DISCOVER FSC BLOCKCHAIN
Webinar,
Presenters: Steve Ball and Julie Smith
FSC
FORESTS FOR ALL FOREVER™

Please place questions in the Q&A

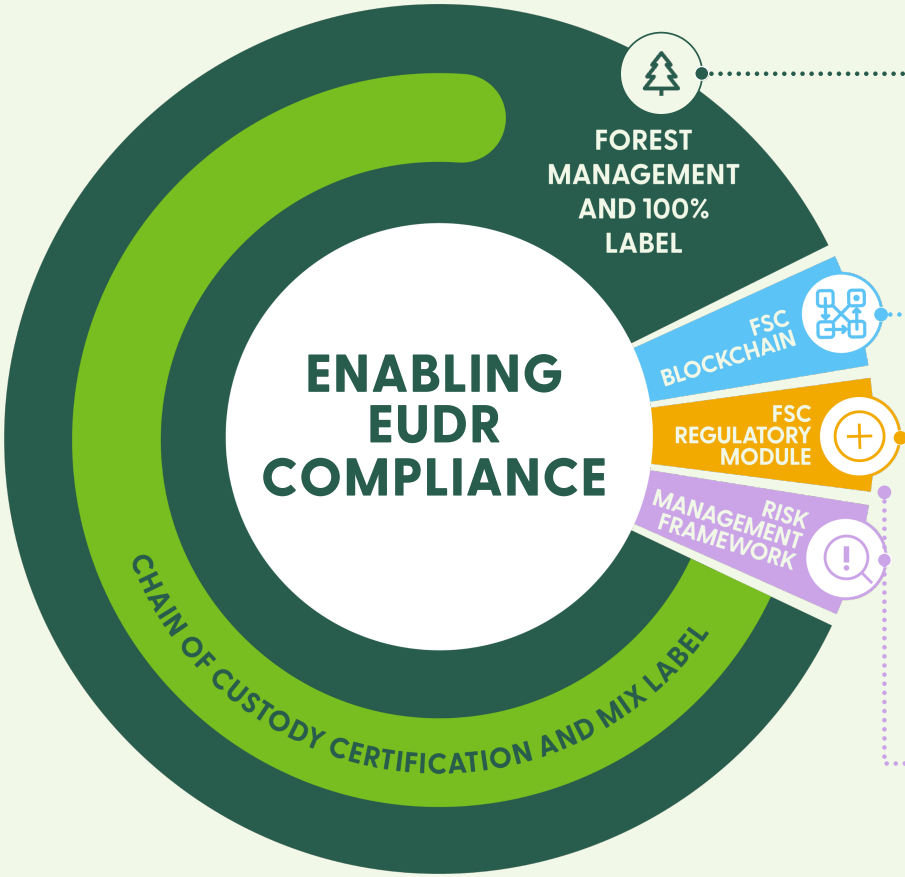
Blockchain FAQ is available at fsc.org/blockchain

NAVIGATING THE TIDE IN DATA REQUIREMENTS: FSC'S ROLE IN SUPPORTING GLOBAL SUSTAINABILITY EFFORTS

We are committed to supporting our stakeholders in the shifting compliance landscape and the increase requirement for data. Our approach involves offering innovative tools and resources, ensuring that companies not only comply but also find the workload reasonable and doable.

Advancing certification compliance

We're bringing together people and organizations to create new solutions for protecting the health and resilience of forests everywhere – at every step of the supply chain.



As the most credible global sustainable forestry solution, **FSC certifications already deliver on numerous EUDR requirements.**

FSC EUDR ALIGNED will enable companies throughout forest supply chains to meet their EUDR obligations.

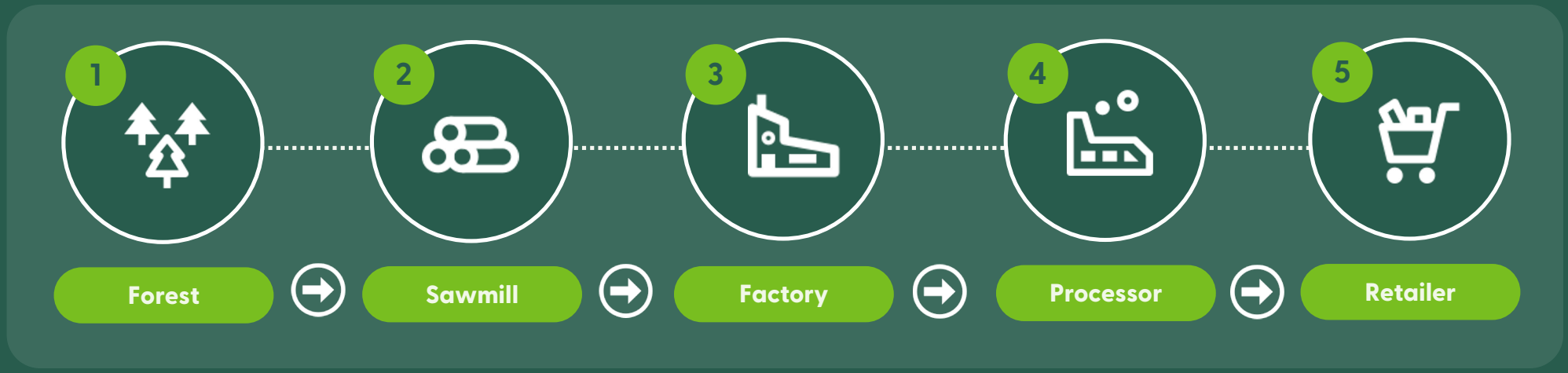
FSC BLOCKCHAIN* will enable companies to track the material's journey through the entire supply chain, meeting EUDR traceability requirements and providing the ability to generate due diligence statements for submission to the EU.

FSC REGULATORY MODULE** will provide additional requirements enabling companies to meet EUDR deforestation, degradation, and legality requirements.

FSC's RISK MANAGEMENT FRAMEWORK*** will provide revised risk assessments aligned with the EUDR, relieving certified and non-certified operators from significant effort. **FSC's NEXT GENERATION RISK ASSESSMENTS** will become available, significantly relieving risk management efforts for companies.

*FSC.org/Blockchain, **FSC-STD-01-004 FSC Regulatory Module, ***FSC-PRO-06-006b Risk Assessment Framework

From the forest to the shelf...



Forest Management (FM) certification

Chain of Custody (CoC) certification

Promotional Licence

CoC alone is insufficient to trace products through the supply chain for EUDR.

Geolocation

Traceability across transfers of ownership

Key knowledge points

VOLUNTARY IMPLEMENTATION

The use of FSC Blockchain will be **voluntary** for all FSC license holders.

BLOCKCHAIN CORE IS FREE OF CHARGE

FSC will not charge for the use of the core functionality of FSC Blockchain.

We do not set audit costs, but it is intended that FSC blockchain will make CoC auditing more efficient.

PREMIUM FEATURES LIKELY

Some premium features may be made chargeable in the future. Which features may be chargeable and their price is as yet undetermined.

FOCUS ON FSC CERTIFIED PRODUCTS

FSC Blockchain is intended to be used for FSC certified products.

It can handle all types of FSC products (FSC 100%, FSC MIX, FSC CW, FSC MIX Credit, etc.)

WORKING ON INTEROPERABILITY

We aim to support inter-operability with other traceability platforms and with the EU platform Traces.

Benefits of using FSC Blockchain

STATUS OF CERTIFICATION

Automatic verification of certification status of suppliers & their certificate scope.

AUTOMATED COC REPORTING

FSC Blockchain will create reports on

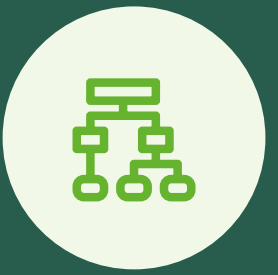
- Volume summary
- Species list
- Product group list

ATTACHING LEGALITY DOCS

Users can attach and share critical documents, such as harvesting permits, to ensure they travel with the consignment data.

EASY DATA SHARING

FSC blockchain makes it easy to share data, e.g. harvesting location, with your downstream trading partners.



