

Traceability Study Uruguay Operations

UPM Pulp

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1. UPM and UPM Pulp

This is UPM



Wood-based
raw materials



Low-emission
energy

BUSINESSES:

UPM FIBRES

UPM ENERGY

UPM RAFLATAC

UPM SPECIALTY PAPERS

UPM COMMUNICATION PAPERS

UPM PLYWOOD

UPM BIOREFINING

54
production
plants



16,600
employees in
43 countries

RENEWABLE AND RECYCLABLE
PRODUCTS FOR:

-  PACKAGING
-  COMMUNICATION
-  LABELLING
-  TISSUE AND HYGIENE PRODUCTS
-  TRANSPORTATION
-  MANUFACTURING
-  ELECTRIFICATION
-  BIOPLASTICS
-  CONSTRUCTION
-  BIOMEDICALS

11,000
customers

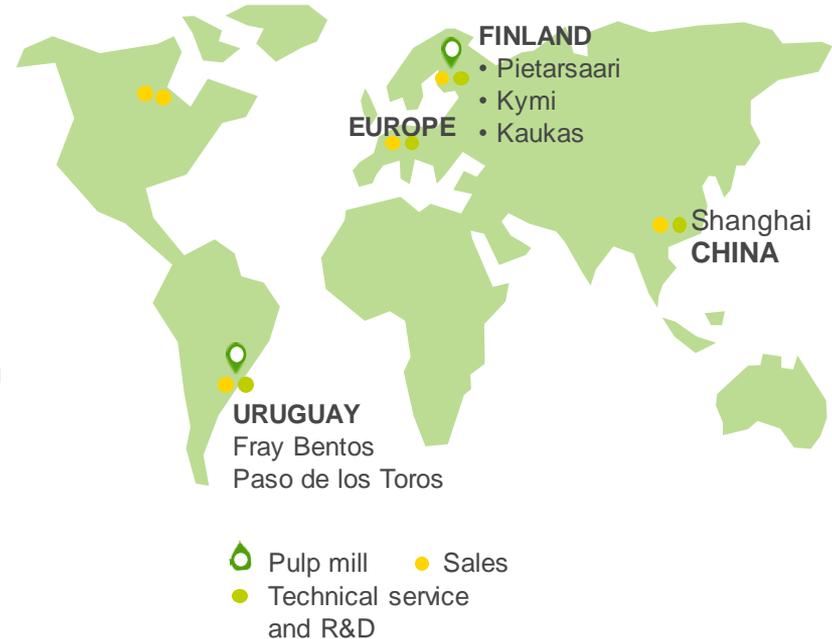


180
million end-users
globally

UPM Pulp



- **1,800** employees in Europe, China, North America and Uruguay
- **5** modern pulp mills in Finland and Uruguay with annual production capacity of **5.8** million tonnes of hardwood and softwood pulp
- **150+** customers in selected markets



UPM Pulp

All wood to our mills comes from legal sources – northern forests and Uruguayan eucalyptus plantations



Finland

Northern spruce, pine and birch is mainly sourced from private landowners and company forests in the vicinity of the mills.

Uruguay

Eucalyptus wood is sourced from company owned and leased plantations in Uruguay.

Modern nurseries

in Uruguay and in Finland ensure seedlings for high-quality fibre

UPM Pulp operations in Uruguay: Highly competitive industrial platform with efficient supply chain



Certified eucalyptus plantations securing wood supply



Two world-class pulp mills with a joint production capacity of 3.4 million tonnes of eucalyptus pulp



Direct connection from both mills to the ports by train and barge



Deep sea port terminal in Montevideo and Nueva Palmira

UPM Pulp operations in Uruguay



UPM FORESTAL ORIENTAL

Sustainable forestry operations
Certified eucalyptus plantations
3 modern nurseries



