

RSB[®]

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Book & Claim: Fundamentals & Opportunities

25 April 2025

Outline

- 1** Intro to RSB
- 2** Book and Claim Fundamentals
- 3** The Online Registry
- 4** Book and Claim Opportunities
- 5** Questions and Discussion





Roundtable on Sustainable Biomaterials



The world we are trying to create

RSB is a collaborative network that works together to *ACCELERATE* the transformation to a sustainable circular and bio-based economy



where climate change has been mitigated, ecosystems have been restored and livelihoods have been enhanced

What we do



Certification

Certification to the RSB Standard covers feedstock production, entire supply chains, and novel technologies, including fuel, biomass and material products from bio-based and recycled carbon, including fossil waste.

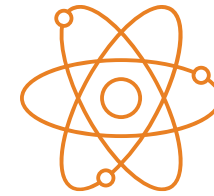
Recognised under EU RED and ICAO CORSIA



Implementation

Technical and strategic advice, hands-on implementation, staff training and research services at a regional and global level.

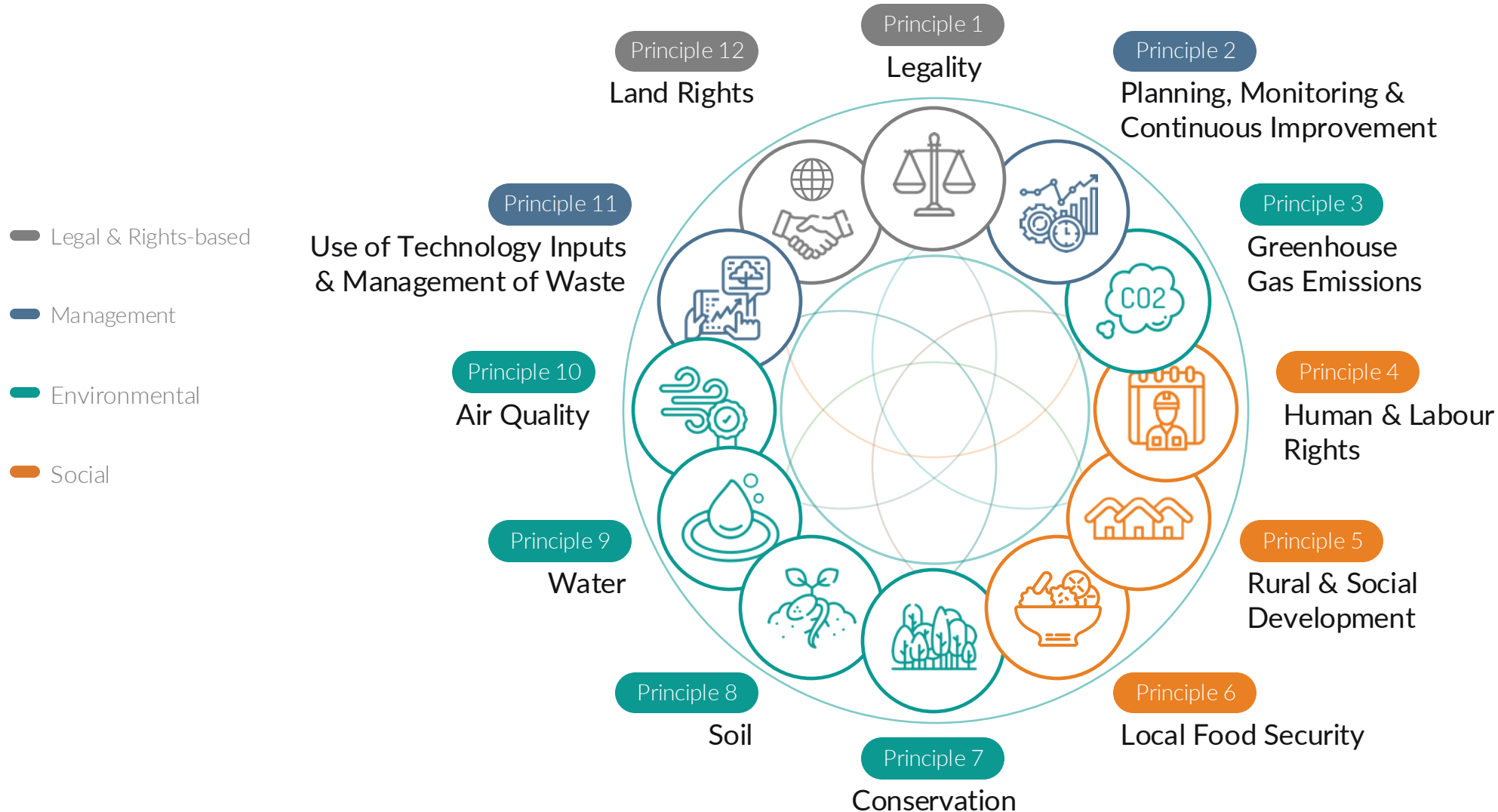
We work on projects with individual partners. We also run large landscape-level projects to develop bioeconomy roadmaps with multiple partners.



