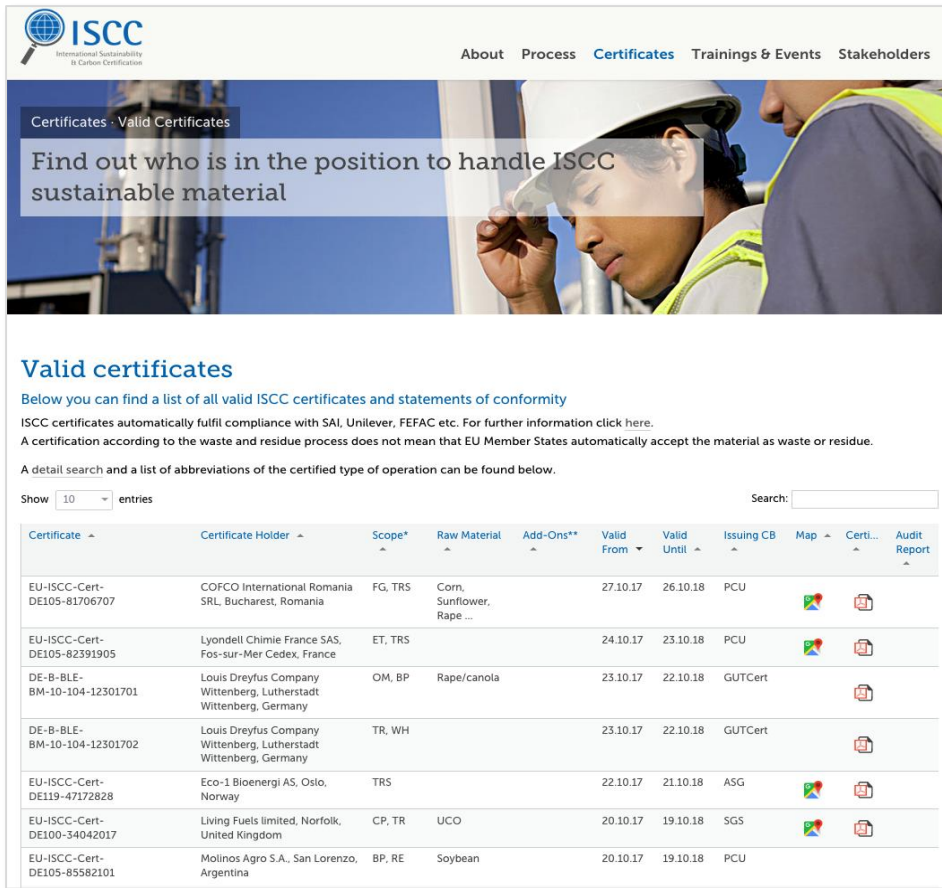
Risk management is an integral part of the ISCC certification scheme

Risk management measures to ensure the security and integrity of the ISCC System



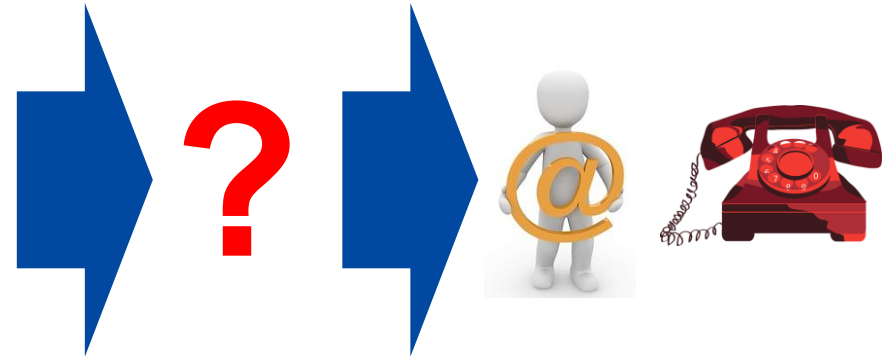
All ISCC certificates (valid and expired) are transparently published on the ISCC website

Companies have to verify the validity of suppliers' certificates via the ISCC Website. In case of doubt ISCC has to be contacted!



The screenshot shows the ISCC website interface. At the top, there is a navigation menu with links for 'About', 'Process', 'Certificates', 'Trainings & Events', and 'Stakeholders'. Below the navigation, there is a banner image of two workers in hard hats and safety vests. A text overlay on the banner reads: 'Find out who is in the position to handle ISCC sustainable material'. Below the banner, the section is titled 'Valid certificates'. A sub-header reads: 'Below you can find a list of all valid ISCC certificates and statements of conformity'. Below this, there is a search bar and a table of certificates. The table has columns for Certificate, Certificate Holder, Scope, Raw Material, Add-Ons, Valid From, Valid Until, Issuing CB, Map, Certi..., and Audit Report. The table lists several certificates, including EU-ISCC-Cert-DE105-81706707, EU-ISCC-Cert-DE105-82391905, DE-B-BLE-BM-10-104-12301701, DE-B-BLE-BM-10-104-12301702, EU-ISCC-Cert-DE119-47172828, EU-ISCC-Cert-DE100-34042017, and EU-ISCC-Cert-DE105-85582101.