UPM FRAY BENTOS

1.3 MT per year capacity of bleached eucalyptus kraft pulp (BEK)



UPM PASO DE LOS TOROS

2.1 MT per year capacity of bleached eucalyptus kraft pulp (BEK)



INDUSTRIAL LOGISTICS

Multimodal set-up
Own deep-sea port terminal
Direct gateway to global markets

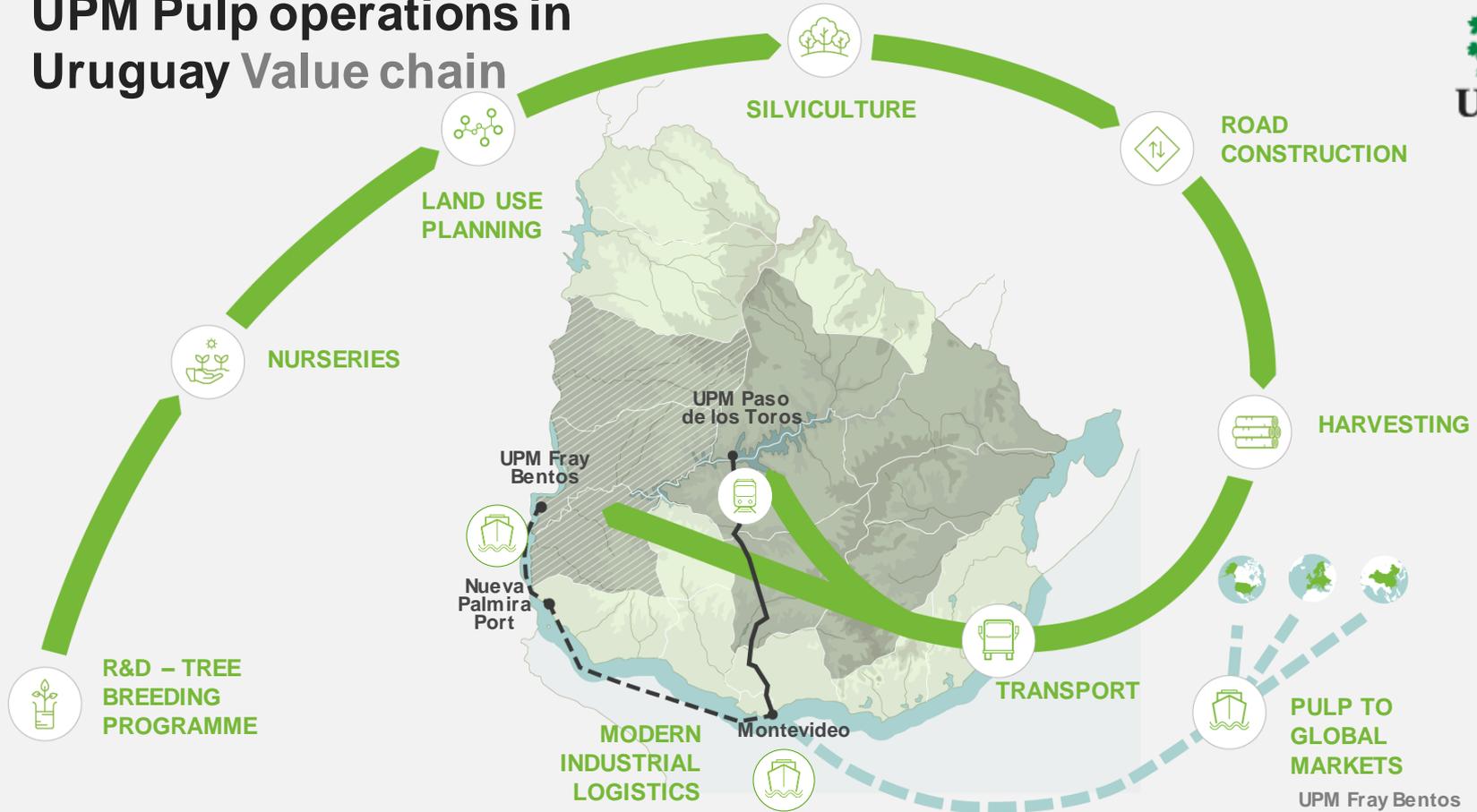


UPM FOUNDATION

Contribution to the development of small communities in Uruguay inland



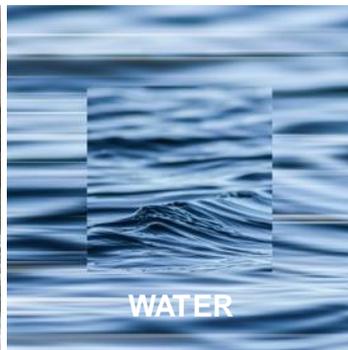
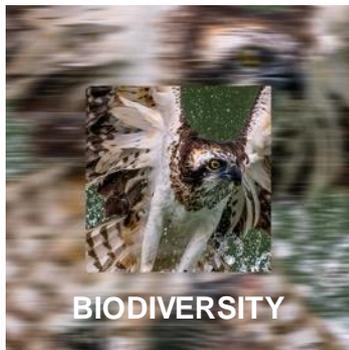
UPM Pulp operations in Uruguay Value chain



2. Sustainable forestry

FOREST ACTION

The **UPM Forest Action** programme takes a holistic view, covering the five fundamentals of responsible forestry:



Key principles of sustainable forestry



100%
controlled and traceable
by a
third-party
verified Chain
of Custody

No wood
from tropical
rainforests or
forests converted
to plantations

UPM: 87% of all
wood used
certified
(2023)

Verified
sustainability
by **FSC™**
and **PEFC**
certifications

Forest
biodiversity
enhanced

(FSC N003385, PEFC/02-44-41)

Globally



We plant
55 million trees
every year = more than
100 trees
per minute

Sustainable forestry

forestry principles



**100% traceable wood
origin**



100% legal sources



**100% UPM plantations
double certified**



Zero deforestation



**No use of tropical
rainforests**



**Respecting traditional and
civil rights**



**Safeguarding high
conservation values**



**No use of genetically
modified trees**

3. Biodiversity



Plantations and biodiversity



+70,000 ha of preserved natural areas

Specific **management plans** designed to actively protect sensitive ecosystems

Monitoring programme started in the early 1990s allowed identifying:

- **33 plant species** registered for the first time in Uruguay
- A plant species registered **for the first time globally**



*Antyphythum
charruasorum*

Long term monitoring studies



BIODIVERSITY MONITORING

started in 1992



WATER MONITORING PROGRAMME

started in 2007



SOIL MONITORING PROGRAMME

started in 2010



Results confirm the good conservation status of biodiversity, soils and water

Studies performed in collaboration with the State University and other external specialists

4. Social Responsibility

Our sustainability commitments build on leading global standards



THE Paris...
CLIMATE 10 years
PLEDGE Early

160 YEARS TO ACHIEVE GENDER EQUALITY?

1/3 OF ALL WORKERS EARN LESS THAN THEY NEED TO LIVE.

9 OUT OF 10 CEOs AREN'T ON TRACK TO MEET THEIR NET ZERO GOALS.

FORWARD FASTER

SUSTAINABLE
DEVELOPMENT
GOALS

2030 TARGETS

6 CLEAN WATER AND SANITATION

7 AFFORDABLE AND CLEAN ENERGY

8 DECENT WORK AND ECONOMIC GROWTH

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

15 LIFE ON LAND

Focus on people and respecting human rights



...of our employees



...of our suppliers & contractors



...of the communities where we operate



UPM's Salient Human Rights



Building blocks in UPM's social responsibility



BUILDING THE FOUNDATION

SETTING OUR SOCIAL RESPONSIBILITY AMBITION

FROM "DO NO HARM" TO "DO GOOD"