ALL DUE DILIGENCE DATA IN ONE PLACE

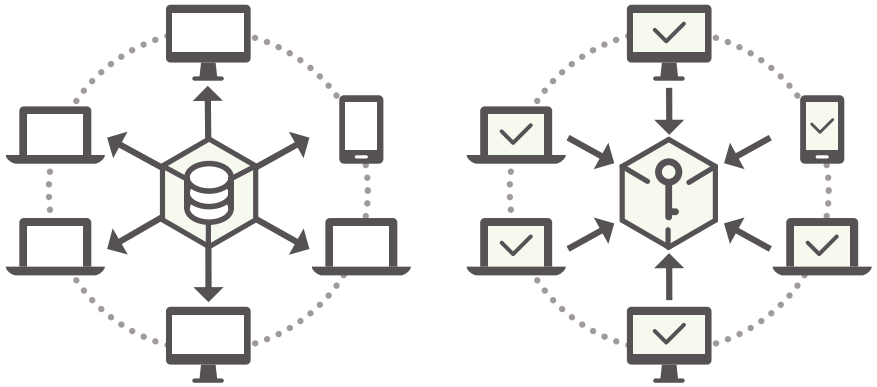
Everything you need to demonstrate due diligence collected together in one system.

Only one company on FSC Blockchain

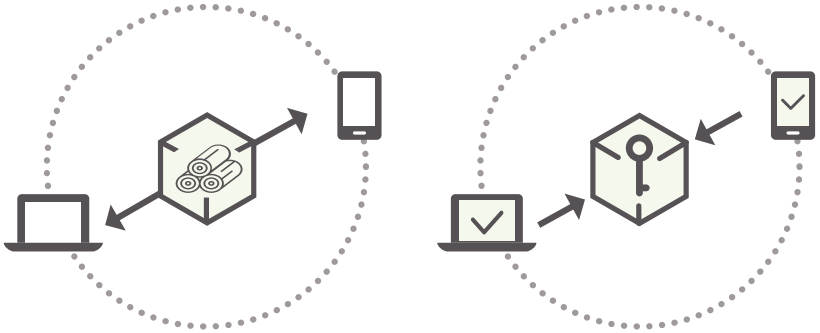
All of a supply chain on FSC Blockchain

What is blockchain technology?

At the heart of blockchain technology is an immutable ledger that ensures the integrity of transaction data is ensured against malicious edits.



Public blockchain
Open and decentralized. All nodes verified by all other nodes and therefore highly energy consuming. Think bitcoin and similar.



Consortium blockchain
A semi-private, permissioned network where access is controlled, offering enhanced security and efficiency tailored to the industry.

What is FSC Blockchain at this stage?

A very simple interface, which can work across all types of certificate types and company structures.

We are at the beginning – complexity and finesse will come with time

What will FSC Blockchain enable us to do?

Geo Location

Time of Harvest

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Stock

8°33'70", 47°22'74"
1/1/2023 – 10/1/2023

7°45'11", 6°22'28"
10/7/2022 – 11/7/2022

14°33'70", 47°21'74"
11/2/2023 – 11/6/2023

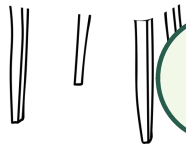
18°23'75", 61°23'47"
20/5/2023 – 25/5/2023

Production

8°33'70", 47°22'74"
1/1/2023 – 10/1/2023

7°45'11", 6°22'28"
10/7/2022 – 11/7/2022

14°33'70", 47°21'74"
11/2/2023 – 11/6/2023



18°23'75", 61°23'47"
20/5/2023 – 25/5/2023

Sale

8°33'70", 47°22'74"
1/1/2023 – 10/1/2023

7°45'11", 6°22'28"
10/7/2022 – 11/7/2022

14°33'70", 47°21'74"
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18°23'75", 61°23'47"
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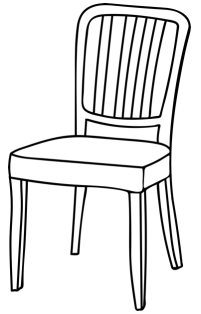
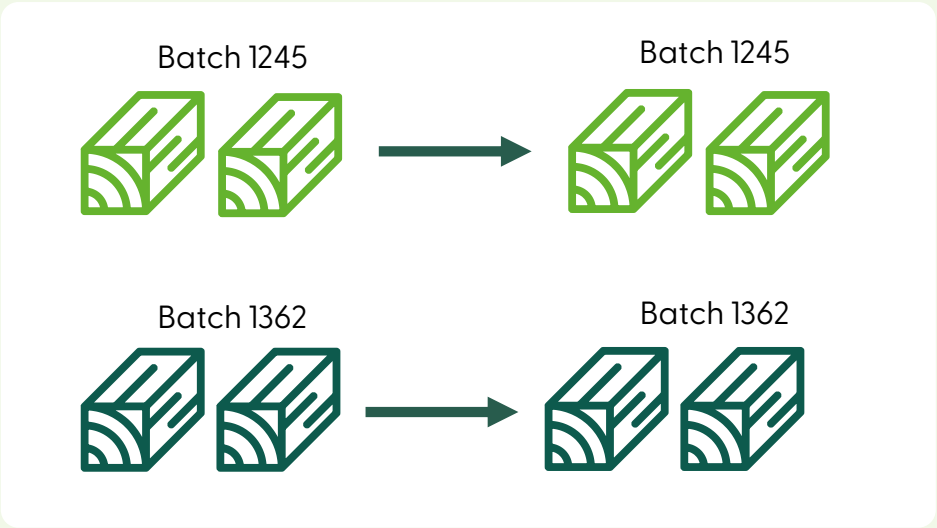
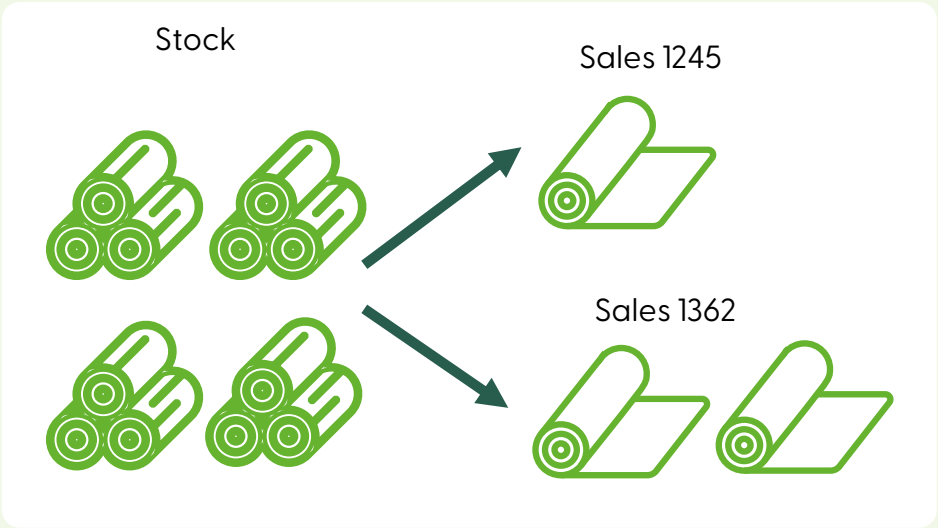


Processing: Batched v Continuous Operations





Batched Operations

(typically use Transfer materials accounting system)

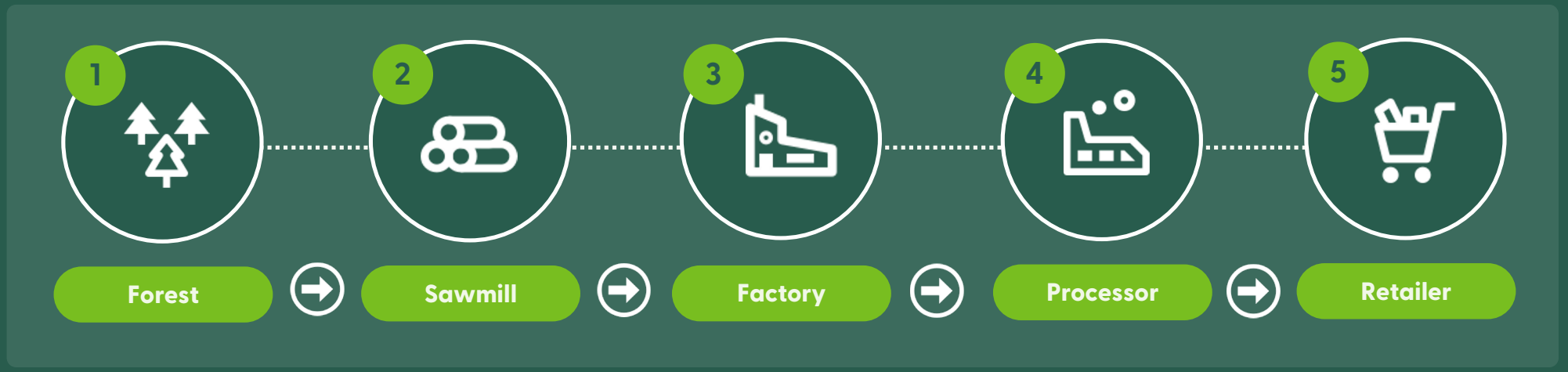
- Apply mainly to discrete products – you do not sell half a table
- Can track exactly which inputs (delivered batches) feed into which outputs (manufacturing batches)

