# DISCOVER FSC BLOCKCHAIN

Webinar, April 2024

Presenters: Loa Worm, Julie Smith, Steve Ball

# Agenda

Introduction to FSC Blockchain with demo

FSC Blockchain Beta Trials, Support and data readiness

Q&A

## Please place questions in the Q&A

## We will make time at the end after the recording has been paused.

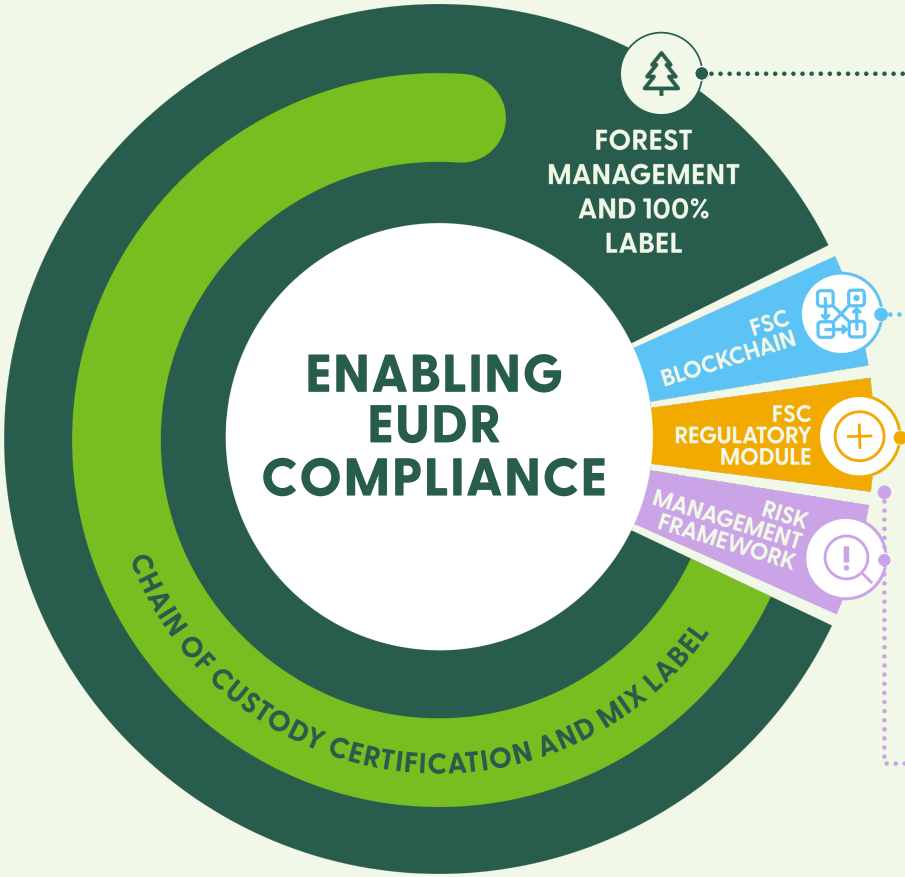
## Blockchain FAQ is available at fsc.org/blockchain

# 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.

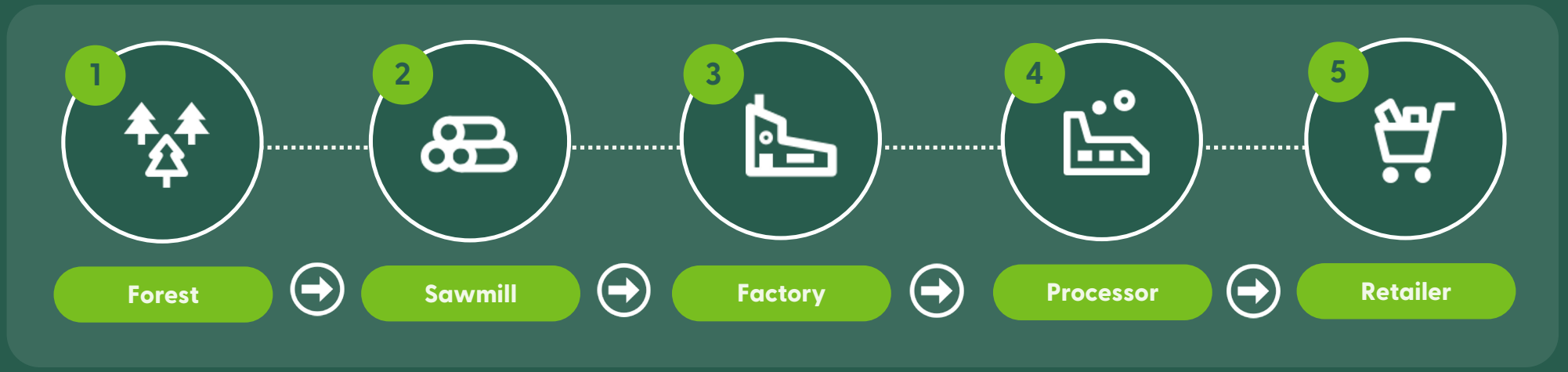
**FSC BLOCKCHAIN*** will enable companies to track the material's journey through the entire supply chain, meeting EUDR traceability requirements and providing the ability to generate due diligence statements for submission to the EU.

