FORAC

FOREST TO CUSTOMER

FORAC-QWEB wood traceability project

Webinar: EUDR Compliance and FORAC-QWEB Wood Traceability Project

August 13, 2024

CRSNG NSERC

UNIVERSITÉ LAVAL

FPInnovations

résolu Produits forestiers

Kruger

Ressources naturelles et Forêts Québec

Domtar

Fédération québécoise des coopératives forestières

LEBEL

Plan

I. EUDR, the FORAC consortium

II. Objectives and platform contributions

III. The platform : development plan, architecture, overview, data flows

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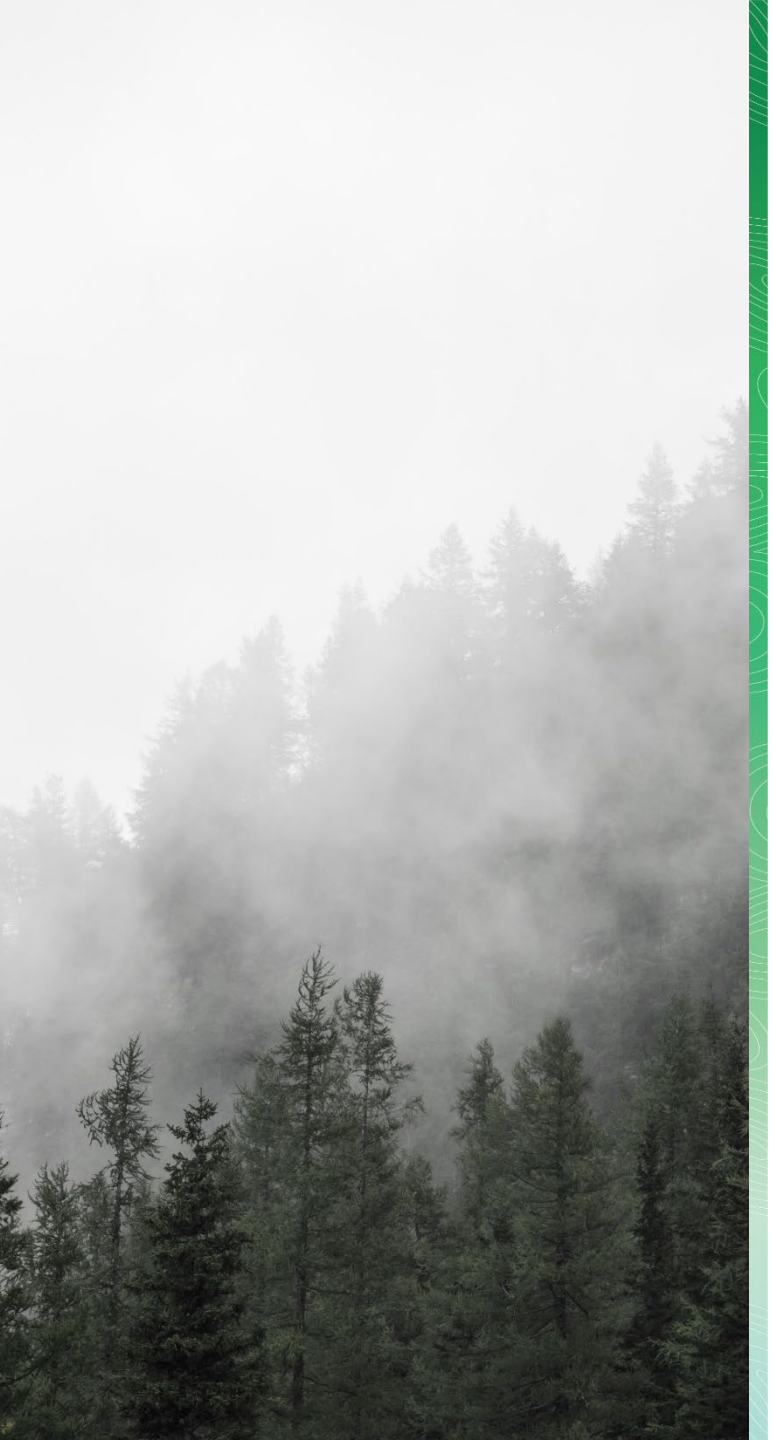

I. EUDR, the FORAC consortium (why us?)

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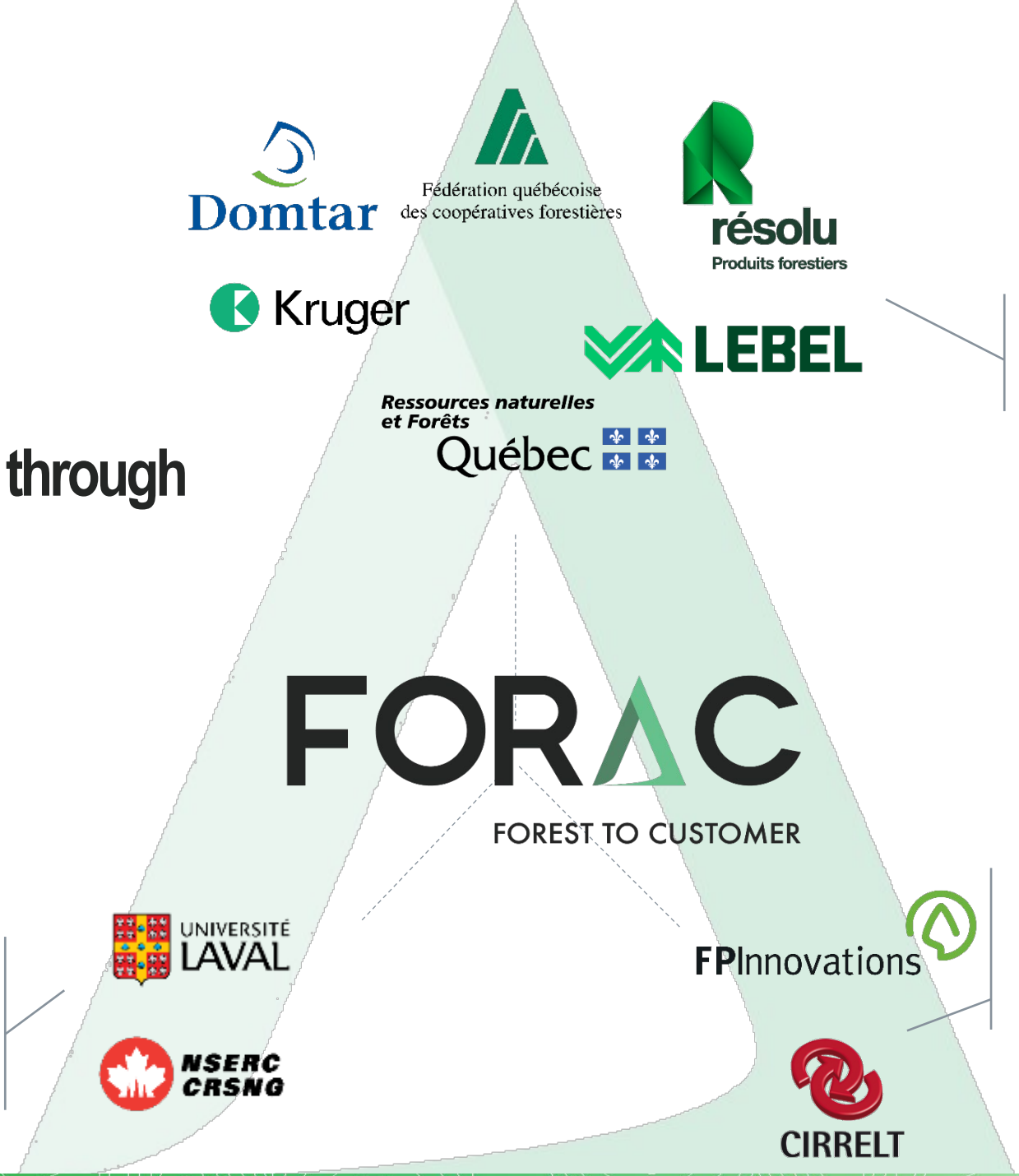
EUDR regulation at a glance