Certificate	Certificate Holder	Scope	Raw Material	Add-Ons**	Valid From	Valid Until	Issuing CB	Map	Certi...	Audit Report
EU-ISCC-Cert-DE105-81706707	COFCO International Romania SRL, Bucharest, Romania	FG, TRS	Corn, Sunflower, Rape ...		27.10.17	26.10.18	PCU			
EU-ISCC-Cert-DE105-82391905	Lyondell Chimie France SAS, Fos-sur-Mer Cedex, France	ET, TRS			24.10.17	23.10.18	PCU			
DE-B-BLE-BM-10-104-12301701	Louis Dreyfus Company Wittenberg, Lutherstadt Wittenberg, Germany	OM, BP	Rape/canola		23.10.17	22.10.18	GUTCert			
DE-B-BLE-BM-10-104-12301702	Louis Dreyfus Company Wittenberg, Lutherstadt Wittenberg, Germany	TR, WH			23.10.17	22.10.18	GUTCert			
EU-ISCC-Cert-DE119-47172828	Eco-1 Bioenergi AS, Oslo, Norway	TRS			22.10.17	21.10.18	ASG			
EU-ISCC-Cert-DE100-34042017	Living Fuels limited, Norfolk, United Kingdom	CP, TR	UCO		20.10.17	19.10.18	SGS			
EU-ISCC-Cert-DE105-85582101	Molinos Agro S.A., San Lorenzo, Argentina	BP, RE	Soybean		20.10.17	19.10.18	PCU			



Withdrawn and fake ISCC certificates are published as well as companies suspended from ISCC certification

ISCC
International Sustainability
& Carbon Certification

About Process **Certificates** Trainings & Events Stakeholders

Certificates · Suspended Companies

Find out who is in the position to handle ISCC sustainable material

Suspended companies

ISCC has suspended the operational units published in this section from using the ISCC system for the indicated period of time

A certification of the published operational units under ISCC is not possible for the period of suspension.

Companies that are suspended are also not allowed to handle sustainable material under ISCC as "dependent collecting point" or "dependent warehouse" for that duration of the suspension period.

Company name	Address	Suspended from	Suspended until
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Certificates

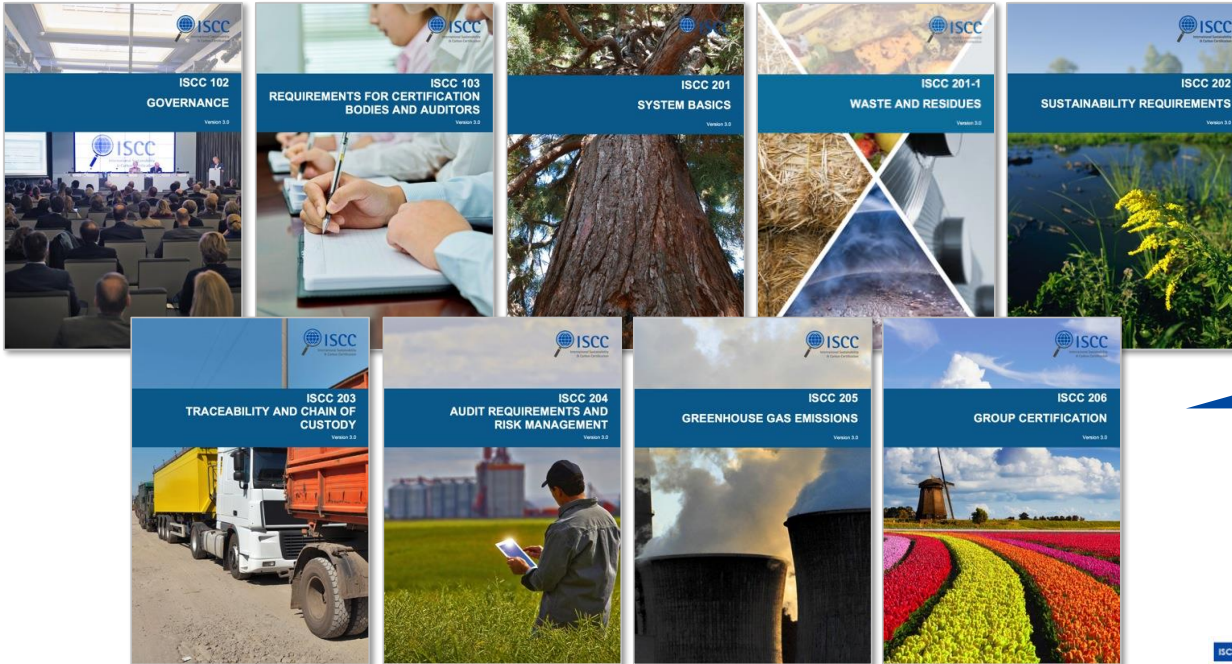
- All Certificates
- Valid Certificates
- Valid Certificates Map
- Withdrawn Certificates
- Fake Certificates
- Suspended Companies

