

Kays Compounds Ltd. Production carbon footprint 2022



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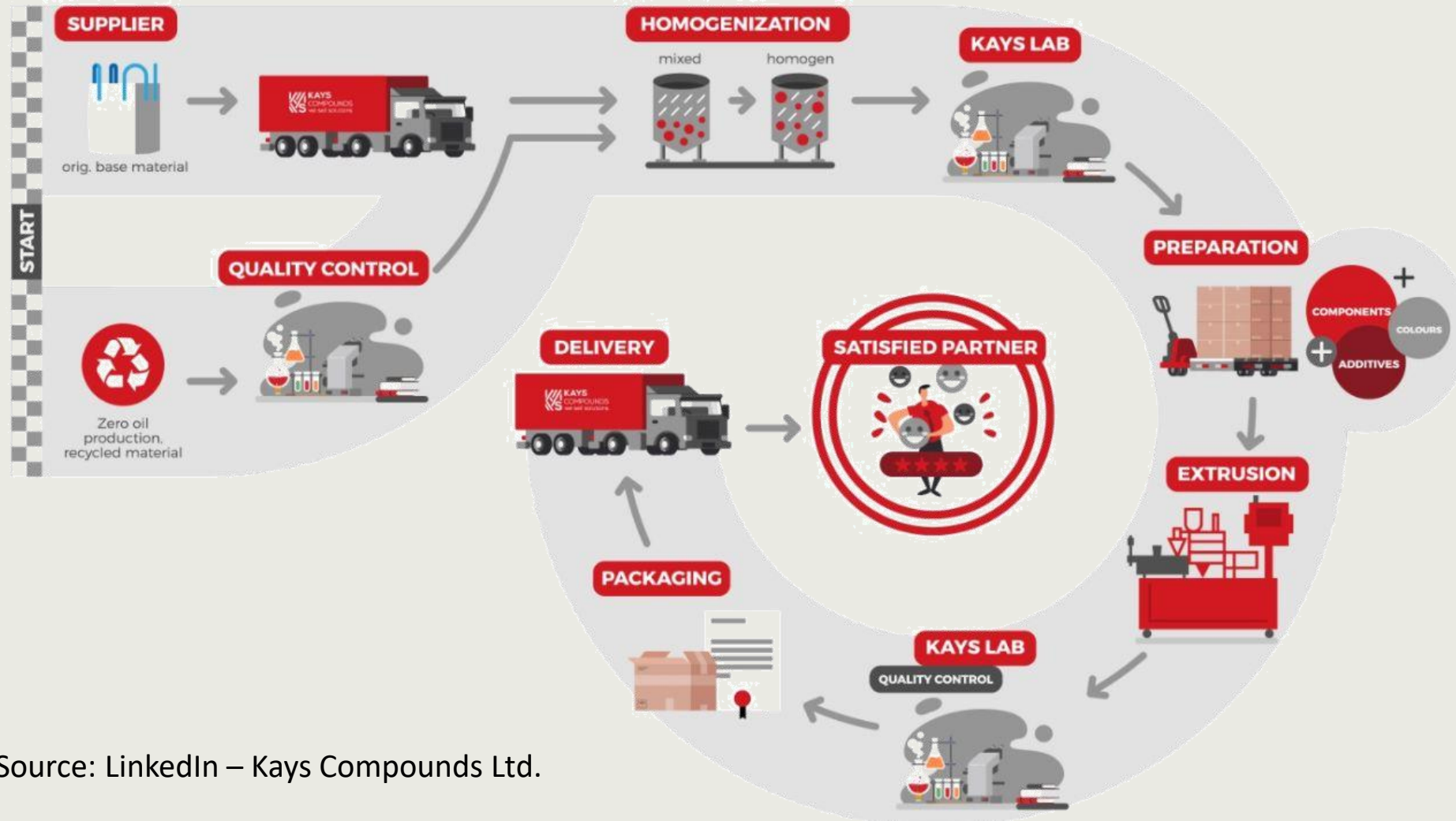
Kick-off