Convening

Convening stakeholder groups across private sector, industry, govts, NGOs & academia) through events, working groups, platforms to define sustainability standards and best practices, generate interest for action, and drive consensus.

Holistic approach supporting our ambition to create positive impact





Our global membership is highly diverse
A wide range of organisations across supply chains, regions and industries





Book & Claim: Fundamentals



RSB's Book & Claim Programme



Pilots



Book & Claim
Platform



Continuous improvement and validation



RSB B&C
Manual



RSB B&C
Registry



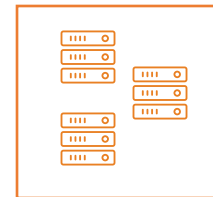
RSB Recognition
Procedure

RSB Certification



Ecosystem harmonisation

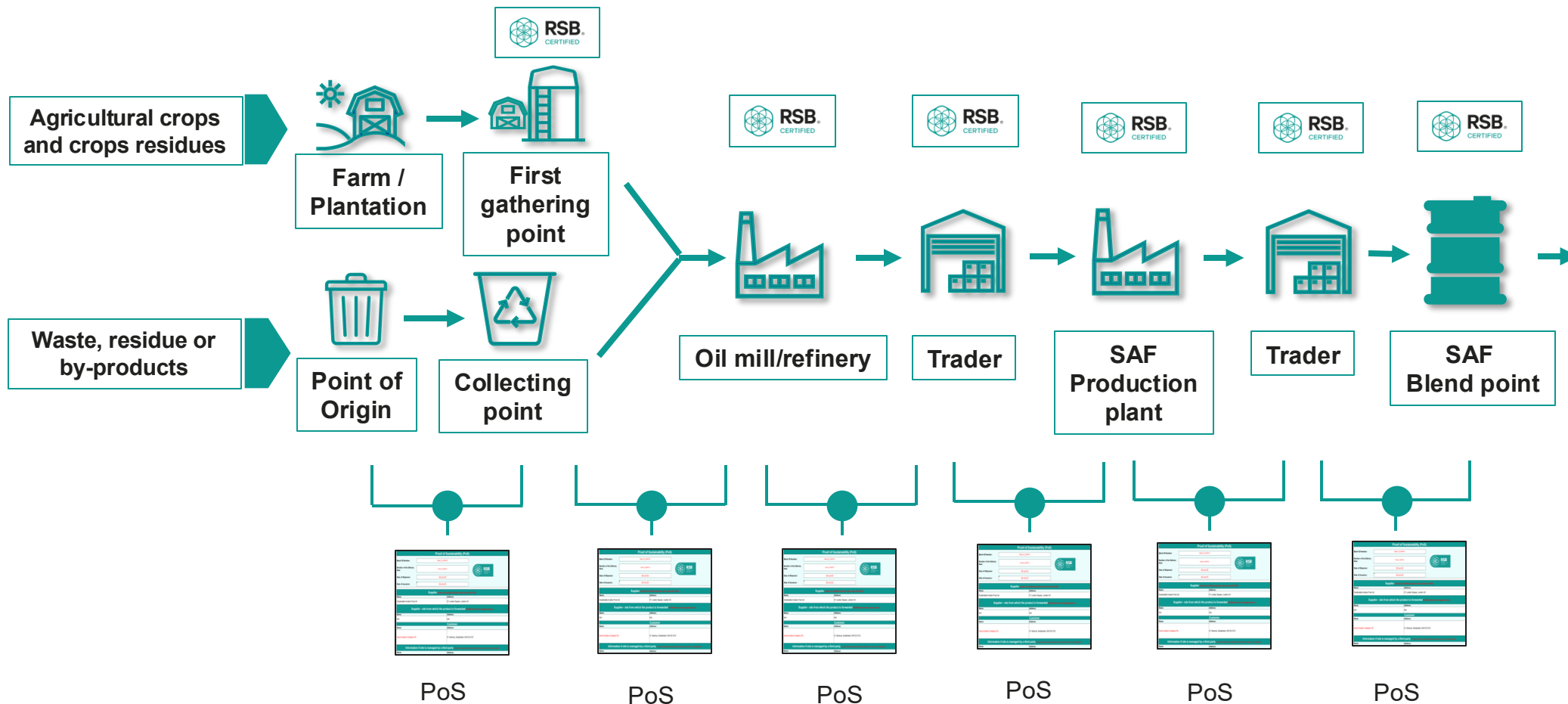
- Collaboration and alignment with likeminded initiatives
- Education