- Key requirement: wood traceability
  - Origin (forest plots) and destination (companies receiving wood from forest plots)
  - Forest plots geolocation points must be defined by latitude and longitude
  - A single geolocation point is sufficient for plots less than 4 hectares in size
  - For areas larger than 4 hectares, a geolocation polygon must describe the perimeter of each plot from which the products originate

Creating more value through partnerships



Ideas, challenges, experience, know-how, funds

Research capabilities, complementary expertise, collaboration, equipment

Students, professionals, professors, expertise, leverage, funds

Expertise in wood traceability

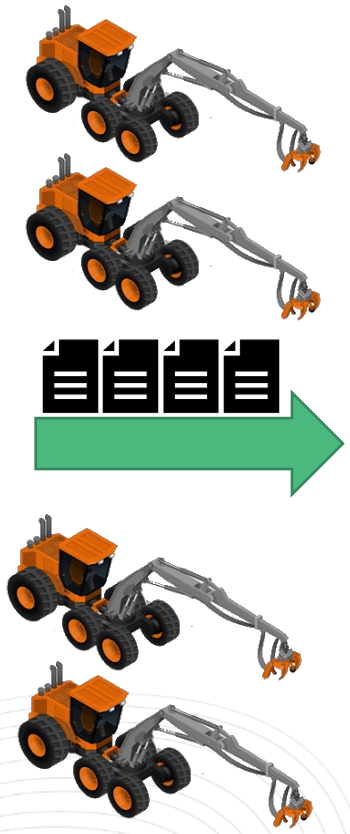
- Multidisciplinary team in software development, forestry and agri-environmental engineering
- Automatic location of harvested stems
- Automated tracking of roadside wood inventories
- FORAC ID – a data hub

FORAC ID

Forestry data integration and data processing platform

Automatic location and tracing of harvested stems

Automatic harvester head data collection



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Data integration

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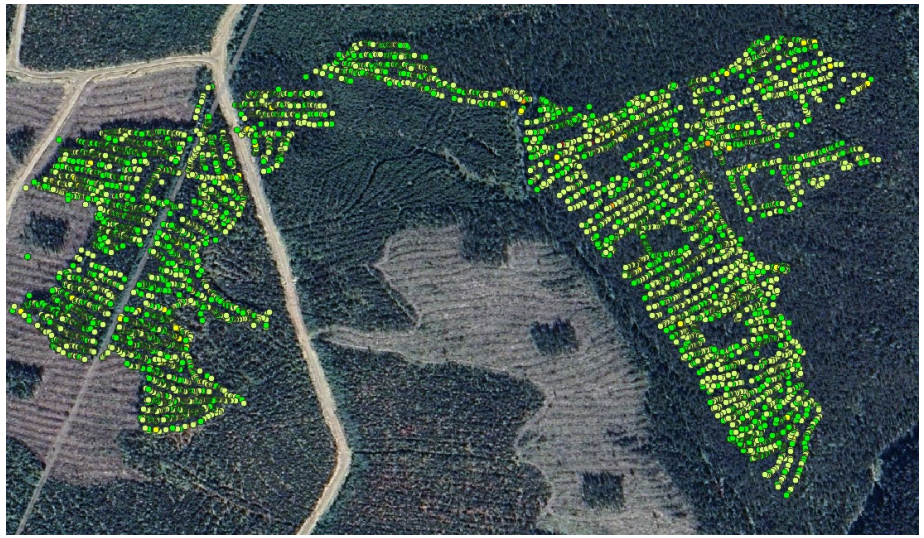
Automatic generation of production reports



Automatic tracking of roadside wood inventories

Forest roads shapefile (.shp)

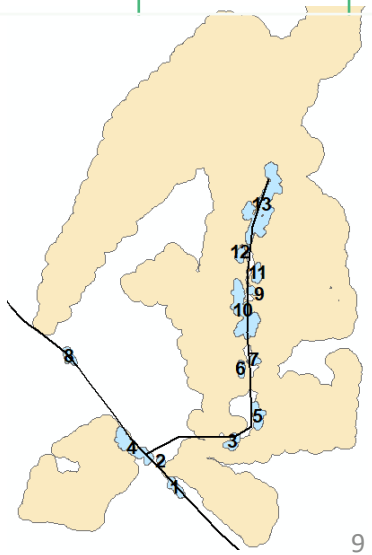
Forwarder GPS points

Harvester production files (.hpr or .pri)

Statistic report

Piles' number	Species	Length (feet)	Diameter (cm)	Number of logs	Volume (m^3)
1	BF	16	16	2	0,116
1	SPR	16	22	6	0,493
2	MPL	9	18	12	1,097

Shape file of wood piles



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FORAC’s motivation for EUDR project with QWEB

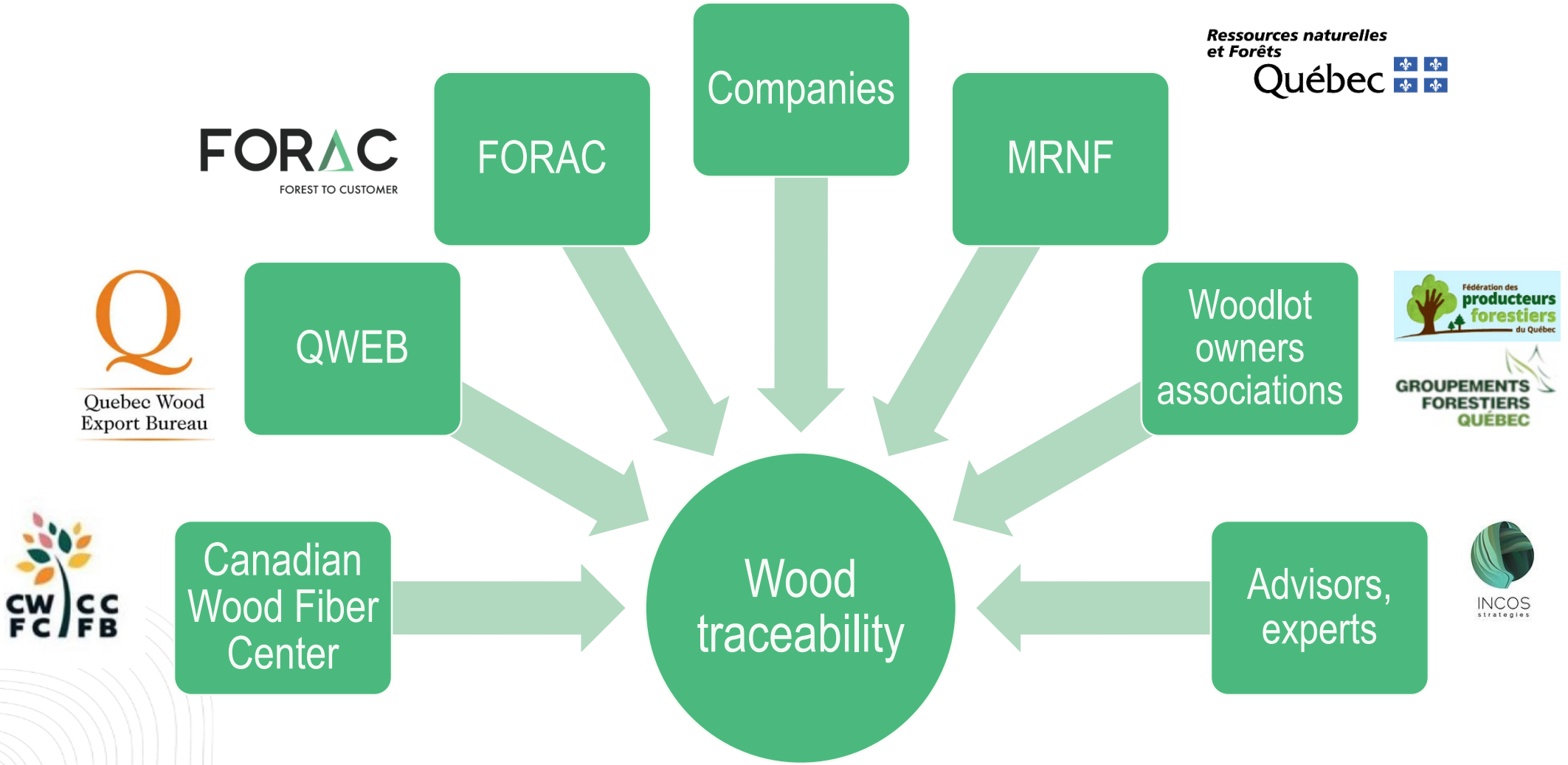
- FORAC's actions must contribute to the competitiveness of the forest industry, from the forest to the customer
- FORAC conducts research on the performance of business networks
- The traceability project will contribute to a major initiative aimed at developing a digital twin for the Quebec forest industry

