NESPRESSO®

PRODUCT CARBON FOOTPRINT QUALIFYING EXPLANATORY STATEMENT

FIRST PERIOD: 1st JANUARY 2020 TO 31st DECEMBER 2020

NESPRESSO

TABLE OF CONTENT

NTRODUCTION	3
GENERAL INFORMATION	4
DECLARATION OF ACHIEVEMENT OF CARBON NEUTRALITY	6
DECLARATION OF ON-GOING COMMITMENT TO CARBON	
IEUTRALITY	7
CARBON FOOTPRINT BREAKDOWN	8
CARBON MANAGEMENT PLAN1	5
CARBON OFFSETS1	7
IGURE 1: PAS 2060 CERTIFICATION PROCESS	8
IGURE 2: ORGANISATIONAL CARBON FOOTPRINTING	8
IGURE 3: PRODUCT CARBON FOOTPRINT1	9
IGURE 4: PRODUCT CARBON FOOTPRINT OF NESPRESSO	9
IGURE 5: CERTIFICATE OF ACHIEVEMENT OF NEUTRALITY	0

INTRODUCTION

At Nespresso, we believe that coffee can be a force for good, positively impacting the lives of our customers, the farmers we work with, the planet and nature. We have a responsibility to protect the future of coffee, and the communities that depend on it. Because of this, sustainability has been at the heart of everything we do for 30 years.

Today, we go further. We are on a journey to achieve net zero carbon emissions by 2040, building on our commitment that every Nespresso cup of coffee will be certified fully carbon neutral by the Carbon Trust by the end of 2022. Fully unlocking the potential of these actions will take time, which is why Nespresso committed to first become carbon neutral by 2022 certified by Carbon Trust. This is a critical milestone to better understand the size of the challenge, finance forest protection and restoration initiatives while engaging consumers on the necessity to act.

This template has been created by Carbon Trust to provide a framework for compliance with the Qualifying Explanatory Statement (QES) requirement of PAS 2060:2014 as set out within the requirements of the BSI Standard, "BSI: PAS 2060:2014: Specification for the demonstration of carbon neutrality".

This document forms the Qualifying Explanatory Statement to demonstrate that Nestle Nespresso has achieved carbon neutrality for the entirety of its product range sold in the following geographies over the period commencing 1st of January 2020 to 31st of December 2020. The details of markets and SKUs in scope for Carbon Neutrality 2021 are following:

5 markets: USA, France, Austria, Australia, New Zealand	100% of the Original and Vertuo capsules
Global	100% of Professional and Original capsules sold to professional customers (B2B). This covers the 5 markets mentioned above

Table 1: List of Markets and SKUs

SECTION 1 GENERAL INFORMATION

PAS 2060 Requirement	Client Response
Entity making PAS 2060 declaration:	Nestle Nespresso
Subject of PAS 2060 declaration:	Nestle Nespresso's Coffee capsules sold in markets mentioned in Table 1. The scope includes all GHG emissions across the product lifecycle from green coffee production, logistics, manufacturing (coffee roasting & grinding), machine production, packaging, distribution, use phase, and end of life (cradle to grave). Refer to figure 4.
Description of Subject:	Nestlé Nespresso SA is the pioneer and reference for highest-quality portioned coffee. Headquartered in Lausanne, Switzerland, Nespresso operates in 82 countries and offers to consumers 76 permanent coffees across 3 systems. The permanent coffees are available in 3 ranges: Original Line, Vertuo Line and Professional Line. Original line and Professional lines propose coffees in 25 ml, 40ml and 110 ml; Vertuo line proposes coffees in 40 ml,150 ml and 230 ml. Since 2005, Nespresso has taken climate actions across the full scope of activities from farm to the end of life to act on the causes and consequences of climate change. By end 2020, the Nespresso 40 ml original capsule footprint decreased by 24% vs. 2009. On top via Carbon in setting-based agroforestry projects Nespresso has been neutralizing its operational scope. You can discover more of the Nespresso sustainability initiatives <u>here</u> .
New Products	 Some new products not accounted for in the footprint boundary in 2020 have been launched in 2021. These new products are: Vertuo capsules in the Austrian Market Nespresso is committed to offsetting these products in the following recertification stage. Carbon Trust has allowed use of the carbon neutrality logo for these selected products on the condition that: These products are generally equivalent in nature to those certified in the latest footprint. The additional sales of these new products do not materially affect the neutrality claim. This may be

