



The
Sustainable Juice
100% sustainable juice by 2030 Covenant

Monitoring protocol

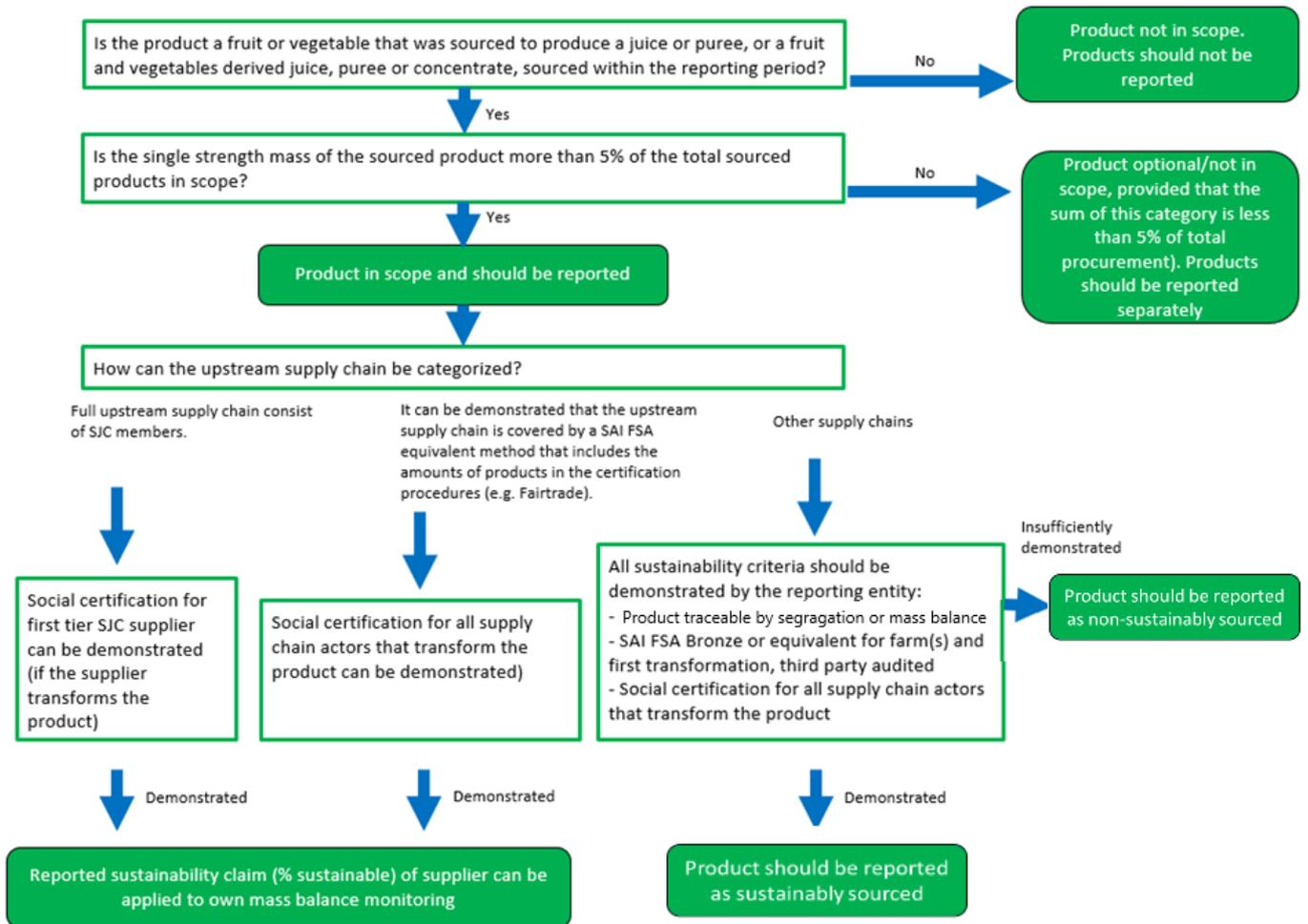
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A. Quick reference

The next chapters of this document contain a detailed background and definitions for the yearly reporting of sustainable juices as has been agreed amongst the members of the Sustainable Juice Covenant (SJC). The schedule below can be used as a quick reference to determine whether amounts are in scope and whether they are from a sustainable source according to SJC definitions.



B. Update log

Version	Updates
0.1	Document creation.
0.2	Document to be reviewed by IDH.
0.3	Updates after review IDH and meeting SteerCo 12 July 2017.
0.4	Updates after pilot visits and feedback members
0.5	Clarification in 'How to report amounts?'. Final version for reporting on 2017 volumes.
0.6	Update to include calculation proposals for retail and flavor house organizations. Added to the monitoring protocol as Annexes.

	Final version for reporting on 2018 volumes.
0.7	Includes the following updates: figure updated on page 3 and page 14 to include product traceable by segregation or mass balance; EU juice consumption figure in 2018 under General Information; definition of 'claim' under the Sustainable Juice Covenant; clarification on the evaluation of SMETA audits; under option 3 (page 10): product traceable on the basis of segregation or mass balance (mass balance only applicable from the first level of processing); clarification on the use of legally binding supplier contracts vs audit reports as assurance of sustainable sourcing. Updates approved in Steering Committee meeting on 14 th May 2020.
0.8	Additional update to include the approach to monitoring where reporting members have acquired new entities. Update approved in Steering Committee meeting on the 14 th May 2020.
0.9	Update on the approach to monitoring for members that are new to the Sustainable Juice Covenant; an update to extend the validity of SMETA audit reports over 2020 due to Covid-19-related disruptions to auditing processes; and mass balance guidelines have been added as an annex to the MP (Annex 3).

1. General information

The European market for juice and nectar is calculated at 9,067 million litres in 2018¹. With this covenant, the covenant parties aim to make a positive contribution towards sustainable production, processing and trade of fruit and vegetable derived juices, purees and their concentrates in relation to economic, environmental and social aspects.

The participating private sector parties recognize that they can and should play an important role in increasing sustainability of the supply chain both by scaling up existing initiatives aimed at increasing sustainability and by developing and implementing new initiatives. The implementation of this covenant provides an incentive to the development of markets for sustainable products and ensuring food security and contributes to achieving the Sustainable Development Goals (SDGs) 1, 2, 5, 8, 9, 12.

The SJC was founded in 2017. The SJC members have committed themselves to a shared ambition; 100% of the traded juices and purees by SJC members are originating from sustainable sources by 2030. On behalf of the its members, IDH and AIJN have partnered not only define a blueprint for measuring but also to setup a process of yearly reporting.

In order to follow up on the SJC ambition, AIJN will annually monitor and report progress on realizing 100% sustainably received juices and purees in 2030. To be able to do so, all SJC members report individually on a yearly basis and the aggregated results will be shared.

This Monitoring Protocol is designed to make the process of reporting transparent for the juice sector as well as the SJC members; to establish a common understanding of the definitions that are to be used when reporting and to provide guidance in establishing a minimum level of data quality. One of the main objectives of this Monitoring Protocol is to ensure that SJC members report based on the same definitions as well as comparable levels of data quality.