Withdrawn certificates,
e.g. due to non-conformities

Fake certificates as reported to ISCC

Companies suspended from ISCC certification

ISCC System Documents and Audit Procedures to facilitate the audit process. All documents available on the ISCC website



ISCC System Documents:
Contain all relevant ISCC requirements

ISCC Audit Procedures:

- Document to be applied during the audit
- Contain detailed verification guidance for auditors and companies

ISCC
International Sustainability & Carbon Certification

ISCC EU Audit Procedure for Chain of Custody

No.	Chapter	Remarks	Risk level	Audit intensity
0.	Basic data			Not relevant
1.	Management system	Risk assessment according to ISCC 102 and 204		Not relevant
2.	Traceability	Within Chapters No. 2, 3 and 4 the risk of a flawed documentation has to be evaluated. The risk level determines the audit intensity.	High	The documents of three successive months should be checked completely.
3.	Mass Balance		Medium	The documents of one month should be checked completely and random samples should be taken from three successive months.
4.	Physical Segregation		Regular	Documents taken from random samples of three successive months should be checked.
5.	Greenhouse Gas Emissions			Not relevant
6.	Non-conformity list and action plan	Defined list of all points marked 'no' in the column 'Conformity'		Not relevant

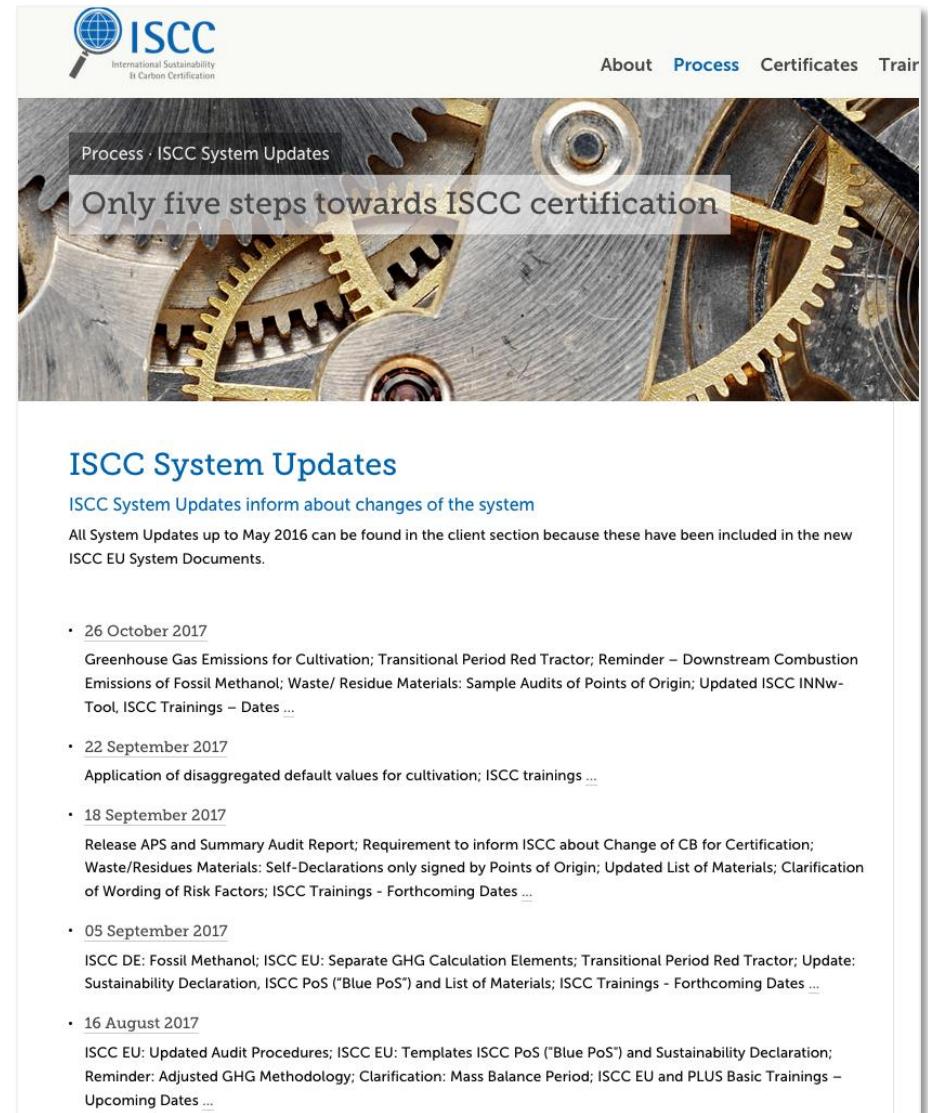
General guidelines:
This audit procedure includes six chapters, which shall be used by the auditor when conducting an audit. Each chapter includes sub-chapters some of which will not or only be partly relevant, depending on what type of operational unit is to be audited. Sub-chapter 1 consists of the general requirements, which apply to all types of operation. The risk of a flawed documentation will be evaluated in terms of risk levels high, medium and regular based on the procedure described at the end of chapter 3. The risk level will drive audit intensity. It is mandatory to mark under the category 'conformity' either the column 'yes' (conformity) or 'no' (non-conformity) of the chapter. In every case of 'no' the auditor has to explain his decision in column 'findings'. Every 'no' requires the definition of corrective measures in chapter 6. In order to make a reference to the non-compliant requirements, chapter number and reference number (column 1) shall be included in chapter 6. Major issues shall be implemented within 45 days. Implementation has to be verified by the auditor and is a prerequisite for issuance of the certificate. If the requirements are not fulfilled the certification body is obliged to send a copy of the audit report to ISCC without delay. For some requirements, the auditor is obliged to provide specific information into the column 'findings' specifying what has been verified during the audit. The guidance on the specific information as provided by ISCC must not be deleted from the audit report. In case of sample audits separate audit procedures have to be completed for each individual audit.