Continuous Operations

(typically use either Percentage or Credit systems)

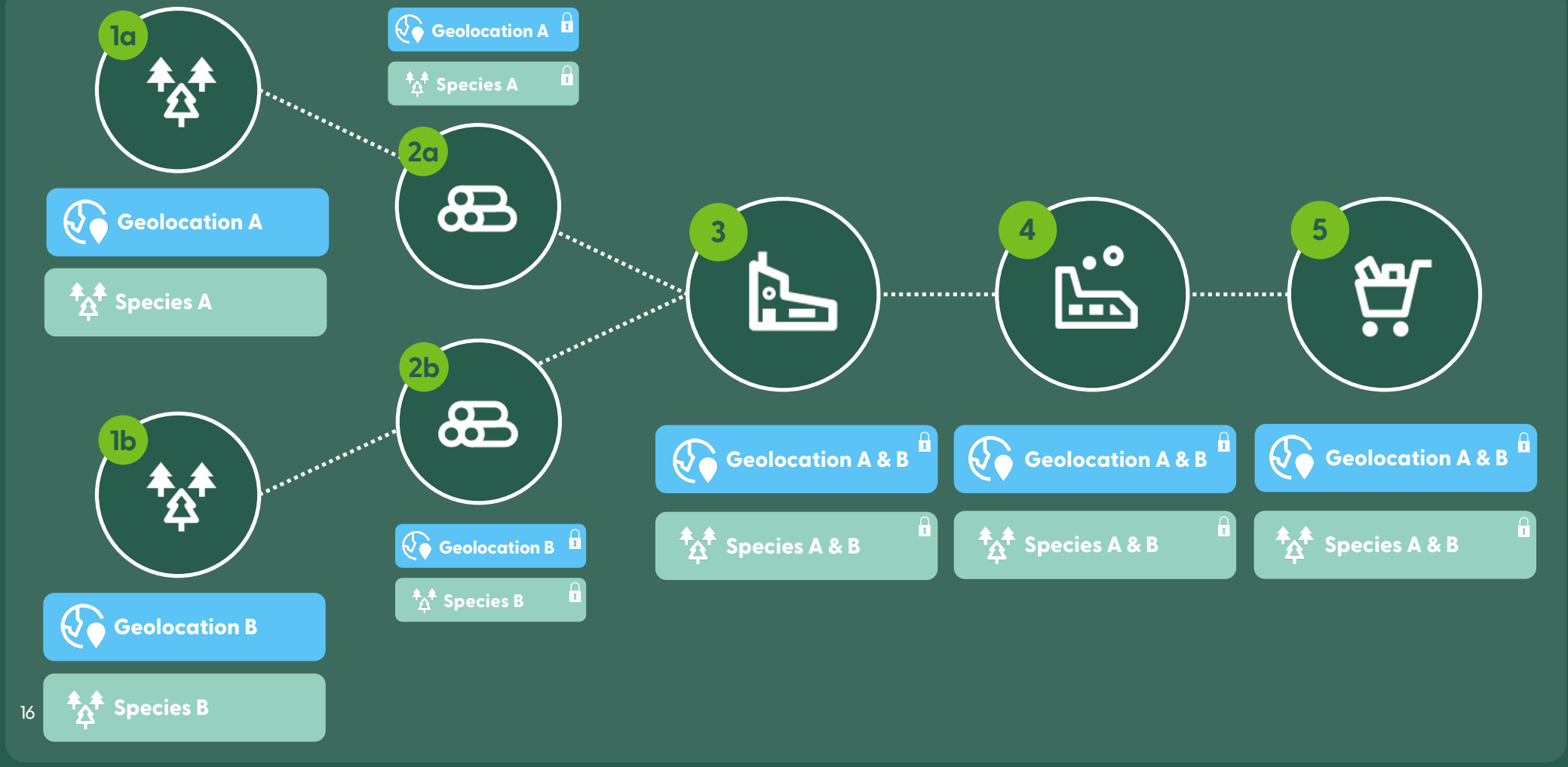
- Apply mainly to sub-dividable products – you could buy 0.675l of liquid rubber
- Inputs all mixed in together so exact traceability not possible
- Instead use date range to track possible input sources

Traceability allows us to transmit product data along the supply chain



NB: Simplified supply chain! FSC Blockchain will be able to handle multiple species and products on one invoice / one trade

We can combine data in composite products



Technology scales to even the most complex supply chains

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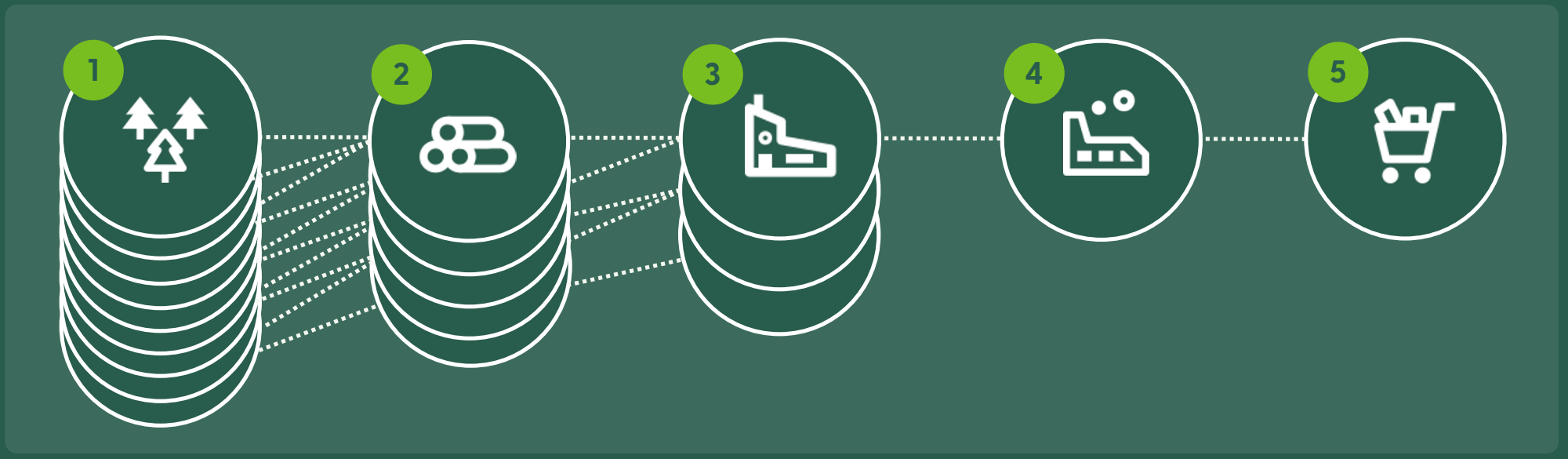
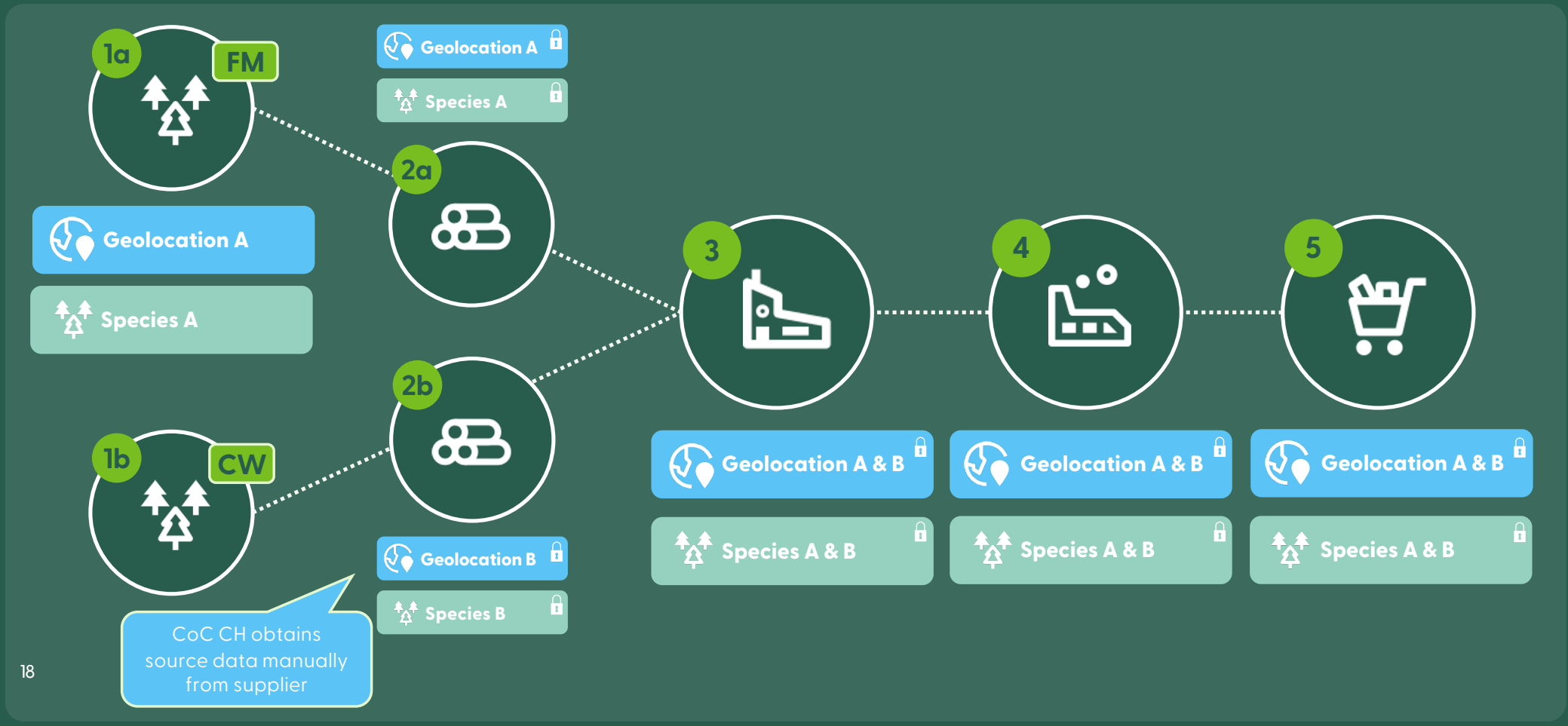