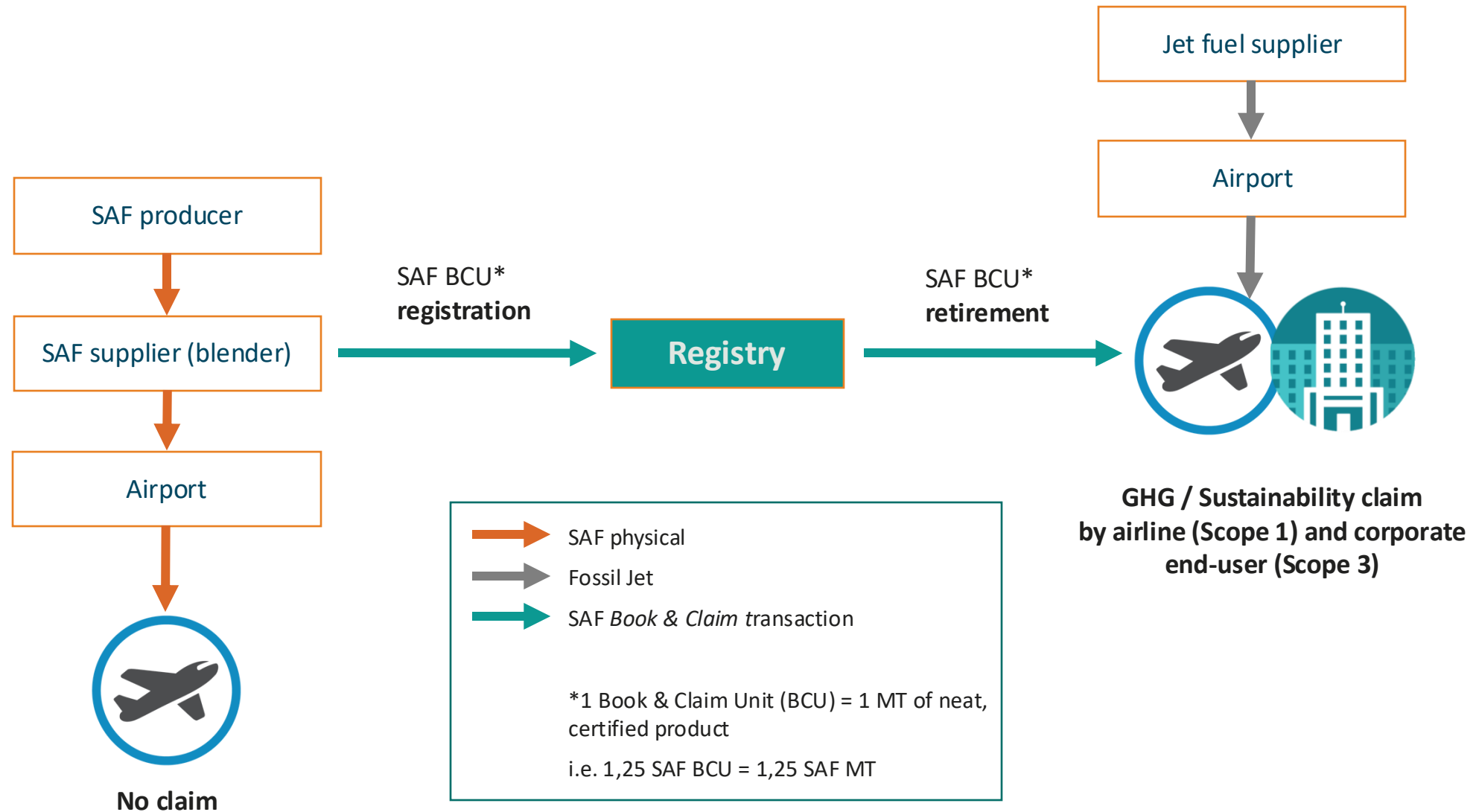
- Registry interoperability

Flow of sustainability information