The Protocol is based on consultations of all participants of the Covenant. Various meetings with the stakeholders were held to establish an understanding of the diversity as well as the maturity of the existing purchase and certification information that will be used to generate the data required.

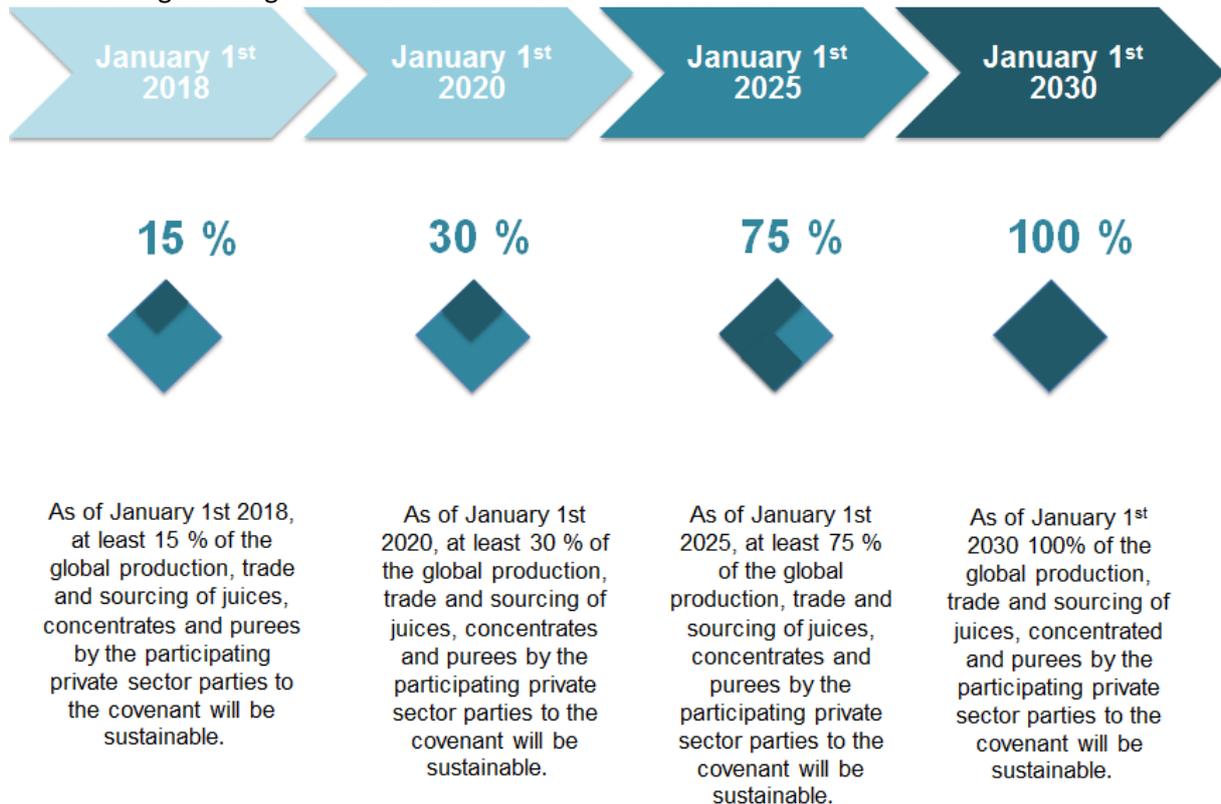
2. Definitions, reporting and data

As SJC members will be generating data from different sources and in different formats, it is essential that it is clear to parties what the details of the reporting requirements are. The question to be answered through progress reporting is the following, based on the SJC ambition to have

all production and trade of fruit and vegetable derived juices, purees and their concentrates by the private partners in this covenant 100% sustainable by 2030.

¹ AIJN, 2019. AIJN Liquid Fruit Market Report 2019.

The following sub-targets are defined for the road towards 100% in 2030:



The definitions that form the basis for answering this question are described in the following paragraphs. These definitions have been tested, agreed and approved by the SJC member pilot group of traders. The SJC members are expected to report according to these definitions.

a. How to report amounts?

Totals: Total received mass of fruit and vegetables for the production of juices or purees and fruit and vegetable derived juices, purees and their concentrates converted to single strength concentration.

The following should be taken into account with regard to reporting total mass:

- Measurement and reporting are in mass (tonnes).
- Reported amounts should be recalculated to single strength mass, see 'recalculation'.
- Total reported mass can be based on segregation or mass balance calculations
- SJC members will report individually before 1 May of each year covering their sourcing of the full previous calendar year.
- Cut-off is based on delivery date at the reporting entity; volumes that are delivered within the reporting year at the reporting entity should be reported.

The following should be taken into account with regards to origin:

- All production/trading countries are in scope.
- All juices and purees that are received within the reporting year by the reporting entity are in scope, regardless if the products are re-exported to other countries, or directly delivered to other countries without going through the traders' facilities at all.

Recalculation to single strength

The reported amounts should be recalculated to single strength amounts. The source to be used for the actual brix level of the delivery is up to the discretion of the member, as long as there is supporting evidence for the calculation and the expected inaccuracy caused by the method applied is non-material. Sources can include a sample of the actual product, recipe brix or the average of the brix range in the specification.

EU Fruit Juice Directive or other AIJN approved single strength brix levels should be used to recalculate to single strength amounts.

The reporting format/ data collection sheet will support this recalculation.

Products that are sourced as single strength (NFC) should not be recalculated.

Mixed products: the single strength brix level of a mix juice should be calculated as a weighted average by multiplying the brix level of each component by the portion of that component.

Retail organizations: A guidance calculation proposal for retail organizations for the calculation of products sourced back to single strength equivalent can be found under Annex 1.

Flavor house organizations: A guidance calculation proposal for flavor house organizations for the calculation of products sourced back to single strength equivalent can be found under Annex 2.

Minor volumes of received products

Received products that are less than 5% of the total received mass in the reporting year (converted to single strength mass) can be excluded from the total reported (sustainable) mass for the Covenant. The sum of the de minor volumes that are excluded cannot exceed 5% of the total received mass in the reporting year.

The participant is required to report the total mass of these products separately in the reporting template. These amounts will not be taken into account when measuring the sustainability progress.