1	2	3	4	5
Geolocation	Geolocation	Geolocation	Geolocation	Geolocation
Species	Species	Species	Species	Species
Volume	Volume	Volume	Volume	Volume

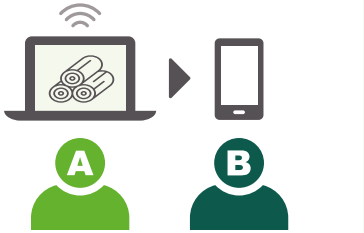
For FSC Controlled Wood we capture the source data later in the chain



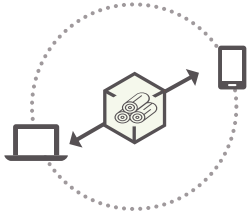
NB: Similar setup will be possible for FSC Recycled input.

How does a trade get verified on FSC Blockchain?

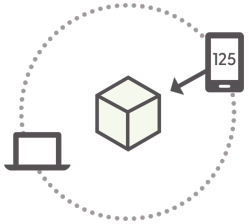
Enter a trade



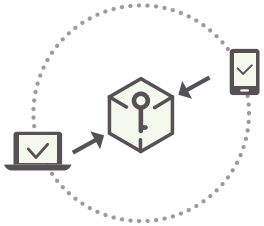
Trade appears on both partners records



The counterparty enters the volume to confirm



If volumes match, the transaction is matched



The block is added to the blockchain

The volume now appears with both partners

When is a trade matched?

Trading parties must agree on the following :

- FSC licence codes
- Invoice date
- Product category
- Species composition
- Quantity *(either volume or weight, within a small margin of error)*

If either of these does not match, the transaction will not be written to the blockchain as a matched claim but remain “unmatched”

How does FSC Blockchain address volume accounting fraud?

There are two main times when volume accounting fraud can happen:

During a transaction – when the invoice copy held by the seller reports different (lower) volumes than the invoice copy held by the buyer – known as **Volume Mismatch**

Volume Mismatch is impossible in FSC Blockchain, because volumes are reported on both ends.

Auditors can focus on unverified transactions* in looking for **Volume Mismatch**

During processing – lower volumes of inputs are reported than actually needed during processing – known as **Conversion Factor Manipulation**

Conversion Factor Manipulation should be exposed using FSC Blockchain because actual volumes consumed in production will be made explicit. CBs and FSC/ASI will be able to compare yield rates with similar businesses

* Unverified transactions will also prevent sharing of data used for due diligence, so users of the Due Diligence Reporting System should be 100% protected against Volume Mismatches.

Setting up FSC Blockchain

1

Configure products

Set up your products and their variations.

2

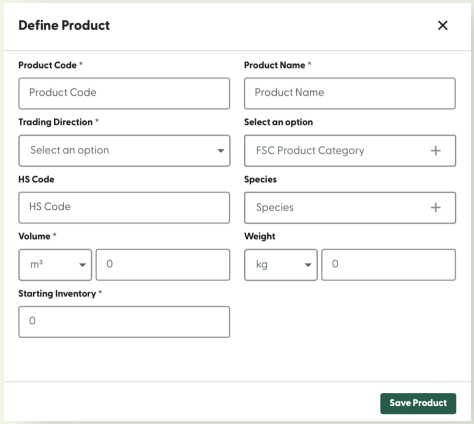
Configure trading partners

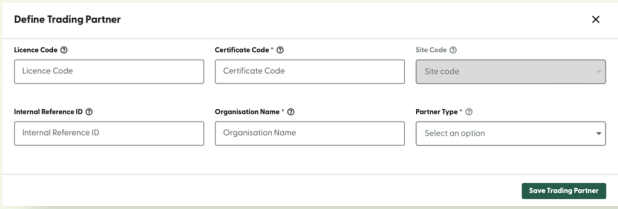
Connect to your trading partners and invite them to join blockchain.

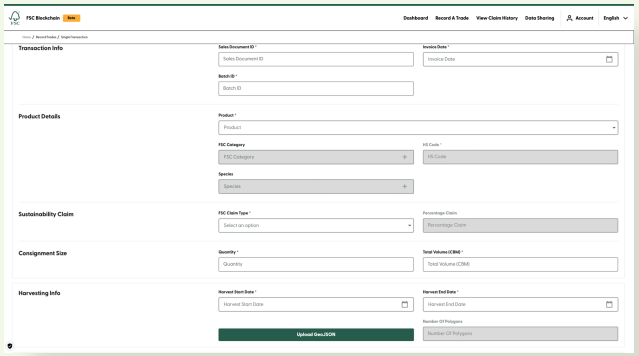
3

Start registering trades!

You are now ready to start entering and receiving trade information.







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How can certificate holders upload data to FSC Blockchain?

Direct Entry

- Individual transactions recorded directly on the FSC Blockchain via the application website.
- User-friendly and accessible
- Mainly aimed at micro companies or companies occasional trade of FSC.

Bulk Uploads

- Bulk uploads of claims using spreadsheets
- Can cover multiple transactions over a specific period.
- Efficient for managing large volumes of data and periodic uploads.
- Expected to be the widest used method in the beginning.

API Integration

- Integration of FSC into own systems using an Application Programming Interface (API).
- Automates the data transfer in both directions.
- Will require IT investments from certificate holders in setup.
- APIs will be provided by FSC for the most commonly used platforms in key regions.

