Latest Developments of ISCC

Prof Gernot Klepper, ISCC e.V.
Dr Norbert Schmitz, Managing Director, ISCC System GmbH
9th ISCC Global Sustainability Conference, Brussels, 14 February 2019
Voluntary and mandatory sustainability requirements in different markets can be addressed with ISCC EU and ISCC PLUS.
Further increase of number of ISCC certificates in the past year. Currently, nearly 3,400 companies with valid ISCC certificates.

The 20,000th ISCC certificate was issued in December 2018.

3,380+ valid ISCC certificates*

+ 6% ISCC certificates*

+ 24% ISCC PLUS certificates*

+ 6% ISCC EU certificates*

* Numbers as of 1 February 2019. Development in comparison to February 2018.
The EU remains the most important market for ISCC

Valid certificates by region*

- EU (65 %)
- Rest of Europe (5 %)
- Asia (22 %)
- Latin America (4 %)
- North America (3 %)
- Africa (1 %)
- Australia (0 %)

Top ten countries in the EU*

- Spain (13 %)
- Others (27 %)
- Hungary (9 %)
- Italy (8 %)
- Czech Republic (7 %)
- Netherlands (6 %)
- Romania (6 %)
- United Kingdom (6 %)
- Germany (5 %)
- Greece (5 %)
- France (4 %)

*Numbers as of 1 February 2019
After issuing the first ISCC certificates for biomethane producers in 2016, the number of certificates grows rapidly.

**ISCC certificates: Biomethane producers in DK, NL, UK, SWE, FIN, USA**

<table>
<thead>
<tr>
<th>Year</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>6</td>
</tr>
<tr>
<td>2017</td>
<td>19</td>
</tr>
<tr>
<td>2018</td>
<td>36</td>
</tr>
<tr>
<td>2019*</td>
<td>50</td>
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* Forecast
A major achievement has been the recognition of ISCC by the Japanese Government for the sustainability verification of imported biofuels

- The recognition of ISCC PLUS was announced by the Japanese Ministry of Trade and Industry (METI) in the framework of presenting the **new biofuel mandate for Japan for 2018 – 2022**

- ISCC PLUS is recognised since April 2018 to **verify compliance with sustainability requirements** for biofuels in the Japanese biofuels market

- Japanese biofuels market now also open for **U.S. corn-based ethanol** (previously, only **Brazilian sugarcane-based ethanol** allowed)

- ISCC **Guidance Document** for Deliveries of Biofuels to Japan available

- ISCC already recognized by **Queensland / Australia** since 2017

- Recognized by the **Netherlands** for the proof of Non-Modification of waste and processing residues (Annex IX feedstock) retroactive since 1 January 2019

- **Increasing interest by Governments** implementing clean fuel standards / low carbon standards in RED methodology and verification mechanisms (e.g. Canada, California, Colombia)
ISCC is active in the aviation sector to support sustainable alternative jet fuels

- ISCC is active member of the EU delegation to ICAO / CORSIA AFTF working group. CORSIA is the Carbon Offsetting and Reduction Scheme for International Aviation

- ISCC is involved in a scientific project analysing reporting requirements in supply chains of multi-blends of fossil and alternative jet fuels

- ISCC has been recognized by the Aviation Initiative for Renewable Energy in Germany (aireg) since 2014

- IATA (International Air Transport Association) joined the ISCC Association in November 2018

- Lufthansa has already used ISCC for test flights with alternative jet fuels
The RED II sets the framework for biofuels and biomass in the next decade

- Article 29 of REDII introduces **reinforced EU sustainability criteria** that cover not only biofuels but also, **biomass and biogas** for heating/cooling and electricity generation

- **New mandatory sustainability criteria** for solid biomass from forests, such as wood pellets or other forestry materials

- New sustainability criteria for **agriculture waste and residues**, requiring evidence of the protection of soil quality and soil carbon