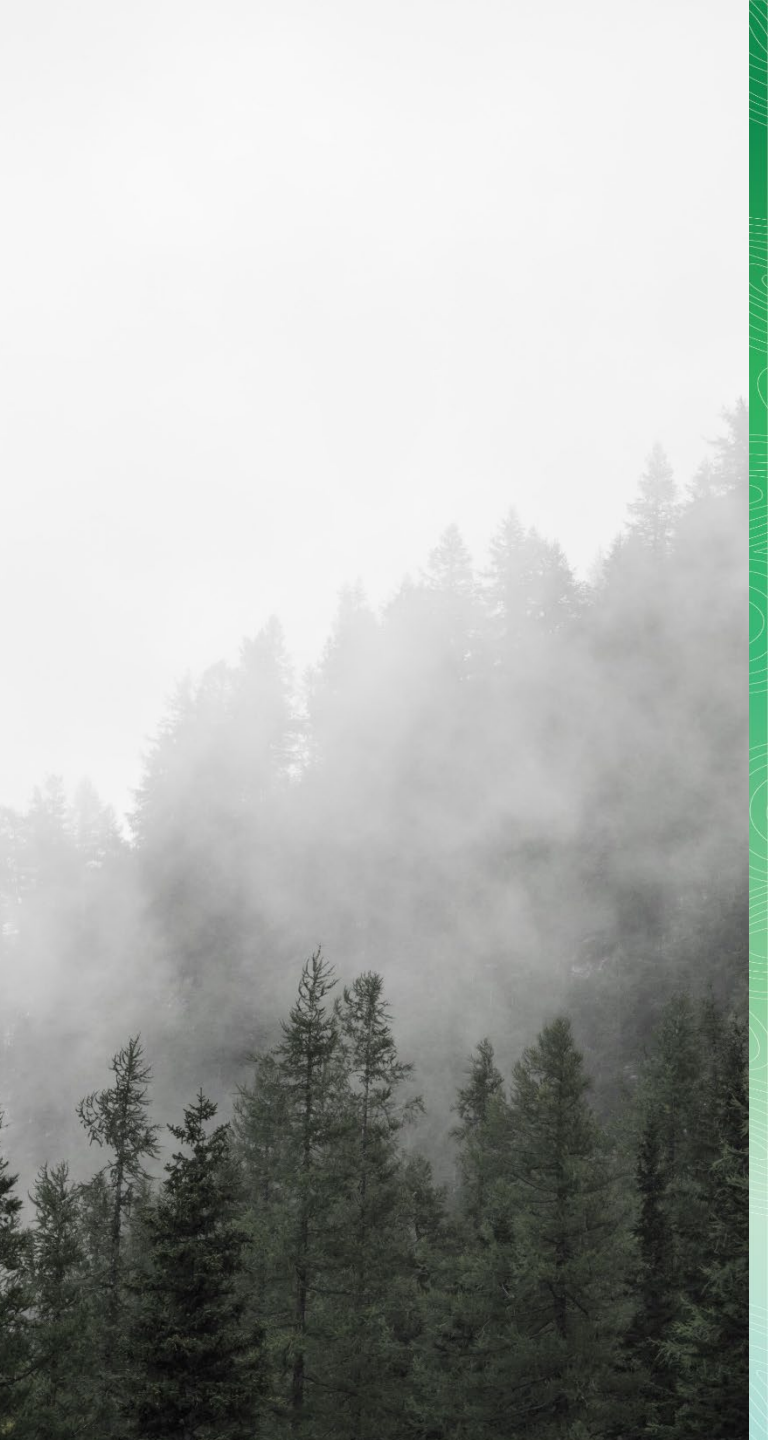
FORAC's role in the project

- Quebec Wood Export Bureau (QWEB)
  - Project leader
  - Responsible for platform maintenance and management

- FORAC
  - Responsible for the platform development

Organizations involved in the project





II. Project objectives and platform contributions

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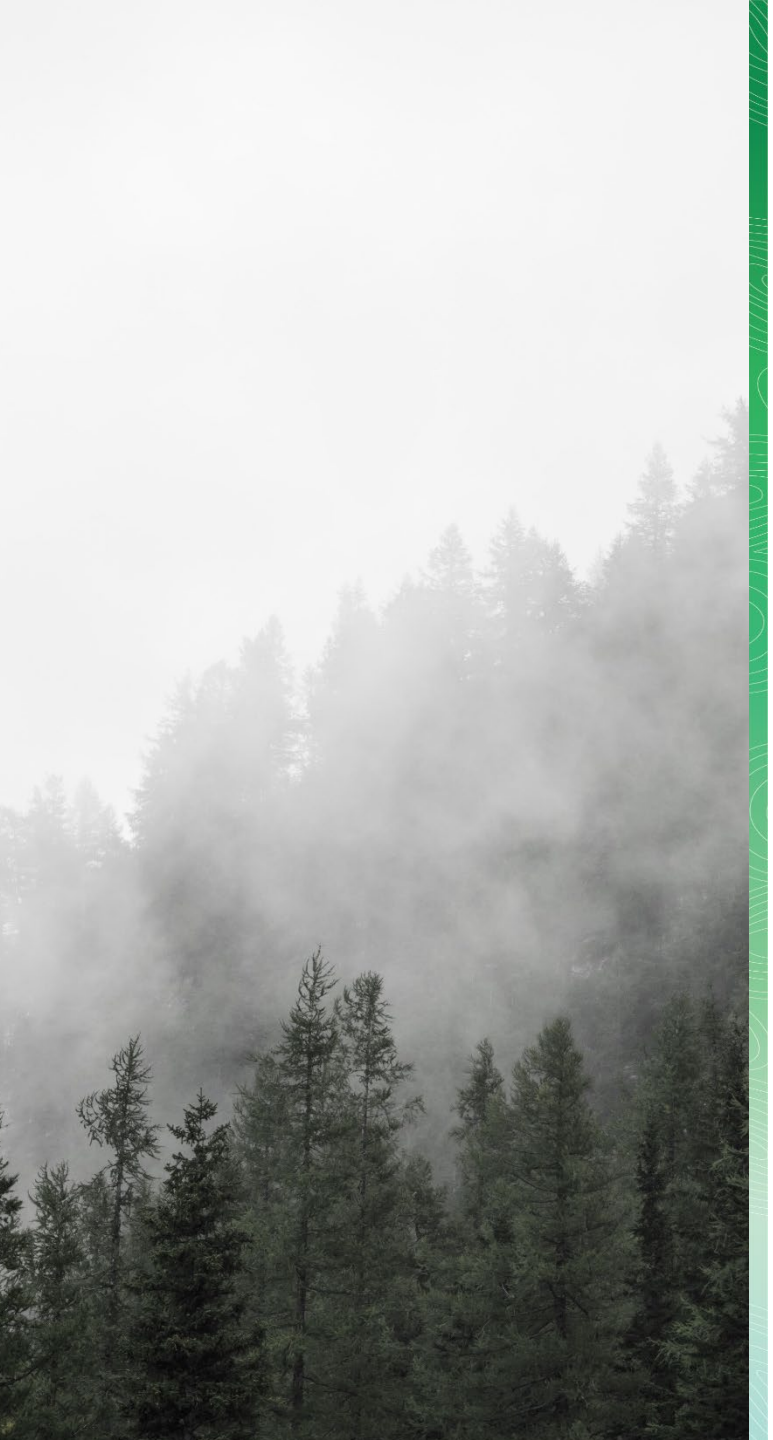
Project objectives and platform contributions