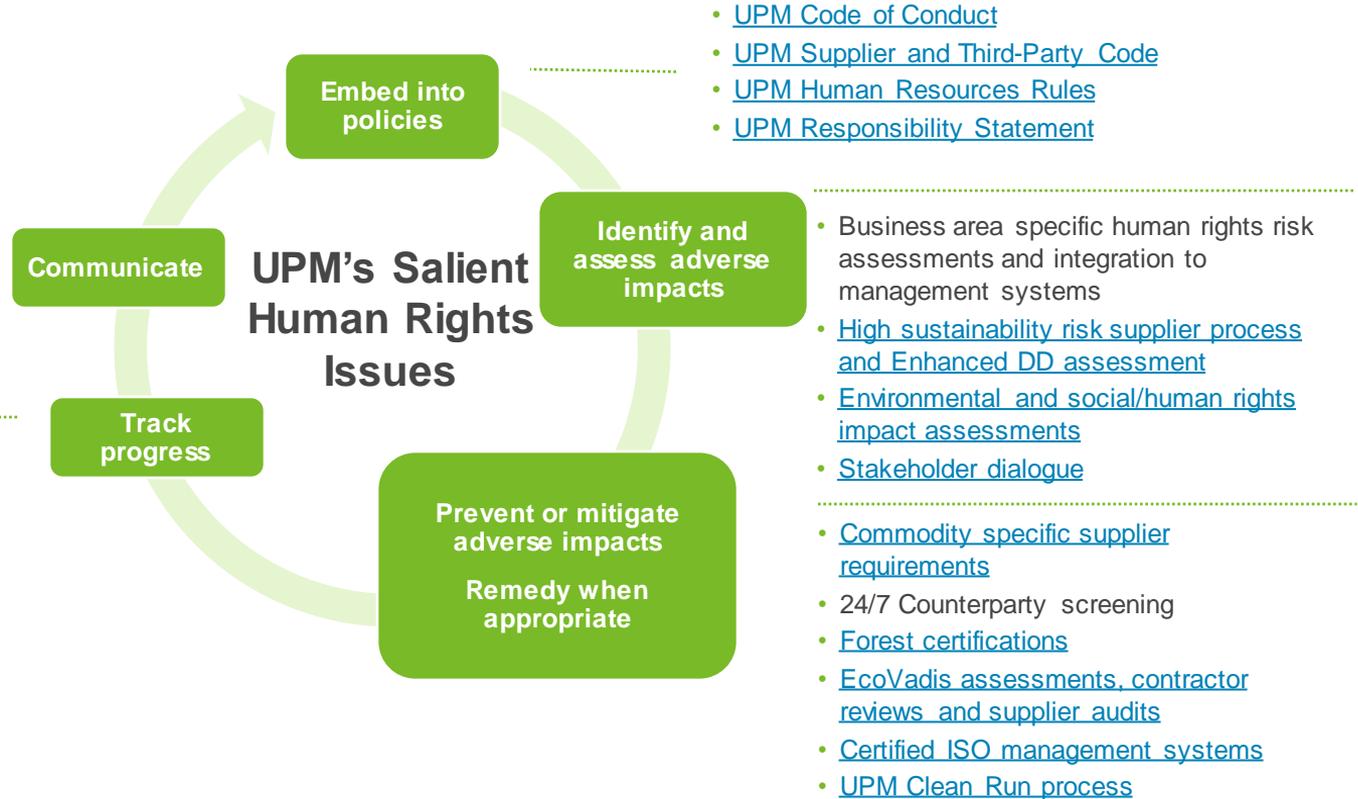
- Human rights public policy commitments and framework
- Regular identification and mitigation of human rights risks in own operations and supply chains

- UPM's 2030 social responsibility targets and focus areas
- Building capacity and public reporting

- Promoting and driving best practices in partnerships with others
- Scale up efforts on topics such as living wages & gender equality

UPM's Human Rights Due Diligence

- UN Guiding Principles for Business & Human Rights
- OECD Guidelines for Multinational Enterprises
- UN GC 10 principles
- ILO Fundamental Principles and Rights at Work

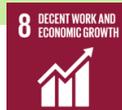


Our new sustainable supply chain programme

Read more on [our website](#).



ESG topics	ENVIRONMENT			SOCIAL		GOVERNANCE	
	Climate action	Biodiversity	Resources and circularity	Labour and human rights	Health and safety	Business ethics and values	Responsible use of assets
Strategic focus	Climate change mitigation in the supply chain	Biodiversity protection in the supply chain	Responsible resource use in the supply chain	Decent work in the supply chain	Health, safety and security in the supply chain	Ethical behaviour and culture of integrity in the supply chain	Responsible use and management of assets in the supply chain
AMBITION							
RISK MITIGATION	Sustainability risk identification, assessment and mitigation in the supply chain Transparent sharing of reliable and credible sustainability information between chain members						
COMPLIANCE	Compliance with applicable regulations and UPM requirements in the supply chain						



Focusing on Local Communities

Community engagement Strategy & Actions



DIALOGUE

Build trust & establish relations

Understand impacts

Community engagement



ISSUE MANAGEMENT

Solve conflicts

Social and environmental monitoring



COMMUNITY DEVELOPMENT

Community development
projects

[Biofore Share and Care
programme](#)



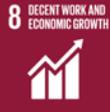
Active dialogue with stakeholders



- We engage in active dialogue with our stakeholders-to discuss our operations and targets.
- We respond to stakeholders' concerns at local, national and international level, i.e., by participating in public debates and meeting various NGO representatives.
- We strive for good and long-term collaboration with extensive supplier and contractor pool.
- We provide transparent reporting of environmental and societal impacts ([EMAS](#)).
- We promote a proactive speak-up culture and provide anonymous grievance mechanisms: e.g., [UPM Report Misconduct](#) channel for raising stakeholders' concerns is operated by an independent external service provider in a system called SpeakUp.



2030
TARGETS



Recognised in social responsibility

Member of
**Dow Jones
Sustainability Indices**
Powered by the S&P Global CSA



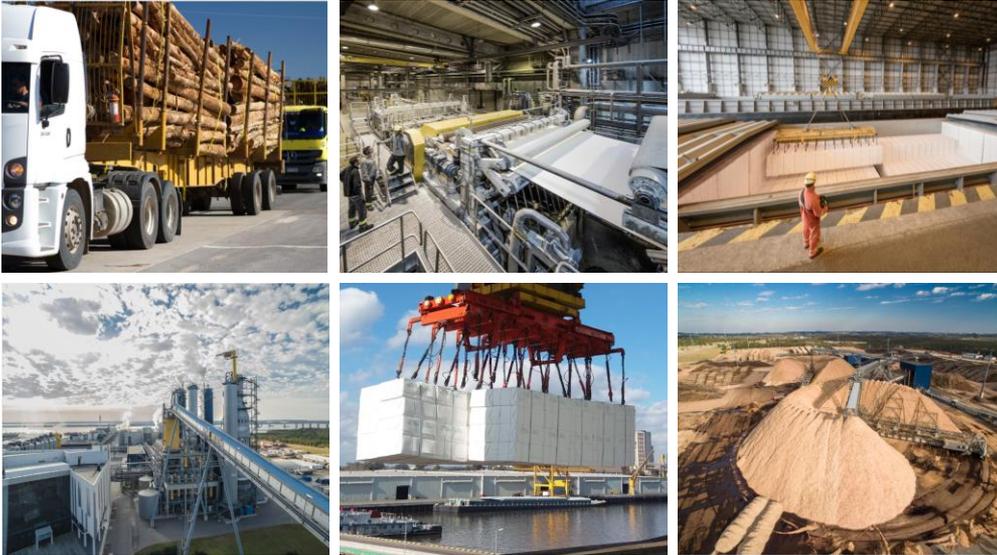
ShareAction»



5. Wood Procurement & Suppliers

UPM & Wood Suppliers

Wood procurement



- 100% Eucalyptus (Mostly *E. grandis*, *E. dunnii*)
- Around 90% of the wood procurement is FSC™ and/or PEFC certified.
- 100% of the fibre used in pulp production is FSC Controlled Wood and/or PEFC Controlled Sources.
- UPM Paso de los Toros and Fray Bentos pulp mills Chain of Custody certificates:
 - FSC™: SGSCH-COC/CW-002249
 - PEFC: SGSCH-PEFC-COC-110034
- Internal and third-party audits performed on annual base, according to the audit plan.