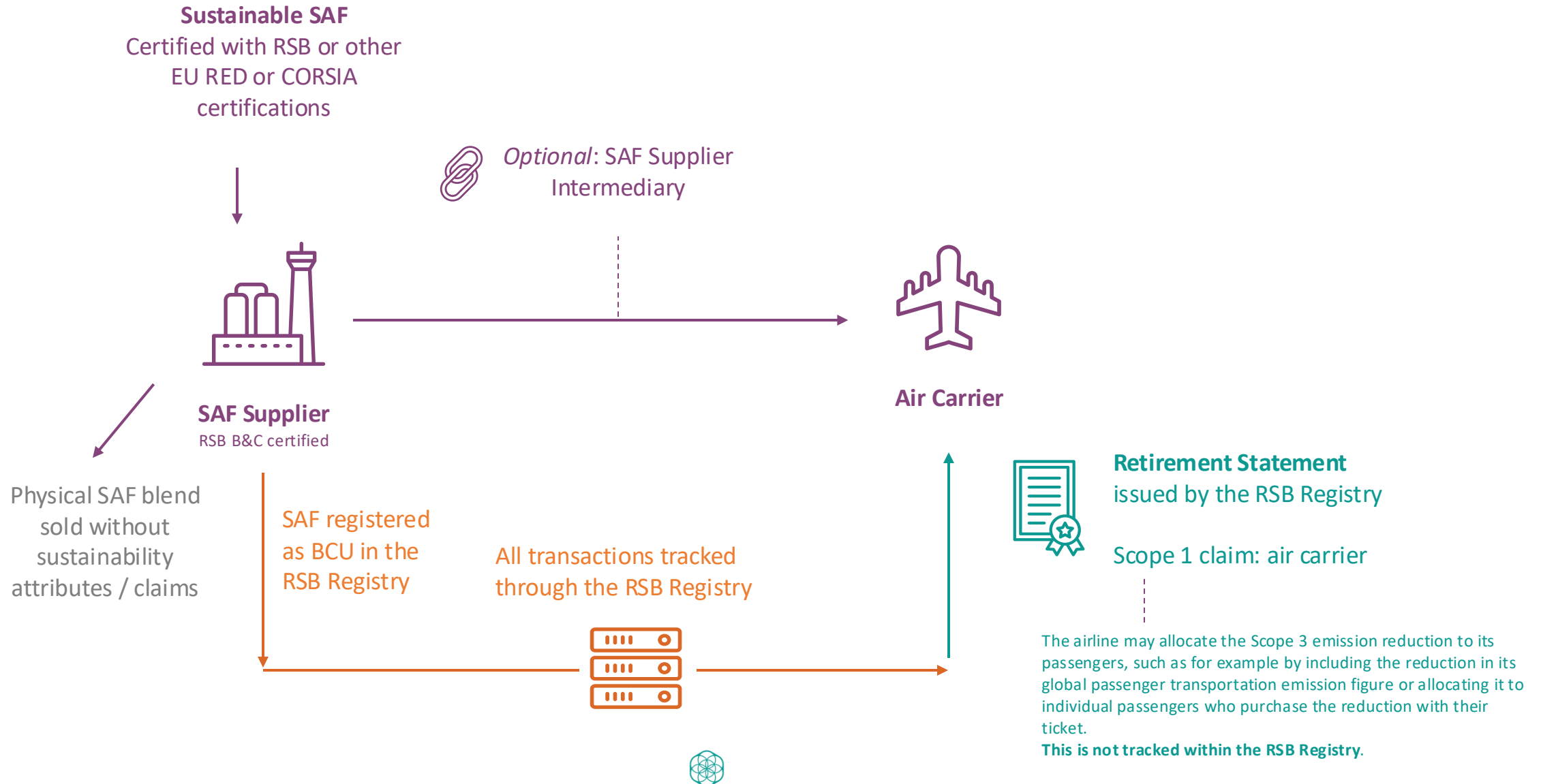
Sustainability information (e.g. GHG emissions) is forwarded through the supply chain step-by-step.