**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

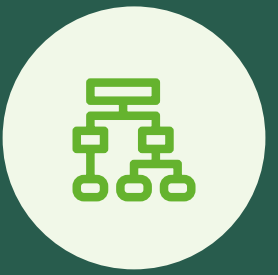
- Volume summary
- Species list
- Product group list

### 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

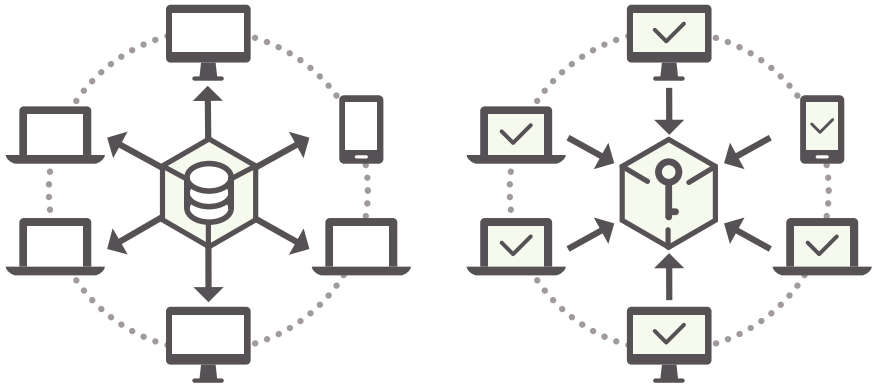
Everything you need to demonstrate due diligence collected together in one system.

Only one company on FSC Blockchain

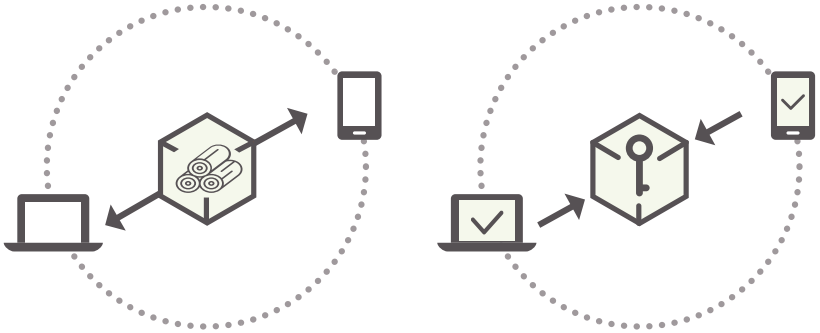
All of a supply chain on FSC Blockchain

# 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

FSC FORESTS FOR ALL FOREVER

## 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"
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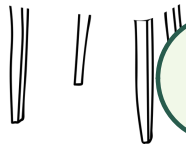

18°23'75", 61°23'47"
20/5/2023 – 25/5/2023

## 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

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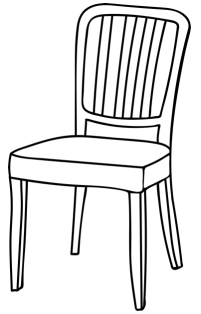
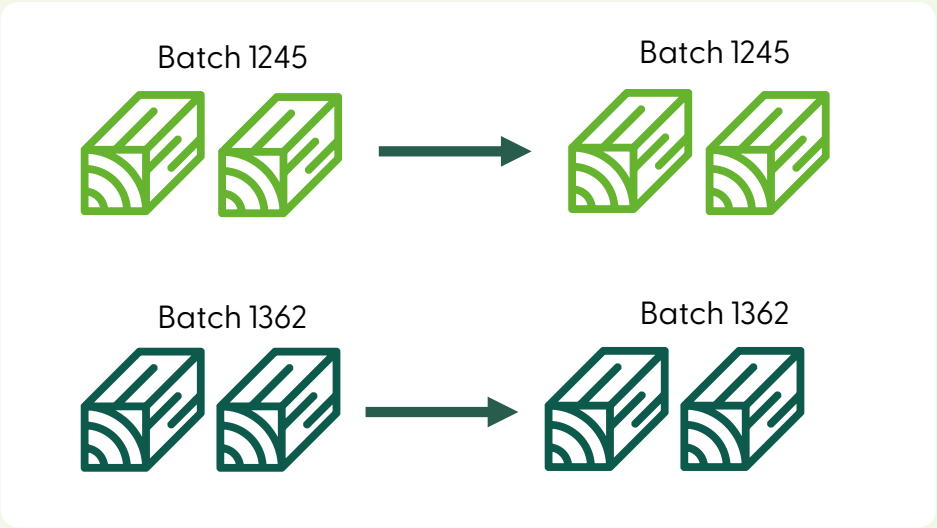
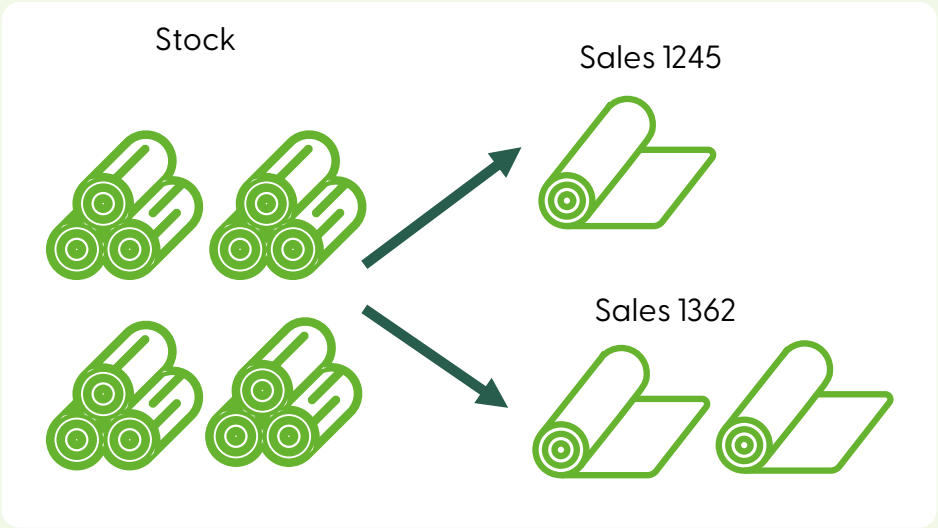