- Several **Delegated Acts / Implementing Acts** by the European Commission necessary
  - **Low/high ILUC risk biofuels**
    - High iLUC biofuels are produced from feedstocks which have a significant production expansion into areas with high carbon stocks
    - Low iLUC feedstocks are produced with schemes avoiding displacement effects of food and feed crops
  - **GHG methodology** for renewable fuels of non-biological origin and recycled carbon fuels
  - **Co-processing**

- New Greenhouse Gas (GHG) Emission saving **thresholds** and new **fossil fuel comparator**

- **Update** of Annex IX

- **Transposition** of the Directive by the EU Member States is due by **30 June 2021**
New categories in the RED II will require sustainability certification – ISCC is prepared to cover these new categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
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<tbody>
<tr>
<td>Advanced biofuels</td>
<td>- Annex IX, Part A of RED II</td>
</tr>
<tr>
<td>High iLUC risk biofuels</td>
<td>- Draft Delegated Act published by COM in Feb 2019</td>
</tr>
<tr>
<td>Low iLUC risk biofuels</td>
<td></td>
</tr>
<tr>
<td>Renewable fuels of non-biological origin</td>
<td>- E.g. hydrogen</td>
</tr>
<tr>
<td>Recycled carbon fuels</td>
<td>- Fuels produced from e.g. plastics, waste processing gases, exhaust gases</td>
</tr>
</tbody>
</table>
ISCC has set up a Technical Stakeholder Committee Meeting “Waste, Residues and Advanced Low Carbon Fuels”

- Stakeholder discussions and working groups with the objective to support the development and deployment of low carbon fuels

- It aims to resolve immediate, practical problems and demands and contributes to shaping the future for low carbon fuels in the global transport sector (road, aviation, rail, maritime) and for industrial use

- Focus on
  - Waste and processing residues based fuels (advanced biofuels Annex IX, Part A; Part B feedstocks)
  - Renewable fuels of non-biological origin
  - Recycled carbon fuels

- Initial Meeting in July 2018 in Shanghai. Next meeting in Shanghai on 2 July 2019

- Further information and registration on the ISCC website

Co-Chair/Deputy Chair Europe/Americas:
Mr Michael Fiedler-Panajotopoulos (REG Germany, Co-Chair)
Mr Patrick Lynch (Greenenergy Fuels, Deputy Chair)

Co-Chair/Deputy Chair Asia:
Mr Dannis Poon (ECO Environmental Investments Limited, Co-Chair)
Ms Yau Woon Lee (Neste Singapore, Deputy Chair)
Implementation of an ISCC certification approach for independent smallholders

- ISCC active in the smallholder sector already for many years and has developed an approach for Independent Smallholder (ISH) certification

- Approach enables ISH to increase their productivity and income without further pressure on land to increase agricultural activities

- Specific training for ISH approach available
  - Online training available auditors and master trainers
  - Target group: Company representatives, certification bodies/auditors, NGO’s, research bodies/authorities

- Smallholder option in draft high ILUC Delegated Act
Strong increase in ISCC PLUS certification and on-product claims
Major companies in chemical and packaging industries use ISCC PLUS for bio-based materials and circular economy.
ISCC provides solutions for credible certification for a sustainable bioeconomy and circular economy

Examples

Source: Adopted, European Bioplastics, Nijhuis Industries
Reliability is key for sustainability certification

**Issues raised in the market**
- Incorrect GHG values used
- False declaration of raw materials particularly for waste and residues
- Non-compliance with mass balance requirements
- Traceability issues (e.g. deliveries cannot be fully traced back to their origin)

**Actions taken by ISCC**
- 66 independent on-site integrity audits in 2018
- Verification of land use change with remote sensing technologies
- Additional desk audits to verify GHG calculations
- Monitoring reports from authorities e.g. on low GHG values
- Communication in System Updates, CB meetings, ISCC trainings, stakeholder meetings, etc.
- Enforcement of consequences for companies (currently 14 companies suspended from re-certification for up to 60 months)
- Enforcement of consequences for CBs and Auditors (yellow cards, red cards, suspension for conducting ISCC audits)
ISCC uses GRAS to facilitate risk assessment and to verify land use change (compliance with ISCC Principle 1) in its integrity program

www.gras-system.org
The use of remote sensing data supports the verification process providing additional information (e.g. LUC); Technology can be used to verify low ILUC feedstock.
ISCC is partner of the Food Security Standard (FSS) Project by WWF, Welthungerhilfe and Center for Development Research

