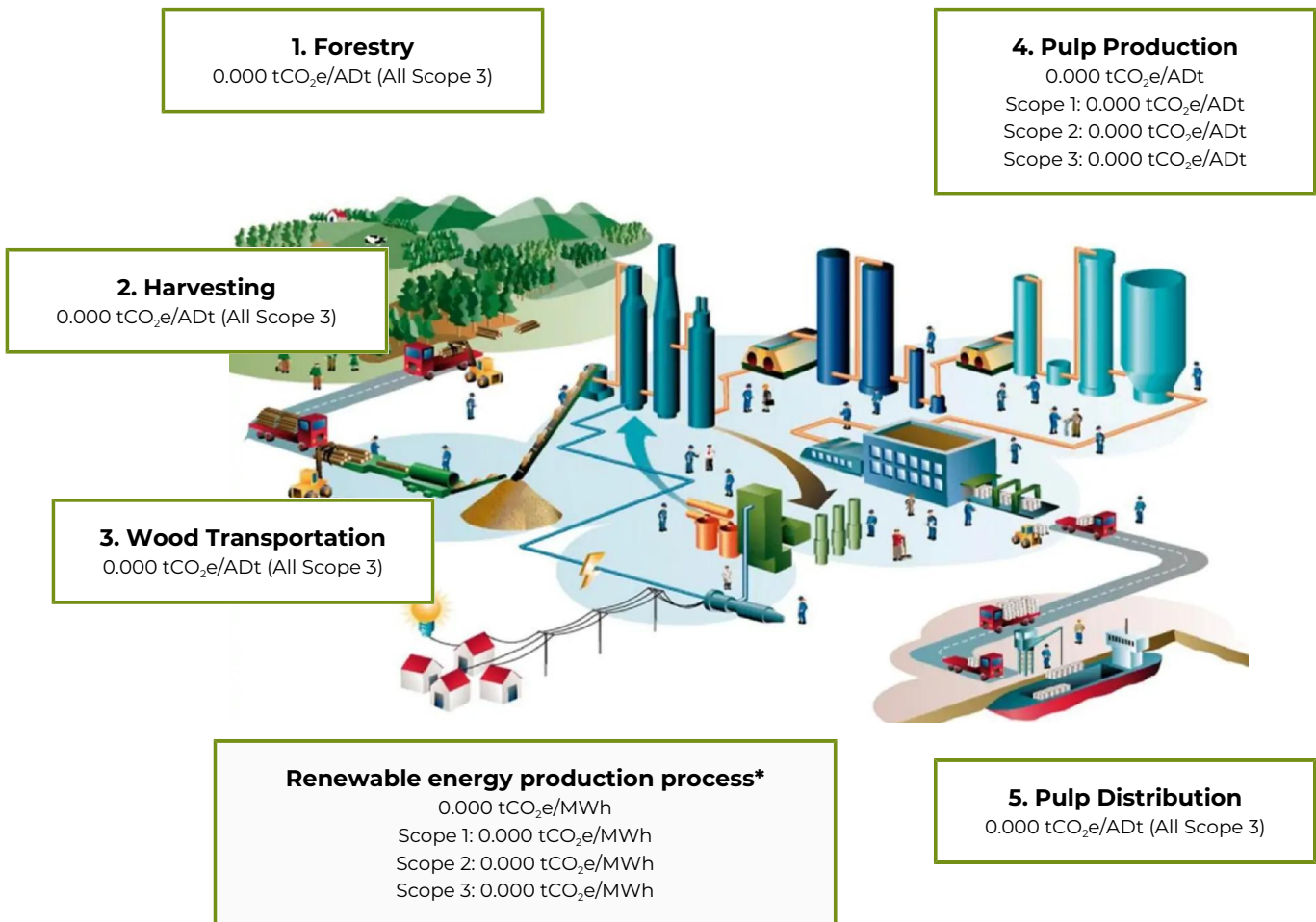




**Carbon Footprint calculator
for clients**

BIOFACTORY CARBON FOOTPRINT

The following scheme shows Ence’s GHG footprint in the whole life cycle of Pulp and energy Production at .



