The RSB ICAO CORSIA Sustainability Framework

ICAO AND ECAC JOINT INFORMATION SEMINAR ON CORSIA ELIGIBLE FUELS

9 March 2022

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Agenda

- Introduction to the RSB

- RSB ICAO CORSIA

  - Options & requirements

- Implementation of Sustainability Requirements

- GHG LCA

- Chain of Custody Certification

  - Mass Balance and Book & Claim

Elena Schmidt
Executive Director
RSB

Driven by urgent need for systemic transformation

Current scenario

Ideal scenario

1 Negative environmental impact

Climate change

Unsustainable production practices

Increasing use of finite resources

▶ Environmentally sustainable

1.5℃ warming cap achieved & net zero emissions

Sustainable approach

Fossil fuel left in the ground

2 Negative social impact

Unsustainable livelihoods

Food insecurity

Water insecurity

▶ Socially sustainable

Human & labour rights guaranteed

Global nutrition assured

Global water access assured

3 Extractive approach to resources

Exploitation of natural resources

Linear approach

Waste creation

▶ Bio-based and circular resource use
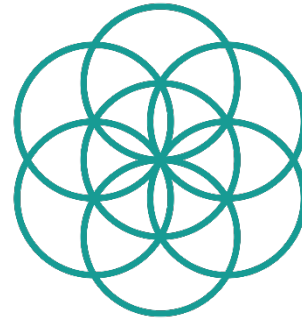
Productive ecosystems

Maximum circularity

Global nutrition assured

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An impact alliance

OUR VISION

We envision the transformation to a circular and bio-based economy contributing to climate change mitigation, the restoration of ecosystems, and enhancement of livelihoods.

OUR MISSION

RSB equips global industry, policy makers and other stakeholders to overcome existing barriers and drive the transition to a bio-based and circular economy with positive impacts for people and the environment.

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What we do

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RSB's vision

We envision the transformation to a circular and bio-based economy contributing to climate change mitigation, the restoration of ecosystems, and enhancement of livelihoods.
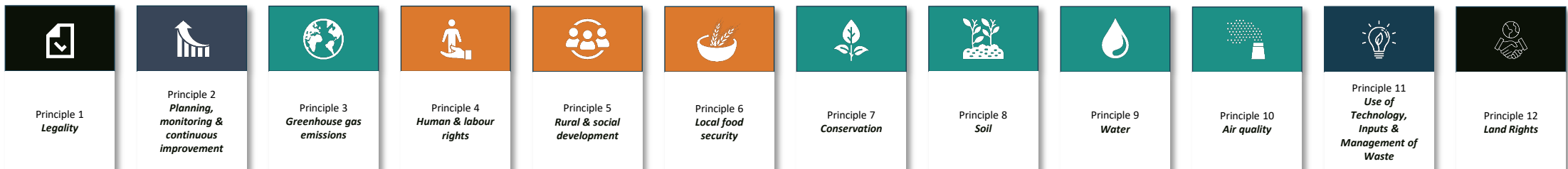
CONVENING
Advancing innovation