Mass balance methodology

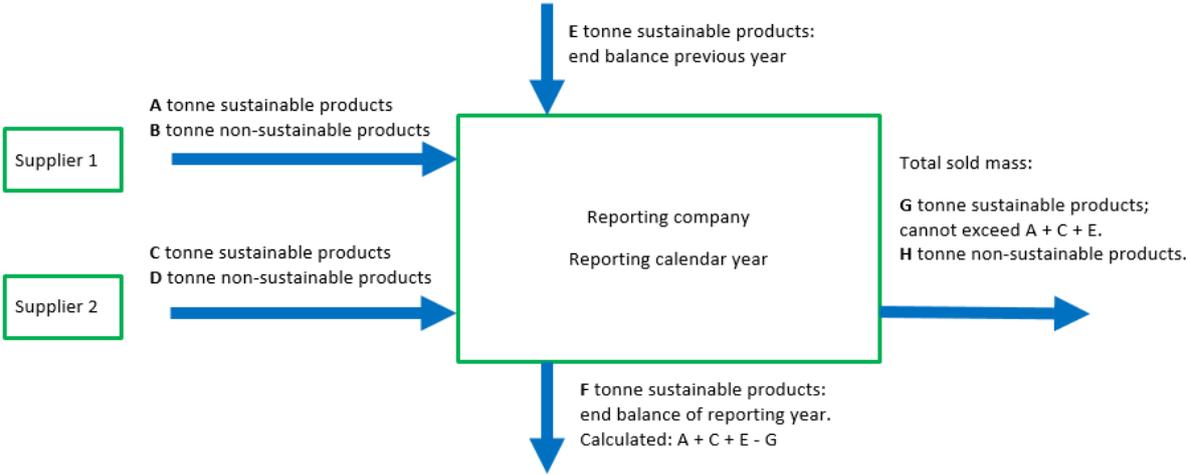
Participants are allowed to report using mass balance reporting on product level. The (sustainable) sold mass should not necessarily contain the same physical goods as the (sustainable) received mass (no physical segregation required). Total mass sold as sustainable cannot exceed the total received sustainable mass plus the end balance of the previous year.

For the purpose of reporting under this covenant a mass balance administration should be 'closed' at the end of each reporting year. Any remaining amount of sustainable product should be taken as opening balance of the next reporting year. Sustainable volumes can be carried over for maximum of 3 years. If the reporting entity decides to report using a mass balance, the mass balance administration, including procurement and sales data, should be documented for each reporting year. This mass balance administration should support the claim that the reporting entity has not sold more sustainable products than they have received. An assessment on the mass balance administration of the reporting entity should be part of the annual data validation, at least on a generic level. Both procurement and sales data should be reported in the data collection sheet.

Annex 3 provides detailed guidelines to the mass balance approach under the Sustainable Juice Covenant.

Definition of 'claim' under the Sustainable Juice Covenant

The use of the word 'claim' in the Monitoring Protocol refers to the percentage sourced sustainably by a member, as reported under the Juice Covenant to the third-party monitoring organization and IDH. The use of the word 'claim' under the Monitoring Protocol does not refer to an external claim or an external product claim.



b. What is the definition of juices and purees?

- Products that are in the scope of the covenant are:
- Fruit and vegetable derived juices, purees and their concentrates in compliance to the Fruit Juice Directive;
 - Fresh fruit and vegetables that are received for the production of juices and purees.
 - Other ingredients are out of scope.

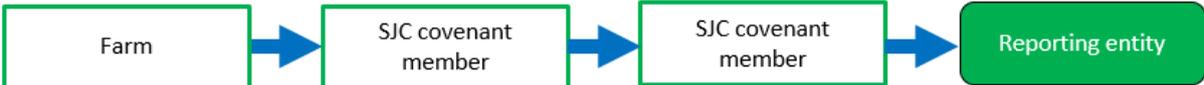
c. What is the definition of a sustainable source/product?

Whether a product can be qualified as sustainable depends on the characteristics of the upstream supply chain. This means that the reporting entity should be able to demonstrate in which the upstream supply chain is categorized. Three categories are defined:

Option 1: Supply chain of SJC members

Definition

It can be demonstrated that the entire upstream supply chain of the product only consists of members of the SJC Covenant.



Requirements

- The reporting entity can demonstrate that the full upstream supply chain consists of SJC Covenant members.
- The reporting entity should be able to demonstrate that their first tier supplier is socially certified according to the specifications below, if this supplier makes physical changes to the product or packaging (including blending, de-drumming, drum filling, processing).

- If the first tier supplier is the farm or primary convertor, this supplier should be certified SAI FSA Bronze equivalent or higher.
- The supplying SJC member should be able to demonstrate the sustainability status of the products that are supplied to other members.

Requirements to social compliance in processing:

- A sustainability certification or verification that is included in the AIJN matrix of standards. At the moment, this matrix contains:
ETI/SMETA 4-Pillar
SA8000
- Other standards can be included upon request to the SJC steering committee, when the standard has completed the GSCP benchmarking process with a sufficient score, or other benchmarking processes as approved by the SJC². Requests that are approved during the reporting year, are valid for that complete reporting year.
- The scope of certificates should cover the processing of the sourced materials claimed to be sustainable. The certificate is valid from the audit date, up to the date of validity that is indicated on the certificate.
- A full re-audit needs to be performed at least every three years.
- The reporting entity should be able to show these certificates upon request of the contracted 3rd party monitoring company.
- The certificates should be valid on the time of delivery of the products. If the certificate is only valid for a part of the sourcing period, only the part of the mass that was received within the period of validity may be reported as sustainable. The mass balance system should account for such validity.
- Specific for ETI/SMETA:
 - Minor non-conformities (green) identified through a SMETA audit are acceptable under the Sustainable Juice Covenant (i.e. minor non-conformities will not have an impact on the sustainability status of the volumes traded).
 - Major or critical non-conformities (orange; red; dark red/black) are not acceptable under the Sustainable Juice Covenant, if not addressed during the remediation period specified by the SMETA auditor (i.e. any 'open' major or critical non-compliances in a SMETA audit that have not been addressed within the remediation period will mean that the volumes cannot be recognized as sustainable). However, if a major or critical non-compliance has been addressed within the remediation period and is subsequently closed by the relevant auditing body, the volumes pertaining to this audit report will be recognized as sustainable.
 - A SMETA audit report is considered valid for a period of three years (based on the date of audit) under the Sustainable Juice Covenant.
 - Considering that monitoring under the Covenant is applicable to volumes traded during the preceding year, it is assumed that the point in time during which the Juice Covenant monitoring takes place will be beyond the end of the specified remediation period (i.e. a major or critical non-conformity should have already been closed during the specified remediation period, or the volumes traded will not be recognized as sustainable. The remediation period will not still be open during the time of the Juice Covenant monitoring).

² Note that this was still under discussion when this monitoring protocol was created.

- On the basis of efficiency in the Juice Covenant monitoring, it is recommended that SMETA audit reports are uploaded to the SEDEX portal. However, the SMETA audit reports can also be made available at the time of the data validation company visit.
- **Specifically relating to the validity of SMETA audit reports in 2020:**
 - Given the disruptions of Covid-19 restrictions to auditing activities over 2020, and that SMETA itself does not specify a period of validity for SMETA audit reports, the SJC Steering Committee have decided that if the three-year validity period of SMETA audit reports (as specific in the points above) came to end within the 2020 calendar year, that the period of validity can be extended to include the whole of 2020.
 - This is an exception, applicable only to the 2020 monitoring, which will be re-evaluated during 2021.