 measured by volume of sales, where a less than 5% increase in the total would be considered immaterial. Greater than 5% would require further review by Carbon Trust. Carbon Trust is updated with details of each new SKU which has been labelled, as and when this is confirmed. QES is updated to include the commitment to achieving neutrality of the new products.
In September 2020 Nespresso announced the commitment that every cup of Nespresso coffee will be carbon neutral by end of 2022. In the year 2021 the company has decided to embark on that journey by being carbon neutral for all the coffee capsules sold in 5 key markets and to all capsules sold to professional customers (B2B) globally (see table1). The scope includes all GHG emissions across the value chain from green coffee production, logistics, manufacturing (coffee roasting & grinding), machine production, packaging, distribution, use phase, and end of life (cradle to grave). Refer to figure 4.
Independent third-party conformity assessment. Carbon Footprint and Carbon neutrality certified by Carbon Trust Assurance according to ISO 14067 and PAS 2060 respectively.
January 1st, 2020 – December 31st, 2020
Julie Reneau : Nespresso, Sustainability Strategy and Stakeholder relationship Manager Manu Jindal: Nespresso, Climate and Inclusive Program Manager Christophe Boussemart: Nespresso, Sustainability Development Program Manager Cécile Guignard : Quantis, Environmental accountant

SECTION 2 DECLARATION OF ACHIEVEMENT OF CARBON NEUTRALITY

PAS 2060 Requirement	Client Response
Declaration of achievement:	Carbon neutrality for all the coffee capsules sold in 5 key markets and to all capsules sold to professional customers (B2B) globally (see table1) has been achieved by Nestle Nespresso in accordance with PAS 2060 on 8 th of September 2021 for the period commencing from January 1 st , 2020 to December 31 st , 2020 certified by Carbon Trust Assurance.
Recorded carbon footprint of the subject during the period stated above	506,760 Tonnes of CO_2e
Carbon footprint reduction target for period	As described below, the efforts of reduction and removal aim to achieve a Carbon reduction of 20% by 2025 vs. 2018 baseline.
Location of GHG emissions report supporting this claim:	Section 4
Location of the Carbon Footprint Management Plan:	Section 5
Location of the details describing the carbon offsets:	Section 6
Name of Senior Representative	Senior Representative Signature
Name: Jerome Perez	
Role: Head of Sustainability	A
Date: 2 nd September, 2021	

SECTION 3 DECLARATION OF ON-GOING COMMITMENT TO CARBON NEUTRALITY

PAS 2060 Requirement	Client Response
Declaration of on-going commitment:	In the year 2022, Nespresso will expand the scope of Carbon Neutrality to all the coffee capsules sold globally across all channels. The carbon neutrality will be achieved by Nespresso in accordance with PAS 2060 by mid-2022 for the period commencing January 1 st , 2021 to December 31 st , 2021, certified by Carbon Trust Assurance. We will continue to achieve carbon neutrality in coming years.
Carbon footprint of the subject for the period immediately prior to the start of the commitment:	The carbon footprint will be calculated in Q1 2022 based on actual data reported for the period commencing January 2021 to December 31 st , 2021.
Carbon footprint reduction target for period:	To be reported in 2022
Location of GHG emissions report supporting this claim:	Section 4
Location of the Carbon Footprint Management Plan:	Section 5
Name of Senior Representative	Senior Representative Signature
Name: Jerome Perez	
Role: Head of Sustainability	A

Date: 2nd September, 2021

SECTION 4 CARBON FOOTPRINT BREAKDOWN

Guidance: PAS 2060 requires every individual/organisation to provide an appropriate carbon footprint breakdown by scope in their Qualifying Explanatory Statement (QES) in accordance with Greenhouse Gas Protocol guidelines.

The ISO 14067 standard was used to quantify the GHG emissions associated with products covered by the certification scope, using data representing operations between January 2020 and December 2020. This method was chosen as it provides an internationally recognised approach to the calculation of representative product CO2e footprints and meets the requirements of PAS 2060 for the substantiation of GHG emissions (PAS 2060: 5.2.2 to 5.2.4). The product CO2e footprints have been reviewed and assured by an independent third party, Carbon Trust (see Annex C of this report for the assurance statement).