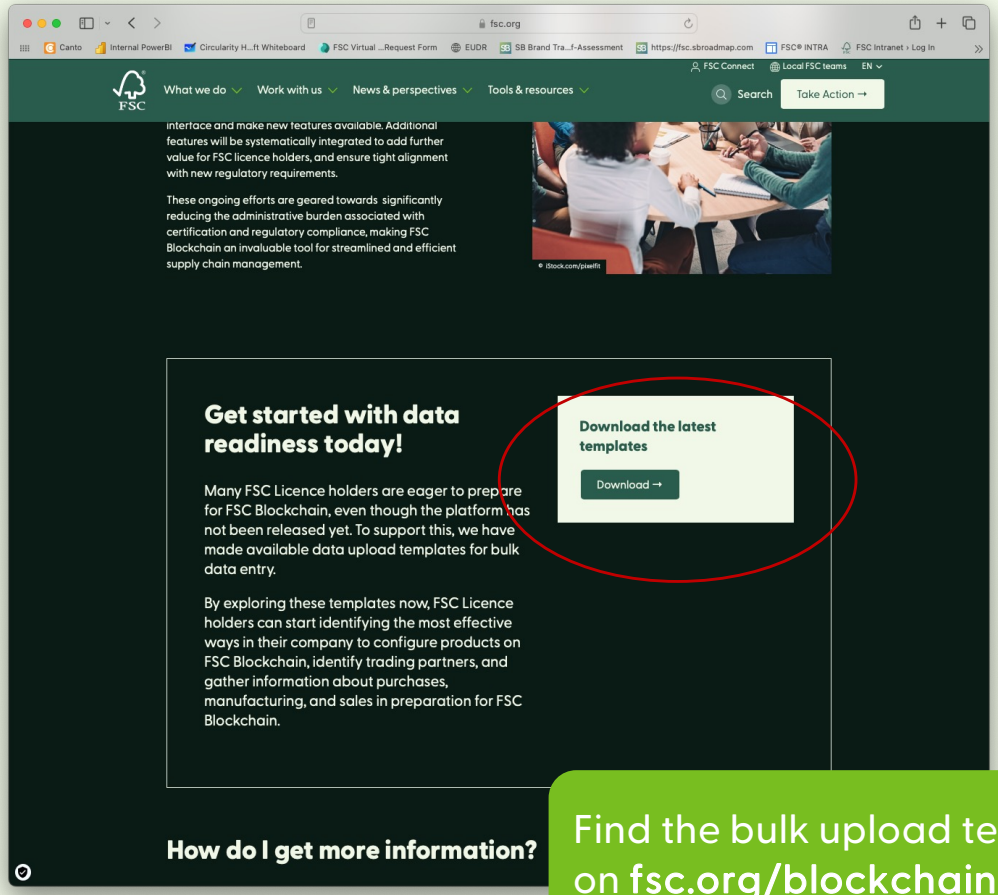
Bulk upload templates

Bulk Upload templates

Bulk templates are released now on our website.

Using the templates companies can start preparing data structures.

We recommend downloading and testing against own data structures to ease onboarding later.



Find the bulk upload templates on **fsc.org/blockchain**

Bulk upload templates

2

Bulk Upload templates

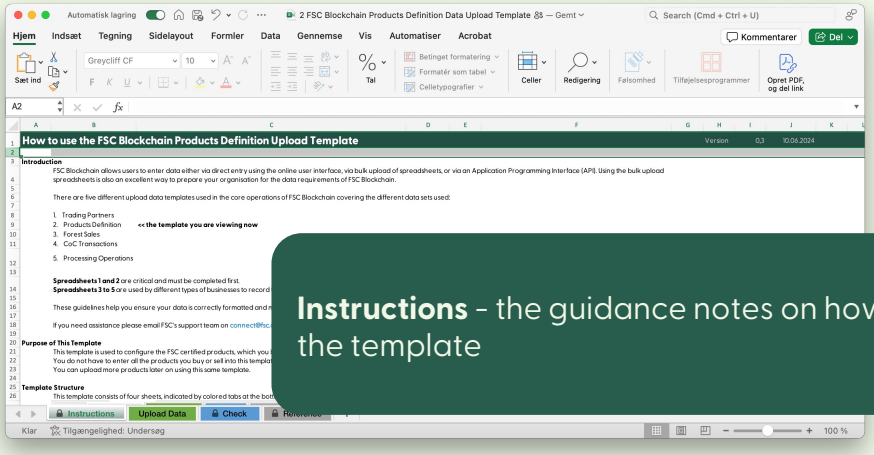
The package contains five templates and an instruction

The templates are

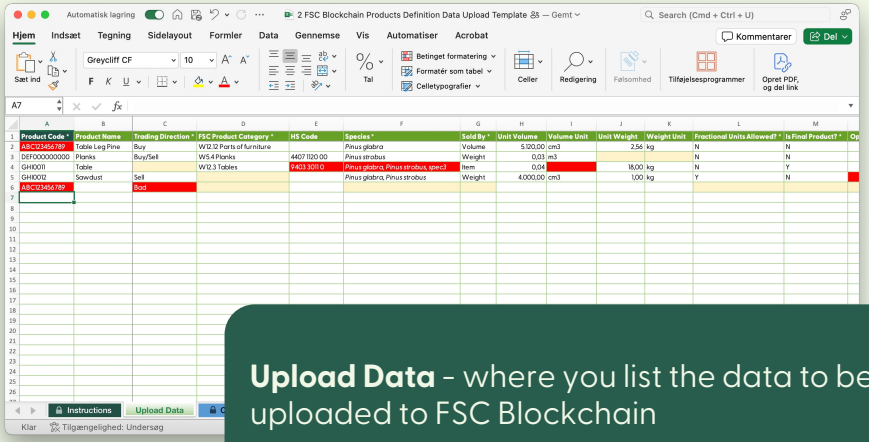
1. Trading Partners
2. Products Definition
3. Forest Sales
4. CoC Transactions
5. Processing Runs

Bulk upload templates

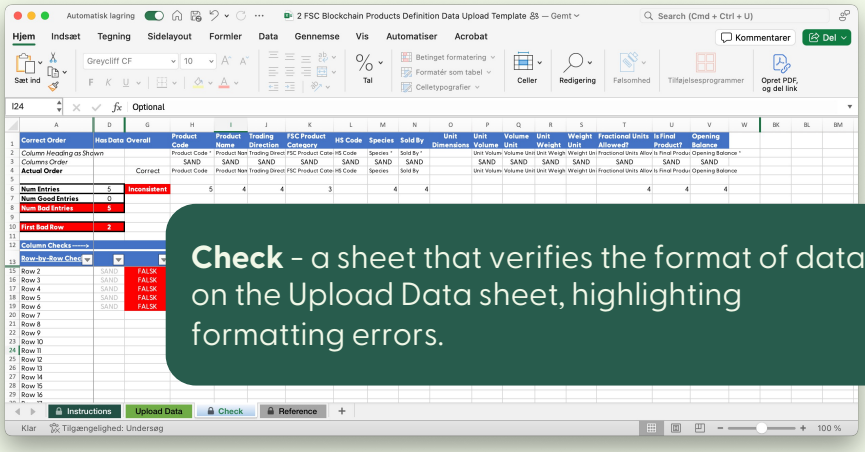
All files are structured the same way



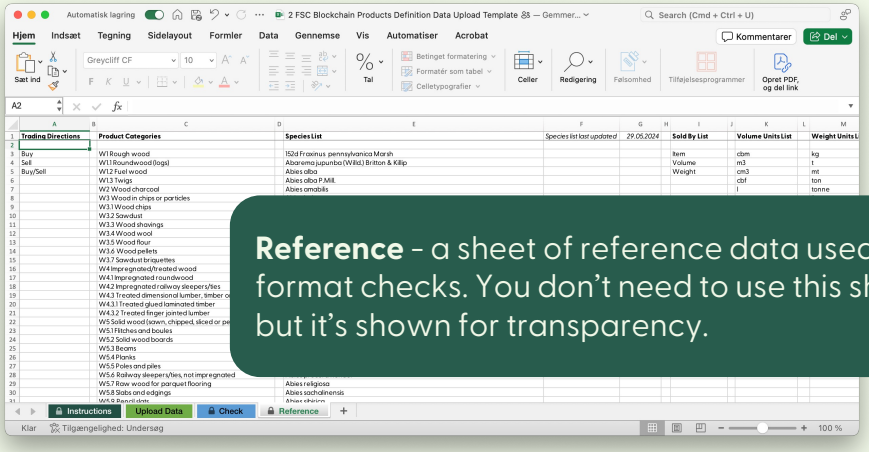
Instructions - the guidance notes on how to use the template



Upload Data - where you list the data to be uploaded to FSC Blockchain



Check - a sheet that verifies the format of data on the Upload Data sheet, highlighting formatting errors.



Reference - a sheet of reference data used for format checks. You don't need to use this sheet, but it's shown for transparency.