IMPLEMENTATION
Guiding sustainability implementation

CERTIFICATION
Ensuring scale-up of positive Impacts

CORSIA

Foundational framework
12 Principles and Criteria

Principle 1
Legality

Principle 2
Planning, monitoring & continuous improvement

Principle 3
Greenhouse gas emissions

Principle 4
Human & labour rights

Principle 5
Rural & social development

Principle 6
Local food security

Principle 7
Conservation

Principle 8
Soil

Principle 9
Water

Principle 10
Air quality

Principle 11
Use of Technology, Inputs & Management of Waste

Principle 12
Land Rights

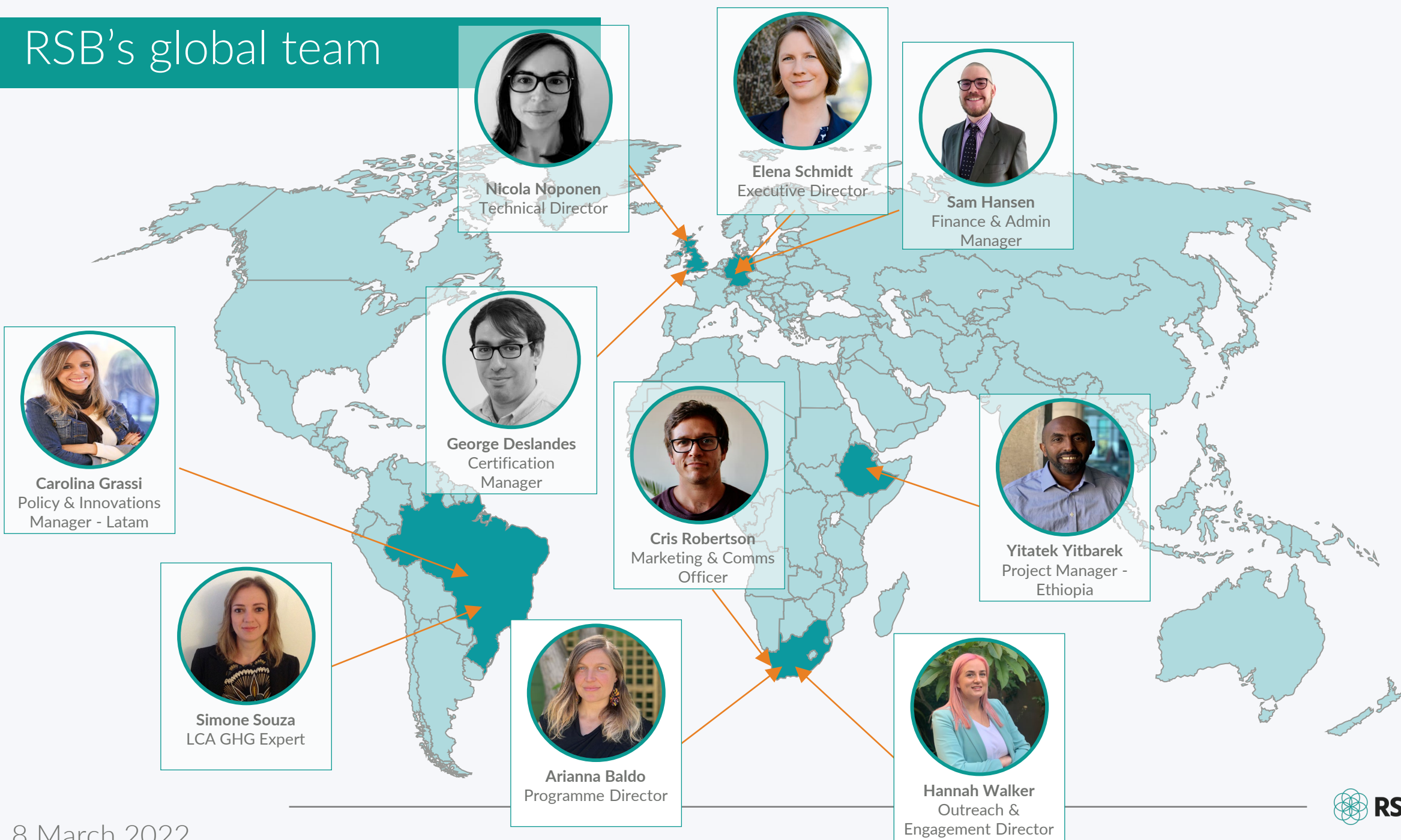RSB member platforms relevant to SAF
- SAF Policy Platform
- PtX working group
- Airports Platform

RSB's global team

Nicola Noponen
Technical Director

Elena Schmidt
Executive Director

Sam Hansen
Finance & Admin
Manager

George Deslandes
Certification
Manager

Carolina Grassi
Policy & Innovations
Manager - Latam

Cris Robertson
Marketing & Comms
Officer

Yitatek Yitbarek
Project Manager -
Ethiopia

Simone Souza
LCA GHG Expert

Arianna Baldo
Programme Director

Hannah Walker
Outreach &
Engagement Director

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RSB ICAO CORSIA

Overview of options and requirements

- The RSB ICAO CORSIA Standard [RSB-STD-12-001] specifies requirements for operators along the *Sustainable Aviation Fuel* (SAF) supply chain to produce SAF eligible under CORSIA.

- This scheme is globally applicable for operators producing, processing and trading feedstock, intermediates or SAF

Certification options

1. Certification of CORSIA eligible SAF:

This certification comprises the sustainability criteria as approved by the ICAO Council.

2. Certification of RSB compliant CORSIA eligible SAF:

This certification comprises the sustainability criteria as approved by the ICAO Council plus the RSB Principles and Criteria.

Key difference: sustainability criteria covered

Other requirements (e.g. traceability, calculating actual life cycle emission values, auditing procedures) are same for both options.