FSS | PROJECT

- **Human Right to Adequate Food** as a new building block for sustainability standards
- Practicable and measurable food security criteria
- **Pilot tests** and feedback to the project, the developed standard and checklist by ISCC, its system users and auditors

www.iscc-system.org/about/food-security/
The ISCC Impact Assessment Report 2018 will be published end of February 2019

- Critical review of what has been achieved, and what is the impact on the ground
- Definition of the ISCC Theory of Change
- Gathering of data about impact is challenging
- Assessment includes sample data taken from audit reports and a survey with certification bodies
- Improvements in the ISCC system will provide more digitally accessible data about impact
- Continuous improvement process with involvement of stakeholders
- ISCC will report about impact on a regular basis in the future
ISCC strives to enable economic and social benefits without compromising the environment through a sustainable and efficient management of natural resources.

<table>
<thead>
<tr>
<th>Intended Impacts</th>
<th>Long-Term Outcomes</th>
<th>Intermediate and Long-Term Outcomes</th>
</tr>
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<tbody>
<tr>
<td><strong>Environmental Impact</strong></td>
<td>Sustainable use of soil, water and air resources</td>
<td><strong>Reduced GHG emissions</strong></td>
</tr>
<tr>
<td><strong>Social Impact</strong></td>
<td>Secure human, labor and traditional land rights</td>
<td><strong>Increased transparency and awareness on a global scale</strong></td>
</tr>
<tr>
<td><strong>Economic Impact</strong></td>
<td>Increased efficiency and transparency along the supply chain</td>
<td><strong>Calculation of GHG emissions throughout the supply chain</strong></td>
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</tbody>
</table>

**Strategies**

- Participatory approach for independent smallholder groups
- Transparent certification of sustainable practices
- Integrity and training programs for credible verification
- Continuous monitoring and improvement through multi-stakeholder dialogue
- Calculation of GHG emissions throughout the supply chain

**Intermediate Outcomes**

- Sustainable and efficient small-scale production
- Enhanced knowledge and capacity among producers
- Improved working and living conditions for employees
- Sustainable management of natural resources and ecosystems
- No land use change after January 1, 2008

**Outputs**

- Smallholder integration and capacity building:
  - Implementation of sustainable practices on the ground
  - Clear distinction between sustainable and unsustainable practices
  - Improved transparency and traceability of global supply chains
  - Increased awareness of GHG emissions across industries

**Vision**

- Environmentally, socially and economically sustainable production and use of biomass and other raw materials, and of the products derived from such raw materials.

**Strategies**

- Participatory approach for independent smallholder groups
- Transparent certification of sustainable practices
- Integrity and training programs for credible verification
- Continuous monitoring and improvement through multi-stakeholder dialogue
- Calculation of GHG emissions throughout the supply chain
ISCC puts major emphasis on global and regional stakeholder dialogue for the continuous development and enhancement of the system standard
Impact in supply chains: From virtual GHG savings to GHG abatement investments and real GHG emission reductions

Grandfathering clause

NUTS 2 values / Disaggregated default value for cultivation

Actual calculation of farms / plantations; Third country reports

Investments into GHG abatement technology

Use of default values

Actual calculation processing emissions; Detection of core impact and improvement potentials
ISCC data shows a reduction in processing emissions and an increase in the use of actual values, indicating an increased awareness among System Users.

**Sum of GHG Processing Emissions per t**

Example Biodiesel Supply Chain

- 15% reduction in GHG processing emissions

**GHG Calculation based on Actual Values**

Number of Issued Certificates

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
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<tbody>
<tr>
<td>Count</td>
<td>600</td>
<td>800</td>
<td>1000</td>
<td>1200</td>
</tr>
</tbody>
</table>
Stakeholders are represented in the ISCC association which is steering the system operations. The association is open to new members.
22 new member joined the ISCC Association in the last twelve months
Many thanks for your attention!

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