Bulk upload templates

Trading partners

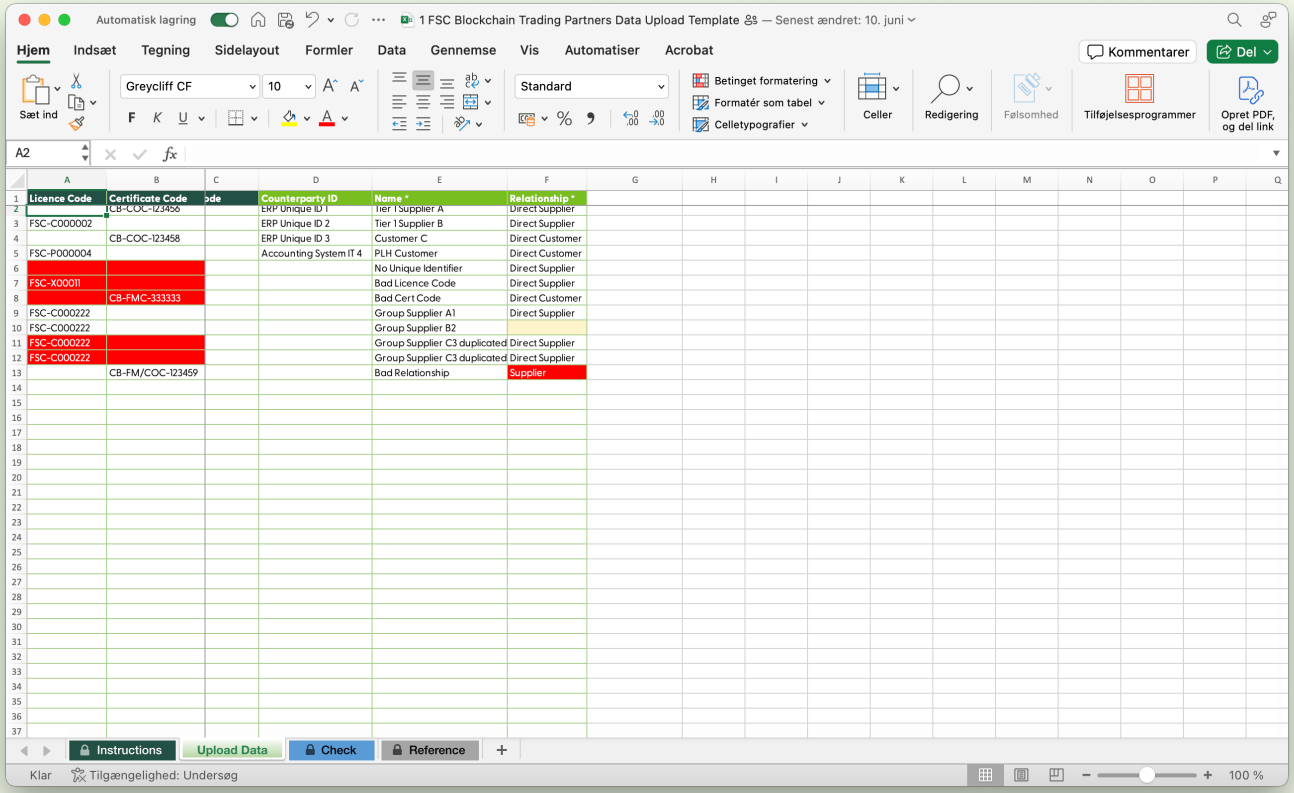
Enables you to upload all of your trading partners in bulk.

Contains the fields

- Licence Code ⁺
- Certificate Code ⁺
- Site Code
- Counterparty ID
- Name *
- Relationship *

* Mandatory fields

⁺ One of Licence Code & Certificate Code is also mandatory



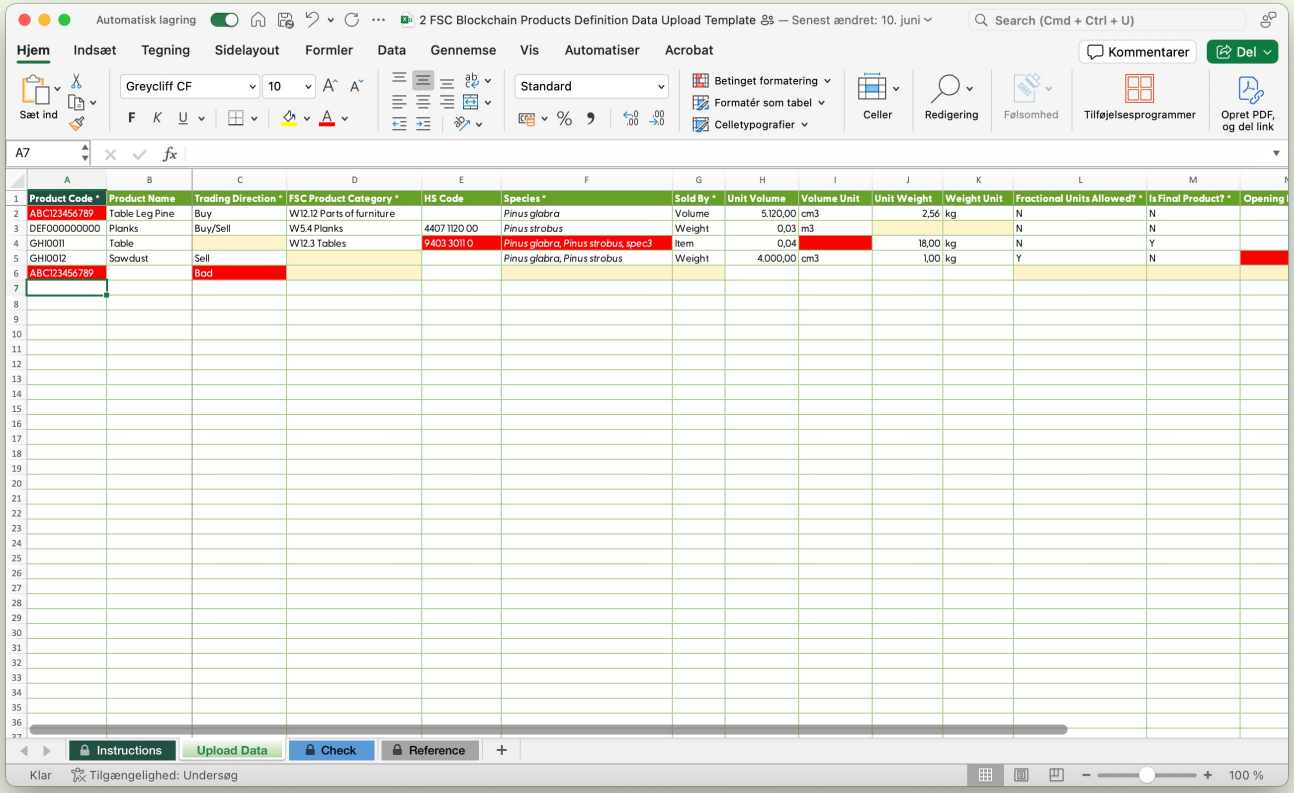
Product definitions

Enables you to upload all of your products in bulk. Contains the fields

- Product Code*
- Product Name
- Trading Direction*
- FSC Product Category*
- HS Code
- Species*
- Sold By*
- Unit Volume(*)
- Volume Unit (*)
- Unit Weight (*)
- Weight Unit (*)
- Fractional Units Allowed?*
- Is Final Product?*
- Opening Balance*

* Mandatory fields

Bulk upload templates



Product Code *	Product Name	Trading Direction *	FSC Product Category *	HS Code	Species *	Sold By *	Unit Volume	Volume Unit	Unit Weight	Weight Unit	Fractional Units Allowed? *	Is Final Product? *	Opening
ABC123456789	Table Leg Pine	Buy	W12.12 Parts of furniture		*Pinus glabra*	Volume	5.120,00	cm3	2,56	kg	N	N	
DEF000000000	Planks	Buy/Sell	W5.4 Planks	4407 1120 00	*Pinus strobus*	Weight	0,03	m3			N	N	
GHI0011	Table		W12.3 Tables	9403 3011 0	*Pinus glabra, Pinus strobus, spec3*	Item	0,04		18,00	kg	N	Y	
GHI0012	Sawdust	Sell			*Pinus glabra, Pinus strobus*	Weight	4.000,00	cm3	1,00	kg	Y	N	
ABC123456789		Bad											