Certification key requirements

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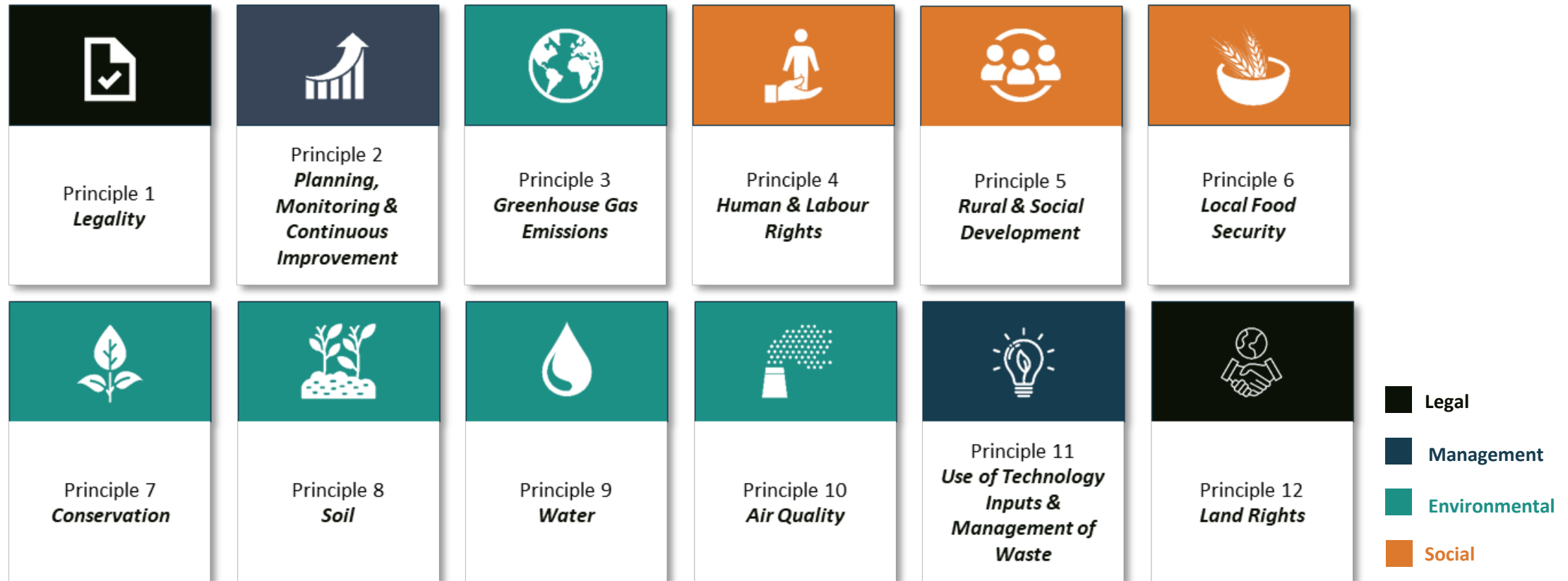| Type of operator	Sustainability Requirements (RSB's P&C)	Chain of Custody	GHG emissions
Biomass producer (e.g. farm that supplies biomass like sugar cane)	✓	✓	✓
Point of Origin (e.g. farm / mill that supplies waste biomass like agricultural residues, UCO or crude tall oil)	Waste feedstock-specific requirements, if any	✓	
Industrial operator (e.g. company that processes feedstock into products, like oil processors or SAF refineries)	✓	✓	✓
Trader (e.g. companies buying and selling feedstock, intermediate or finished products, distributors)		✓	✓

Sustainability requirements

RSB principles & criteria

Principle 1 *Legality*	
Principle 2 *Planning, Monitoring & Continuous Improvement*	
Principle 3 *Greenhouse Gas Emissions*	
Principle 4 *Human & Labour Rights*	
Principle 5 *Rural & Social Development*	
Principle 6 *Local Food Security*	
Principle 7 *Conservation*	
Principle 8 *Soil*	
Principle 9 *Water*	
Principle 10 *Air Quality*	
Principle 11 *Use of Technology Inputs & Management of Waste*	
Principle 12 *Land Rights*	

Legal

Management

Environmental

Social

RSB Principles and Criteria shall apply to any **primary biomass producer** (e.g. oil crop farm) and **industrial operator** (e.g. SAF producer) along the supply chain.