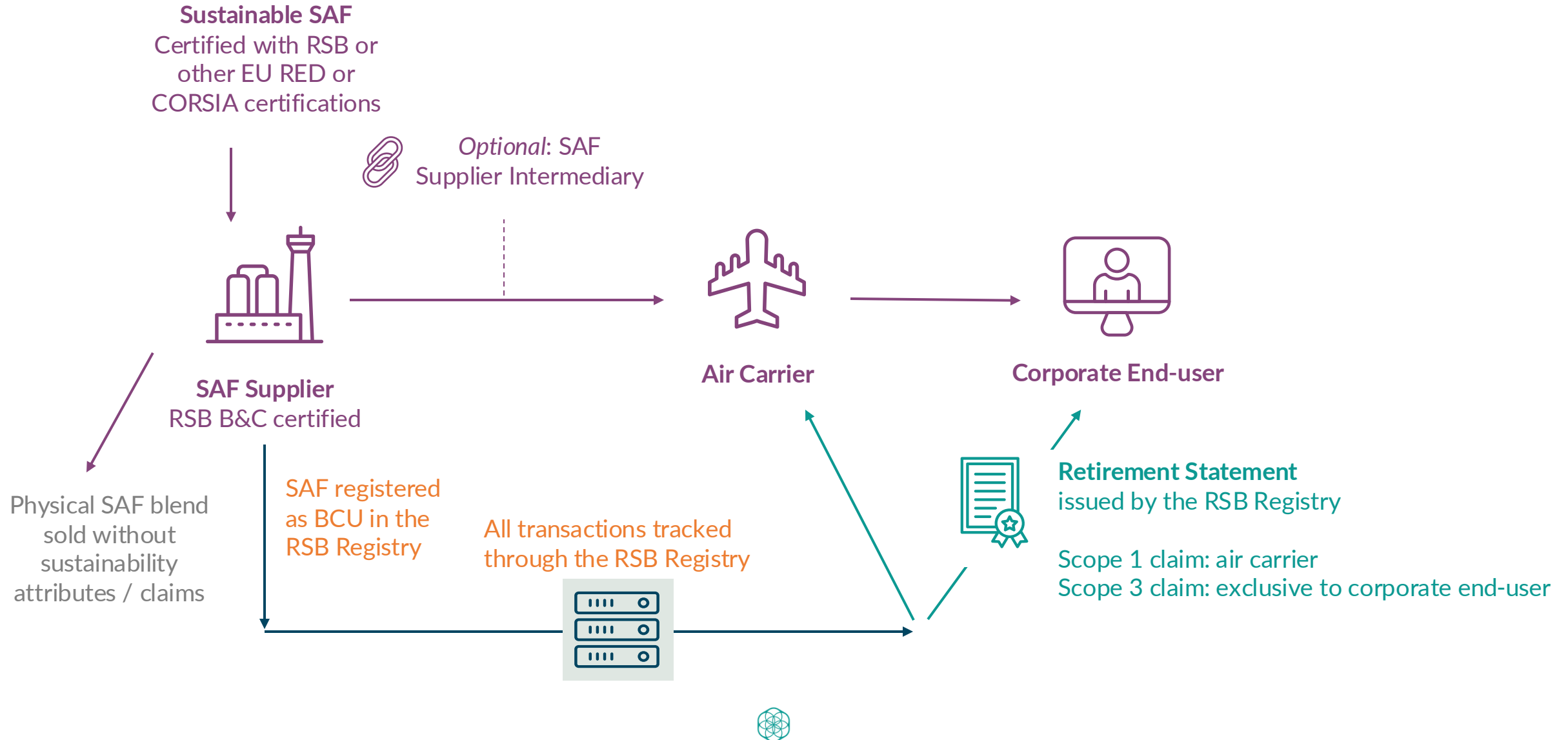
Book and Claim Simplified Process



RSB Book & Claim System – Use case 1



RSB Book & Claim System – Use case 2



RETIREMENT STATEMENTS

Retirement Statement

Number: RSB-BCU-RS-25-02-0124
Date of issue: 28th February 2025



The RSB confirms that the following Book & Claim Units (BCUs) have been retired from circulation in the RSB Book & Claim Registry:

BCU ID RSB-BCU-SAF-24-07-093-0002

Product type	Amount of BCUs¹	CO₂eq reduction (t)
Sustainable Aviation Fuel (SAF)	90.835	296.151 =3.260 CO₂eq reduction² (t)/BCU
Scope 1 Transport service provider		
DHL International GmbH		

Sustainability Information

Energy Content of Product (MJ)	4,027,625 (44,340 MJ/t)
Mass of Product (t)	90.835
Sustainability Certification	RSB CORSIA
Fossil baseline of reference (gCO₂eq/MJ)	89.00
GHG LCA value (gCO₂eq/MJ)	15.47
GHG emission reduction (%)	82.618
Feedstock (raw material)	Tallow
Feedstock conversion process	HEFA
Blended, Unblended or Co-processed	-
Feedstock country of origin	United States of America
Year of Production	2024
Country of blending	United States of America
Location of physical product delivered (if known)	Bob Hope Airport KBUR US
Country where BCU will be claimed	Germany
Type of reporting	Voluntary
Information on eligible incentives used	California LCFS, US RFS (RIN), US IRS BTC

NB: The entities listed on the retirement statement shall take their own independent advice on the legal, accounting and/or regulatory application of the claims set out in the retirement statement against voluntary GHG emission reduction schemes.

Note:
A full stop or period in a number denotes a decimal point, and a comma separates thousands.
t = metric tonne = 1000 kg
MJ = megajoule
gCO₂eq = grams of carbon dioxide equivalents, a metric used to compare the emissions of various greenhouse gases based on their global warming potential.



¹ 1BCU is equivalent to 1 tonne of neat, certified product. 1 tonne (t) = 1 metric ton (MT) = 1000 kg
² The absolute GHG emission reduction expressed in tonnes of CO₂eq is calculated using certified GHG values submitted during BCU registration. Please refer to the RSB Book & Claim Manual (v3, March 2023, Section 4 "Requirements for BCU Retirement") for more information.

Retirement Statement

Number: RSB-BCU-RS-24-06-000073
Date of issue: 28th June 2024



The RSB confirms that the following Book & Claim Units (BCUs) have been retired from circulation in the RSB Book & Claim Registry:

BCU ID RSB-BCU-SAF-24-03-023-0000

Product type	Amount of BCUs¹	CO₂eq reduction (t)
Sustainable Aviation Fuel (SAF)	62.267	205.052 =3.293 CO₂eq reduction² (t)/BCU
Scope 1 Transport service provider	Scope 3 Corporate end-user	
Alaska Airlines, Inc	Microsoft	

Sustainability Information

Energy Content of Product (MJ)	2,760,920 (44,340 MJ/t)
Mass of Product (t)	62.267
Sustainability Certification	RSB CORSIA
Fossil baseline of reference (gCO₂eq/MJ)	89.00
GHG LCA value (gCO₂eq/MJ)	14.73
GHG emission reduction (%)	83.449
Feedstock (raw material)	Tallow
Feedstock conversion process	HEFA
Blended, Unblended or Co-processed	-
Feedstock country of origin	United States of America
Year of Production	2024
Country of blending	United States of America
Location of physical product delivered (if known)	Palm Springs International Airport KPSP US
Country where BCU will be claimed	United States of America
Type of reporting	Voluntary
Information on eligible incentives used	California LCFS, US RFS (RIN), US IRS BTC

NB: The entities listed on the retirement statement shall take their own independent advice on the legal, accounting and/or regulatory application of the claims set out in the retirement statement against voluntary GHG emission reduction schemes.

Note:
A full stop or period in a number denotes a decimal point, and a comma separates thousands.
t = metric tonne = 1000 kg
MJ = megajoule
gCO₂eq = grams of carbon dioxide equivalents, a metric used to compare the emissions of various greenhouse gases based on their global warming potential.