- Tasks: Calculating Kays Compounds Ltd.'s carbon footprint.
- Calculate Scope1-2 emissions.
- To determine Scope3 emissions we took into consideration the followings:
 - Upstream transportation
 - Production of virgin materials
 - Production and upstream transportation of packaging
 - Downstream transportation

Limited liability: All calculation rely on the results of the newest scientific researches and the relevant industry specific databases. Kays Compounds Ltd. is responsible for all the input data for the calculation. We do not accept any liability for incomplete data disclosure or for any discrepancies resulting from their non-compliance.



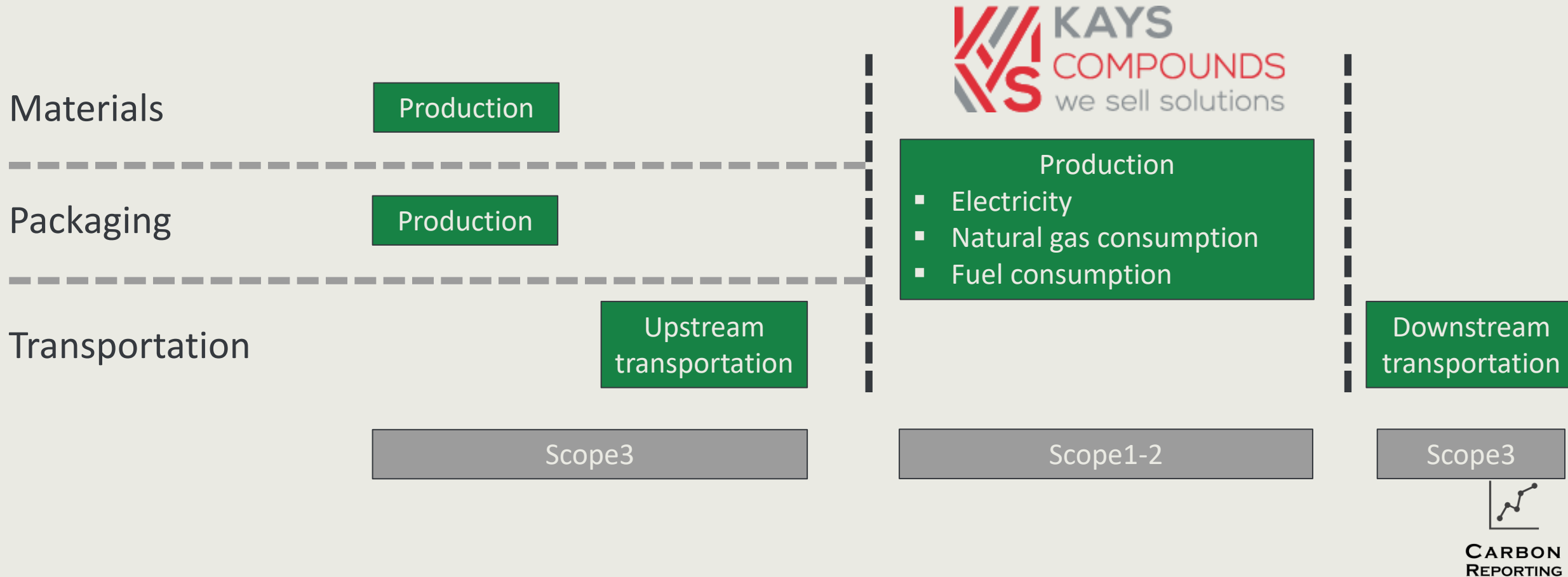
Kays Compounds Ltd.'s operation scheme



Source: LinkedIn – Kays Compounds Ltd.

Methodology

The production process of Kays Compounds Ltd. interpreted in the following model.