UPM & Wood Suppliers

Suppliers are an essential part of our value chain

- Our continuous teamwork with our suppliers ensures the efficiency, transparency and responsibility of our entire supply chain.



Group Policy

UPM Supplier and Third-Party Code

- We engage in long-term co-operation with selected suppliers to optimise cost, quality, sustainability and innovation.
- [UPM Supplier and Third Party Code](#) defines the principles that all suppliers and third-party intermediaries need to comply with. Available in UPM Web.
- It sets the minimum level of performance that UPM requires from all of its suppliers and third-party intermediaries.
- Wood delivery contract includes, as an Annex, UPM requirements for the suppliers.

Wood Procurement

Uruguay's climate type and vegetation



- Humid subtropical climate.
- Main vegetation type: grasslands (Pampa biome). No rainforests.
- **Native forests** formed by small to medium sized trees protected by law (~5% of the country's surface).
- Forestry plantations established mostly on old cattle grazing land. Not replacing native forests (forestry priority soils defined by legal requirements).



TEMPERATURE
Daily average:
12°C to 25°C



RAINFALL
Annual average: 1,200 to 1,500 mm



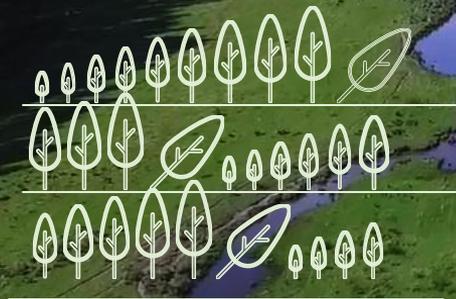
Wood Procurement

Forestry resources in Uruguay - Background



- In 1987 the **Forestry Law N° 15.939** was approved with two major objectives: **conservation of native forest and promotion of forestry plantations** resources.
- Uruguayan legislation prohibits the felling of native forests and any activity that threatens native forests, e.g. eliminating native forests to plant trees, fodder crops, cereal or oilseed crops, urbanised areas or subdivisions; and any other activity that involves eliminating native forests or compromising their survival.
- On a very small scale, timber from **native forest** could be used for domestic purposes or commercial destinations as firewood, only with an approved management plan and a legal authorisation for logging issued by the General Forestry Directorate.
- **Forestry plantation** must comply with environmental impact regulations and follow guidelines of the Uruguay's National Directorate of Environmental Quality and Assessment.

Uruguay forestry sector in figures



**~4.0 million hectares
of forestry priority
soils**

~1.1 million hectares planted
mostly with Eucalyptus and Pine

~800 thousand hectares of Eucalyptus
Mainly *E. grandis*, *E. dunnii* and *E. maidenii*
Growth rate of 20-30 m³/ha/yr in average.
10 years rotation for Pulp production.

~840 thousand hectares of native forest
+25% of growth since the Forestry law was promoted in 1987

**Clear land ownership structure and strict land
use policies**

Wood Procurement

Uruguay forestry Plantation

Permits & authorisation in Uruguay

Forest plantation register issued by the General Forestry Directorate

- Approval of the management plan.
- Compliance with legal regulation (Law 15.939) and other regulatory decrees.

Forest Plantation Authorisation Issued by the National Directorate of Environmental Quality and Assessment according to the Environmental impact assessment law (Law N°16.466) and regulatory decrees

- Environmental authorisation is mandatory for plantations done after 2005 and over than 100 ha.
- Reforestation over 100 ha, planted before 2005, require special environmental authorisation.
- Since 2022, new plantations or reforestation between 40 and 100 ha require register and approval.

Harvesting operations

- Don't require any special legal authorisation/permit by any authority.
- The plantations harvested and wood sources are clearly identified in geographic systems.



Wood Procurement

Argentina forestry Plantation

Permits & authorisation



- **Argentina*** - Permit issued by the Ministry of Livestock, Agriculture and Fisheries (approval of the Management plan)
- *An internal audit is done by an independent auditor against EUTR requirement for each supplier/origin agreement.



Wood procurement in Uruguay

UPM Forestal Oriental



- UPM Forestal Oriental is responsible for the wood procurement for the UPM pulp mills in Fray Bentos and Paso de los Toros.
- More than 90% of the wood used in the pulp mills in Uruguay is supplied* by UPM Forestal Oriental from:
 - 61% Own plantations
 - 23% Supply agreements with private owners (standing wood to be harvested by UPM Forestal Oriental).
 - 16% Wood from the market (deliveries direct to the mills)
- The rest (~8%) is purchased from independent suppliers who have been working in close cooperation with UPM for many years.

*average of latest estimate 2023 (Fray Bentos and Paso de los Toros mills)



UPM Forestal Oriental

Sustainability is at the core of our operations



**100% TRACEABLE
WOOD ORIGIN**



**ZERO
DEFORESTATION**



**NO USE OF
GENETICALLY
MODIFIED TREES**



**FSC™ / PEFC
dual certification**



**BIODIVERSITY, SOIL
AND WATER**

safeguarded through
long-term monitoring.



>70 000 HECTARES
dedicated to
biodiversity
conservation in UPM
land



**CARBON
ACCOUNTING**
along all value chain
steer climate-
positive actions



**CONTRIBUTION TO
THE DEVELOPMENT**
of small communities
in Uruguay inland

The anatomy of UPM plantations



60%

planted with UPM's specifically selected, high-productivity trees from the most suitable eucalyptus species suitable to a wide range of customer end-uses (mostly *E. grandis* and *E. dunnii*)

40%

non-planted area for maintaining the natural vegetation (native forests, water courses and wetlands), infrastructure and conservation areas

10

years rotation time from planting to harvesting

UPM EUCA pulp produced in Uruguay is very well positioned to comply with the EUDR



- **No deforestation or forest degradation** have taken place in our operations at any point in time since we started operations in Uruguay (in the 1990s)
 - ✓ native forests are protected by law since 1987 (Forestry Act)
 - ✓ plantations established mostly on modified natural grasslands previously used for cattle grazing
 - ✓ on soils defined by the State as forest priority soils, which have very low productivity for traditional land uses
- **Very clear land ownership with no land disputes.**
- Plantation Management plans **require approval by competent authorities.** (see Permits & Authorisation in Uruguay and Argentina)
- **Wood Supplies are declared as certified or controlled wood, against a forest management certification and/or chain of custody certification scheme** issued by a third-party certification body which addresses activities covered by the EUDR (FSC™ and PEFC certification). (Uruguay and Argentina)
- **Full traceability of the wood** from nursery to pulp mill supported by traceability model.
- **Legal Due Diligence** in place in wood procurement to verify legal compliance.