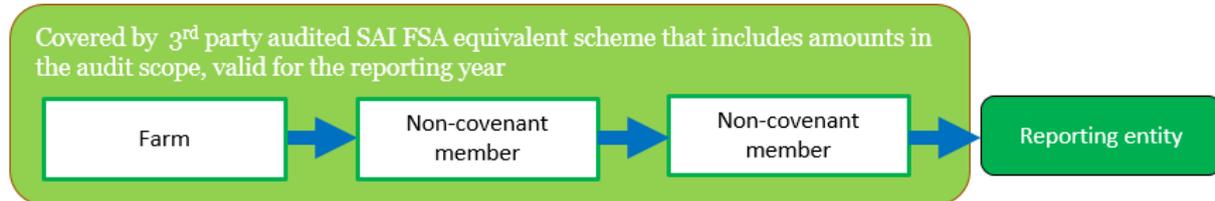
Reporting

The sustainable percentage as reported by the first-tier supplier can be applied to the received mass of the reporting entity.

Option 2: supply chain mass balance covered by chain of custody certification

Definition

The full upstream supply chain is covered by a SAI FSA Bronze (equivalent) verification/certification, in which it can be demonstrated that the amounts traded in the supply chain are included in the verification/certification scope (e.g. Fairtrade, Rainforest Alliance).



Requirements

- The reporting entity can demonstrate that the full upstream supply chain of the product is covered by this certification. This certification should be third party audited and valid for the period of sourcing. If the certificate is only valid for a part of the sourcing period, only the part of the mass that was received within the period of validity may be reported as sustainable.
- The reporting entity should be able to show that all supply chain actors, except for the primary transformation, are socially certified according to the specifications as described at option 1 above.

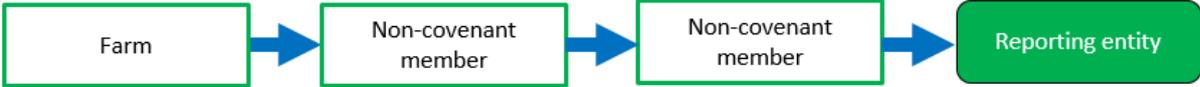
Reporting

The sustainable percentage as reported by the first tier supplier can be applied to the received mass of the reporting entity.

Option 3: Other supply chains

Definition

Supply chains that are not categorized as option 1 or 2.



Requirements

The reporting entity is responsible for the full chain of custody of the upstream supply chain. This requires that the reporting entity should be able to demonstrate:

1. The full mapping of the upstream supply chain, up to the farm or the conversion from fruit to juice. The specific traded volume must be fully traceable upstream either based on segregation or mass balance. However, mass balance principles are only applicable from the first level of processing; for the farm-level, segregation needs to be applied. In the case of segregation, the source of the product should be traceable using batch numbers or other types or unique authentication of produce. In the case of mass balance, the supplier will need to apply mass balance principles to the delivered products, in which case a supplier declaration on the sustainability status of the delivered goods, calculated according to mass balance principles, should be available.

Supplier declaration: a formal signed statement from an upstream supplier to the reporting member detailing the volumes supplied, and the percentage of the volume supplied that is sustainable, calculated according to mass balance principles.

Annex 3 provides detailed guidelines to the mass balance approach under the Sustainable Juice Covenant.

2. **Environmental and social compliance in farming and primary conversion**: a sustainability certification or verification that is at least equivalent to SAI/FSA Bronze, which is based on 3rd party auditing as defined by SAI/FSA and includes the farm and primary conversion.

A basket of standards that may be used to reach the desired level can be found at the SAI Platform website: <http://www.fsatool.com/> or downloaded directly by clicking [here](#).

3. **Social compliance in processing**:
Refer to option 1 for requirements.

On the use of legally binding commitments and certificates as proof of sustainable sourcing:

If a reporting member is more than one tier from the farm-level, it is possible to use legally binding supplier contracts as proof of sustainable sourcing. However, it is not possible to use legally binding contracts as proof of sustainable sourcing if a reporting member is 1 tier or less from the farm level, or if upstream entities are processing entities (including processing, blending, or bottling). If upstream entities are processing entities, certificates (audit reports) are required as proof of sustainable sourcing; audit reports can also be accessible through applicable online portals (e.g. the SMETA portal). The following diagram provides further explanation.



- **Tier 0** (farm-level): if an SJC member is at tier 0 (farm-level), proof of certification (audit reports) is required to provide assurance of sustainable sourcing. This relates to FSA bronze level or equivalent.
- **Tier 1:** if an SJC member is at tier 1, proof of certification (audit reports) is required to provide assurance of sustainable sourcing from the farm-level (tier 0), pertaining to all upstream volumes. This relates to FSA bronze level or equivalent.
- **Tier 2:**
 - If an SJC member is at tier 2, supplier declarations, legally binding contracts or audit reports can be used as assurance of sustainable sourcing from the farm-level (tier 0). Supplier declarations and legally binding contracts need to make reference to FSA bronze level or equivalent.
 - If an SJC member is at tier 2, proof of certification (ETI/SMETA or SA8000 audit report) is required to provide assurance of sustainable sourcing from tier 1 (primary processing); audit reports can also be accessible through applicable online portals (e.g. the SMETA portal).
- **Tier 3 to Tier 5, and beyond:**
 - If an SJC member is at tier 3 to tier 5 (or beyond this), supplier declarations, legally binding contracts or audit reports can be used as assurance of sustainable sourcing from the farm-level (tier 0). Supplier declarations and legally binding contracts need to make reference to FSA bronze level or equivalent.
 - If an SJC member is at tier 3 to tier 5 (or beyond this), proof of certification (ETI/SMETA or SA8000 audit report) is required to provide assurance of upstream sustainable sourcing for any tier beyond tier 0 (i.e. if at tier 4, audit reports required for sourcing from tiers 1 – 3; if at tier 5, audit reports required for sourcing from tiers 1-4); audit reports can also be accessible through applicable online portals (e.g. the SMETA portal).

In the case of certificates, the reporting entity should be able to show certificates upon request of the contracted 3rd party review provider.

The certificates should be valid on the time of delivery of the products. If the certificate is only valid for a part of the sourcing period, only the part of the mass that was received within the period of validity may be reported as sustainable.

Note: As this is a new clarification under the Sustainable Juice Covenant, this will become mandatory from 2021 (reporting on 2020 data). In the interim, for 2020 (reporting on 2019 data), it is an option for members to use legally binding contracts as proof of sustainable sourcing from all upstream entities.

The SJC will continue to support increased transparency; this approach will be reassessed on an annual basis.

d. Sustainability requirements for mixed products

In case of a mixed product, the supply chain and certificates of each component should be demonstrated according to the requirements described above. If the member cannot demonstrate this for all components, the sustainability percentage of the product is limited to the percentage of the component that is sustainable.