*Carbon Footprint for Pulp production at does not include the emissions associated to Renewable energy production process. Energy is produced in the biofactory and the total emissions from the facility are allocated to cellulose and energy separately. Energy emissions figures correspond to the emissions from the production of energy from biomass excluding emissions from biomass harvesting and transportation.

CARBON FOOTPRINT OF THE PULP DELIVERED TO FROM

Client Code	Year	Origin	Destination	ADt delivered
				0.000

TOTAL CARBON FOOTPRINT

0.000 tCO₂e/ADt

Product carbon footprint by scope:



Scope 1: (nan%)
0.000 tCO₂e/ADt



Scope 2: (nan%)
0.000 tCO₂e/ADt



Scope 3: (nan%)
0.000 tCO₂e/ADt

Product carbon footprint by life cycle:



Forestry

0.000 tCO₂e/ADt



Harvesting

0.000 tCO₂e/ADt



Wood Transport

0.000 tCO₂e/ADt



Operation

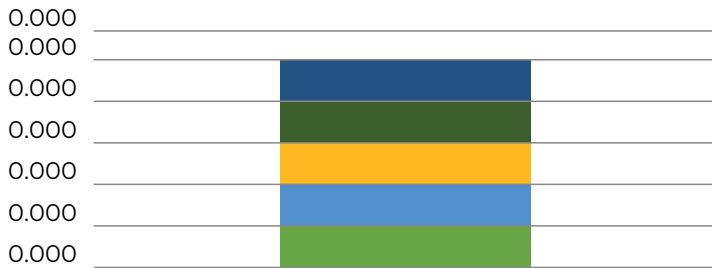
0.000 tCO₂e/ADt



CARBON FOOTPRINT OF PULP DELIVERED TO FROM

0.000 tCO₂e/ADt for a total of 0.000 ADt

Product carbon footprint by TOES



- TOE 7: Transport-related GHG emissions
- TOE 6: GHG emissions associated with purchased electricity and steam
- TOE 5: GHG emissions associated with producing other raw materials
- TOE 4: GHG emissions associated with regenerating the supply of wood or recovered fibre.
- TOE 3: emissions from pulp production

CEPI TOES	Description	Especific (tCO ₂ e/ADt)
1	Carbon sequestration in the forest: Amount of carbon removed from the atmosphere and retained by ENCE's forest land. This figure is not specific for mill.	207,237.7 tCO ₂ e
2	Carbon stored in the product Biogenic carbon stored in pulp produced from wood fibre	0.000
3	GHG emissions from pulp production Includes GHG emissions from combustion of both fossil fuels and biomass (including CO ₂ , CH ₄ and N ₂ O).	0.000
4	GHG emissions associated with generating the supply of wood or recovered fibre. Includes emissions derived from forestry and harvesting operations. It does not include the emissions produced in the operation of ENCE's nurseries because the plants produced in these facilities are mostly sold to third parties.	0.000
5	GHG emissions associated with producing other raw materials Includes emissions generated during the manufacturing of non-wood-based raw materials: chemicals, additives, etc. (for the pulp production process only)	0.000
6	GHG emissions associated with purchased electricity and steam Includes emissions associated with purchased electricity, steam and heat used at facilities.	0.000
7	Transport-related GHG emissions Includes emissions derived from wood transportation from the forest to the production facility and pulp transportation from the mill to the customer.	0.000
8	GHG emissions attributable to product use (e.g. printing) Since ENCE produces pulp (an intermediate product), this category does not apply.	ND
9	GHG emissions attributable to end-of-life-management of products Since ENCE produces pulp (an intermediate product), this category does not apply.	ND
10	Avoided emissions e.g. superior energy efficiency or carbon offsetting measures Includes emissions avoided self-consumption of electricity and renewable electricity sold to the grid (according to the country mix electricity conversion factor).	0.000

DETAILS ON THE CALCULATION OF CARBON FOOTPRINT

REFERENCE FRAMEWORK

GHGs included in ENCE's carbon footprint are generated by the company's activity. These are: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O) and, in addition, hydrofluorocarbons (HFC) and sulphur hexafluoride (SF₆) associated with refrigerant gas leaks and repairs of insulating switches.