- Help companies comply with EUDR regulations
- Support companies in tracking, managing, reporting their supply coming from diverse forest areas
- Generate reports in compliance with the EUDR information system



III. The platform: development plan, architecture, overview, data flows

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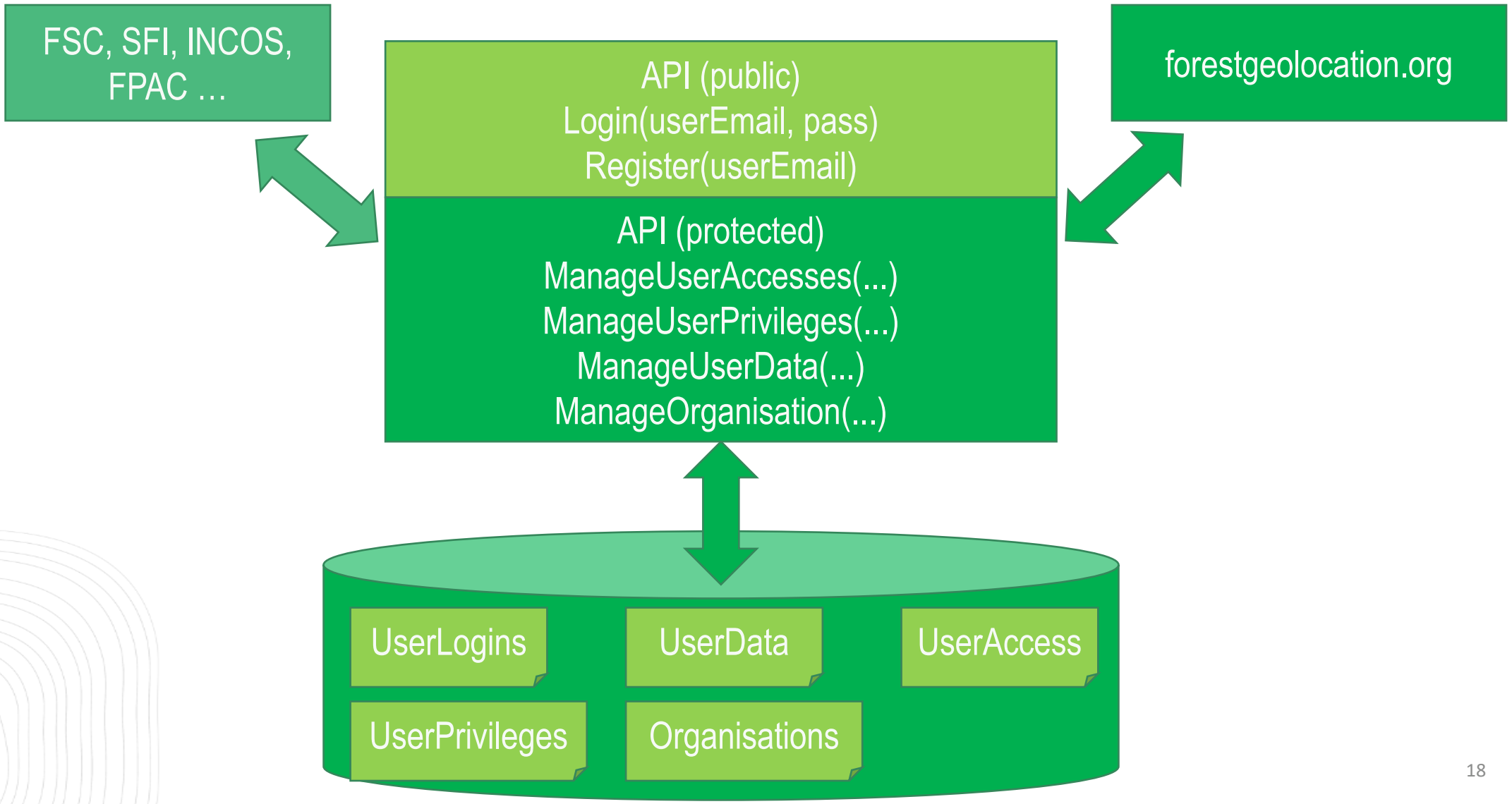
Platform development plan (schedule)

- Stage #1: Authenticated and secure login (August 2024)
- Stage #2: Harvest blocks display (October 2024)
- Stage #3: Land tenures display (December 2024)
- Stage #4: Automated data collection (March 2025)
- Stage #5: EUDR compliance reports generation (May 2025)

Platform stack technology

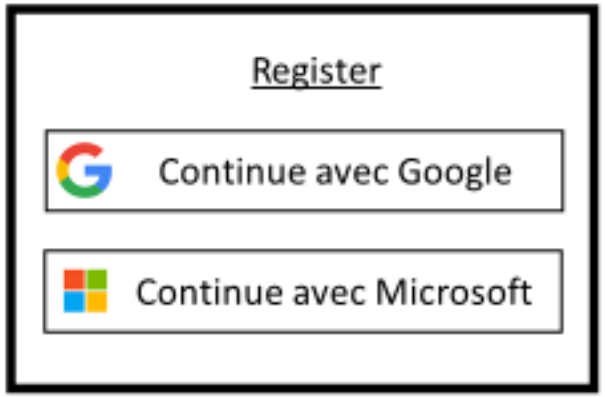
- **Blazor 8 - Interactive Server mode** is a web application development platform built by Microsoft
  - Enables interactive web application development by automatically generating the Front-end as the Back-end is developed
  - Streamlines web platforms building and facilitates the integration of security protocols
- Graphic design of the traceability platform inspired by the QWEB website