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ISCC EU Audit Procedure	Chain of Custody	Chapter No. 5:	Greenhouse Gas Emissions			
No.	Requirements	Verification guidance	Evidence/ Documents	Findings	Conformity	
					Yes	No
applied for ISCC	Verify whether the GHG information fits into the category from which the total default value was chosen and if total default value fulfils the required GHG emission savings. Especially relevant for:	Documentation of the GHG value. Compare value with the RED default values. Layout print. If relevant on-site verification, e.g.:	Documentation of the GHG value. Compare value with the RED values. Layout print. If relevant on-site verification:			
the in Annex y cities.	<ul style="list-style-type: none"> Non-EU com ethanol (no default available) Ethanol plants (availability of different total default values for different energy systems) Palm oil mills (use of total default value only possible if methane capture is in place) Total default value for biodiesel from soybean (does not reach minimum GHG saving requirements) 	<ul style="list-style-type: none"> Non-EU com ethanol (no default available) Ethanol plants (availability of different total default values for different energy systems) Palm oil mills (use of disaggregated default values for different energy systems) Palm oil mill (use of disaggregated default 	<ul style="list-style-type: none"> Palm oil mill: Methane capturing visible, no leakages visible, state of the art technology and maintenance proven by producer manuals, service reports etc. Ethanol plants: energy system 			
applied for segregated RED	If the company or its raw materials do not fulfil the requirements, the application of the total default value is not possible.	Verify that the statement "Use of disaggregated default value" is used separately for the relevant calculation formula elements. Verify whether the input material fits into the category from which the disaggregated default value was chosen. Especially relevant for:	Documentation of GHG value. Compare value with the RED values. Layout print. If relevant on-site verification:			
the nation, id of the D is	<ul style="list-style-type: none"> Non-EU com (no disaggregated default available) Ethanol plants (availability of different default values for different energy systems) Palm oil mill (use of disaggregated default 	<ul style="list-style-type: none"> Non-EU com (no disaggregated default available) Ethanol plants (availability of different default values for different energy systems) Palm oil mill (use of disaggregated default 	<ul style="list-style-type: none"> Eg. palm oil mill: Methane capturing visible, no leakages visible, state of the art technology and maintenance proven by producer manuals, service reports etc. 			

Regular ISCC System Updates with important information for certified companies and auditors