RSB Certification already covers 10 additional environmental and socio-economic themes

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Risk-based approach

Risk category (Risk assessment tool)	- Defines the certificate validity - Defines audit types and intensity: on-site or remote, and sampling
RSB screening tool	- Identifies sustainability issues relevant for the operations - Indicates the audit team composition
Waste/residues	- Considers the impact per category of materials - Defines requirements to address specific risks
RSB regional indicators	- Covers existing regulatory context - Consider tools/standards already used in a region
Collaboration	- Benchmarks with other standards - Combined audits

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Risk-based approach

RSB certification uses a **risk-based approach**.
This aims to focus on relevant topics and decrease burden for low-risk feedstocks and operations.

Key elements:

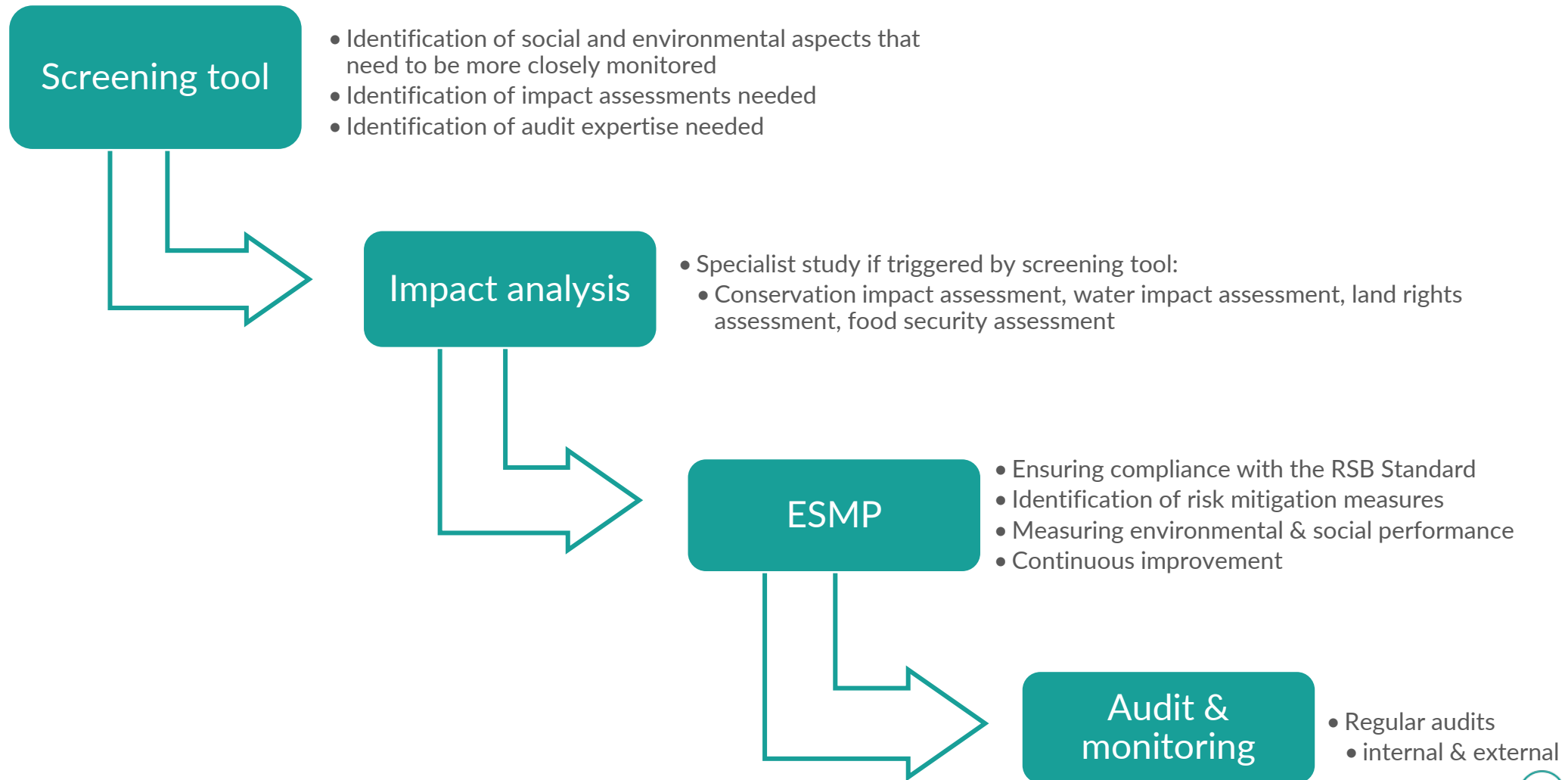| Screening tool	Risk assessment
Scoping exercises that helps identify: • **Which RSB principles & criteria are applicable** to the operator's certification scope and that will need to be included in the certification • Whether **specialised impact assessments** must be conducted for serious sustainability risks	Excel-based risk assessment tool that helps identify: • **Operator risk level** (high, medium, low) based on socioeconomic context, legal/judiciary issues, complexity of supply chain • The risk level informs the frequency and intensity of RSB audits (high = physical audit every 2 years, medium = 3 years, low = 5 years)