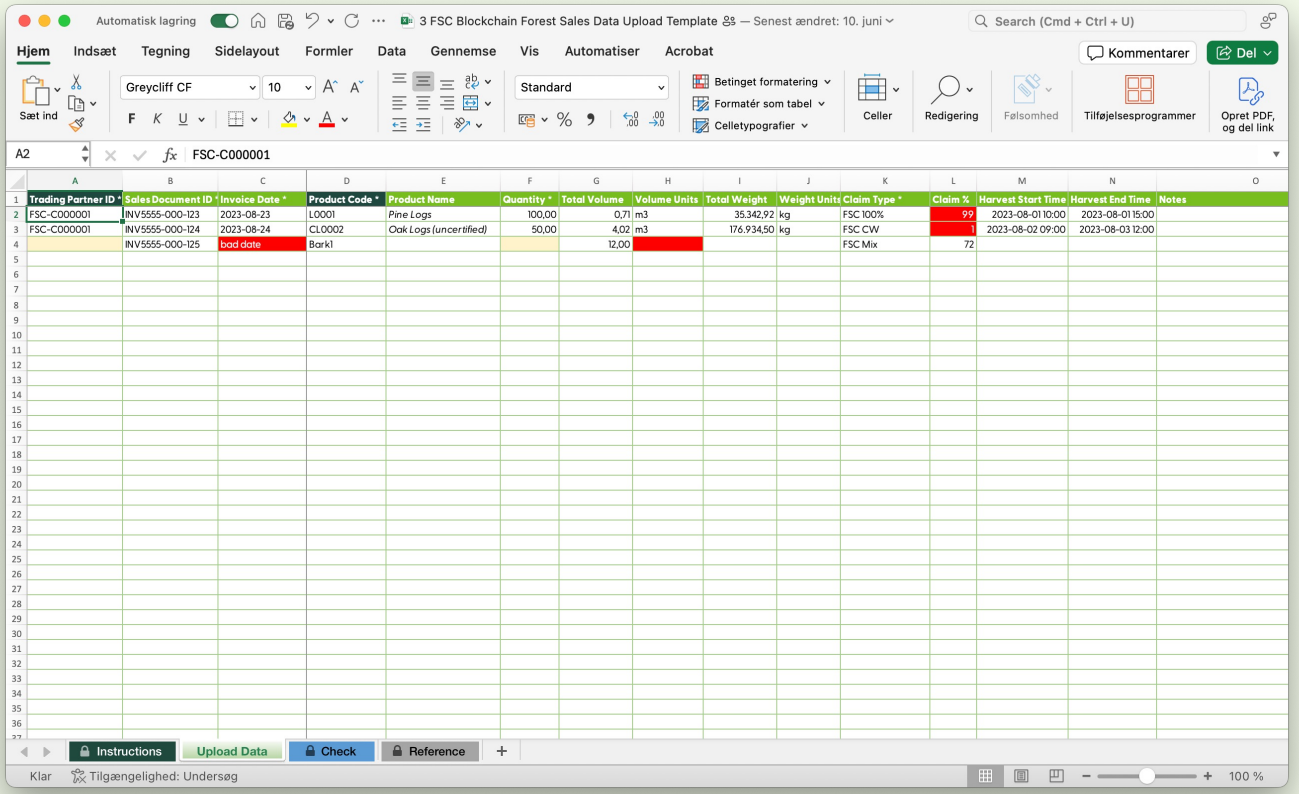
Bulk upload templates

Forest sales

Enables you to upload your forest sales. Contains the fields

- Trading Partner ID*
- Sales Document ID*
- Invoice Date*
- Product Code*
- Product Name
- Quantity*
- Total Volume
- Volume Units
- Total Weight
- Weight Units
- Claim Type*
- % Claim(*)
- Harvest Start Time
- Harvest End Time
- Notes

* Mandatory fields



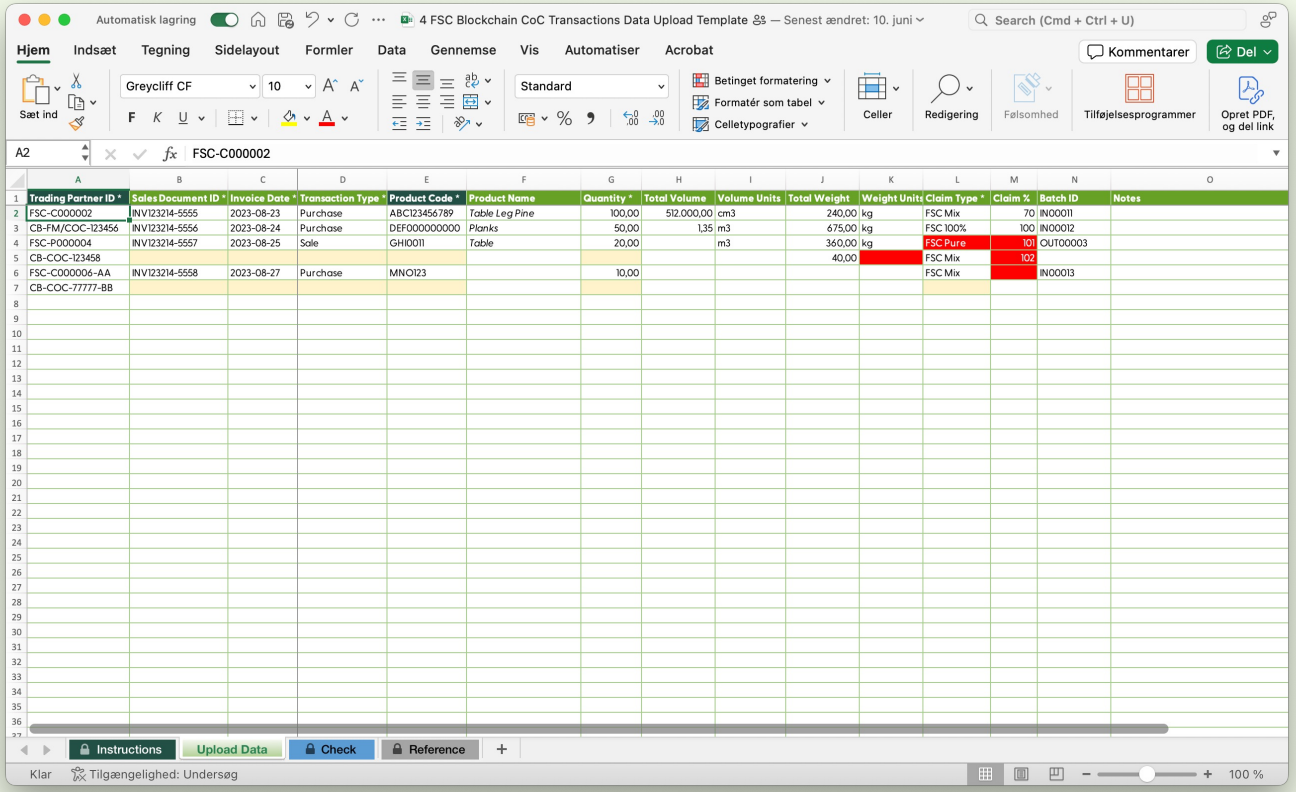
Bulk upload templates

CoC transactions

Enables you to upload CoC transactions in bulk. Contains the fields

- Trading Partner ID*
- Sales Document ID*
- Invoice Date*
- Transaction Type*
- Product Code*
- Product Name
- Quantity*
- Total Volume
- Volume Units
- Total Weight
- Weight Units
- Claim Type*
- % Claim
- Batch ID
- Notes

* Mandatory fields



Trading Partner ID *	Sales Document ID *	Invoice Date *	Transaction Type *	Product Code *	Product Name	Quantity *	Total Volume	Volume Units	Total Weight	Weight Units	Claim Type *	Claim %	Batch ID	Notes
FSC-C000002	INV123214-5555	2023-08-23	Purchase	ABC123456789	*Table Leg Pine*	100,00	512.000,00	cm3	240,00	kg	FSC Mix	70	IN00011	
CB-FM/COC-123456	INV123214-5556	2023-08-24	Purchase	DEF000000000	*Planks*	50,00	1,35	m3	675,00	kg	FSC 100%	100	IN00012	
FSC-P000004	INV123214-5557	2023-08-25	Sale	GHI0011	*Table*	20,00		m3	360,00	kg	FSC Pure	101	OUT00003	
CB-COC-123458									40,00		FSC Mix	102		
FSC-C000006-AA	INV123214-5558	2023-08-27	Purchase	MNO123		10,00					FSC Mix		IN00013	
CB-COC-77777-BB														

Processing Operations

Enables you to upload bulk data on processing operations.

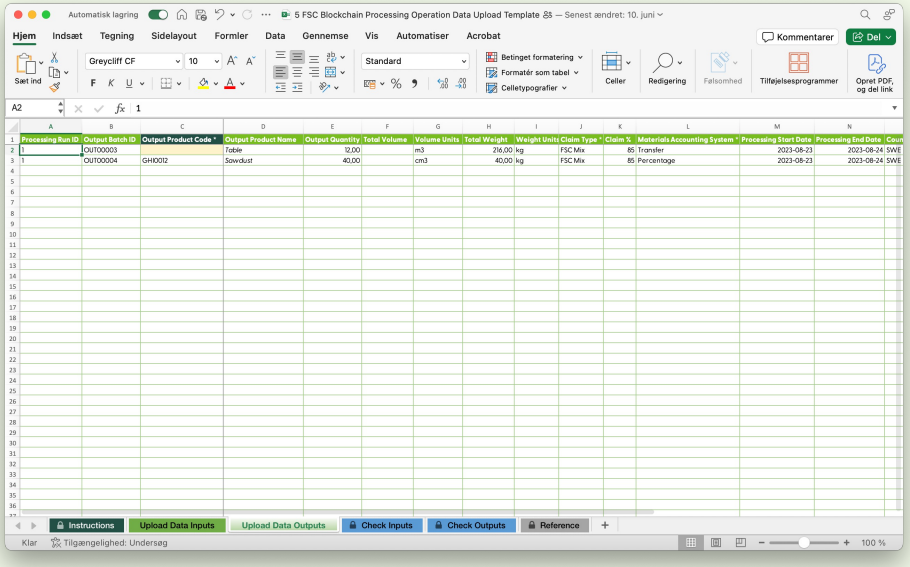
Contains the fields

- Processing Run ID
- Input Product Code*
- Input Product Name
- Input Batch ID
- Input Quantity*
- Total Volume
- Volume Units
- Total Weight
- Weight Units
- Notes

* Mandatory fields

- Processing run ID
- Output batch ID
- Output Product Code*
- Output Product Name
- Output Quantity*
- Total Volume
- Volume Units
- Total Weight
- Weight Units
- Claim Type*
- % Claim(*)
- Materials Accounting System*
- Processing Start Date
- Processing End Date
- Country of Production
- Notes

Bulk upload templates



New functionally added: sandbox

We are making you able to play around and practice before you start uploading

1

DO INITIAL SETUP OF PRODUCTS AND TRADING PARTNERS

Your products and trading partners will carry over to the sandbox. We recommend that you upload your real ones, so you don't have to set your account up twice.