UPM EUCA pulp produced in Uruguay is very well positioned to comply with the EUDR



All wood supplies is supported by **verifiable documentation** that clearly identifies:

- The entire supply chain back to the forest of origin (supply area).
- All suppliers within the supply chain.
- Trade Documents, including legal contractual agreements and or self-declarations, or other reliable information indicating that the products do not originate from controversial sources regarding EUDR requirements.
- Trade name and product type, scientific name and common name of the tree species.
- Legal documentation for Wood transport which include information about wood origin at field level, wood species and supplier.

Indigenous Peoples

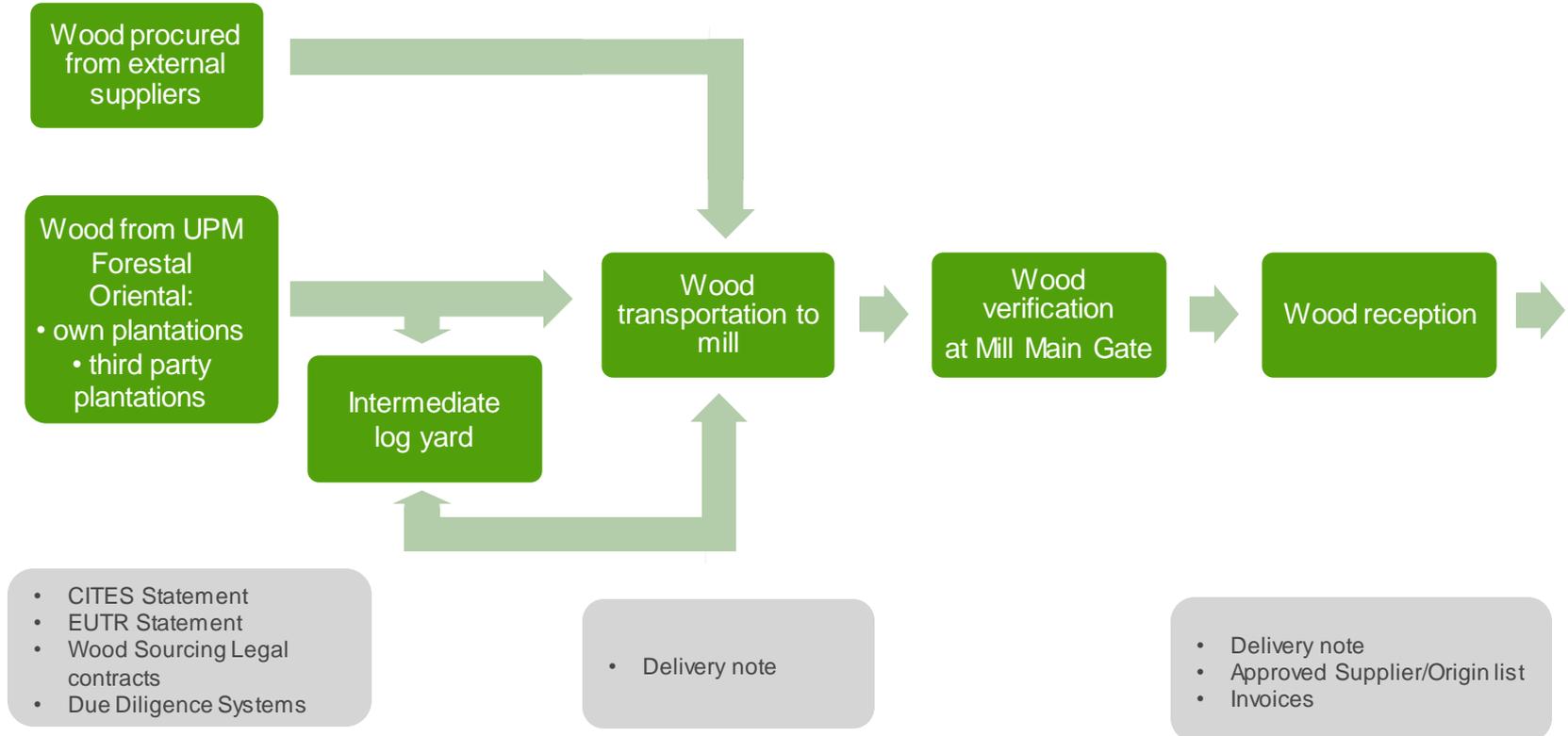
- We also recognise that the most marginalised and vulnerable segments of the population (e.g., indigenous and tribal peoples) may be disproportionately affected by land acquisition and/or natural resources use and therefore warrant special safeguards.
- UPM complies with applicable forest certification requirements on recognising and upholding the rights, customs and culture of indigenous peoples, as defined in international conventions, declarations and treaties on the rights of indigenous peoples, such as the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) and ILO Convention 169 on Indigenous and Tribal People.
- UPM ensures through its human rights due diligence and third-party certification that its own forestry operations and wood sourcing do not violate land tenure or land use rights of traditional or indigenous people`s groups.
- Risk assessments, community consultations, including Free, Prior, and Informed Consent (FPIC) when applicable, and access to grievance channels are embedded in our forestry operations and certification requirements.
- [UPM Annual Report 2023](#) (pages 82-83)
- [Forests | UPM.COM](#)