Stage #1: Authenticated and secure login

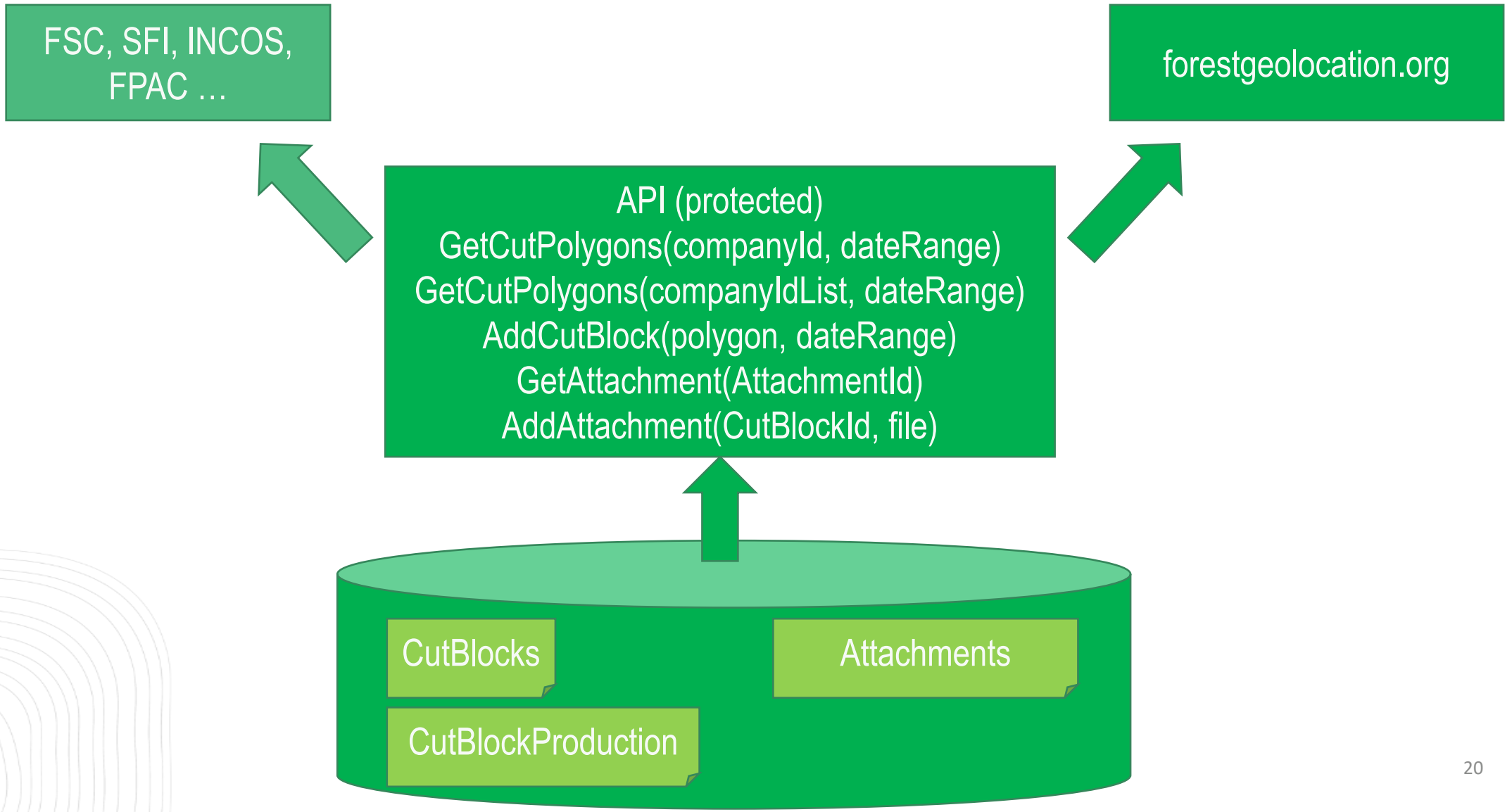


Platform overview: Authenticated and secure login

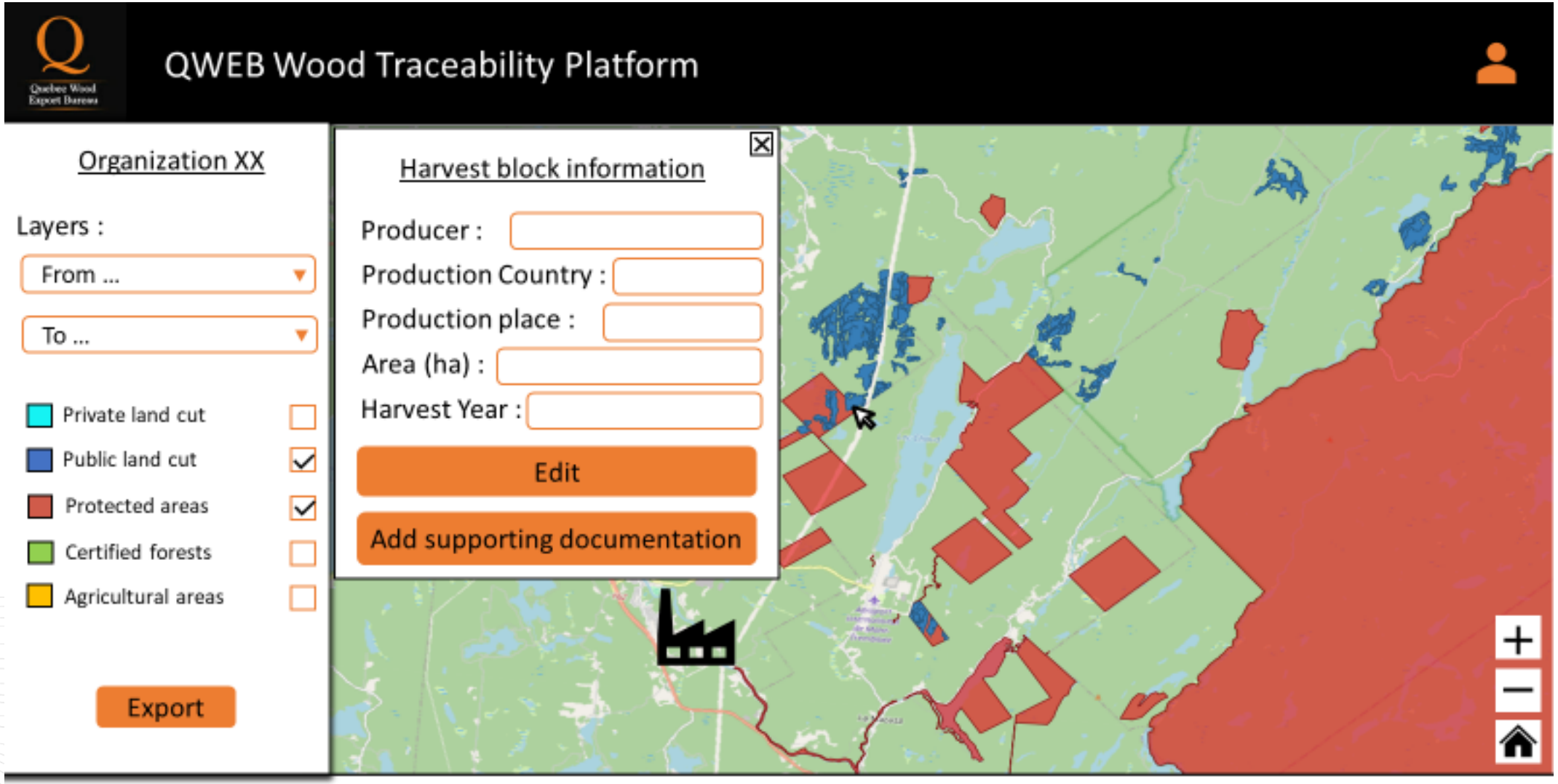
Register. Create a new account.