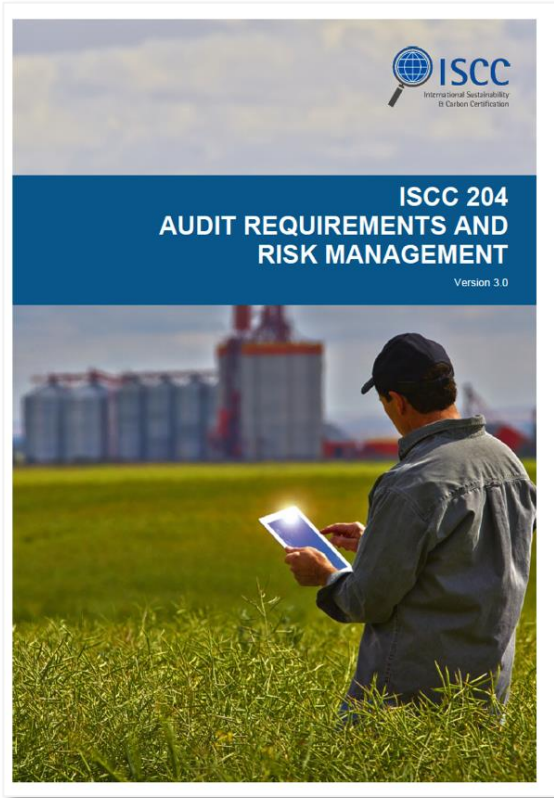
- System updates are sent out by ISCC via email in case of changes or important information regarding the ISCC system
- All companies registered with ISCC, auditors and certification bodies receive those updates
- All System Updates are also available on the ISCC website
- Updates are complementary to ISCC system documents and procedures, therefore they have to be strictly observed



The screenshot shows the ISCC website header with the logo and navigation links: About, Process, Certificates, Train. Below the header is a banner image of gears with the text "Process · ISCC System Updates" and "Only five steps towards ISCC certification". The main content area is titled "ISCC System Updates" and includes a sub-header "ISCC System Updates inform about changes of the system". A paragraph states: "All System Updates up to May 2016 can be found in the client section because these have been included in the new ISCC EU System Documents." A list of updates follows:

- 26 October 2017
Greenhouse Gas Emissions for Cultivation; Transitional Period Red Tractor; Reminder – Downstream Combustion Emissions of Fossil Methanol; Waste/ Residue Materials: Sample Audits of Points of Origin; Updated ISCC INNw-Tool, ISCC Trainings – Dates ...
- 22 September 2017
Application of disaggregated default values for cultivation; ISCC trainings ...
- 18 September 2017
Release APS and Summary Audit Report; Requirement to inform ISCC about Change of CB for Certification; Waste/Residues Materials: Self-Declarations only signed by Points of Origin; Updated List of Materials; Clarification of Wording of Risk Factors; ISCC Trainings - Forthcoming Dates ...
- 05 September 2017
ISCC DE: Fossil Methanol; ISCC EU: Separate GHG Calculation Elements; Transitional Period Red Tractor; Update: Sustainability Declaration, ISCC PoS ("Blue PoS") and List of Materials; ISCC Trainings - Forthcoming Dates ...
- 16 August 2017
ISCC EU: Updated Audit Procedures; ISCC EU: Templates ISCC PoS ("Blue PoS") and Sustainability Declaration; Reminder: Adjusted GHG Methodology; Clarification: Mass Balance Period; ISCC EU and PLUS Basic Trainings – Upcoming Dates ...

ISCC provides detailed information on risk indicators for the waste/residue certification process



General Risk Indicators (extract)

- Determination, structuring, organisation and documentation of the **number of work flows** and their complexity (in-house processes)
- Number, structuring, organization, expertise, management, involvement and controlling of the **subcontractors and external service providers**
- **In-house quality management system**, internal audits (structure and documentation)
- **Transparency** (public reporting, involvement of local interest groups, independent audits, social, environmental and economical aspects of sustainability)
- Mechanisms for **conflict resolution** established independently, documented and implemented
- Management of **conflicts of interests and corruption prevention**