# Processing: Batched v Continuous Operations




## Batched Operations

*(typically use Transfer materials accounting system)*

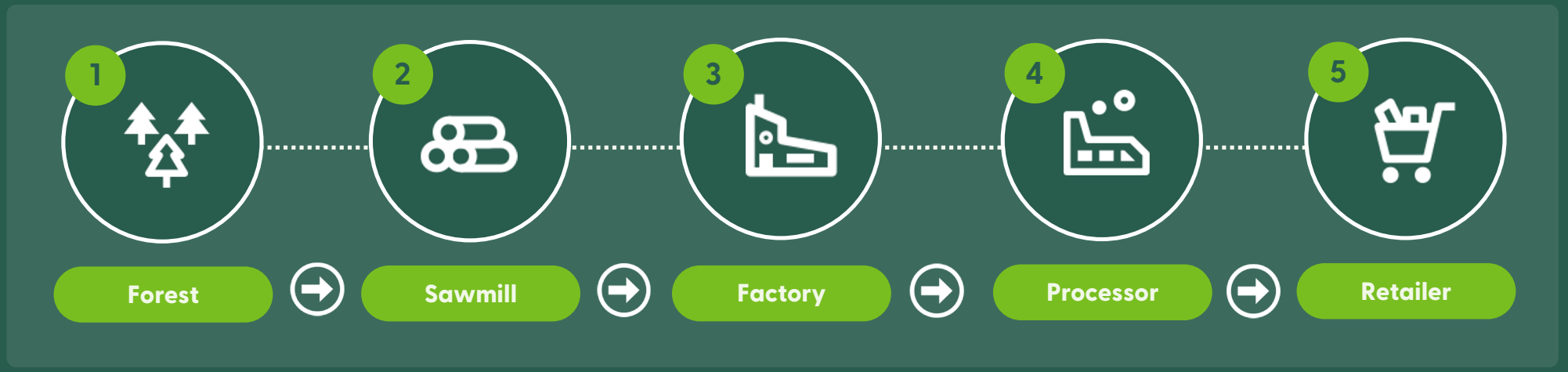
- Apply mainly to discrete products – you do not sell half a table
- Can track exactly which inputs (delivered batches) feed into which outputs (manufacturing batches)

## Continuous Operations

*(typically use either Percentage or Credit systems)*

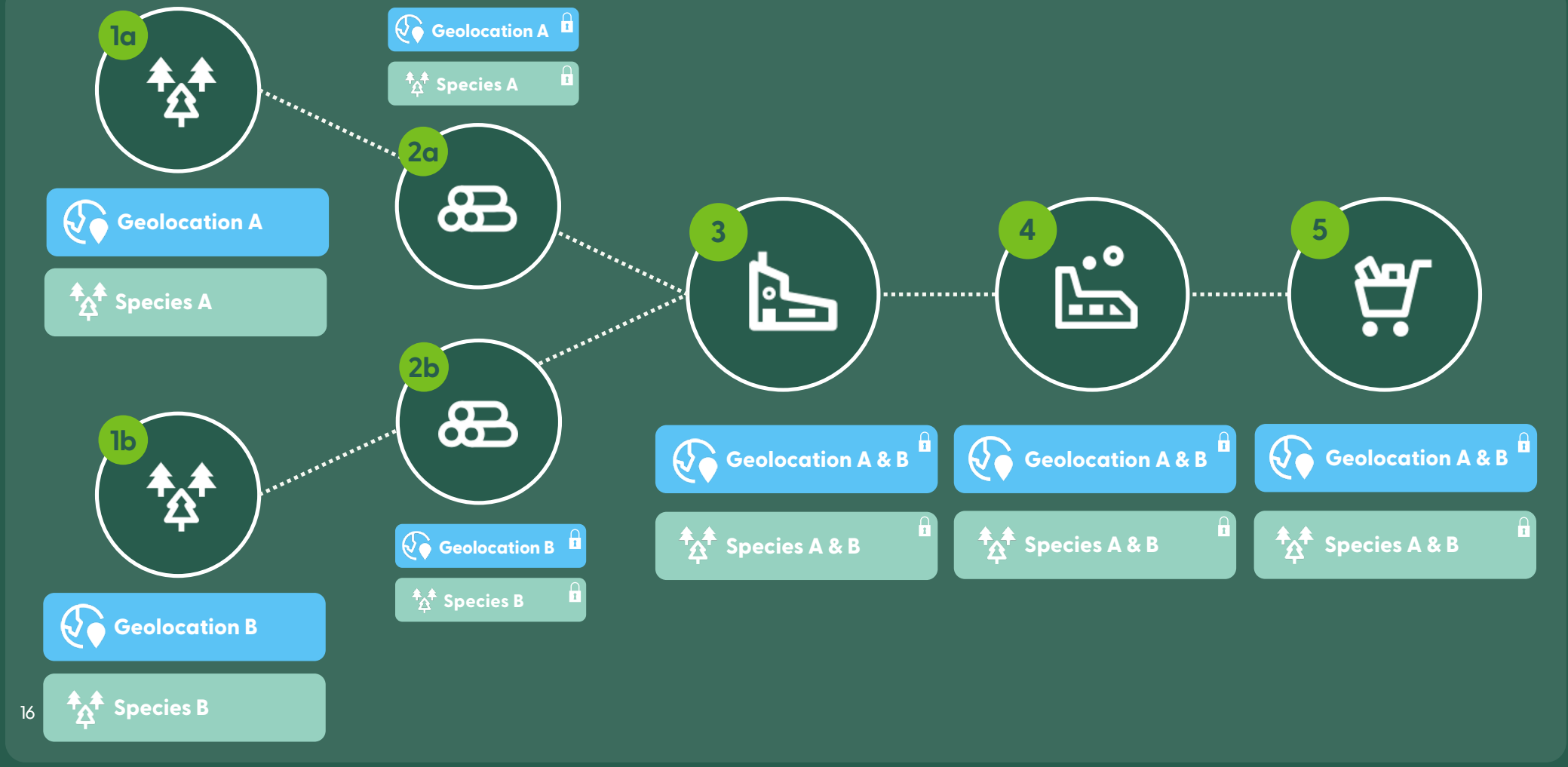
- Apply mainly to sub-dividable products – you could buy 0.675l of liquid rubber
- Inputs all mixed in together so exact traceability not possible
- Instead use date range to track possible input sources