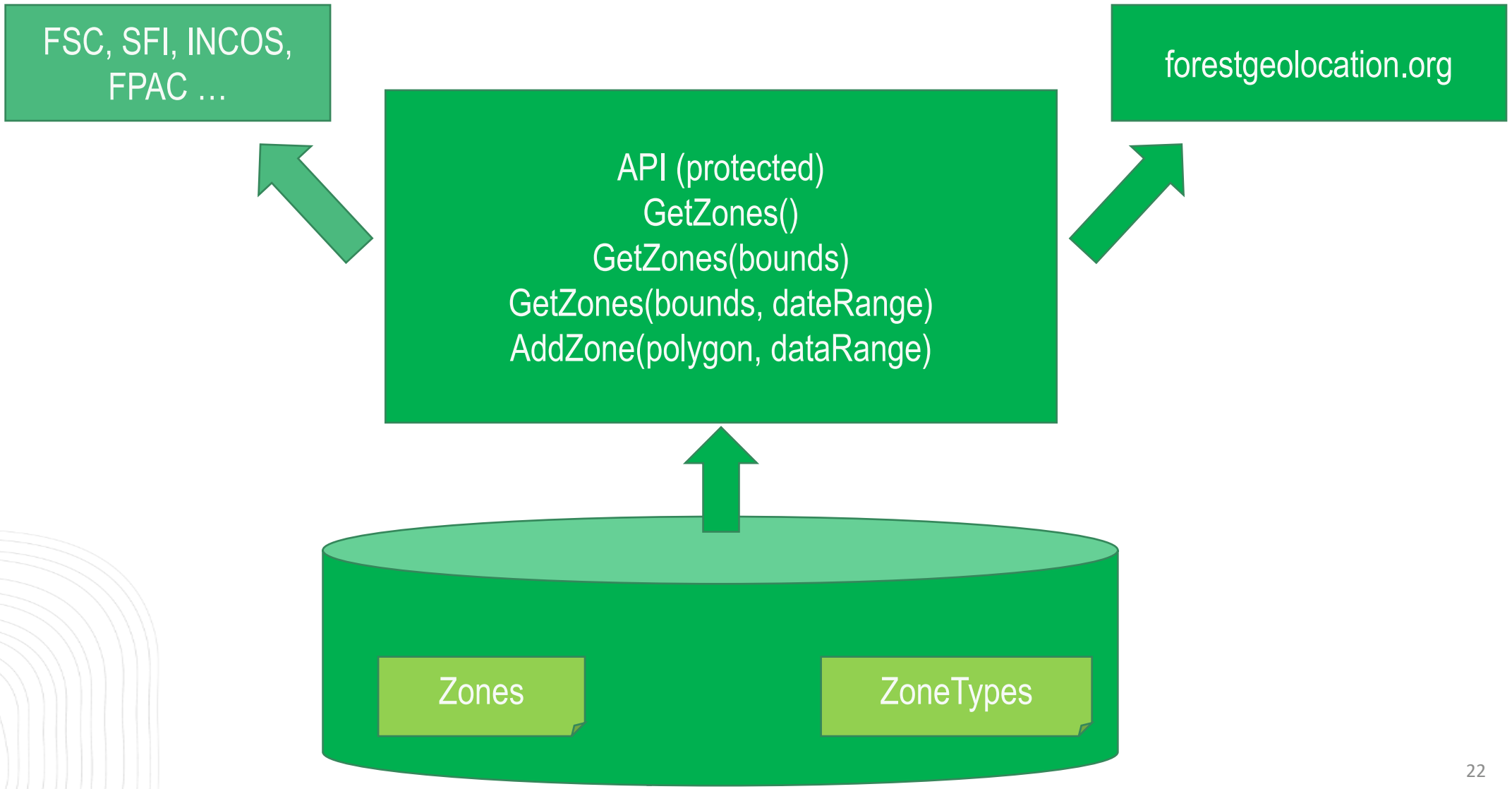
Stage #2: Harvest blocks display



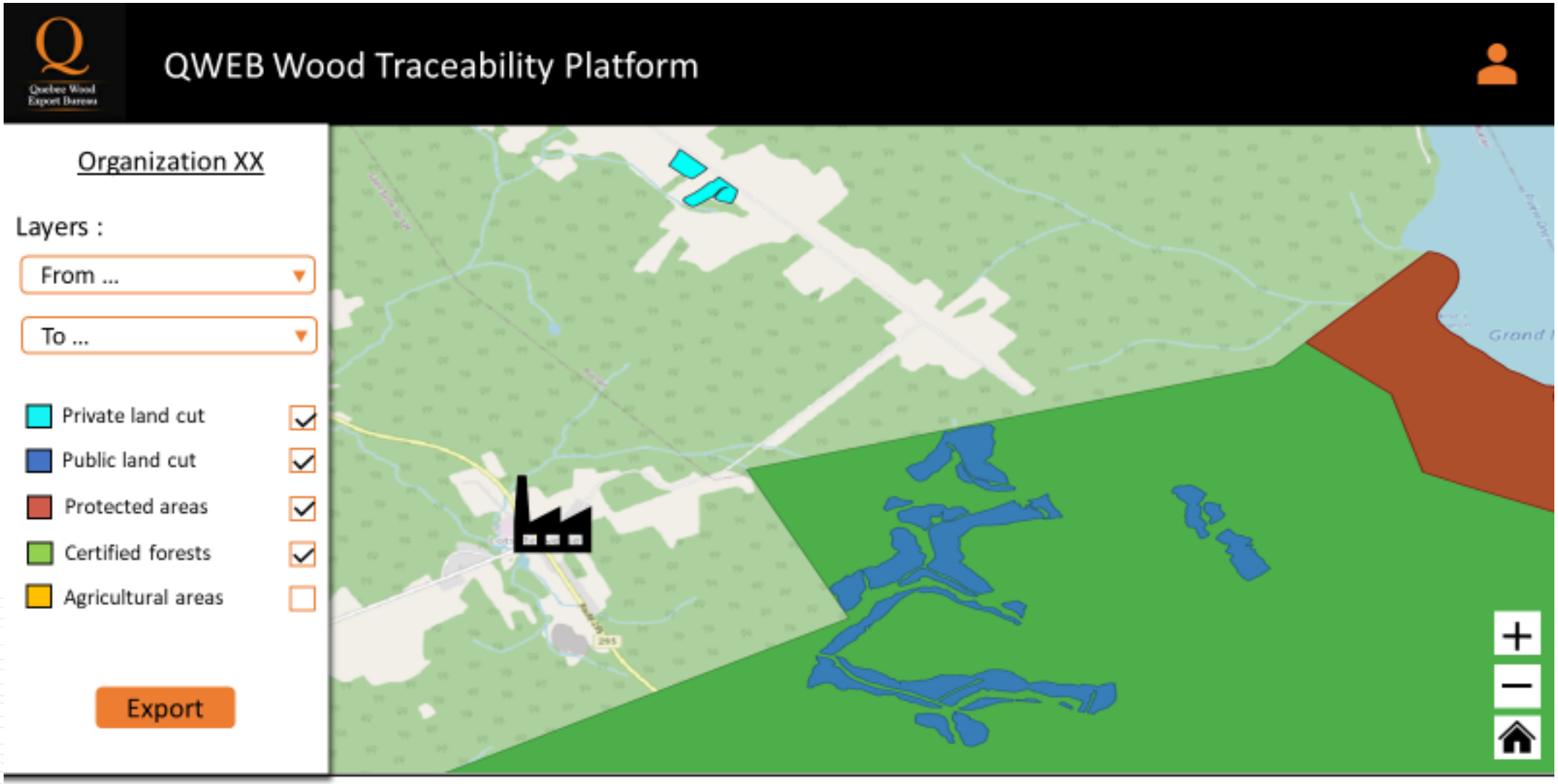
Platform overview: Harvest blocks display



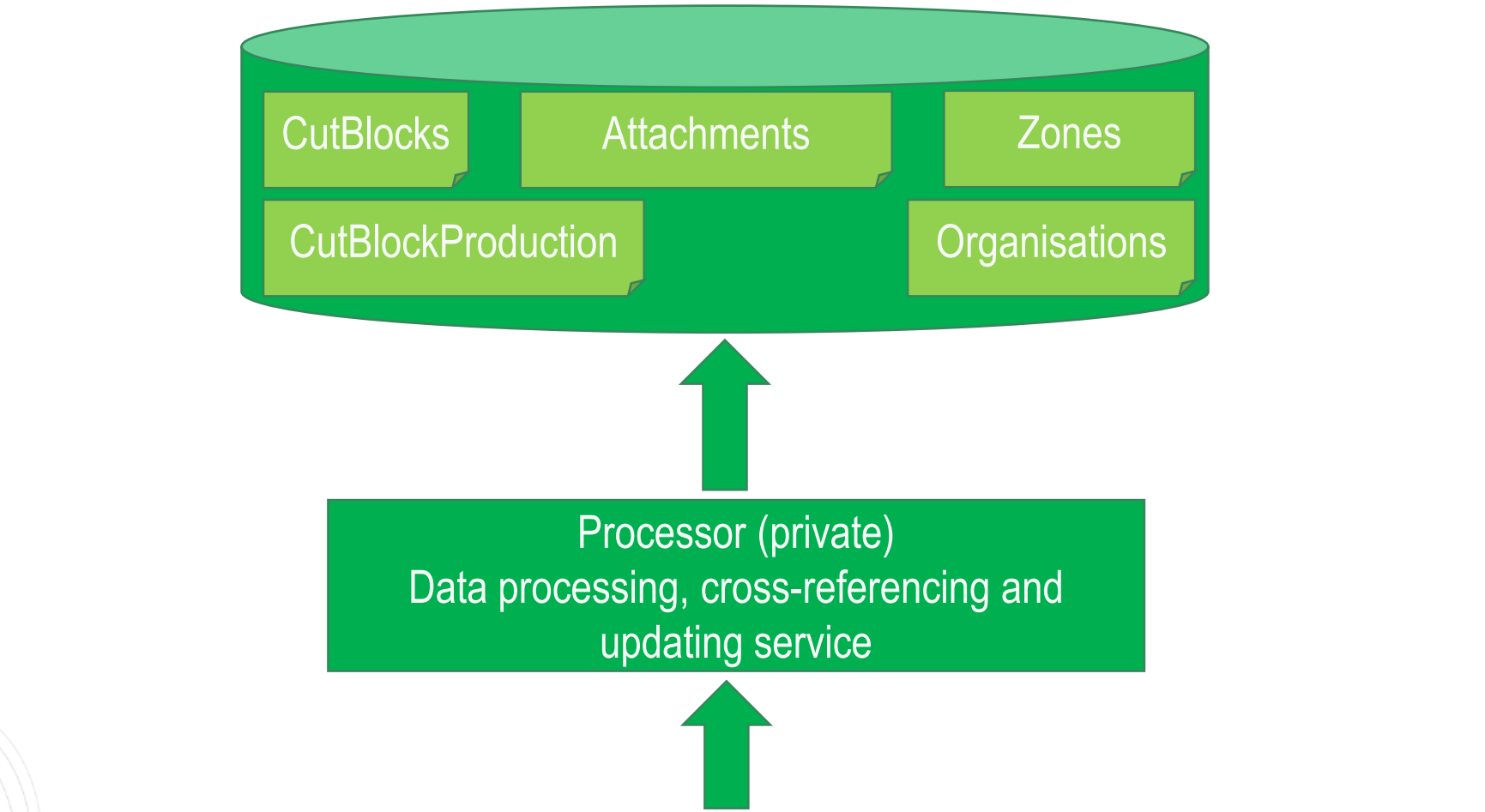
Stage #3: Land tenures display (public, private, no-cut zones, etc.)