6. From Wood to Pulp

Traceability & Permits

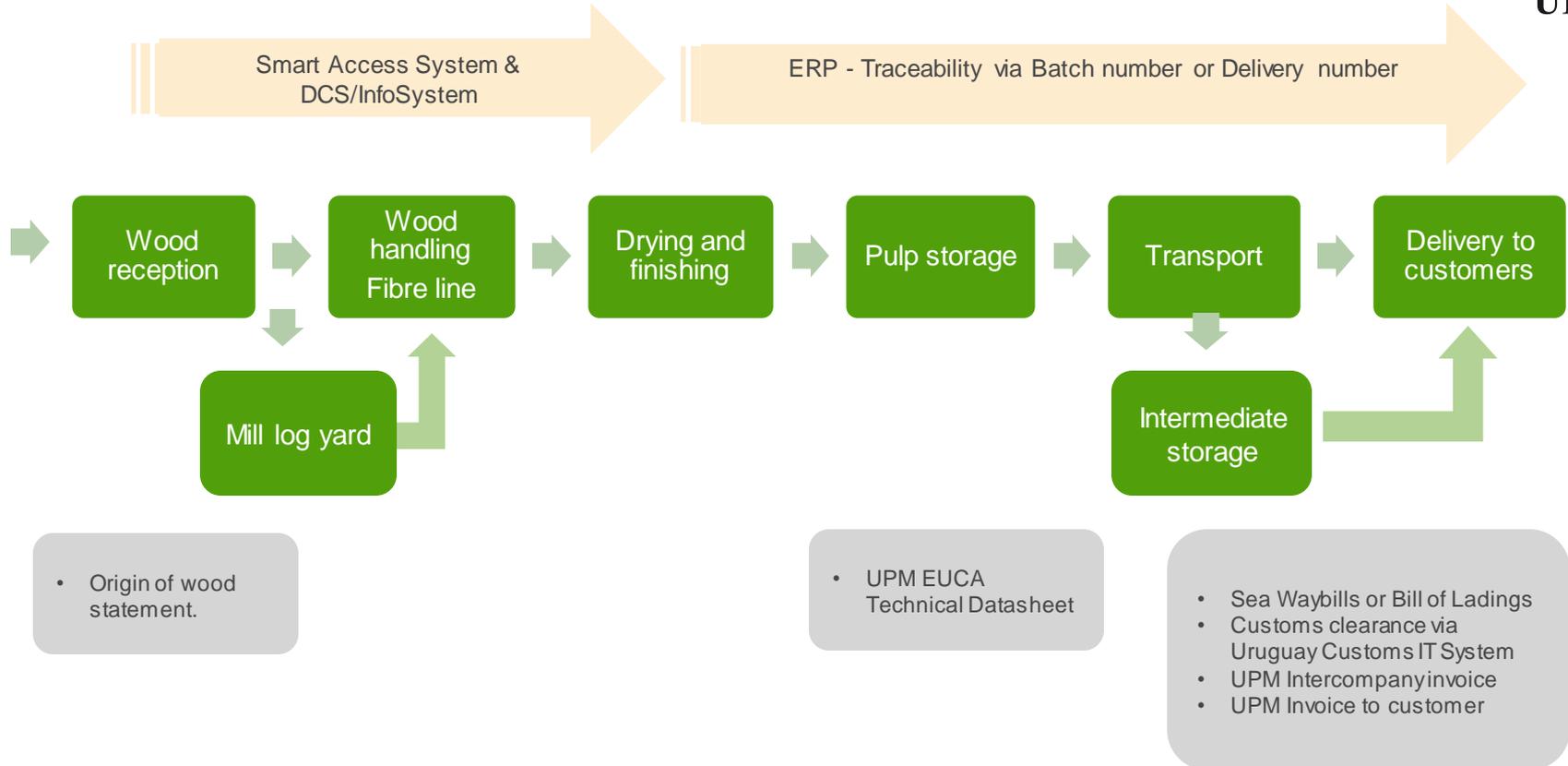
From wood to pulp

Process Flow chart



From wood to pulp

Process Flow chart

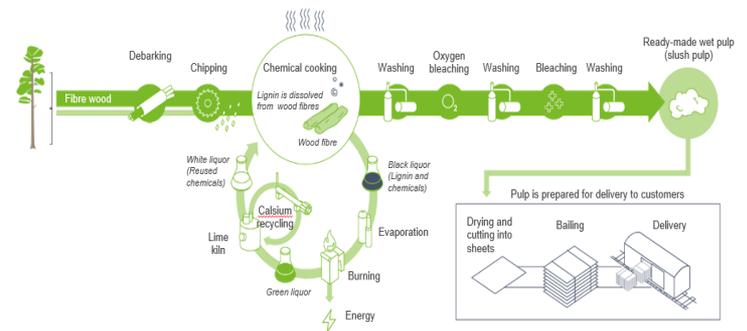


From wood to pulp

Traceability Model



- Since 2021, a traceability model has been developed in Fray Bentos, which in 2024 was replicated at Paso de los Toros.
- It is capable of determining the origins of the wood used through data and assumptions.
- With the entry into force of the EUDR standard, this model becomes the input to determine the wood origins of each production lot (batch).



SmartAccess
UPMLINK

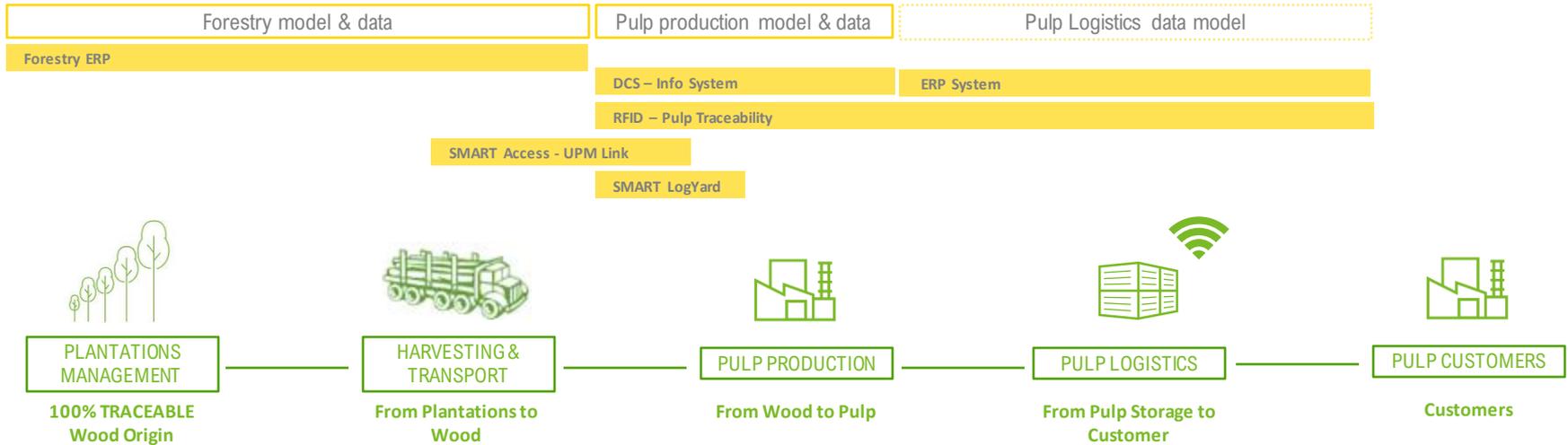
SmartLogYard
UPMLINK



Traceability Model Conceptual view



"UPM EUCA Pulp production lots through digitally enabled and traceable value chain"



"Multilayer value chain data integrated to Pulp production lots delivered to Customer"



From wood to pulp



- The origin of the wood at field level is set forestry systems and validated in Mill Gate System.
- Full traceability of the origin of wood:
 - Supplier name
 - Geolocation (polygon)
 - Wood Species
 - Harvesting period
- All activities (harvesting, forwarding, transports, etc) and stocks are monitored in Forestry systems.