# Traceability allows us to transmit product data along the supply chain



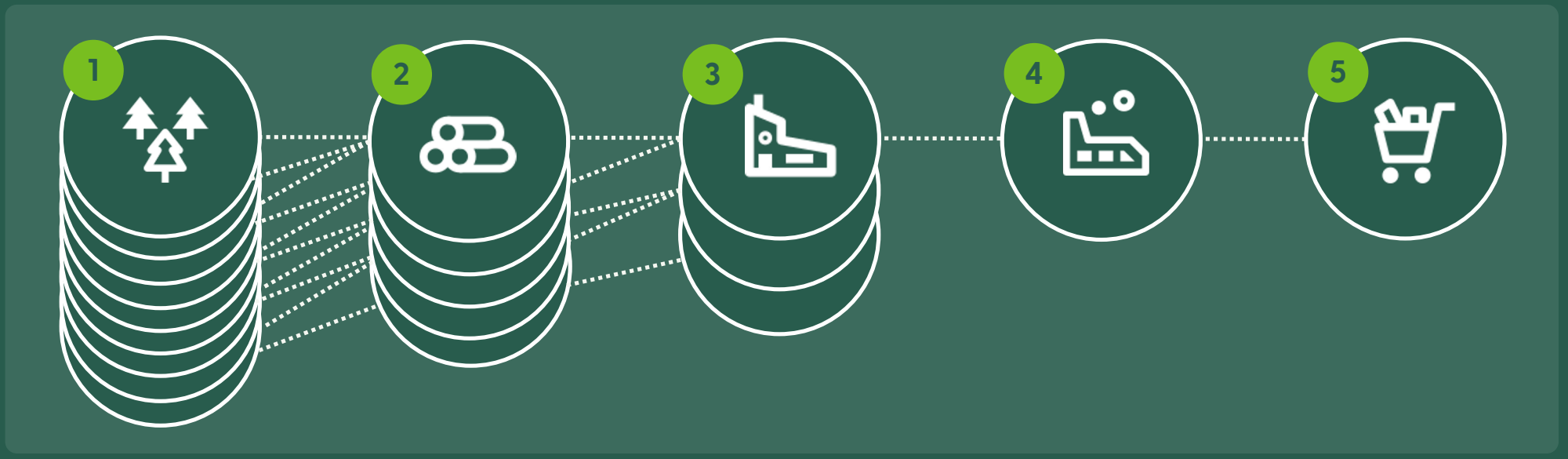

NB: Simplifed supply chain! FSC Blockchain will be able to handle multiple species and products on one invoice / one trade

# We can combine data in composite products



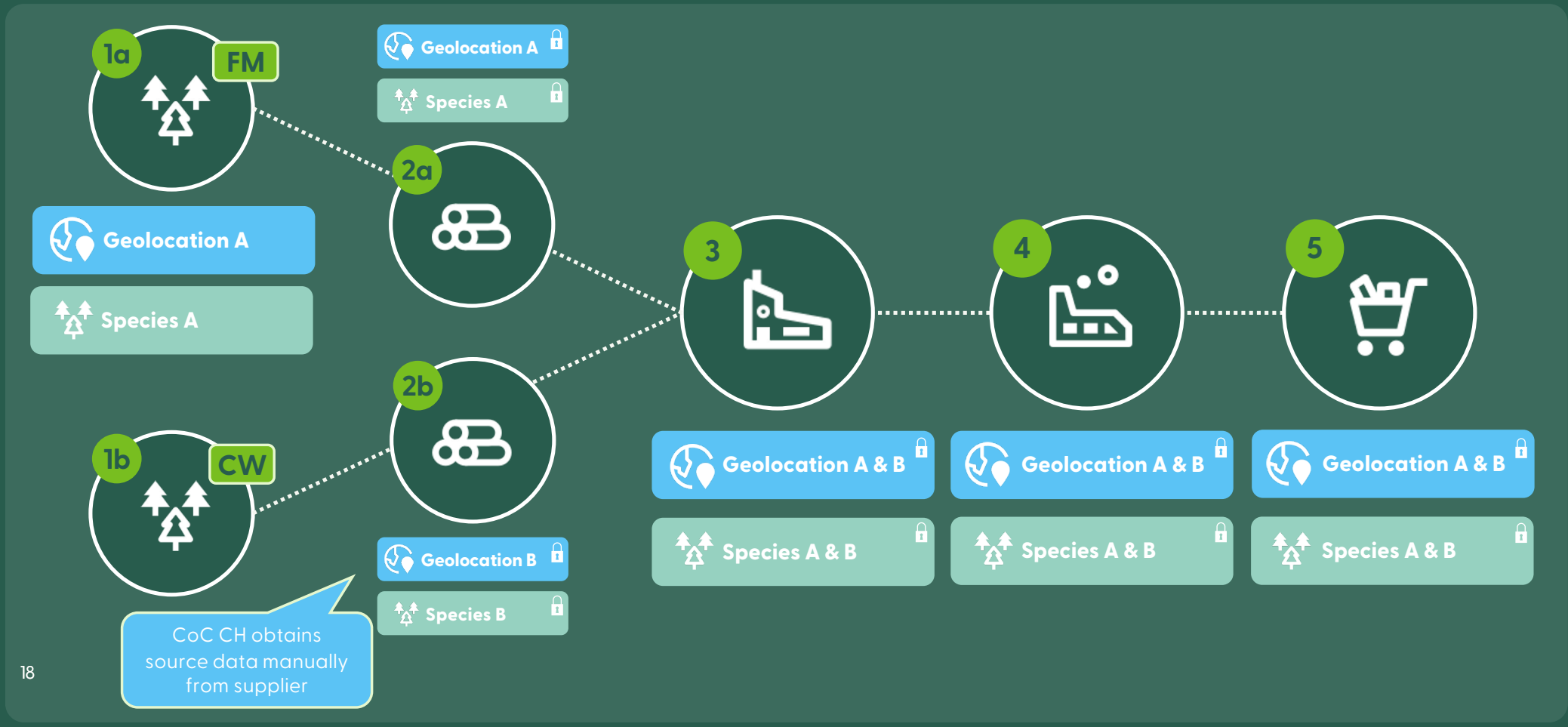
# Technology scales to even the most complex supply chains