The carbon footprint was based on 95% of likely greenhouse gas emissions; primary sources are subject to variation over time; footprint is best estimate based on reasonable costs of evaluation.

The carbon footprint was modelled using data provided by Nespresso and completed, where needed by secondary data. The product carbon footprint was calculated based on 2020 data and sales volumes. The footprint to offset in 2021 covers the scope described in table 1, i.e. all capsules sold in 5 markets (France, Austria, Australia, New Zealand, and USA) as well as all capsules sold to the professional customers (B2B) globally. The total carbon footprint to offset is therefore 506.7 thousand tonnes CO2-eq for 2021 carbon neutrality. This represents 41% of the sum of product carbon footprint for Nespresso globally.

Table 2. Residual Product footprint broken down per region

Region	SKU	Emissions	Units
Australia	All SKU Original, Pro and Vertuo	48.6	thousands t CO2-eq / year
Austria	All SKU Original, Pro and Vertuo	33.7	thousands t CO2-eq / year
France	All SKU Original, Pro and Vertuo	192.3	thousands t CO2-eq / year
New Zealand	All SKU Original, Pro and Vertuo	6.3	thousands t CO2-eq / year
USA	All SKU Original, Pro and Vertuo	162	thousands t CO2-eq / year
All Other markets	All Capsules sold to Professional customers (B2B channel)	63.8	thousands t CO2-eq / year
TOTAL TO OFFSET		506.7	thousands t CO2-eq / year

GHG emissions that are accounted for in the study are based on the 100 year Global Warming Potential figures published in the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report, 2014 (1) and include those required by the GHGP Product Standard, which specifies emissions to and removals from the atmosphere of: carbon dioxide (CO2); methane (CH4); nitrous oxide (N2O); sulphur hexafluoride (SF6); perfluorocarbons (PFCs); and hydrofluorocarbons (HFCs).

All relevant emissions to the scope of certification are included in the footprint and are summarised in Table 2 below. Where GHG emissions have been estimated, these have been determined based on a conservative approach that precludes underestimation. GHG emissions have been estimated for the use and end-of-life phases. In the absence of data, emissions have been estimated based on conservative assumptions (e.g. for end-of-life, fate of retail waste has been considered the same as domestic waste whereas waste recycling may be greater at retail areas).

^{(1) &}lt;u>www.ipcc.ch</u>

No weighting factors have been included for delayed emissions. Offsetting has not been included in calculations. No avoided emissions have been included in the calculations.

Life cycle stage	Description	Emissions	Excluded emissions & Justification
Green coffee supply	Coffee cultivation in farm, post- harvest treatment (cherries processing), green coffee transport from farms to Nespresso factories	Nespresso carbon neutrality scope: 254 thousands t CO2-eq	Green coffee packaging as assumed to be negligible
Packaging production	Production of capsules, sleeves and packaging for transport. Delivery of packaging to Nespresso factories	Nespresso 2021 carbon neutrality scope: 68 thousands t CO2-eq	Packaging of raw packaging material as assumed to be negligible
Manufacturing	Consumption of energy, water, protecting atmosphere gases at factories. Machinery use, wastes generated at factories, employee commuting and business travels.	Nespresso 2021 carbon neutrality scope: 11 thousands t CO2-eq	Cleaning material for production lines are neglected as assumed to be negligible
Overheads	Activities (building, energy and water consumption, wastes, employee commuting and business travels, IT equipment and services costs) at Nespresso headquarter. Same activities (excluding services costs) at market head offices, market call centers and market after sales centers	Nespresso 2021 carbon neutrality scope: 29 thousands t CO2-eq	