Example:

A procured mix product contains:

50% Apple – sustainable (supply chain + valid certificates can be demonstrated)

25% Orange – not sustainable

25% Pineapple – not sustainable

In this case, the product should be reported as 50% sustainable.

e. Newly acquired entities

For entities that have been newly acquired by an SJC reporting member and where there is more than a 50% shareholding by the SJC reporting member in the newly acquired entity, the reporting member has the option to exclude the sourcing volumes applicable to this newly acquired entity for up to one year from the date of acquisition.

3. What is the reporting period?

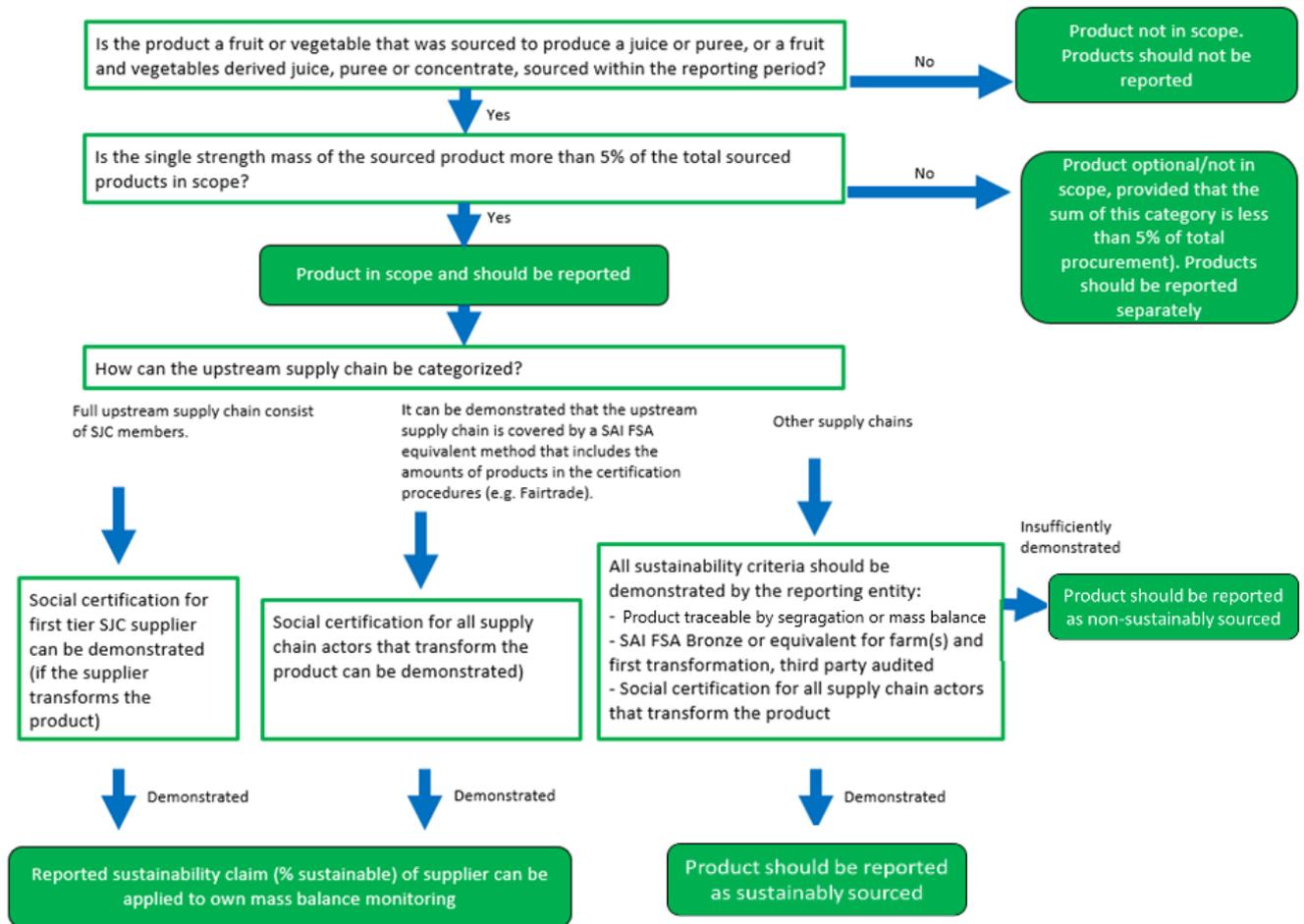
Reporting period: *the reported data should cover products received in the calendar year in scope, from January 1st through to and including 31st of December.*

The following should be taken into account with regards to the definition of the reporting period:

- The dates are based on the date of delivery of the products

a. Reporting data: how to report, completeness and accuracy of data

All SJC participants reporting according to the SJC monitoring protocol should ensure all sustainable and non-sustainable received products are reported. To ensure these volume are reported correctly and completely participants can use the scheme below to determine what to report.



Reporting should be done using the SJC data collection sheet which will be provided by SJC.

The participant should ensure sufficient records are available that allow for validation of the reported mass data to the relevant data source data (e.g. grower and sustainable sourcing evidence). All certificates that cover the reporting year (so not only the most recent) should be stored or be available through other means by the operator to ensure correct and complete sustainable sourcing claims for the full reporting year can be made.

For review purposes reporting SJC participants will share their data with the SJC review provider (to be determined) in a confidential environment. The review provider is bound under confidentiality agreement with SJC and can only use the data provided for the sole purpose of the review process. The SJC review provider is not allowed to share in whatever way or form individual SJC participant data with any third party without written consent of that third party nor will any data be shared

SJC will only communicate the yearly percentage on the highest aggregated level every year. No individual company results will be communicated to the other participants.

b. Validation

This chapter outlines the approach of validating the data given by the SJC members. Validation will be carried out on the data by performing a number of specific assessment activities, without providing any assurance on the reported data.

The objectives of data validation exercise are:

1. Obtain a general impression on data handling within the organization and to validate the certifications used by the organization;
2. Understand the administrative process of the data within the organization (data flow);
3. Assess the completeness of purchase-volumes reported (including total volumes and total sustainable volumes);
4. Assess the mass balance administration for the different products;
5. Assess the accuracy and completeness of the sustainable received volumes reported.