FSC FORESTS FOR ALL FOREVER




| 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

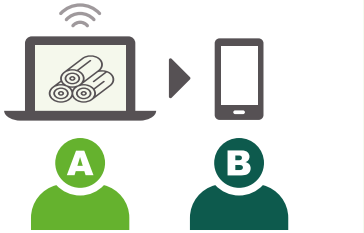




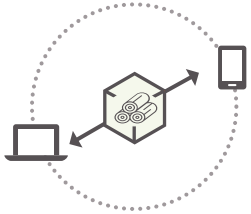

NB: Similar setup will be possible for FSC Recycled input.

# How does a trade get verified on FSC Blockchain?

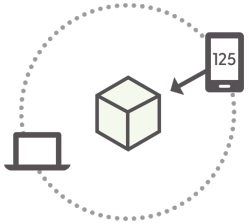
Enter a trade



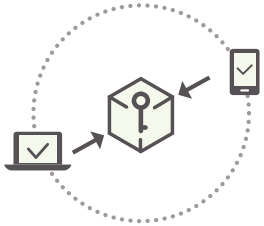

Trade appears on both partners records



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

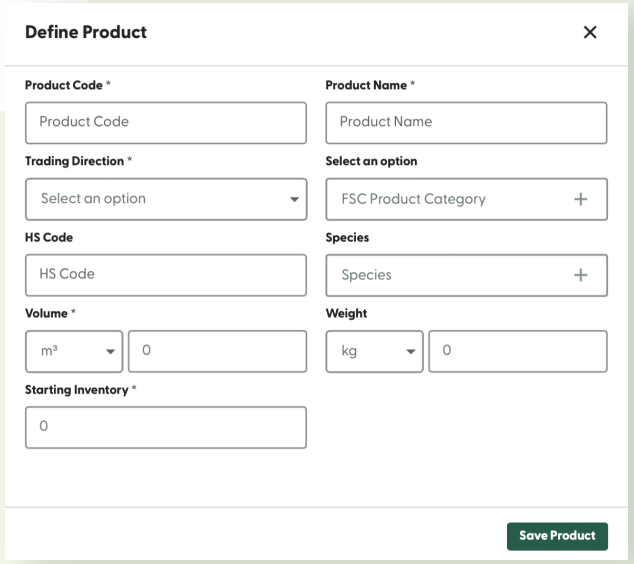
* Unverified transactions will also prevent sharing of data used for due diligence, so users of the Due Diligence Reporting System should be 100% protected against Volume Mismatches.

# Setting up FSC Blockchain

1

## Configure products

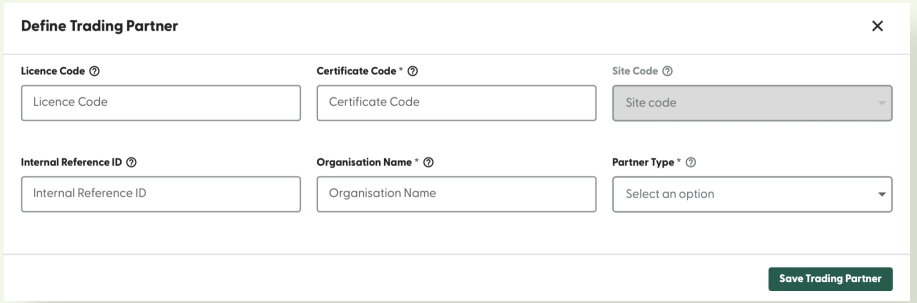
Set up your products and their variations.