Table 3. Quantification of GHG emissions per life cycle stage

Distribution	 Transport from factories to market distribution centers (DC), DC activities (same elements as for market head offices), transport from DC to consumer via: Nespresso boutiques: transport from DC to boutiques, boutiques activities (same elements as for market head offices), shopping trip of consumer going to boutiques Post: transport from DC to post office, internet order (electricity consumption), postal delivery from post office to consumer Pick-up point: transport from DC to point, internet order (electricity consumption) internet order (result or the point) internet order (electricity consumption) is postal delivery from post office to consumer 	Nespresso 2021 carbon neutrality scope: 42 thousands t CO2-eq	
Machine production fraction	Machine production and distribution up to consumer, machine treatment at end-of-life	Nespresso 2021 carbon neutrality scope: 30 thousands t CO2-eq	
Use stage	Machine use (coffee brewing), machine cleaning, cup production and disposal	Nespresso 2021 carbon neutrality scope: 50 thousands t CO2-eq	Cup washing as it is out of the sphere of influence of Nespresso.
End-of-life	Packaging and coffee grounds end-of-life treatment	Nespresso 2021 carbon neutrality scope: 23 thousands t CO2-eq	

4.2 DATA METHODS

The assessment is based on a mix of primary and secondary data when no primary data were available.

Primary data were used for the following life cycle stage:

- Green coffee supply: blend of origin countries, share of arabica and robusta coffee, amount of coffee per cup
- Packaging production: amount of the different material, forming of capsules
- Manufacturing: factories activities (amount of energy, water, gases used, machinery, employees' activities, etc.), green coffee to roast and ground coffee yield, production volumes
- Distribution: sales volumes in the different markets, transport from factory to market distribution centers, distribution centers activities, transport from distribution centers to boutiques, to post office or pick-up point, boutiques activities
- Machine production fraction: machine mass and composition, machine lifetime (estimate by Nespresso)
- Use stage: energy and water use for the coffee brewing
- End-of-life: capsules recycling rates in the different markets
- -

Secondary data were used for the following life cycle stage:

- Green coffee supply: coffee cultivation (based on generic databases)
- Packaging production: sleeves forming and transportation packaging forming
- Distribution: electricity consumption for internet order, transport for shopping trip, transport for postal delivery
- Machine production fraction: machine recycling rate as well as incineration and landfilling rates for non-recycled wastes in the different markets
- Use stage: machine cleaning, cup production and disposal
- End-of-life: incineration and landfilling rates for non-recycled wastes in the different markets, cardboard recycling rate in the different markets

Data quality and uncertainties

The use of secondary data for coffee cultivation is the element influencing the most the results. However, the secondary data used is coming from a reliable database and land use change has been adapted to Nespresso coffee origins to improve the representativeness. In the coming years it is foreseen to collect primary data on farms and to replace slowly by slowly, these secondary data by primary data.

Table 4. Key assumptions per life cycle stages

Figure 4 in annex provides the breakdown of the product footprint in 2020.

Life cycle stage	Description	Key Assumptions
Green coffee supply	Coffee cultivation in farm, post-harvest treatment (cherries processing), green coffee transport from farms to Nespresso factories	Cultivation for some origin is based on another origin (except for land use change) due to a lack of data.
Packaging production	Production of capsules, sleeves and packaging for transport. Delivery of packaging to Nespresso factories	
Manufacturing	Consumption of energy, water, protecting atmosphere gases at factories. Machinery use, wastes generated at factories, employee commuting and business travels.	
Overheads	Activities (building, energy and water consumption, wastes, employee commuting and business travels, IT equipment and services costs) at Nespresso headquarter. Same activities (excluding services costs) at market head offices, market call centers and market after sales centers	Cost input-output database is used to assess the services footprint.
Distribution	 Transport from factories to market distribution centers (DC), DC activities (same elements as for market head offices), transport from DC to consumer via: Nespresso boutiques: transport from DC to boutiques, boutiques activities (same elements as for market head offices), shopping trip of consumer going to boutiques Post: transport from DC to post office, internet order (electricity consumption), postal delivery from post office to consumer Pick-up point: transport from DC to pick-up point, internet order (electricity consumption), shopping trip of consumer going to pick-up point 	

Machine production fraction	Machine production and distribution up to consumer, machine treatment at end-of-life	Lifetime of the machine in terms of number of cups prepared is an estimate from Nespresso considering a 2 cups/day consumption.
Brewing	Machine use (coffee brewing), machine cleaning, cup production and disposal	
End-of-life	Packaging and coffee grounds end-of-life treatment	