Subject	Validation activities
General impression on data handling	Qualitative questions
Interview with responsible staff to answer the following questions:	
A. Which department is responsible for delivering which data? (data collection and reporting)	
B. Which systems are used to record and process the data (IT landscape)?	
C. How does the data flow look like to capture, process and report relevant data for the purpose of the covenant (relevant data points include the mapping of the upstream supply chain, mass data, product group, supplier, reference to sustainability/social certificate)?	
D. What are relevant organizational, supplier or system changes (if any)?	
E. What experience does the company have with quantifying data about sustainable sourcing?	
F. Which risks/obstacles has the company identified in relation to report data for the purpose of the covenant?	
G. How comfortable do you feel with the data reported by your company?	
Understanding the process	Walkthrough
Sustainable received	Validity check
Based on one sustainable received product from one supplier in scope the dataflow of the administrative process from primary data source till the report in the data collection sheet will be tested. This includes the total volume received of that specific supplier as well as the part sustainable received. Should there be different alternative data flows for different product groups, the test may be expanded to understand the process for different alternatives.	
Sustainable received	Validity check
Testing the validity of the suppliers that are marked as sustainable by selecting a sample of suppliers. It is reviewed whether the required documentation is available to demonstrate their status as sustainable for the reporting/sourcing period, e.g. checking the availability and validity of the required certificates.	
Completeness of the reported volumes	Reconciliations, reasonableness check, cut off.
In order to assess the completeness of reported volumes, the following activities will be performed:	
A. Reconciliation of reported totals with the underlying purchase records in the administrative systems of the organization;	
B. Check cut off points for the reporting year;	
C. Reasonableness assessment on completeness of reported items, including % of sustainable received products;	
D. Comparison with data in the ERP system;	
E. Reasonableness of excluding the de-minimis source streams smaller than 5%;	
F. Assessing the mass balance administration.	
Accuracy of the sustainable received volumes reported	Test of detail
Random sampling of a number of sustainable received products in order to test whether the definition of sustainable sources is applied correctly and the volumes are registered correctly. It includes requesting the primary data sources, like the supplier invoices or where the volume, country of origin and the sustainable mark is presented, the audit report and if necessary the corrective action plan resulting from the audit.	

The validity check will be performed on-site. In order to make the visit most meaningful, every participating organization is requested in preparation to the visit to provide information in advance.

After the visit, every participating organization will receive a management letter with observations and areas of improvement (if applicable) in order to prepare for the next reporting period.

Offsite validation

For non-European members that join the Covenant it is not deemed cost- and time efficient to perform a site visit. The SJC review provider should ensure sufficient procedures are used to ensure robust off site validations is possible. Such a procedure should be supported by videoconference and desktop sharing to perform:

- The organization and process description assessments by interview.
- Reconciliations to source data (e.g. ERP systems) using screen sharing (e.g. Webex, Skype, Hangout).
- Other source documents should be sent by e-mail upon request, for example process descriptions, screenshots, MS excel administration, certificates.

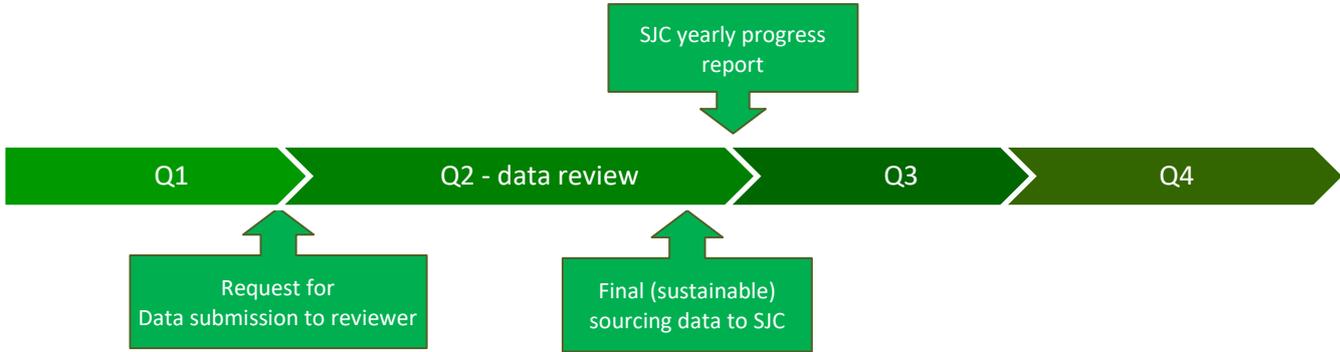
c. Reporting procedure

Invitation to report

In the first pilot year, the SJC members will be asked provide their data based on the requirements of this monitoring protocol. This first data will be analysed and in the outcome of the first analysis, learnings and next steps will be presented to the SJC members in the same year.

Following up on the outcomes of the first tests, in the early spring of 2018 and following years, SJC members will receive an invitation to report their total volumes of (sustainable) received products over the previous calendar year before 1 May. This Monitoring Protocol will accompany the invitation to report.

The yearly outcome of the measuring will be presented to the SJC members in the third quarter of every year.



d. Companies that are new members of the Sustainable Juice Covenant

- The monitoring of annual progress under the Sustainable Juice Covenant relates to sourcing figures from the previous calendar year.
- The sourcing volumes from the calendar year prior to the company's membership start date (date of signing of the Juice Covenant) will not be included in the Juice Covenant's final aggregate monitoring figures for that same year.
- New members are, however, obliged to participate in a first year of monitoring as a 'trial run', an opportunity for new members to align with the Juice Covenant reporting requirements and the monitoring process without contributing to the total aggregate figures.
- The sourcing volumes of new members will be included in the total aggregate monitoring figures when the sourcing volumes accord to a calendar year that is within the company's period of membership of the Sustainable Juice Covenant (i.e. after the date of signing of the Juice Covenant).

Annex 1: Retail Calculation Proposal

Under the Sustainable Juice Covenant, the percentage of sustainable product is calculated as the total amount of sustainable products (fruit and vegetable derived juices, purees and their concentrates) packed/processed/traded, per product location, versus the total amount of product purchased.

All are based on the quantity of kg/tons recalculated back to so-called single strength, if necessary, that complies with the described sustainability criteria as agreed by the participating parties of the covenant.

Products that are in scope of the covenant include:

1. Fruit and vegetable derived juices, purees and their concentrates in compliance with the European Fruit Juice Directive³;
2. The consumer-based products (drinks, nectars, juices, smoothies, etc.) which are based on these raw materials.

For retail organizations, the following example outlines a proposal for calculations back to single-strength and determining the volumes/percentage of sustainably sourced products.

- **SKU 1:** 100,000 litres; 100% Orange Juice; 100% sustainably sourced.
 - o Volume sustainably sourced: 100,000 litres.
- **SKU 2:** 200,000 litres; 50% Orange peach nectar (of which 25% is orange; 25% is peach); 100% orange sustainable and 50% peach sustainable.
 - o Volume sustainably sourced: 75,000 litres.
- **SKU 3:** 300,000 litres; 100% Orange Juice; 0% sustainably sourced.
 - o Volume sustainably sourced: 0 litres.

- **Total product volume traded:** 600,000 litres.
- **Total volume in scope (juice sourced):** 500,000 litres
- **Total volume sustainably sourced:** 175,000
- **% sustainably sourced:** 35%

The table on the following page elaborates on this example further.