Risk Indicators for Waste and Residues

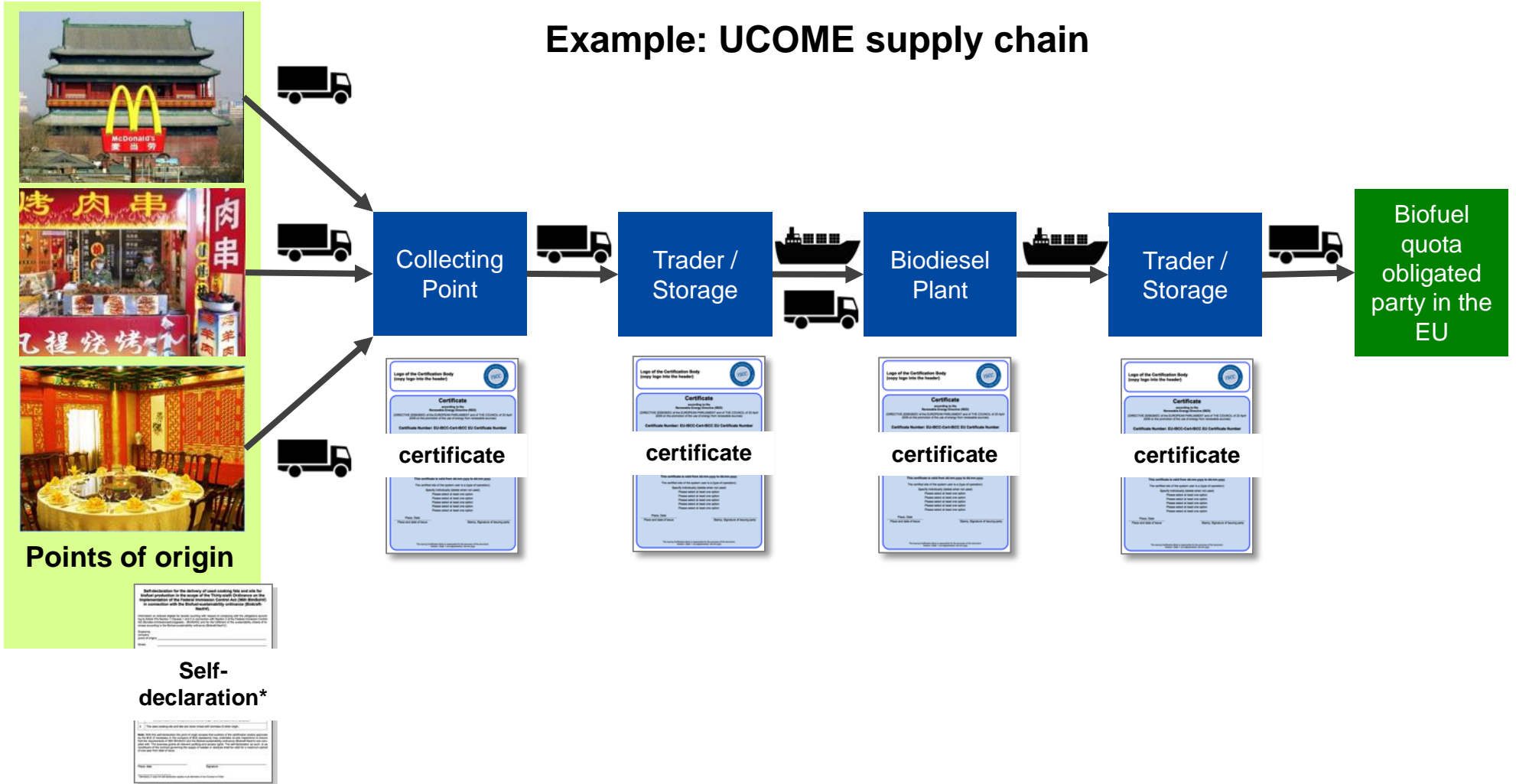
- **Type** of point of origin (e.g. restaurant, processing plant, landfill, etc.)
- **Size** of point of origin and amount of waste/residue material generated per month (high amounts of waste/residues may indicate a higher risk of non-conformity or fraud)
- **Status** of the material (genuine waste/residue) and acceptance or recognition by relevant authorities
- **Declaration** or labelling of the material (e.g. according to official waste catalogues or waste codes)
- Risk of **intentional “production”** of waste or residues
- Risk of **intentional modification** of products to be declared or claimed as waste or residues

ISCC certification and risk assessment approach is in line with the requirements set by the EC

- The European Commission defined guidelines for verification of the chain of custody of biofuels made from waste and processing residues
- Core guidelines are:
 - Coverage of **whole chain of custody** starting with the point of origin
 - Economic operators have to be **certified individually** (for points of origin group auditing approaches may apply)
 - Frequency and intensity of audit process has to **reflect level of risk**

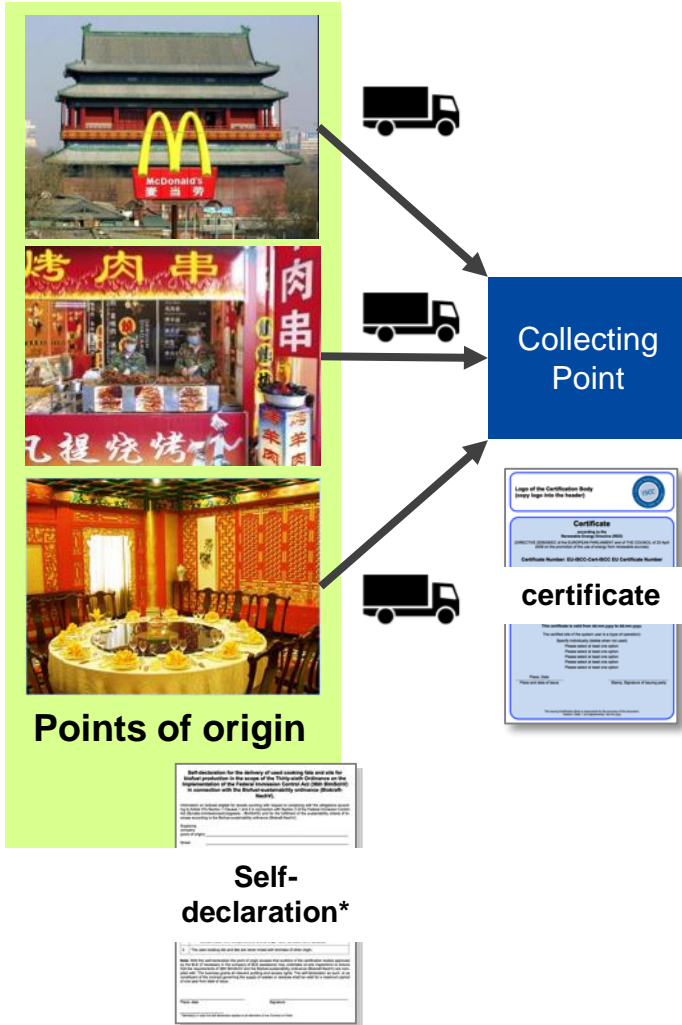
ISCC certified supply chain for waste and residues