¹ 1BCU is equivalent to 1 tonne of neat, certified product. 1 tonne (t) = 1 metric ton (MT) = 1000 kg
² The absolute GHG emission reduction expressed in tonnes of CO₂eq is calculated using certified GHG values submitted during BCU registration. Please refer to the RSB Book & Claim Manual (v3, March 2023, Section 4 "Requirements for BCU Retirement") for more information.



<https://registry.rsb.org/>

RSB®

Book & Claim Registry

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What is the RSB Registry?

The RSB Book & Claim Registry is a secure cloud application that allows companies to participate in the Book & Claim system, enabling the decoupling the sustainability attributes from the physical product and register it as a Book & Claim Unit (BCU). This innovative registry streamlines the registration, tracking, and retirement of BCUs worldwide, providing companies with retirement statements that enhance the credibility of their sustainability claims.

To better understand how the Book & Claim program works, click below to learn more.

[Learn more](#)



Book and Claim: Opportunities



Value proposition for hard-to-abate sectors



It connects limited supply locations with global demand (without having to create bespoke logistics)



It enables the exclusive allocation of a green fuel's sustainability benefit to those companies interested and willing to pay for it. (Scope 1 + Scope 3)



It responds to the demand for **in-sector solutions** for companies to decarbonise their aviation and maritime emissions



It helps to accelerate the decarbonisation of hard to abate sectors such as aviation and shipping



Case Study

Environmental sustainability	FY2023	FY2022	FY2021	FY2019 (Base Year)
GHG intensity measures				
GHG emissions per individual	Metric tonnes CO2e / FTE			
Business travel emissions	1.0	0.5	0.2	2.5
Operational and business travel emissions	1.2	0.6	0.4	3.3
Gross GHG emissions	3.7	2.5	1.5	4.9
GHG emissions per dollar of revenue	Kg CO2e/\$000 USD			
Operational and business travel emissions	7.7	4.1	2.5	22.0
Gross GHG emissions	24.8	15.5	9.8	32.8
Scope 2 purchased electricity GHG emissions by methodology³	Metric tonnes CO2e			
Electricity (market-based)	11,969	15,507	25,738	201,771
Electricity (location-based)	163,723	147,297	137,605	210,997
Energy usage	Terajoules (TJ)			
Renewable electricity ¹	1,340	1,116	979	199
Non-renewable electricity	90	110	175	1,393
Natural gas	179	183	159	245
Gasoline	261	289	226	348
Diesel fuel	159	210	168	405
District heating and cooling	126	127	n/a ⁴	n/a ⁴
Total energy consumed	± 2,155	2,036	1,707	2,590
Value chain mitigation				
Sustainable aviation fuel (SAF)				
SAF is a non-conventional (not fossil derived) aviation fuel. SAF is produced from sustainable feedstocks including waste materials, such as used cooking oil, agricultural residues, and municipal solid waste, or potentially from purpose grown crops.				
Deloitte supports efforts to develop a robust physical tracking mechanism and associated registry to improve traceability of SAF. Until such mechanism is in place and is recognized by the standard setters, Deloitte reports on SAF outside of Scopes 1, 2, and 3. Including Sustainable Aviation Fuel certificate (SAFc) environmental attribute purchases in the Performance Metrics Table allows us to share with others an example of how SAFc can be included in corporate environmental reporting.				
Tank-to-wake air travel emissions ^{5,6}	307,044	93,605	17,731	n/a ⁴
Well-to-tank air travel emissions ⁶	63,598	19,389	3,673	n/a ⁴
Full life-cycle assessment (LCA) air travel emissions	370,643	112,994	21,403	n/a⁴
Less: Sustainable Aviation Fuel Certificates (SAFc) purchased ¹⁰	5,358	4,617	2,638	n/a ⁴
LCA air travel emissions with SAF	365,285	108,377	18,765	n/a⁴
Total business travel emissions with LCA air travel emissions and SAF	502,797	190,841	61,901	n/a ⁴
Total Scope 3 emissions with LCA air travel emissions and SAF	1,610,409	869,259	432,972	n/a ⁴
Gross GHG emissions with LCA air travel emissions and SAF	1,666,326	933,922	495,658	n/a⁴

“SAF environmental benefits are transferred through the use of SAF certificates (SAFc). Similar to a renewable electricity certificate or guarantee of origin in the production of green electricity.”

Questions and Discussion



Thank you!

For more information visit

www.rsb.org/book-claim

Or email us at

bookandclaim@rsb.org