³ Directive 2012/12/EU of the European Parliament and of the Council of 19 April 2012, amending Council Directive 2001/112/EC relating to fruit juices and certain similar products intended for human consumption

	product description			component declaration									sustainable claim		
	Volume Tot (litres) received	product name	% juice claimed	Comp. 1 Descr	Comp. 1 % of tot	Comp. 1 % sust.	Comp. 2 Descr	Comp. 2 % of tot	Comp. 2 % sust	Comp. 3 Descr	Comp. 3 % of tot	Comp. 3 % sust.	Vol 100% juice equivalent in scope	Vol Sust Sourced (litres)	% SKU Sust Sourced
SKU 1	100,000	Coolbest orange juice	100	Orange juice	100%	100%							100,000	100,000	100%
SKU 2	200,000	Jumbo orange peach nectar	50	Orange juice	25%	100%	Peach puree	25%	50%				100,000	75,000	75%
SKU 3	300,000	Jumbo orange juice	100	Orange juice	100%	0%							300,000	0	0%
SKU 4													0	0	#DIV/0!
SKU 5													0	0	#DIV/0!
SKU 6													0	0	#DIV/0!
SKU 7													0	0	#DIV/0!
SKU 8													0	0	#DIV/0!

Total vol product
600,000 received

TOTAL 500,000 175,000

% Juice Sustainably Sourced TOTAL 35.00%

Annex 2: Flavor House Calculation Proposal

Under the Sustainable Juice Covenant, the percentage of sustainable product is calculated as the total amount of sustainable products (fruit and vegetable derived juices, purees and their concentrates) packed/processed/traded, per product location, versus the total amount of product purchased.

All are based on the quantity of kg/tons recalculated back to so-called single strength, if necessary, that complies with the described sustainability criteria as agreed by the participating parties of the covenant.

Products that are in scope of the covenant include:

1. Fruit and vegetable derived juices, purees and their concentrates in compliance with the European Fruit Juice Directive⁴;
2. The consumer-based products (drinks, nectars, juices, smoothies, etc.) which are based on these raw materials.

Of relevance to flavor houses, this includes the following raw materials (as defined within the European Fruit Juice Directive – see footnote):

Fruit

All fruit. For the purposes of this Directive, tomatoes are also considered as fruit. The fruit shall be sound, appropriately mature, and fresh or preserved by physical means or by treatment(s), including post-harvest treatments applied in accordance with Union law.

Flavour

Without prejudice to Regulation (EC) No 1334/2008 of the European Parliament and of the Council of 16 December 2008 on flavourings and certain food ingredients with flavouring properties for use in and on foods, flavours for restoration are obtained during the processing of the fruit by applying suitable physical processes. Those physical processes may be applied to retain, preserve or stabilise the flavour quality and include in particular squeezing, extraction, distillation, filtration, adsorption, evaporation, fractionation and concentration.

Flavour is obtained from the edible parts of the fruit; however it could also be cold pressed oil from citrus peel and compounds from the stones.

Sugars

Sugars as defined by Council Directive 2001/111/EC of 20 December 2001 relating to certain sugars intended for human consumption (2)

Fructose syrup

Sugars derived from fruits.

Pulp or cells

The products obtained from the edible parts of fruit of the same species without removing the juice. Furthermore, for citrus fruit, pulp or cells are the juice sacs obtained from the endocarp

⁴ Directive 2012/12/EU of the European Parliament and of the Council of 19 April 2012, amending Council Directive 2001/112/EC relating to fruit juices and certain similar products intended for human consumption

Example

For flavor houses, the following example outlines a proposal for calculations back to single-strength and determining the volumes/percentage of sustainably sourced products.

The flavor house sources inputs from different suppliers and sourcing regions. The product range sourced is a mix of juice, purees, concentrates, oils, aromas and terpenes.

For the juice concentrates and purees, single-strength equivalent volumes are calculated based on the ratio of the concentrate brix level to the EU Fruit Juice Directive single strength brix level for the product. This is the standard approach outlined in the SJC Monitoring Protocol.

For oils, aromas and terpenes, single-strength equivalent volumes are calculated on a 1:1 basis relative to the original volume of the oil, aroma or terpeneless.

Total percentage of sustainably sourced volumes is calculated as the percentage of sustainably sourced to the total volumes traded.

This example is illustrated through the table below:

Manufacturer	Vendor Holding	Category	Product Name	Volume FY18 kg	Brix conversion factor	Product concentration conversion factor	Calculated back to single strength/fold juice (kg)	Sustainable	NOT Sustainable	Sustainable (%)
Manufacturer 1	Vendor 1	Citrus Specialty	ORANGE AROMA 1131 RM	500,000	1.0	1	500,000	100,000	400,000	20%
Manufacturer 2	Vendor 2	Citrus Specialty	ORANGE OIL BRAZIL TECH RM	500,000	1.0	1	500,000	100,000	400,000	20%
Manufacturer 3	Vendor 3	Fruit Specialties	APPLE JUICE 70 B	250,000	11.2	70	1,562,500	781,250	781,250	50%
Manufacturer 4	Vendor 4	Citrus Specialty	ORANGE JUICE BRAZ LOW PUL 65 B	50,000	11.2	65	290,179	290,179	0	100%
Manufacturer 5	Vendor 5	Citrus Specialty	LEMON OIL CP 5X ITALIAN TYPE	100,000	1.0	5	500,000	500,000	0	100%
Manufacturer 6	Vendor 6	Citrus Specialty	GRAPEFRUIT JUICE 58 B	10,000	10.0	58	58,000	0	58,000	0%
Manufacturer 7	Vendor 7	Fruit Specialties	APRICOT PUREE 30-32 B	10,000	11.2	31	27,679	0	27,679	0%
Manufacturer 8	Vendor 8	Citrus Specialty	TERP PORTUGAL FIRAR	1,000	1.0	1	1,000	0	1,000	0%
Manufacturer 9	Vendor 9	Fruit Specialties	BLACKBERRY JUICE CONC 65 NAT	500	8.0	65	4,063	4,063	-1	100%
Manufacturer 10	Vendor 10	Citrus Specialty	BERGAMOT TERPENELESS	500	1.0	1	500	0	500	0%

Total Volume Product Received: 1,422,000

Total Single-strength 3,443,920

Total Sustainable 1,775,492

Total % Sustainable 51.55%

Annex 3: Mass balance guidelines for the Sustainable Juice Covenant

Introduction

Mass Balance refers to the conservation of mass within a physical system. Mass balance approaches are used across a wide variety of systems, from chemical processes, to tracking the flow of pollutants, recyclates and materials produced or processed sustainably. All approaches center on the principle of mass conservation: matter cannot disappear or be created spontaneously within a system, and therefore a system's input mass must be equal to the system's output mass.

Applicability of mass balance to the Sustainable Juice Covenant

The Sustainable Juice Covenant is centered on the target of 100% sustainable sourcing by 2030, applicable to all upstream sourcing volumes. This is applicable across the supply chain, and is according to a recognized set of sustainability standards at farm-level and processing:

- **Farm-level:** FSA bronze or equivalent (applicable to standards that have been benchmarked against FSA and are equivalent to FSA bronze or higher)
- **Processing/blending/bottling:** SA8000 or ETI/SMETA 4 pillar

For volumes to be recognized as sustainable, they need to meet these requirements at both farm-level and processing/blending/bottling, and if not, juice volumes cannot be recognized as sustainable. In this regard, juice volumes have a binary sustainability characteristic: either 'sustainable' or 'non-sustainable'.