Platform overview: Land tenures display



Stage #4: Automated data collection



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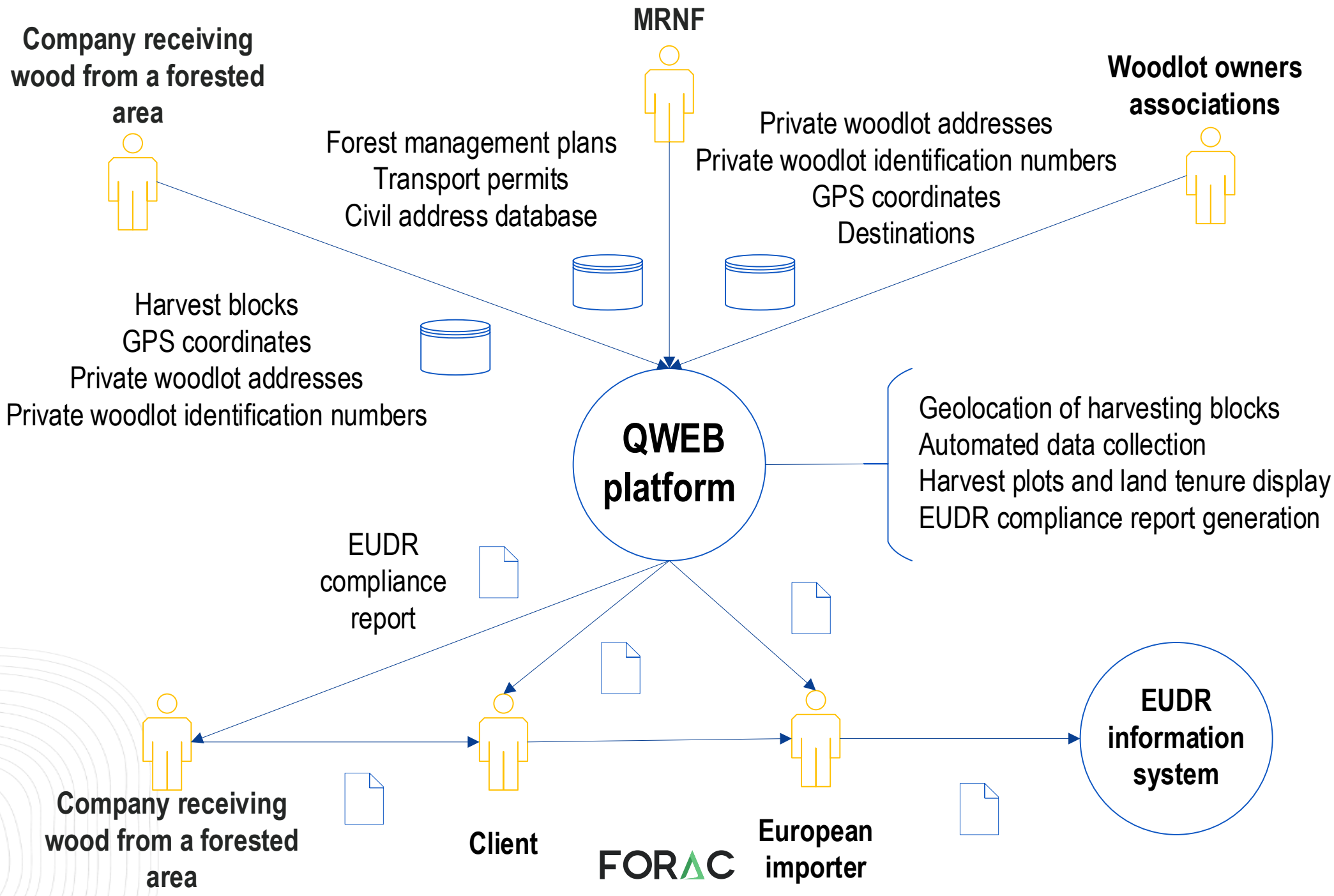
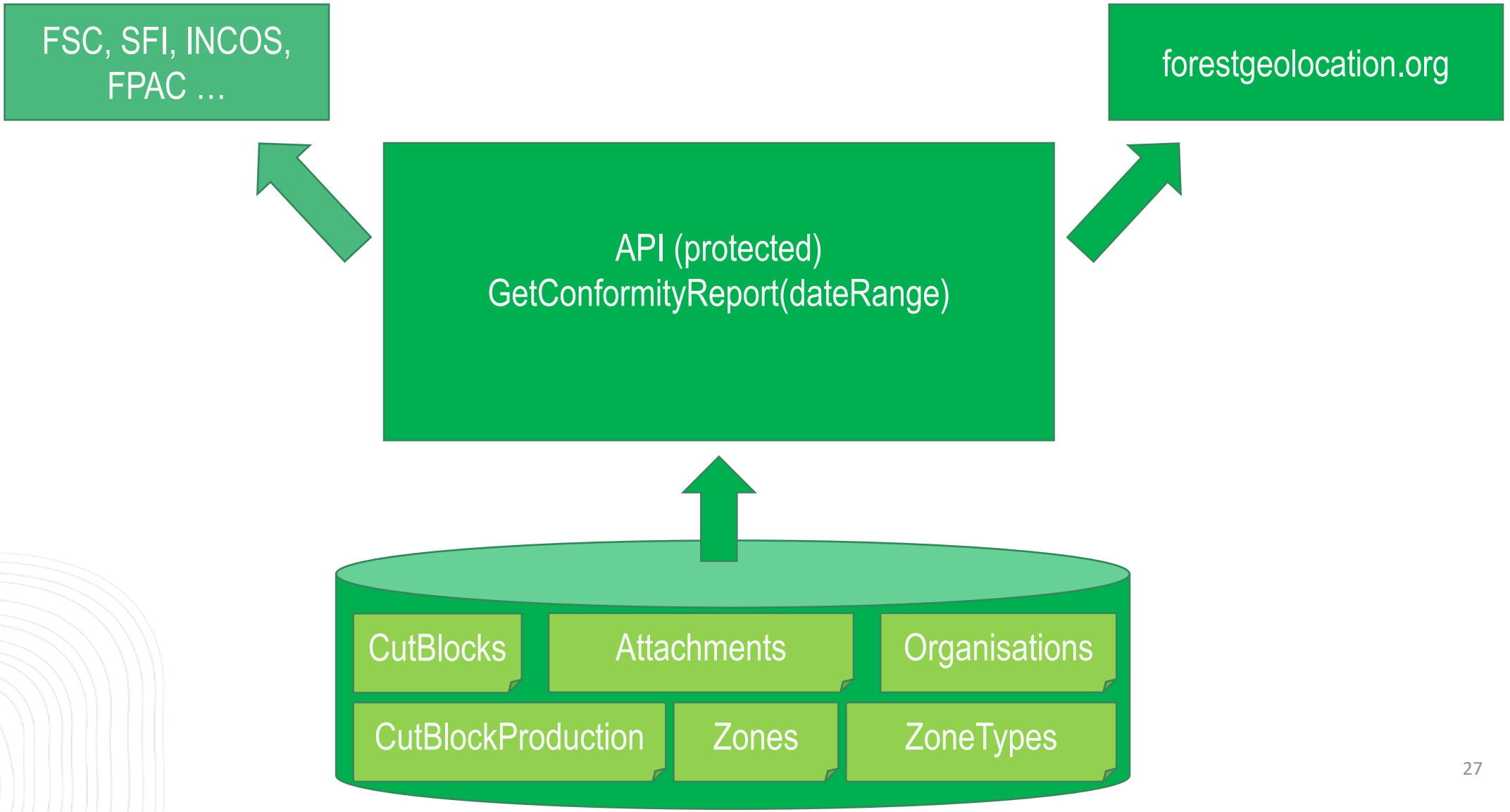
Potential sources of data