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RSB risk-based approach
Screening tool

Screening tool
- Identification of social and environmental aspects that need to be more closely monitored
- Identification of impact assessments needed
- Identification of audit expertise needed

Impact analysis
- Specialist study if triggered by screening tool:
  - Conservation impact assessment, water impact assessment, land rights assessment, food security assessment

ESMP
- Ensuring compliance with the RSB Standard
- Identification of risk mitigation measures
- Measuring environmental & social performance
- Continuous improvement

Audit & monitoring
- Regular audits
  - internal & external

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Risk assessment tool

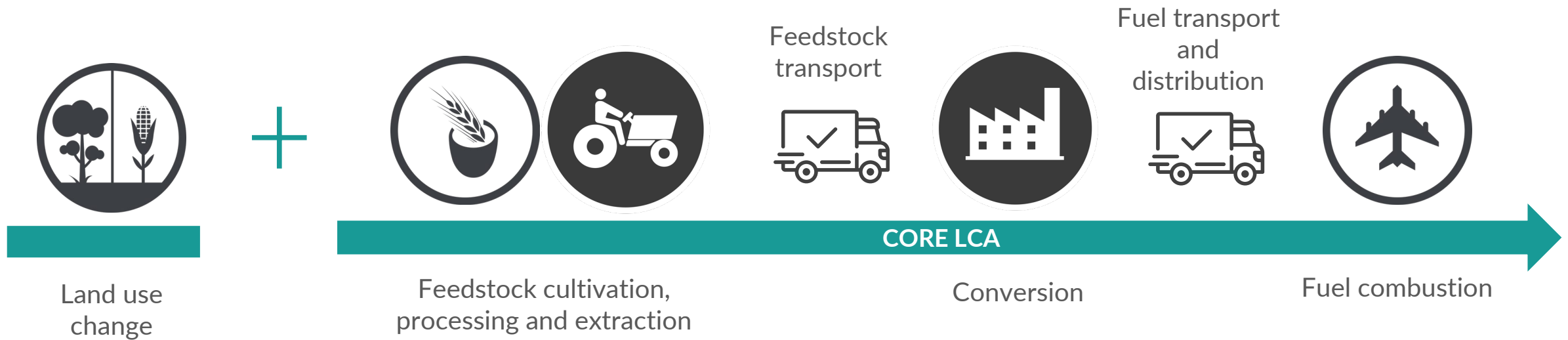Used for identifying and evaluating the relevant risks for an operator in the context of the RSB certification system.

Certification & legal	**Management system**	**Supply chain**	**Governance**	**Environment**	**Labour & social**
☐ Suspensions	☐ Internal auditing	☐ Complexity	☐ Voice & accountability	☐ Deforestation risk	☐ Strikes
☐ Legal actions	☐ Data processing & procurement management	☐ Oversight	☐ Political stability	☐ Water stress	☐ Migrant workers
☐ Grievances		☐ Multiple certification systems	☐ Corruption		☐ Safety performance

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GHG LCA

GHG system boundaries

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Feedstock transport

Fuel transport and distribution

CORE LCA

Land use change

Feedstock cultivation, processing and extraction

Conversion

Fuel combustion

✓ The **core LCA** value can be determined either on the basis of **default values** or on the basis of calculated **actual LCA values**.

✓ The **ILUC** value must be determined on the basis of **default values**.

✓ The **DLUC** value must be determined on the basis of **context specifics**, in line with the RSB methodology for land use changes.