From wood to pulp

Geolocation - Polygons

Example of Polygon:
GeoJSON Visualizer tool
[HERE XYZ: GeoJSON
Visualizer](#)



From Wood to Pulp

Delivery note of wood transportation



Example

- Wood transportation by trucks, from field or intermediate log yards to mill
Includes:
- Supplier's name
 - Origin of wood
 - Species
 - Product type
 - Amount
 - Certifications claims.

Forestal Oriental S.A. RUT. 21 227726 0015



UPM Forestal Oriental
The Biofore Company

REMITO INTERNO

DUA: 566590

Salida de Monte

Remito Origen: N° Remito:

Fecha / Hora:

Destinatario/Depósito : Planta FB - UPM	CANTIDAD	CUADRO	ESPECIE/PRODUCTO
Monte/Proveedor : [REDACTED]	2	3V223a	Dunnii 7.20 Controlado
Transportista/Matricula/Chofer : [REDACTED]			BRUTO 45,460
			TARA 15,620
			NETO 29,840

Observaciones:
PEFC CONTROLLED SOURCES UY21/81841054 - FSC CONTROLLED WOOD SGSCH-CW-800038

La empresa transportista es la única responsable por todas las consecuencias de orden laboral, administrativo, civil y penal derivadas de la carga.

00001 al 02000 - 04/2021 - Imp. ABC S.A. - O.T. 52350

N° 001945

Please note that UPM will share the information required by the EUDR in a strictly controlled manner, as any additional details are considered internal and sensitive.

From Wood to Pulp

Smart Access System



Validation of **Delivery note** data against Supplier List through Smart Access System.

Includes:

- Supplier name
- Origin of wood
- Species
- Product type (logs or chips)
- Transport details
- Amount.

Example

SmartAccess Planta Fray Bentos

Remito de madera: 2130304 Completado

Inicio Medición y muestras Control Estación Integraciones

Origen y destino del remito

Origen: El Jabali Remito: A Fecha y hora de ingreso: 23-06-2022 04:23

Destino: Planta Fray Bentos

Transportista y chofer de remito

Matrícula: [REDACTED] Transportista: [REDACTED] Número de viaje: 3033200

Sentimiento 1: [REDACTED]

Chofer: [REDACTED]

Lineas del remito

CUADRO	DESCRIPCIÓN	CONTENIDO	MATERIAL	FSC	PEFC	Peso Neto
N08	Forestal Brasil 08	Grande 7.20 Certificado	Madera Propie	●	●	30,790

DIA: [REDACTED] Comentarios: [REDACTED]

Tara húmeda	Bruto	45,400
14,620	Tara	14,620
	Neto	30,780

Please note that UPM will share the information required by the EUDR in a strictly controlled manner, as any additional details are considered internal and sensitive.

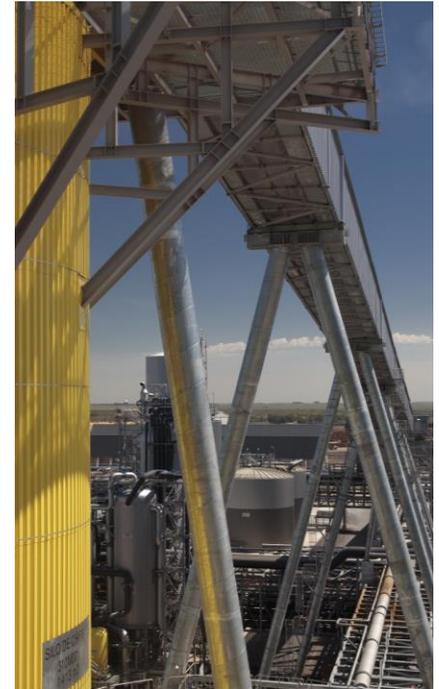
From wood to pulp

DCS – info system



DCS – Info system

- The Distributed Control System (DCS) used to remotely monitor and control the production process from the control room stores the process data with time tags in its server for long periods.
- In addition to this, the data is transferred to the Information System for analysis and reporting.
- Starting from the moment the wood chips are fed into the fibre line, it is possible to trace forward using the retention times in the process and the production time information associated with each production lot (batch) number registered in the ERP system.
- Both systems are in secure servers and the information is safely backed up.