2

## Configure trading partners

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



# 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

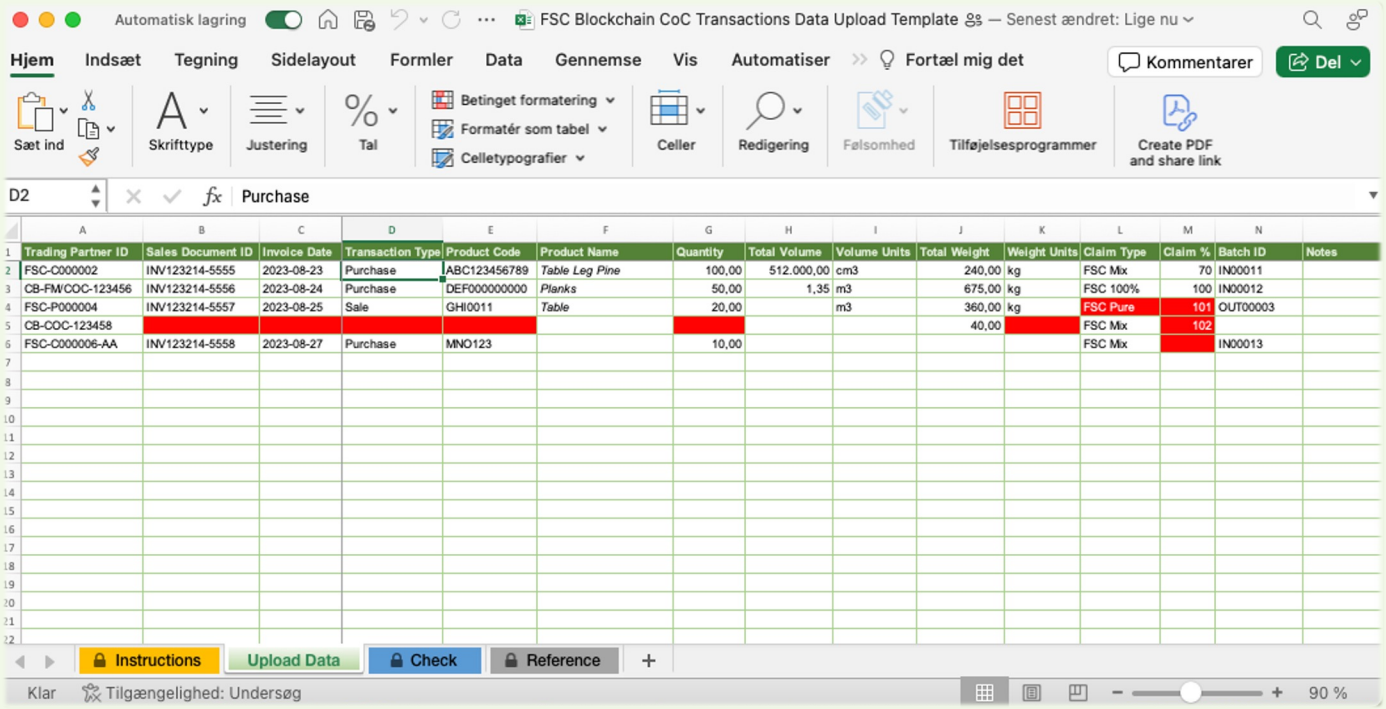
- Integration of FSC into own systems using an Application Programming Interface (API).
- Automates the data transfer in both directions.
- Will require IT investments from certificate holders in setup.
- APIs will be provided by FSC for the most commonly used platforms in key regions.

# Bulk upload templates

## Bulk Upload templates

Bulk templates are ready for release now.

- Companies can start adapting their data and play.
- Will be placed on fsc.org/blockchain in May
- Contains automatic check of data inserted – does it match format?




| 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 | |

# Blockchain: data confidentiality v transparency

## Sensitive Commercial Data

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

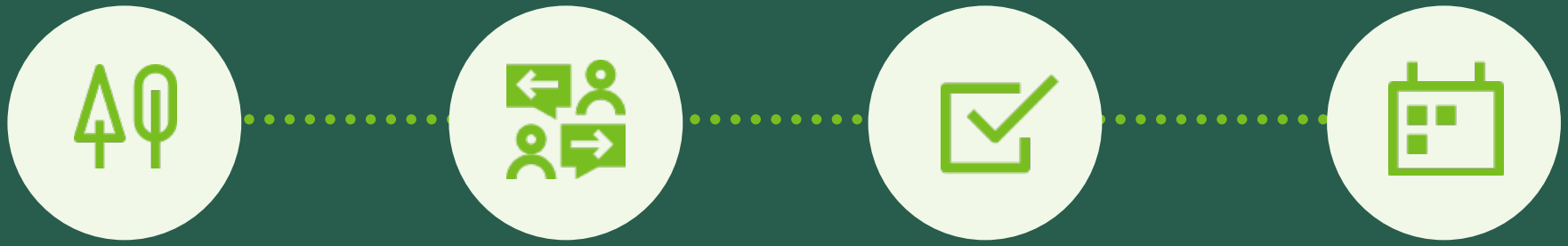
- Such data may also be subject to regulation where it might impinge upon stock prices