RSB GHG tool

- Excel-based calculator

- Embeds all GHG methodologies
  - RSB Global, EU RED & CORSIA

- Simple navigation to move between supply chain steps

- Instruction notes built into the tool
  - no user manual needed

- Includes emissions factors from Ecoinvent & Biograce
  - can be overwritten with actual values (to be verified by auditors)
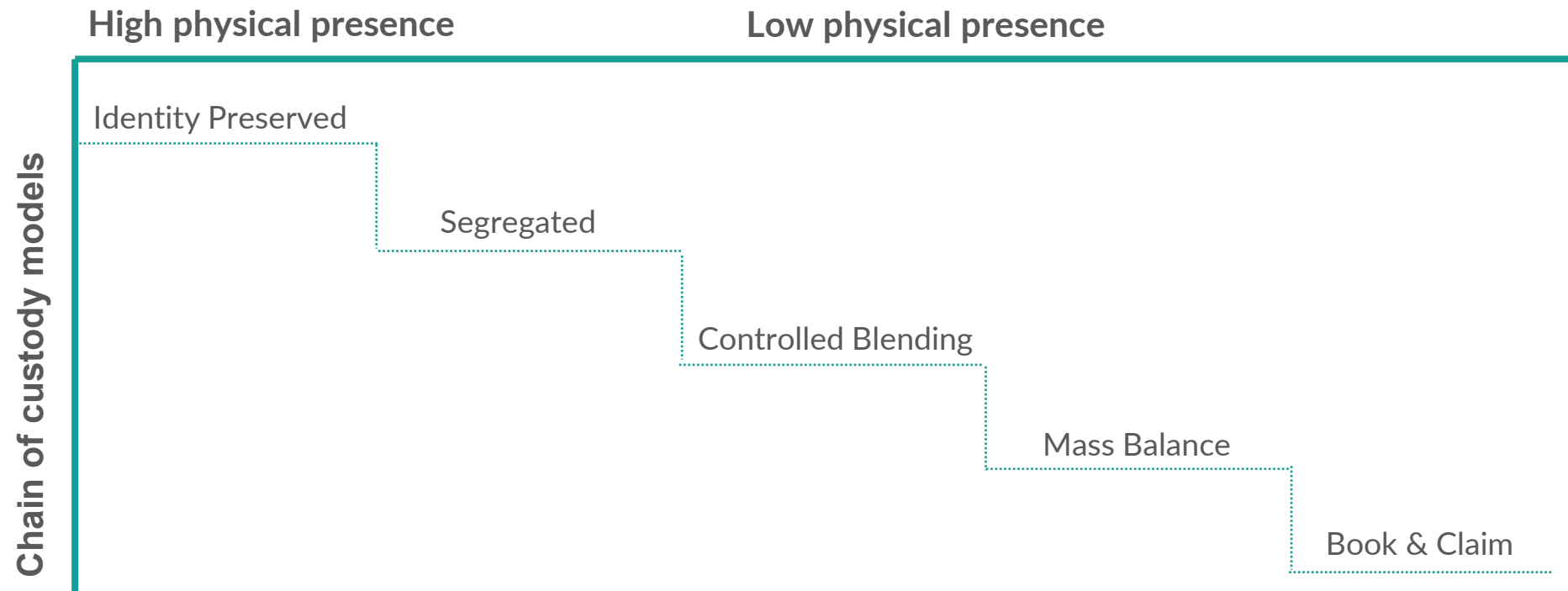

Greenhouse Gas Calculator Tool
Roundtable on Sustainable Biomaterials (RSB)

Version: 2.12

Instructions → User Details → Feedstock Cultivation → Transport, Blending & Storage 1 → Processing/Production 1 → Transport, Blending & Storage 2 → RSB & EU RED Results

Land Use Change

Processing/Production 2 | Transport, Blending & Storage 3 | CORSIA Results

Soil Carbon Accumulation

Processing/Production 3

Note: Click on the respective components of the above "flow diagram" to navigate to the relevant section.
The supply chain depicted above is an example supply chain. You can model your specific supply chain in the "Results" section.

Anyone applying for RSB certification is required to demonstrate a minimum 50% reduction of GHG from fossil fuels, or 60% if they are a new installation.
This tool is available to alternative fuel producers, processors, and all other parts of the supply chain.
The GHG calculator enables you to see easily whether you meet the RSB minimum 50%-60% reduction of GHG from fossil fuels.