From wood to pulp

ERP System



ERP System - Traceability via Batch number or Delivery number

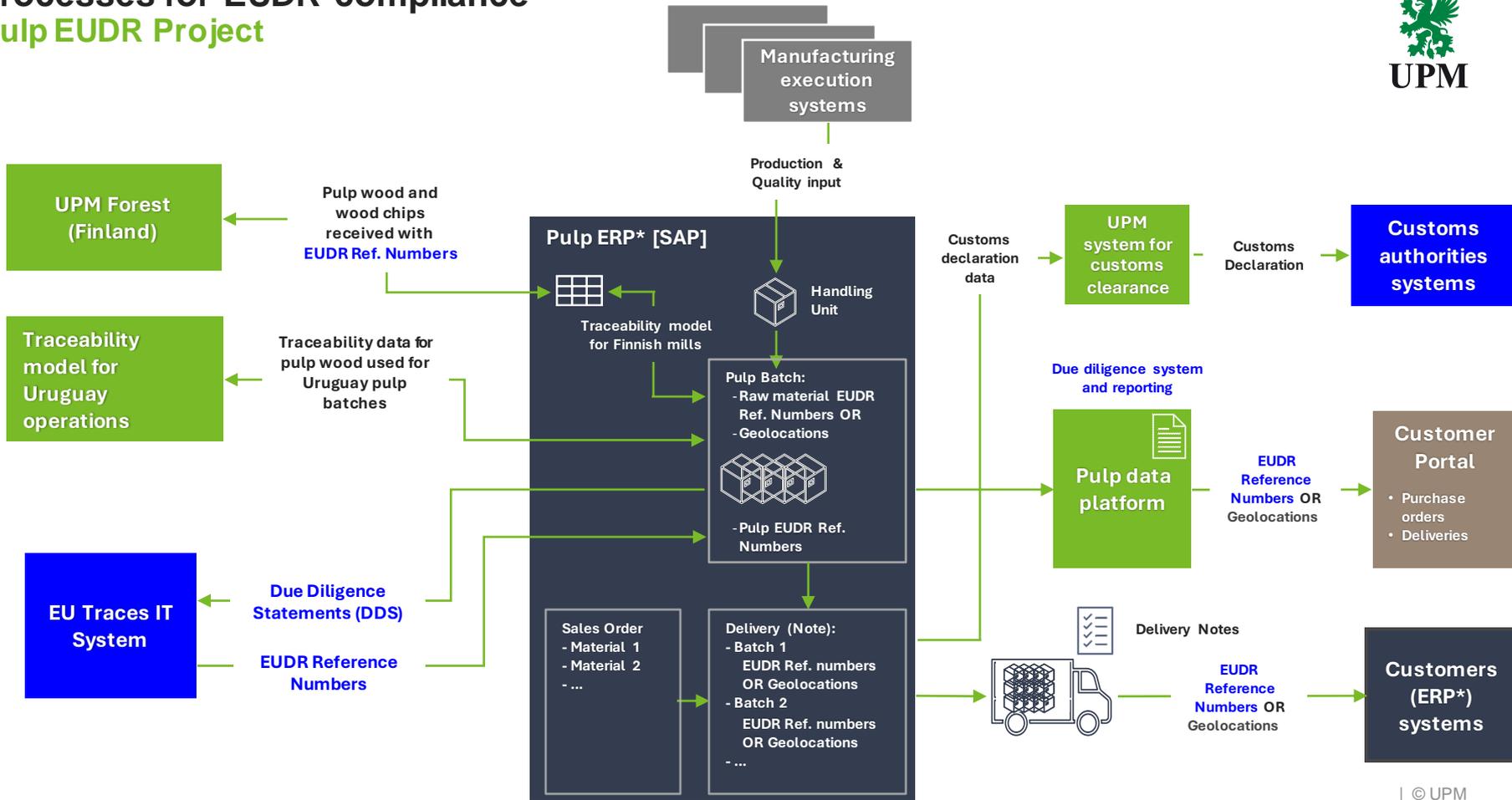
- With the **production lot number** or **delivery number** associated to each **sales/delivery recorded in ERP system** it is possible to trace backwards to the production time, production line information and **origin of wood information**.

7. Systems Integration & Processes for the EUDR

UPM Pulp systems integration and processes for EUDR compliance

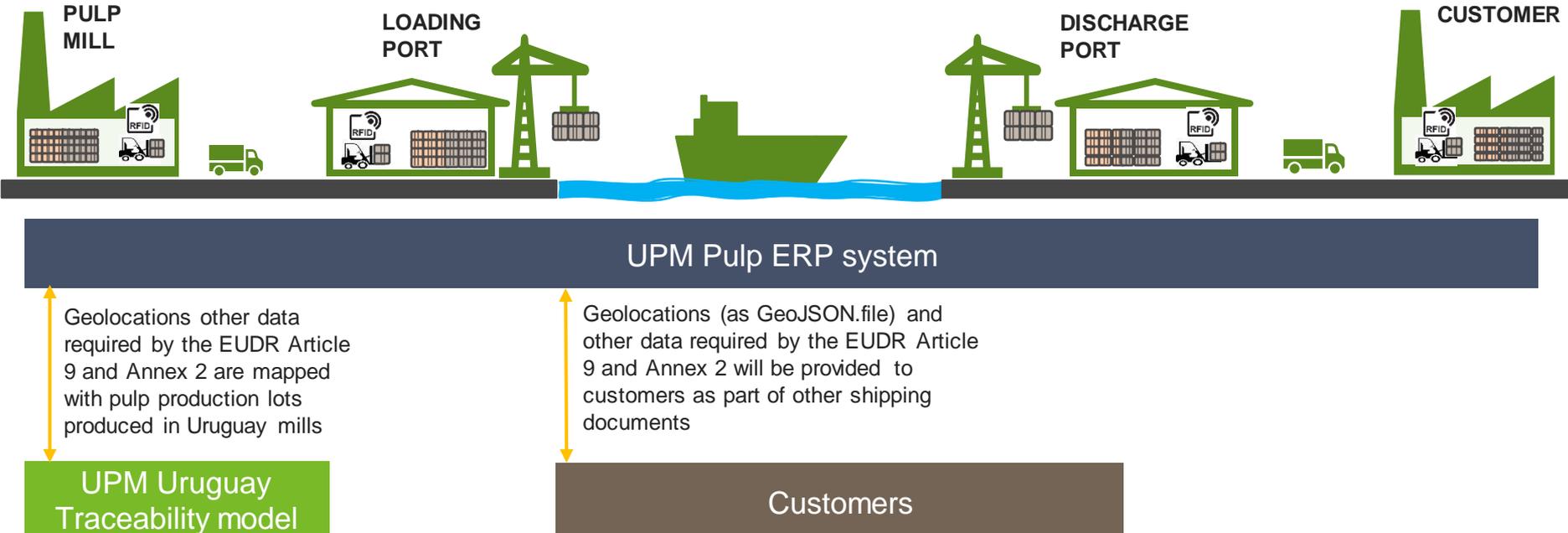
Pulp EUDR Project

*ERP = Enterprise Resource Planning system



Geolocations and other EUDR relevant data to customers outside the EU market for the pulp produced in Uruguay

Pulp EUDR Project



EUDR data to customers – via automatic email



- Delivery note documentation.
- A file in PDF format containing geolocations, and other EUDR Annex 2 listed information.
- A file in CSV format containing the same details as the PDF file above, in order to facilitate customers' use of automated data uploads etc.
- geolocations in the form of geo.json files (when UPM Euca pulp is shipped to markets outside of the EU).
- Information in the email text regarding where the customer can access further information (via a dedicated webpage) with regard to UPM Pulp's due diligence processes and 'evidence'.



UPM **BIOFORE**
BEYOND FOSSILS