The Juice Covenant includes globally sourced and traded volumes. Juice volumes are traded either as physically segregated batches, or batches are consolidated and blended.

Where batches of juice are consolidated and blended, it is not feasible to trace the sustainability characteristics of specific juice volumes across the supply chain, and we therefore need to do so based on mass balance principles.

Mass Balance Principles

Mass balance principles allow for the physical mixing of batches, while the bookkeeping of sustainability characteristics needs to be kept separate.

For simplification under the Sustainable Juice Covenant, we propose that all volumes are calculated to single-strength juice equivalent. This is relevant to concentrated juices and purees (non-NFC), the mass of which can be calculated to single-strength equivalent based on the ratio of the concentrate brix level to the reference brix level. The trade of juice volumes between supply chain partners can therefore be traced based on a common unit of measure (mass of single-strength juice equivalent).

Under the Sustainable Juice Covenant, this would therefore reduce the variables to the following:

- The type of juice/commodity that is being traded.
- The mass of single-strength equivalent of the juice/commodity.
- The sustainability status of the juice/commodity: 'sustainable' or 'non-sustainable'.
- Chain of custody option: mass balance or physical segregation.

As a rule, batches that are of the same juice/commodity, have the same characteristics ('sustainable' or 'non-sustainable'), and are handled under the same chain of custody option (physical segregation or mass balance) can be physically mixed and can be mixed in the bookkeeping.

Batches that are not of the same juice/commodity, have different sustainability characteristics, and are handled under different chain of custody options, can be physically mixed but cannot be mixed in the bookkeeping.

Figure 1 below illustrates physical mixing and associated bookkeeping based on a mass balance approach. In Figure 1, output has been split into either sustainable or non-sustainable product.

Under the Juice Covenant, it is also possible for companies to supply juice product to customers/clients for which a proportion is sustainable or non-sustainable. If this is the case, it is important that this split is reflected in the mass balance bookkeeping, and that the sustainable/non-sustainable juice that is split between output products is, on balance, equal to the input juice batches.

Figure 2 below represents an alternative where sustainable and non-sustainable juice is split within output products, and the associated mass balance bookkeeping.

Boundaries

Under a mass balance approach, it is important to define the temporal and spatial boundaries within which the physical mixture of product can take place, and these have implications on the mass balance calculations.

Temporal boundary

The temporal boundary refers to the timeframe for which the outgoing batches of sustainable and non-sustainable products must be equal to the incoming batches. It can be that a mass balance system needs to be continuously in balance, in which case the system needs to be in balance at any point in time. Alternatively, we can specify a period for which the mass balance system needs to be in balance. We can refer to this as the 'mass balance period'.

Under the Sustainable Juice Covenant, the mass balance period is one calendar year (12 months). At the end of each mass balance period, the mass balance system needs to be in balance. In other words, at the end of each calendar year, the incoming sustainable mass (single-strength juice equivalent) must be equal to the outgoing sustainable mass.

However, if at the end of the mass balance period, the outgoing sustainable mass is lower than the incoming sustainable mass (i.e., there is a negative deficit at the end of the calendar year), then we have a mass balance credit. Mass balance credits can be carried over between mass balance periods for a maximum of three consecutive mass balance periods (i.e., for a maximum of three years). After three mass balance periods, the mass balance credit will become invalid. Mass balance credits are commodity/product specific (i.e., mass balance credits can be traded within commodities/products but not between commodities/products).

Spatial boundary

Under the Sustainable Juice Covenant, mass balance credits can be transferred between operations if both operations are under the ownership of the same company/reporting entity and relate to a specific commodity/product.

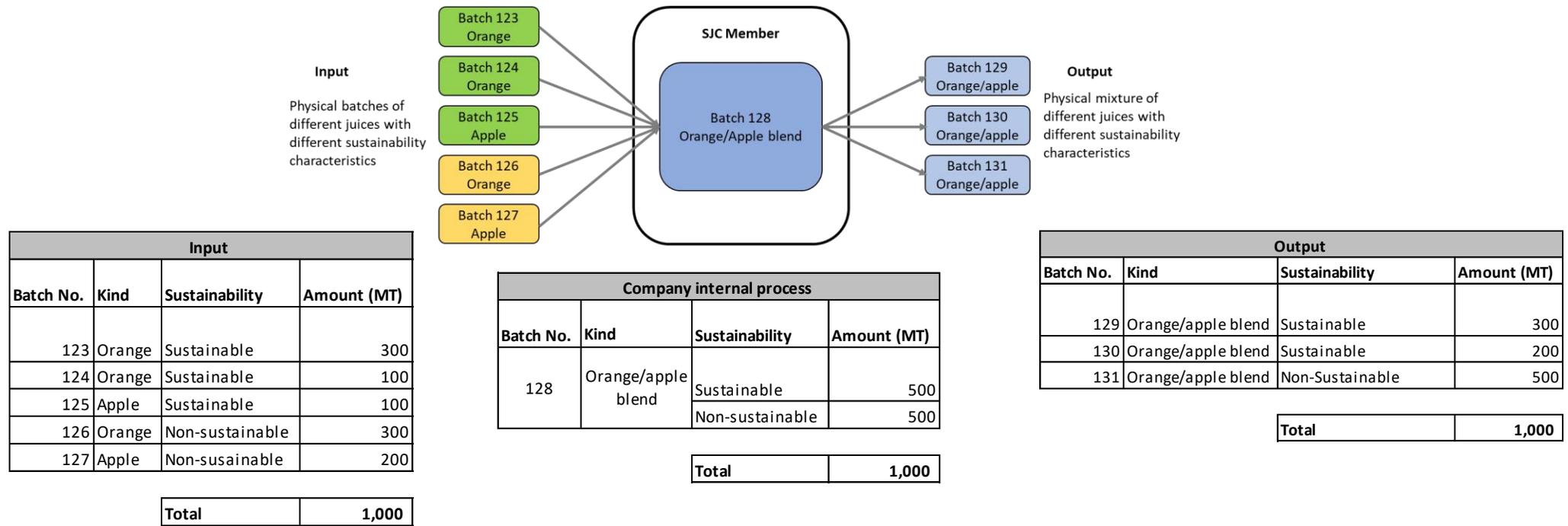


Figure 1: Illustrative example of the physical tracking of juice batches that have been consolidated and blended, and the associated mass balance bookkeeping. In Figure 1, output products are either sustainable or non-sustainable.

Output					
Batch No.	Kind	Sustainability	Amount (MT)	MT Sustainable	MT non-sustainable
129	Orange/apple blend	55% Sustainable	600	330	270
130	Orange/apple blend	85% Sustainable	200	170	30
131	Orange/apple blend	100% Non-Sustainable	200	0	200
Total			1,000	500	500

Figure 2: Illustrative example of the splitting of sustainable and non-sustainable volumes within output products, and the associated mass balance bookkeeping.

References

ISCC (International Sustainability and Carbon Certification) 2016. ISCC 203 “Traceability and Chain of Custody” (v.3.1)