Home	**ABOUT US**	**CONTACT US**
Community	The RSB offers trusted, credible tools and solutions for sustainability & biomaterials certification that mitigate business risk, fuel the bioeconomy and contribute to the UN Sustainable Development Goals in order to enable the protection of ecosystems and the promotion of food security.	Impact Hub Geneva, Rue Fendt 1, 1201 Geneva | Switzerland
RSB Standard		+41 22 534 90 50
Certification		info@rsb.org

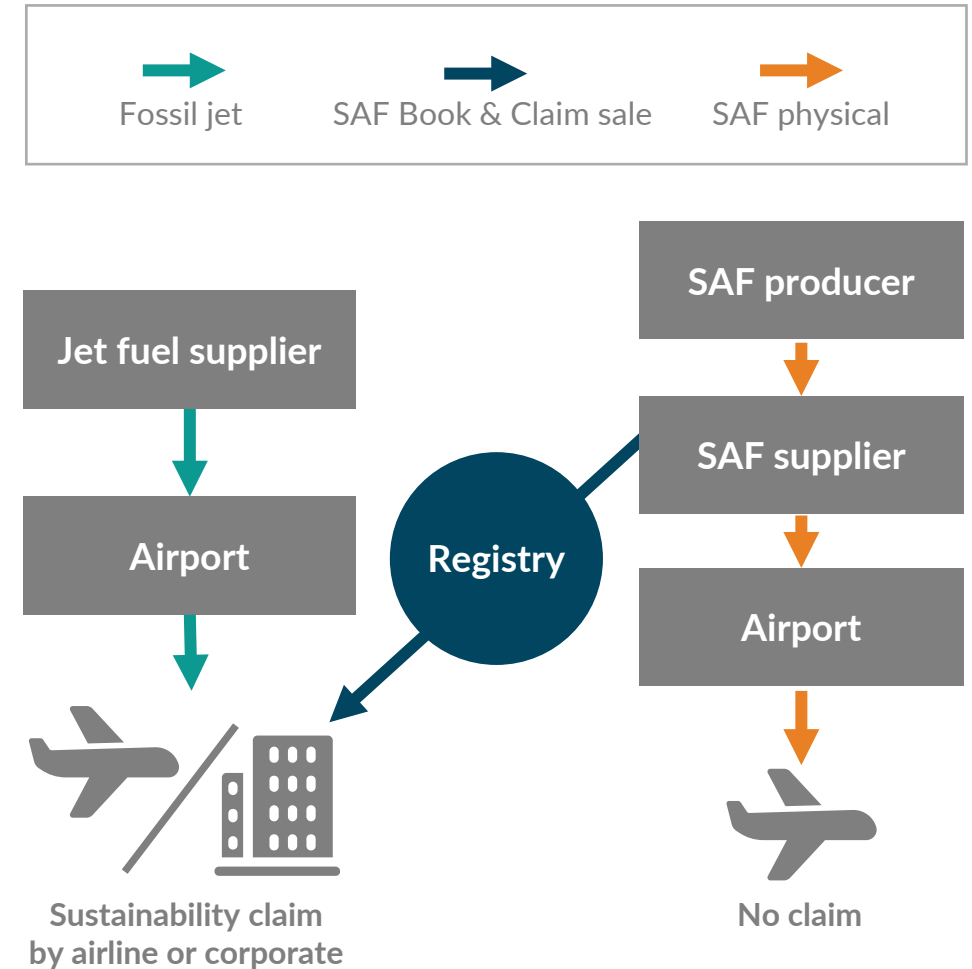# Chain of custody: Mass Balance and Book & Claim
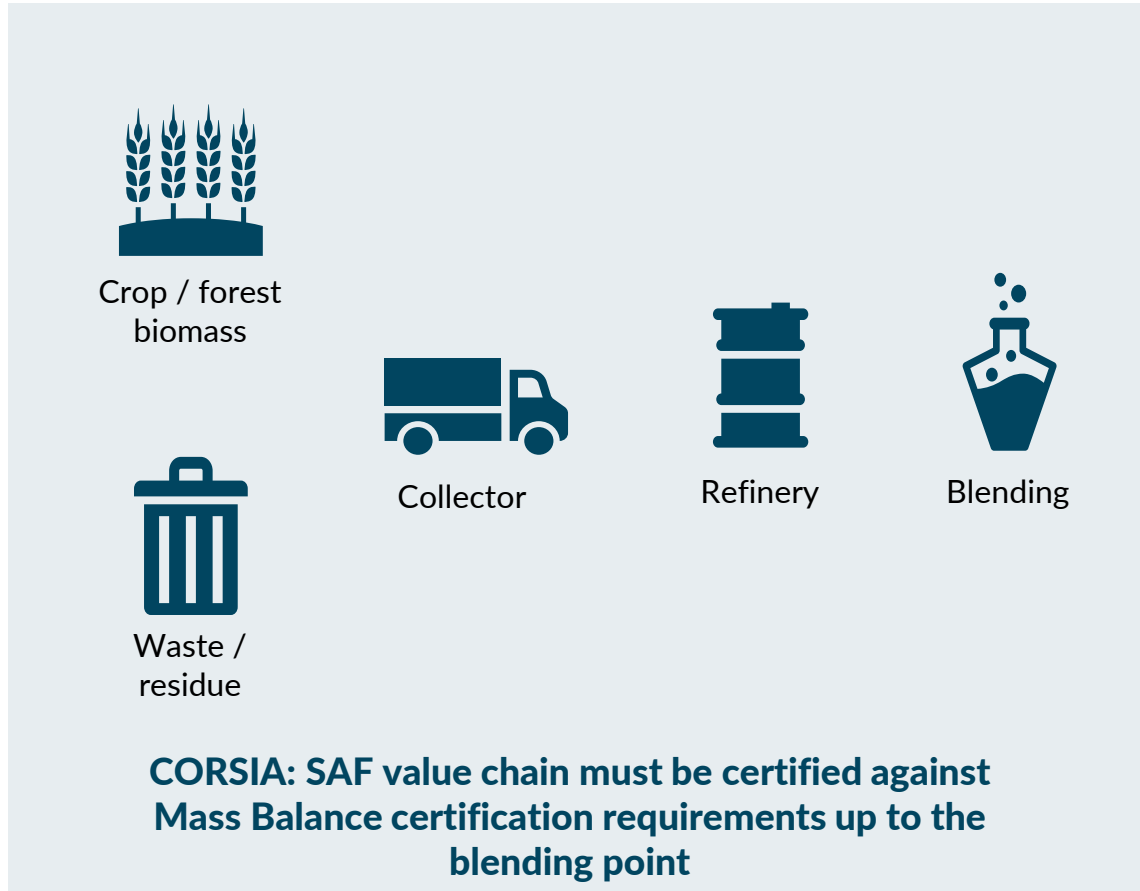
Value proposition