Methodology

In addition to industry emission standards, the following sources were used to calculate the carbon footprint:

- GHG Protocol
- DEFRA Greenhouse gas reporting: conversion factors 2020
- Inventory of Carbon and Energy
- European Environmental Agency
- PlasticEurope



Emissions from production



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Scope1-2 emissions (2019)

Scope1 sources

■ Natural gas consumption	22,840 m ³
■ Fuel consumption	10,800 liter
■ PB gas consumption	3.16 tons

Scope2 source

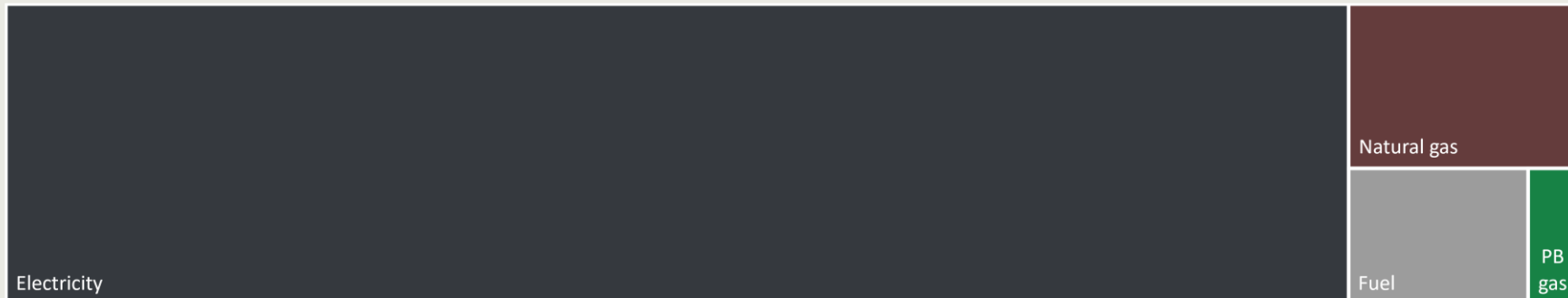
■ Electricity	1,468 MWh
■ Production volume:	3,168,628 kg

Scope1-2 emissions: 563.1 tons CO₂e



0.178

kgCO₂e/kg.product



Scope1-2 emissions (2022)

Scope1 sources

▪ Natural gas consumption	149 MWh
▪ Fuel consumption	166.31 MWh

Scope2 sources

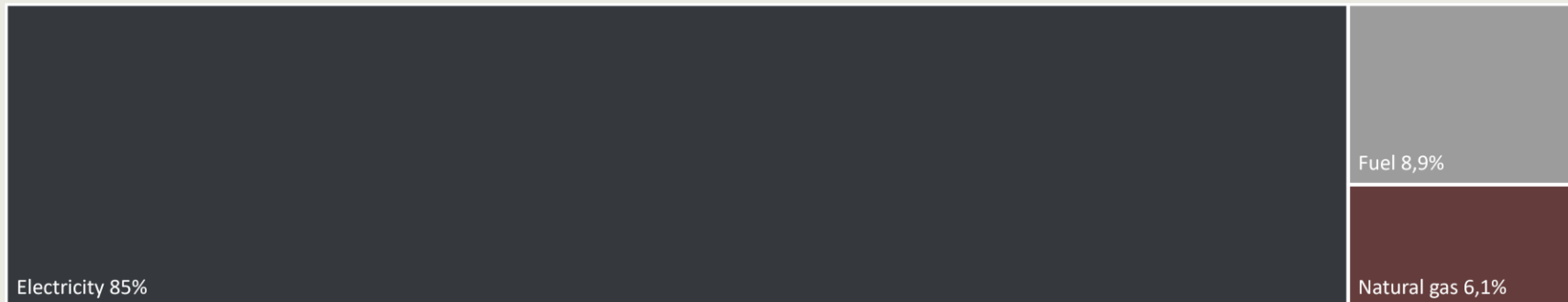
▪ Electricity	2322.08 MWh
▪ Production volume:	4,885,012 kg

Scope1-2 emissions: 492 tons CO₂e



0.101

kgCO₂e/kg.product



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Scope 3 emissions



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Emissions from the production of different base materials

There are no emissions from the production of recycled materials.