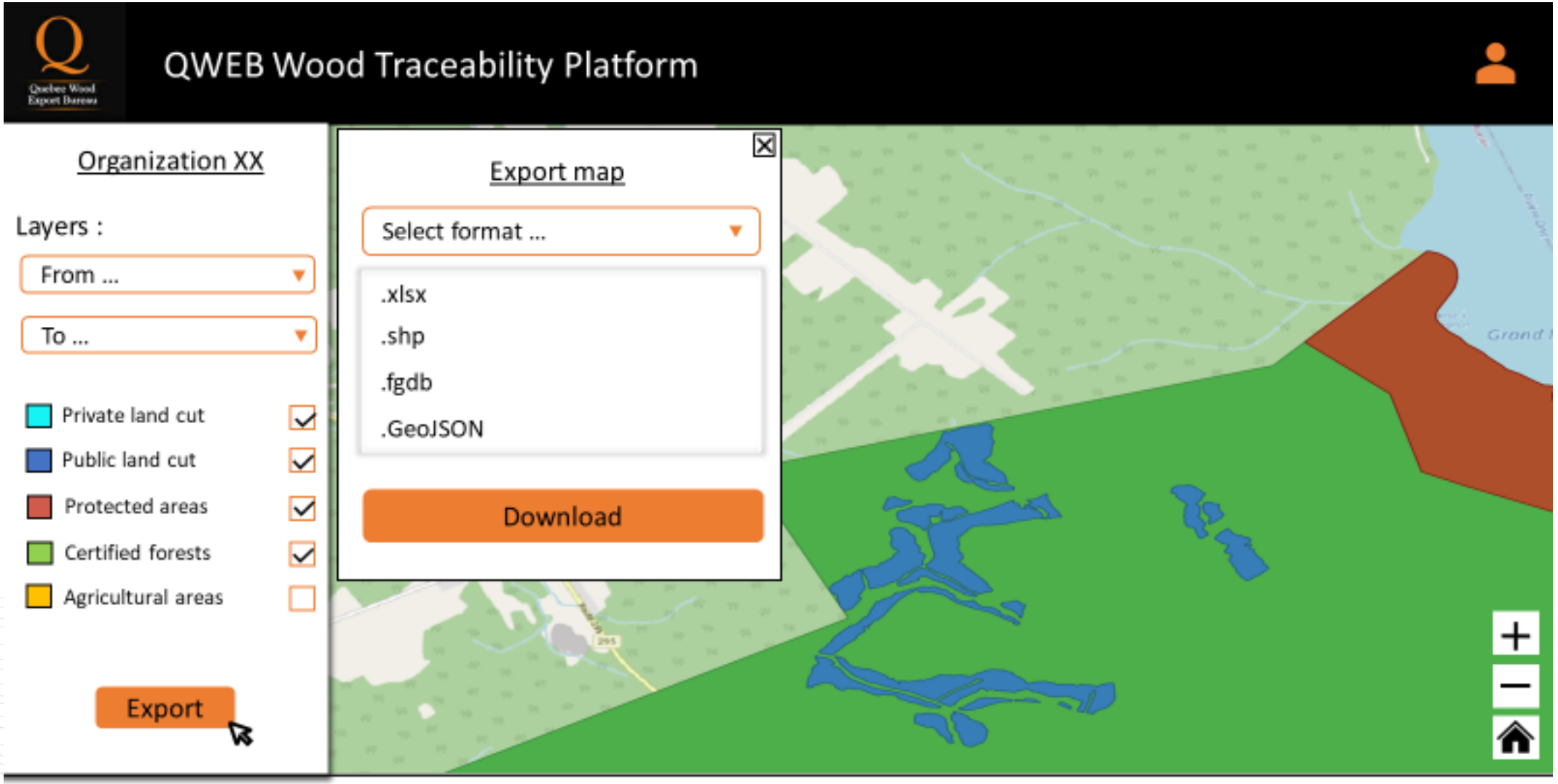
- MRNF: transport permits, civil address database, open databases
- Companies receiving wood from a forest area: information about the origins of their supplies
- Woodlot owners associations: origin (woodlot address, woodlot identification number or GPS coordinates) and destination (mills)


Company receiving wood from a forested area
MRNF
Woodlot owners associations
Forest management plans
Transport permits
Civil address database
Private woodlot addresses
Private woodlot identification numbers
GPS coordinates
Destinations
Harvest blocks
GPS coordinates
Private woodlot addresses
Private woodlot identification numbers
QWEB platform
Geolocation of harvesting blocks
Automated data collection
Harvest plots and land tenure display
EUDR compliance report generation
EUDR compliance report
Company receiving wood from a forested area
Client
European importer
EUDR information system

Stage #5: Generation of compliance reports

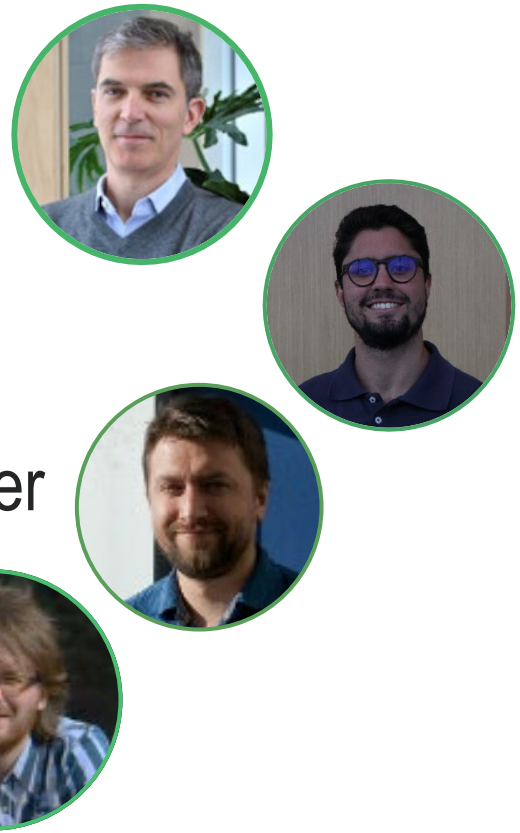


Platform overview: Generation of compliance reports



FORAC's EUDR platform team

- Luc LeBel : consortium director
- Pedro Eboli : project manager
- Alexandre Morneau : software developer
- Rémy Huot : software developer



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