## 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

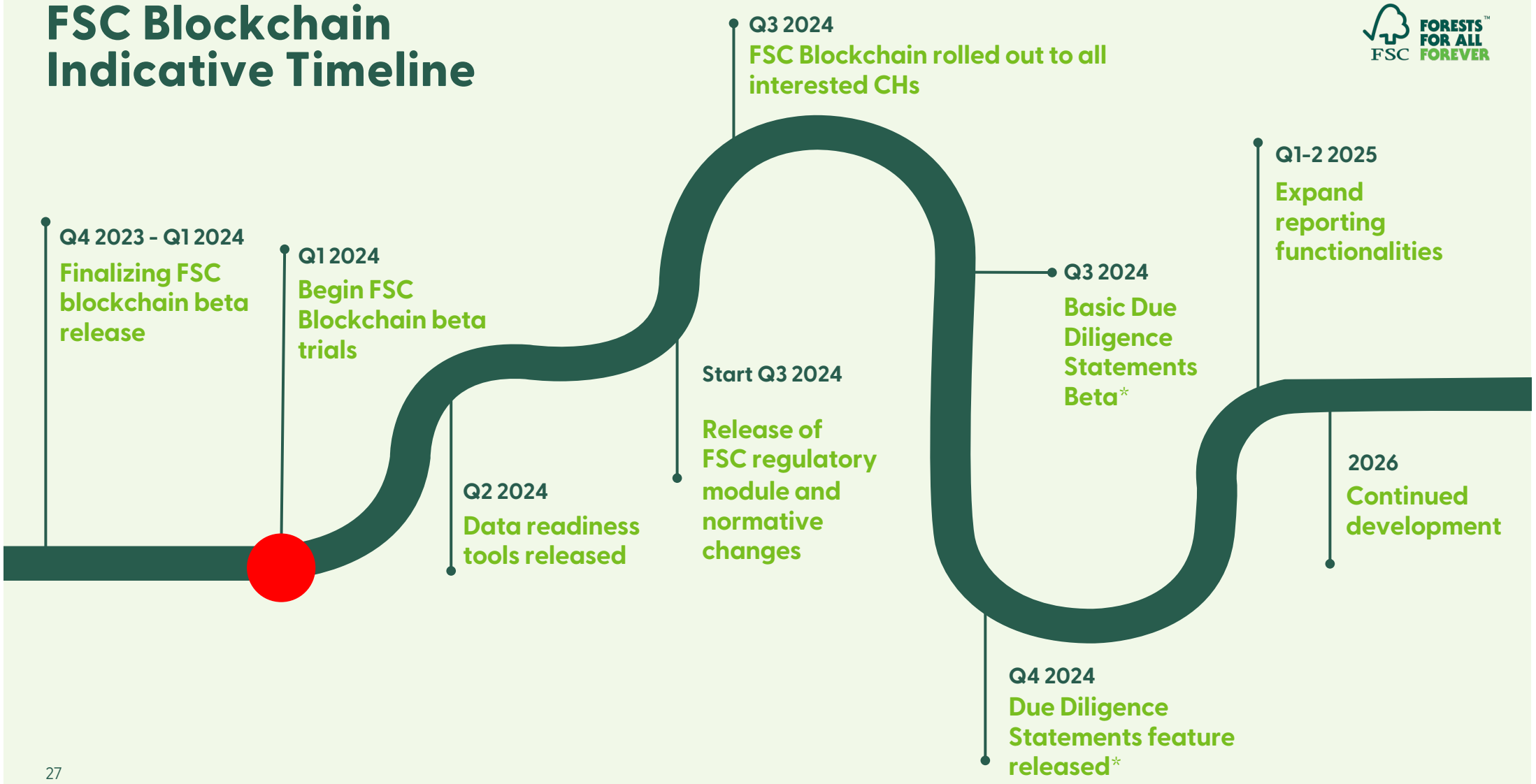
### CHOOSE RIGHTS GRANTED

- 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

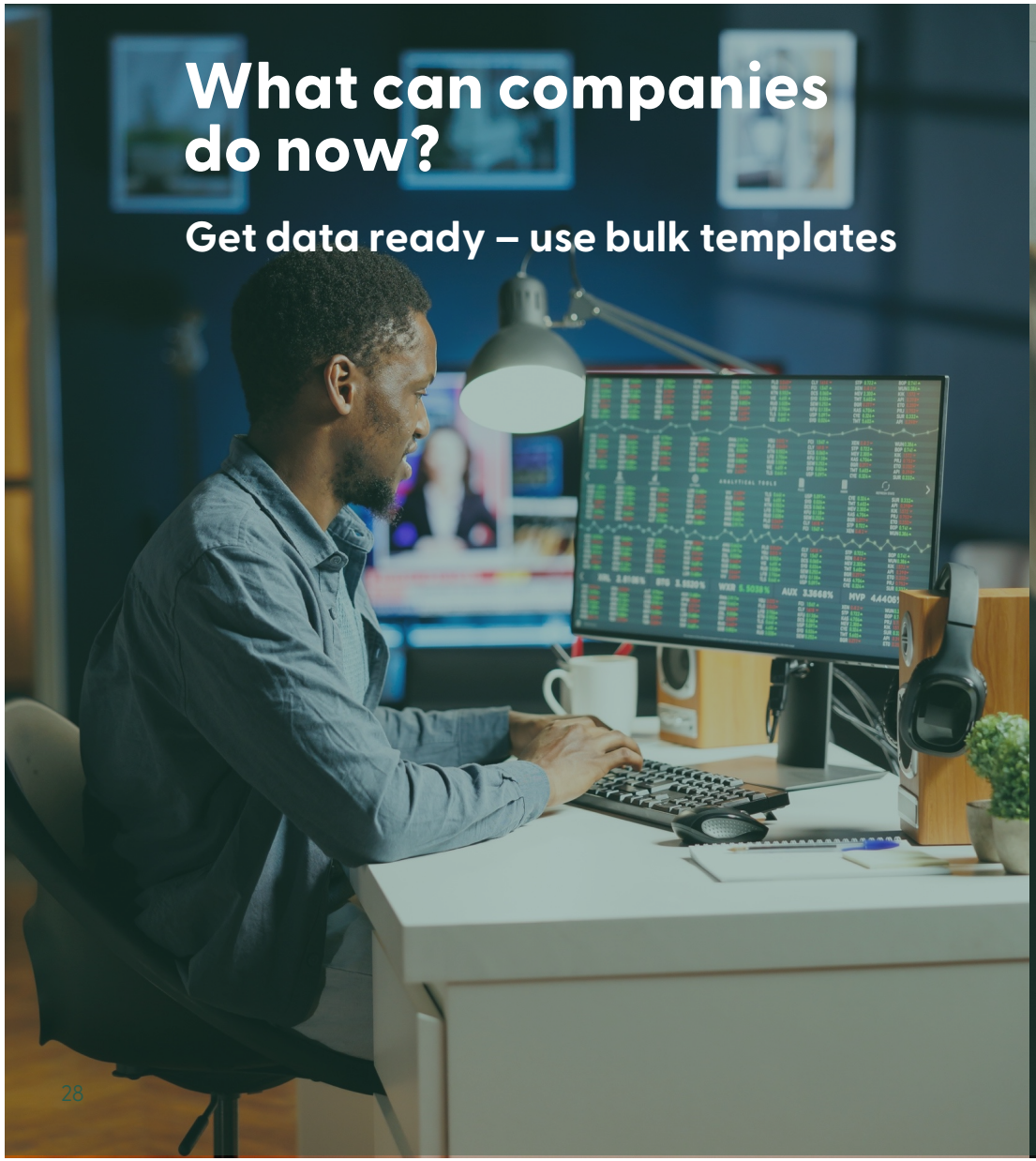
# FSC Blockchain Indicative Timeline




*pending the release of system specification by the EU Commission

# What can companies do now?

## Get data ready – use bulk templates



## Engage with supply chain – which tool do we want to use?

# Beta Trials – how you might get involved now

### Invitation from companies already in the trials

Current trial participants may invite up to 3 partners each.

### Sign up for priority access

Indicate interest via our online form (see more in FAQ on fsc.org/blockchain)

### Exploring integrations

Webinar for potential tech partners coming up on May 16th

# What does signing up to FSC Blockchain look like?

1 Get an invitation to join FSC Blockchain

2 Go to sign up

3 FSC checks that the eTLA has been signed

4 If not, ask CB to initiate process and get signed

5 Create user and permission to use Blockchain

6 Start using FSC Blockchain

## USER MANAGEMENT

Uses same FSC Connect technology as for eTLA and forthcoming Forest Area map upload tool

Primary Contact at the CH can assign different users to use different tools

# Support and training

## RECURRING WEBINARS WITH EVOLVING CONTENT

Interactive live webinars provide real-time insights and expert answers to bring you up to speed with blockchain applications and updates.