2

TEST WITH DUMMY TRADING PARTNERS

The sandbox will contain dummy trading partners, which you can test with.

You can also test with your real trading partners without trades being sent to them in real life.

3

TEST FUNCTIONALITY AND UPLOAD

Create dummy data and trades to play around with functionality.

None of it will be recorded to your actual blockchain. It therefore also will not be in your volume summary.

4

MOVE TO THE LIVE VERSION ONCE YOU ARE READY

When you have tested functionality and are ready, you can switch to the real blockchain and start uploading real transactions.

These will be part of your volume summaries and be submitted to trading partners who are also on FSC Blockchain.

Blockchain: data confidentiality v transparency

Sensitive Commercial Data

A COMPANY'S SUPPLIERS AND TRANSACTION VOLUMES ARE HIGHLY SENSITIVE COMMERCIAL DATA

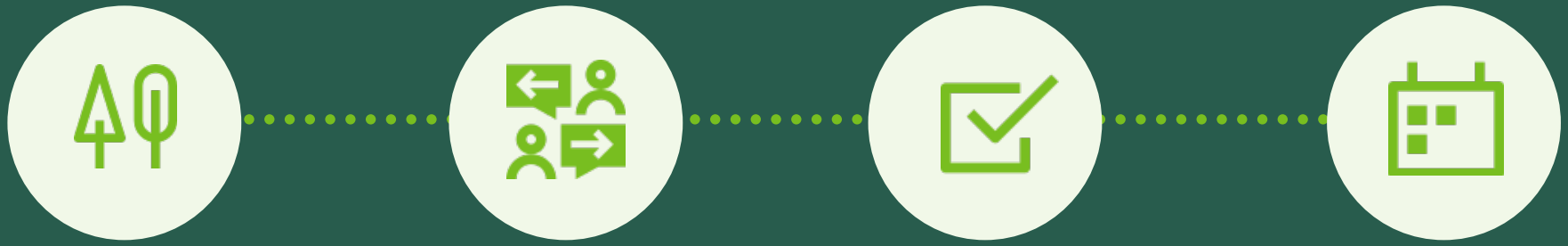
- Such data may also be subject to regulation where it might impinge upon stock prices

Encryption & Selective Decryption

ALL DATA ENCRYPTED AT POINT OF UPLOAD

- Data owner controls what data can be shared and with whom
- Customers can request access
- Rules system (like email sorting rules) allows for flexibility & precision
- Data sharing can be revoked at any time
- Even FSC will not have access to transaction data

Blockchain: data sharing flexibility



CHOOSE WHAT TO SHARE

- Supplier Identity
- Origin Data
- Attached Documents by category
- Risk Assessments & Mitigating Actions

CHOOSE BASIS OF SHARING

- Per Transaction
- Per Customer

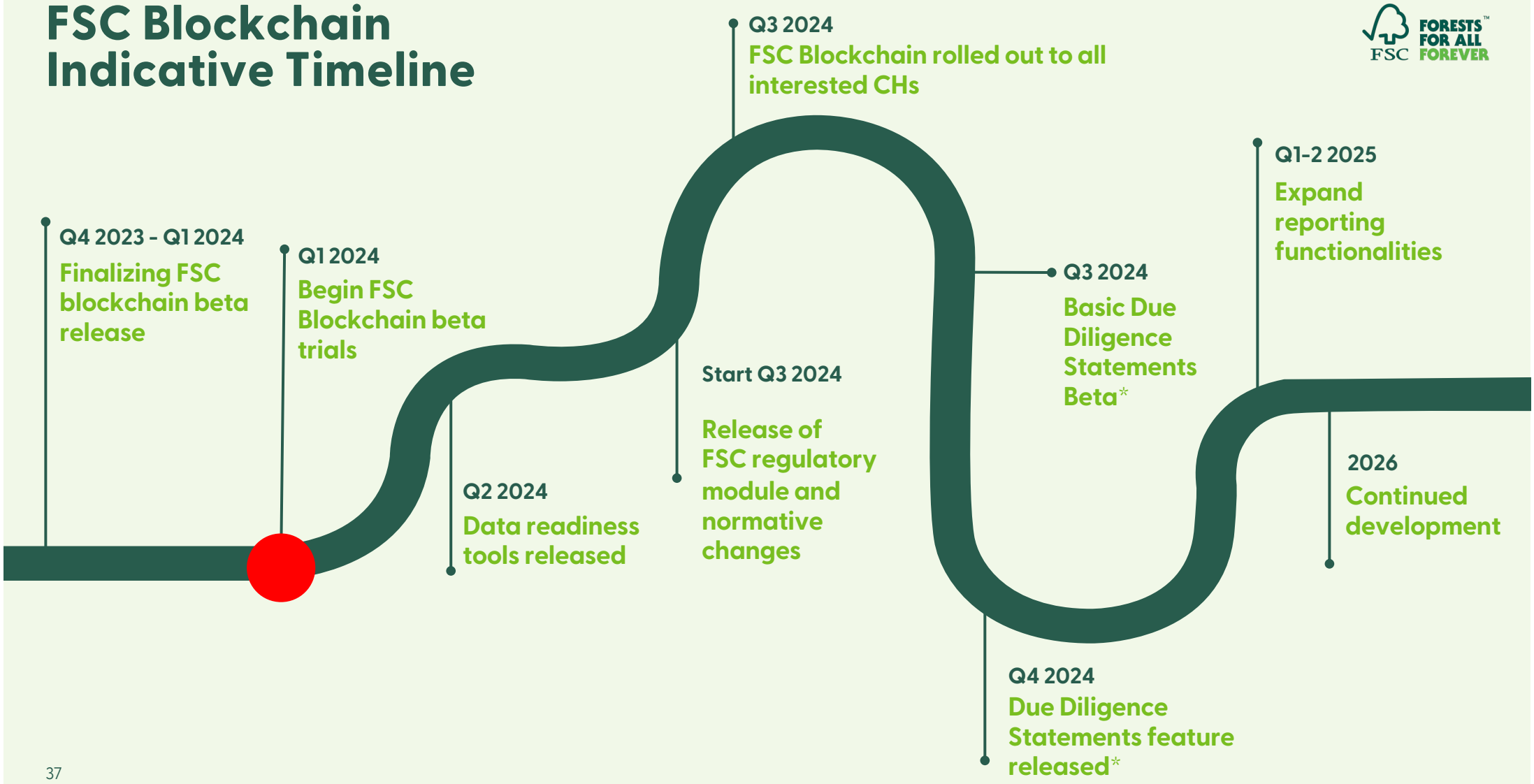
CHOOSE RIGHTS GRANTED

- Requester can see data, but cannot share with others
- Requester can see data, and onward share with their customers without your pre-approval

CHOOSE PERIOD COVERED

- One transaction only
- All transactions within a defined period of time
- All transactions to date
- All future transactions

FSC Blockchain Indicative Timeline



*pending the release of system specification by the EU Commission

Thank you

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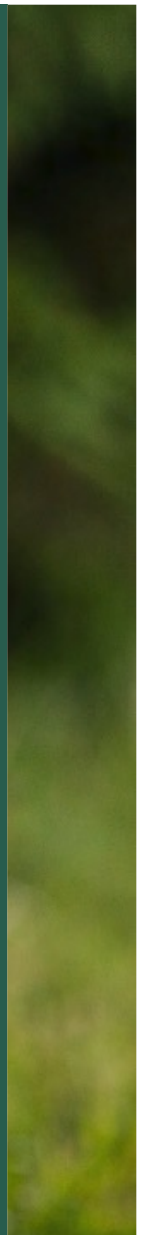
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