Example: UCOME supply chain



* Individual or group certification possible on a voluntary basis

Audit of points of origins is conducted on a risk-based approach



- Points of Origins (PoO) are covered by the certification of the Collecting Point
 - List of all supplying PoOs and signed self-declarations must be available
 - **Risk-based approach** to audit PoOs:
 - **Small PoO** ($\leq 10\text{mt/months}$, e.g. restaurants):
 - **Low risk** of fraud assumed
 - **No one-site audit** required
 - **Large PoO** ($> 10\text{mt/months}$, e.g. food processing companies, rendering plants, refineries):
 - **Higher risk** of fraud assumed
 - **On-site audit** at a (risk-based) sample of PoO
- ➔ In case of indication of non-conformity or fraud the auditor is always entitled to conduct on-site audits at points of origin

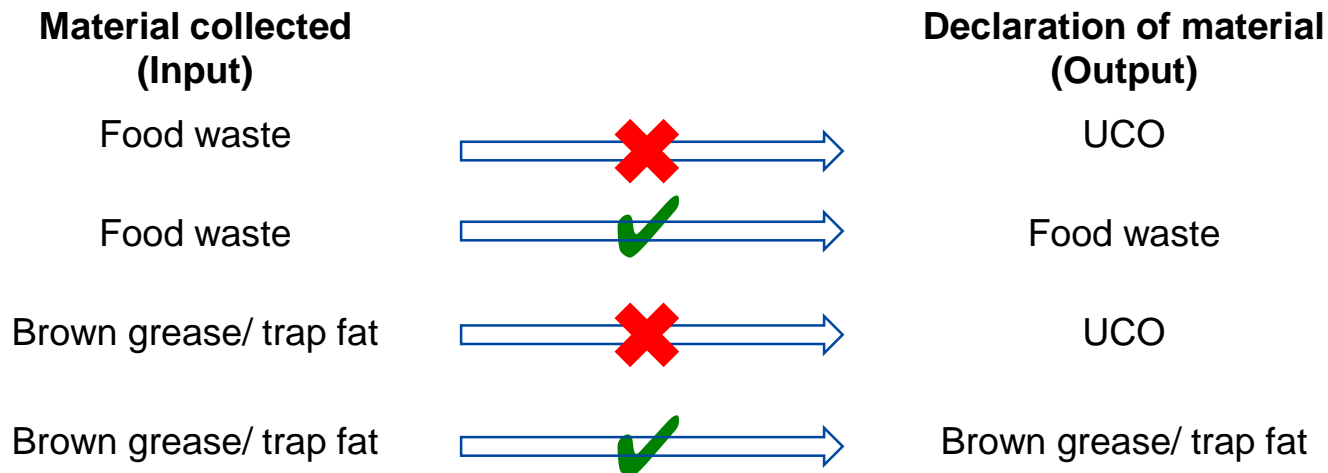
* Individual or group certification possible on a voluntary basis

Challenges for the certification of waste/residues (I) – Intentional production or modification

- Risk of **intentional production** or **modification** of actual products to count as waste if value of the material if sold as a product is lower than value waste or residue
 - Production process was modified to influence the amount, quality and/or technical specifications of a material
 - Classification as (co)-product, not waste/residue
 - Declaring fresh oil as UCO, or spoiling fresh oil with waste oil
 - Fraudulent behaviour
 - Adding water to UCO (only share of UCO is regarded as w/r)

Challenges for the certification of waste/residues (II) – Declaration of waste/residue material as UCO

- **Acceptance** or recognition of material as waste/residues by EU Member States:
 - UCO is widely recognized by EU Member States as waste/residue
 - Other materials may be classified differently by Member States (e.g. brown grease/trap fat is only recognised as w/r by some Member States)
- **Re-labelling** of waste/residues (e.g. food waste or fatty acids) to UCO is not allowed under ISCC
 - Definition of UCO under ISCC: “Oil that has been used to cook food for human consumption”
 - Other types of waste/residues must not be declared as UCO as they do not match the definition