Content will be updated as we finalize new features.

## GUIDANCE AND TRAINING MATERIALS

Training videos and comprehensive guides ensure you have the knowledge and skills to navigate FSC blockchain confidently.

Will be available in multiple languages.

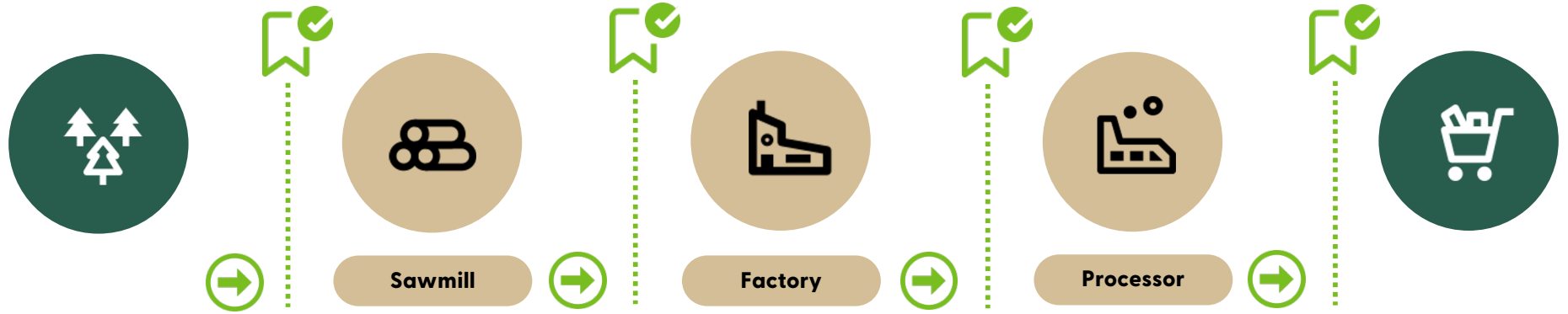
## DEDICATED HELPDESK AND COMMITED TO UPTIME

Our dedicated helpdesk ready to assist users with technical or operational queries they may encounter.

As we are aware that this is a business-critical tool, we are aiming for 99,5% uptime and have dedicated technical support to facilitate this.

**fsc.org/blockchain**

# What will FSC Blockchain do?

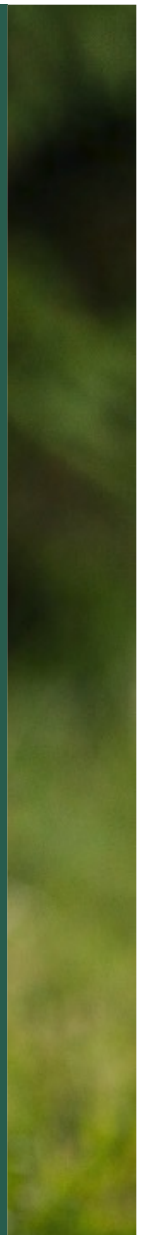



- ✓ **FSC Certificate Holders enter their purchases and sales** of FSC-certified products
- ✓ **Products are automatically checked against certificate scope and validity**
- ✓ **Transactions are matched** against entries made by the counterparty – when a match is achieved the **transaction is written to the Blockchain**
- ✓ **All data stored is encrypted** – decryption keys provided to downstream customers based on rules set by the supplier
- ✓ **Data analytics and reporting** available to all participants, simpler CoC auditing
- ✓ Linked to Digital Audit Reports & Risk Assessments, it will provide core data for **EUDR Due Diligence reporting**

# Thank you

FSC FORESTS FOR ALL FOREVER™

**Forest Stewardship Council®**
**FSC® International**

FSC® F001000

**www.fsc.org**