Challenge

- Need to scale SAF uptake to accelerate aviation decarbonisation

- Access limited to carriers in a few hubs with limit on offtake levels

- Cost + emissions of transporting SAF to customers

Opportunity

- Allows SAF purchase without physical connection to the supply site

- Enables the attribution of environmental benefits (i.e., GHG emission reductions) to corporate partners to reduce scope 3 emissions

- No matter where it is purchased, net environmental effect is the same

- RSB provides assurance that transactions are credible, traceable and don't lead to double counting

Fossil jet   **SAF Book & Claim sale**   **SAF physical**

Jet fuel supplier

SAF producer

SAF supplier

Airport

Registry

Airport

Sustainability claim by airline or corporate

No claim

Key partners

Programme development partners

A joint initiative of:

Pilot partners

5 more pilots in design / launch stage
(3 aviation + 2 shipping)

5/10 in waiting list

Book & Claim
Development journey

2021

- RSB's Book & Claim manual updated from V1 to V2
- Targeted stakeholder consultations
- Development of RSB registry ecosystem and logic
- Engagement with WEF Clean Skies for tomorrow
- Partnership with SABA (RMI/EDF)
- Pilot with Airbp / United / Microsoft
- Launch at the RSB Conference
- Launch of stakeholder consultation
- Review of RTFO incentive compatibility

2022

- Review stakeholder input from:
  - Broad stakeholder consultation (concluded)
  - RSB member webinar (9th March)
  - WEF CST accounting workshop (22nd March)
- Alignment with SBTi + GHG Protocol
- More pilots in aviation and shipping
- LCFS, HBE, ETS review
- Upgrade RSB registry
- Launch SABA Registry + develop methodology to recognise registries
- RSB's Book & Claim manual updated from V2 to V3

2023

- Recognition of RSB's Book & Claim certification under ICAO CORSIA
  - from blending onwards
- Promotion under EU's legislative tool, *Fit for 55*

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Role of the RSB

1. **Develop and maintain a robust procedure** (i.e. *RSB's Book & Claim manual*) that is founded on credible sustainability principles and is widely supported by stakeholders – including industry, policymakers and environmental organisations.

2. **Convening platform for stakeholders** to discuss and agree on Book & Claim rules (e.g. double counting).

3. **Certification scheme** to ensure Book & Claim transactions are auditable and based on the robust RSB Standard.

4. **Promote recognition** with market and regulators (i.e., national regulators, CORSIA) and alignment with relevant frameworks (i.e., GHG Protocol, SBTi).

5. **Maintain RSB's Book & Claim registry** and support the development, recognition and governance of a global registry or registries.

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Thank you!

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