Challenges for the certification of waste/residues (III) – Determination of GHG emissions

- Different options for producers to provide the GHG emission information under ISCC:

1. Total default values*

2. Disaggregated default values*

3. Individually calculated values (actual values)

4. Combination of disaggregated default values and actual values

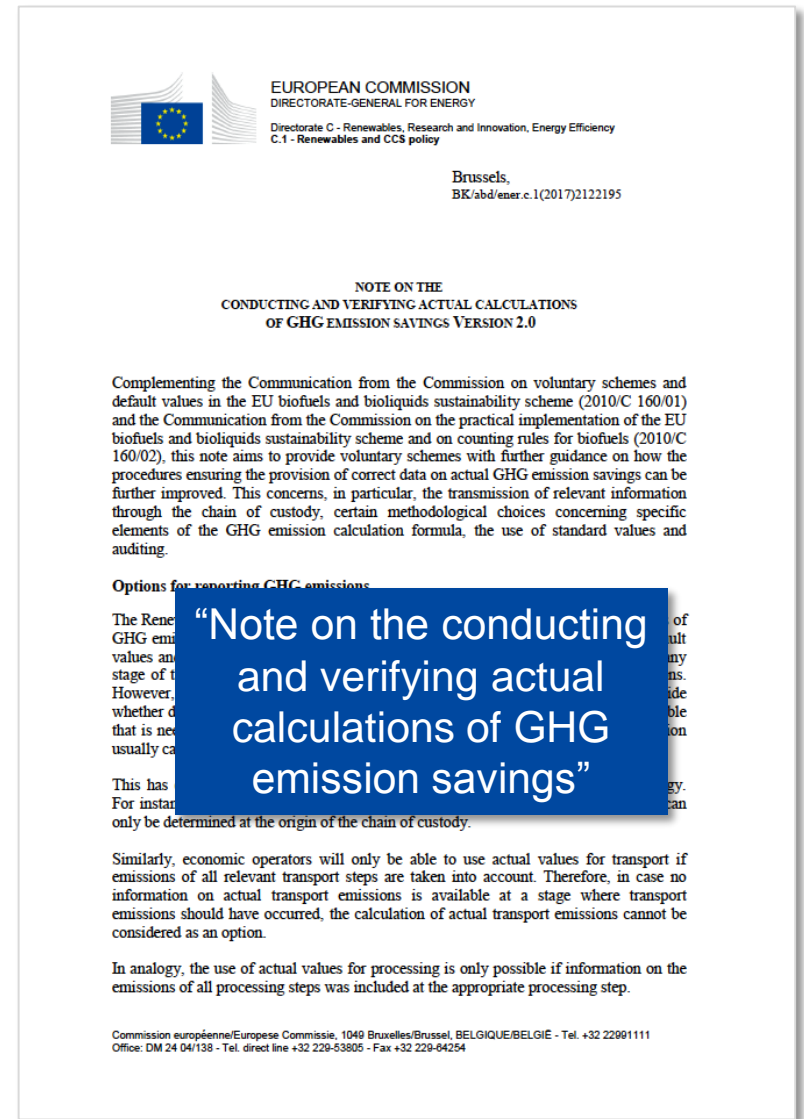
- Challenge: RED does not provide (disaggregated) default values for all w/r materials
- No default values are available, e.g. for crude glycerine or animal fat cat. 3
 - For those materials individual GHG calculations have to be conducted along the supply chain (starting at the collecting point)

* Values according to annex V of the Renewable Energy Directive (RED)

Challenges for the certification of waste/residues (IV) – Emission factors of methanol for biodiesel production

- For the production of biodiesel the combustion emissions of fossil methanol have to be taken into account to calculate the GHG emissions
- This is based on an official communication from the European Commission to all recognised certification schemes
- New (higher) emission factors for methanol have to be applied*
- Application since 1 September 2017
- Challenge: If new emission factors are not applied:
 - This is an infringement of the requirements for GHG calculations
 - This would lead to unjustified low GHG values for biodiesel

* See ISCC website for further information



Conclusions for suppliers of waste/residues based feedstocks and biofuels from China and the region

- ISCC provides a well established **certification process for waste/residues**
- This certification process is **recognised by the European Commission**, and feedstocks and biofuels certified under ISCC can be delivered into EU biofuel markets
- ISCC provides many **measures and tools to ensure the integrity** of the certification system
- Companies have to **verify the validity** of suppliers' certificates on the ISCC website
- The **determination of collecting point** is important to correctly set up the supply chain
- Suppliers have to **carefully assess the target market** in the EU to ensure that waste/residue material is accepted
- **New methanol emission factors** have to be taken into account to ensure a level playing field for all producers of biodiesel

Many thanks for your attention!



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