Carbon footprint has been calculated attending to UNE EN ISO 14064-1:2019 Standard, Corporate Accounting and Reporting Standard, Greenhouse Gas Protocol (GHG Protocol), Calculation Tools for Estimating Greenhouse Gas Emissions from Pulp and Paper Mills Standard from GHG Protocol and ISO 14067:2018 (carbon footprint of the product).

The ISO 14067:2018 Standard is the reference standard for calculating the carbon footprint of the product in ENCE, using the bases established according to the UNE EN ISO 14064-1:2019 Standard.

The functional unit for the carbon footprint of the pulp segment is the ton of CO₂ equivalent per Air Dry ton produced (tCO₂e/ADt).

VERIFICATION

ENCE's carbon footprint has been verified by an independent entity with a reasonable level of assurance, which represents the highest level of rigor available for this type of procedure and guarantees the veracity of the data and approaches applied in the calculation of GHG emissions.

Total emissions from pulp distribution have been verified; however specific pulp distribution emissions for each client have not been verified by a third independent party.

FOOTPRINT LIMITS

All the stages related to the production of cellulose pulp from the pulp mills are recorded:

- **Forestry:** emissions produced by the use of fossil fuels for forestry operations carried out in sustainably managed forests where Ence sources wood for pulp production. These forests include both forests owned and managed by the company as well as forests managed by third parties. The figure does not include carbon removals.
- **Harvesting:** includes emissions produced by the use of fossil fuels for harvesting, logging and transferring to loading areas.
- **Wood transport:** includes emissions produced by the use of fossil fuels for transportation operations from harvesting sites to the biofactory. These emissions are calculated considering the distance, load and vehicle type used in each case.
- **Pulp production:** includes the process of transforming wood to obtain cellulose pulp.

- **Pulp distribution:** includes emissions produced by the use of fossil fuels for transportation of pulp from the biofactory to the location agreed with the client (end destination or intermediate destination). These emissions are calculated considering the distance, load and vehicle type (truck, train, vessel, barge) used in each case.

SCOPE

The emission flows included in each scope for this year are described below:

- **Scope 1 (direct) emissions:** emissions resulting from activities controlled by ENCE, such as:
 - Combustion in fixed sources.
 - Physical or chemical processes (for example, in the case of pulp mills, emissions derived from the use of carbonate in the process)
 - Combustion in mobile sources.
 - Fugitive emissions resulting from intentional or unintentional releases of gases such as refrigerants used in air conditioning and refrigeration equipment.
- **Scope 2 (indirect) emissions:** emissions derived from the use of electrical energy purchased by ENCE.
- **Scope 3 emissions (other indirect emissions):** include those emissions induced by ENCE's activities but produced from sources not owned or controlled by ENCE. To identify significant Scope 3 emission sources, the recommendations of the Scope 3 Emissions Calculation Guide, a supporting document for the GHG Protocol standard, have been followed. The following Scope 3 emission categories are included:
 - Products and materials purchased by ENCE.
 - Upstream transportation of wood and biomass (to the facilities) and downstream distribution of the manufactured cellulose.
 - Management of waste and effluents generated in operations.
 - In itinere displacement of the employees of the organization
 - Business trips
 - Fuel and energy related activities not included in scopes 1 and 2, which include indirect emissions from extraction, refining and transport of fuels to the facilities where they are used.