Emissions from the production of virgin materials (cradle-to-gate) [kgCO₂e/kg.product]:

ABS	Acrylonitrile Butadiene Styrene	3.1
SAN	Styrene Acrylonitrile	3.0
PC	Polycarbonate	3.4
PA	Polyamide PA6	6.7
PA	Polyamide PA6.6	6.4

ASA	Acrylonitrile styrene acrylate	1.2
POM	Polyoxymethylene	3.2
PP	Polypropylene	1.6
PS	Polystyrene	2.4
PMMA	Polymethyl methacrylate	3.8

Carbon intensity - transportation

Fuel used in upstream transportation: 23,279 liter

0.013

kgCO₂e/kg.product

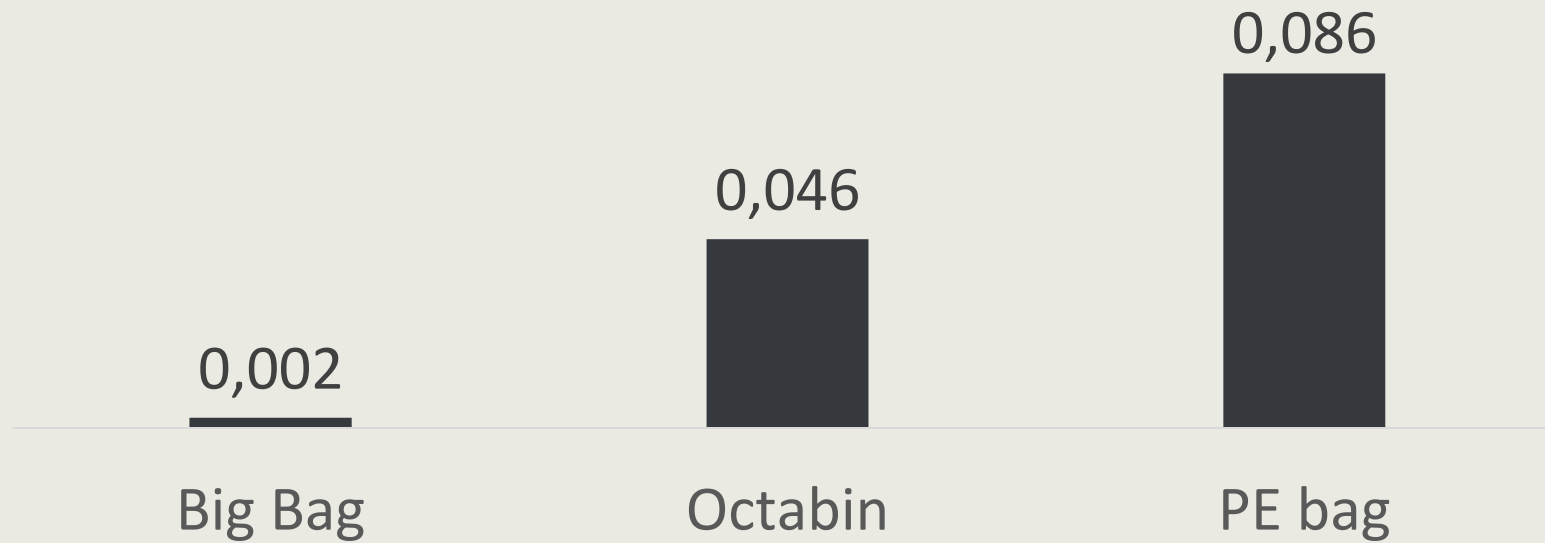
Fuel used in downstream transportation 53,775 liter

0.029

kgCO₂e/kg.product



Carbon intensity - packaging



0.016

kgCO₂e/kg termék

kgCO₂e/kg.product



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Carbon intensity - kgCO₂e/kg.product