SECTION 5 CARBON MANAGEMENT PLAN

PAS 2060 Requirement	Client Response
Statement of commitment to carbon neutrality for the defined subject	In 2021, Nespresso has committed to and achieved carbon neutral certification for all the capsules sold in 5 markets and the capsules sold to professional customers globally. Nespresso has then committed that every cup of Nespresso coffee, both at home and for professional customers, will be carbon Neutral by end of 2022.
Timescale for achieving carbon neutrality	Carbon Neutrality for scope of 2021 is achieved on 8 th September 2021.
Targets for GHG reduction for the defined subject appropriate to the timescale for achieving carbon neutrality	As described below, the efforts of reduction and removal aim to achieve a Carbon reduction of 20% by 2025 vs. 2018 baseline.
Planned means of achieving and maintaining GHG emissions reduction including:	 We identified 6 levers of actions to reduce GHG emissions and remove carbon from the atmosphere 1.REGENERATIVE COFFEE PRODUCTION: Supporting coffee farmers that supply to Nespresso in transition towards regenerative farming practices and continue to work towards ensuring zero deforestation 2.ECODESIGN: Focus on circularity and innovation Using secondary (recycled) and low carbon Aluminium within Coffee capsules Increasing the use of recycled plastic and, improving the weight and materials used for machine packaging, promoting refurbished machines Optimising the packaging of our accessories and increase the use of recycled /recyclable materials 3.RENEWABLE ENERGY: Continue to increase energy efficiency and move towards 100% renewable electricity across all Nespresso sites and boutiques, moving towards 100% renewable

	electricity in all Nespresso boutiques and Nespresso factories		
	4. RECYCLING : Increasing the capsules recycling and improving the valorisation of the coffee grounds		
	5.LOGISITICS OPTIMISATION: Continue to work closely with our supply chain partners to introduce solutions and innovations that reduce carbon emissions throughout our operations, transport and delivery of our materials, goods, and products		
	6. TREE PLANTING AND REFORESTATION : Scale our track record of 5 million tree planting within and around the coffee farms to further remove carbon from atmosphere in and around the regions where we source coffee		
Offset strategy	The estimated quantity to offset the GHG emissions for 2021 scope: 506,760 tonnes of CO2 equivalent. All the details related to 10 projects that would provide Carbon offsets has been provided in Section 6.		
Statement on the fact that PAS 2060 certification has been provided by a third- party verifier	Independent 3 rd Party verification to PAS 2060 has been provided by the Carbon Trust.		

SECTION 6 CARBON OFFSETS

Table 4. Offsets purchased

Project name	Country	Technology	Standard	Reference No and link to registry	Volume (tCO2e)	Retired credits – registry link
Jubilacion Segura	Peru	Reforestation	VCS	<u>ID 1496</u> ID 796	65,000	Retired credits Retired Credits
La Fazenda	Brazil	Reforestation	VCS	<u>ID 665</u>	40,000	Retired Credits
Kenya Burn	Kenya	Energy efficiency	Gold Standard	<u>ID 5642</u>	30,000	Retired credits Retired Credits
Qori Q'oncha	Peru	Energy Efficiency	Gold standard	<u>ID 1049</u>	65,000	Retired Credits
Kariba	Zimbabwe	Forest Conservation	VCS-CCB	ID: <u>902</u>	107,000	Retired credits
Rimba Raya	Indonesia	Forest Conservation	VCS-CCB	ID: <u>674</u>	45,000	Retired Credits
Mai Ndombe	Democratic Republic of Congo	Forest Conservation	VCS-CCB	ID: <u>934</u>	45,000	Retired Credits
TIST Programme	Kenya	Reforestation	VCS-CCB	ID: <u>737</u>	40,000	Retired credits
Vichada	Colombia	Reforestation	Gold Standard - VER	ID: <u>GS4221</u>	20,000	Retired Credits Retired credits
NIHT Topaiyo	Papua New Guinea	Conservation	VCS	<u>ID 2293</u>	50000	Retired credits Retired credits Retired credits
					507,000	

USEFUL ADDITIONAL INFORMATION



FIGURE 1: PAS 2060 CERTIFICATION PROCESS

Source: Carbon Trust. Adapted from "BSI - PAS 2060:2014: Specification for the demonstration of carbon neutrality: Figure 1 - Illustration of the cyclical process for demonstrating carbon neutrality, taking into account permitted baseline period exceptions". [Simplified version]



FIGURE 2: ORGANISATIONAL CARBON FOOTPRINTING

Source: Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Accounting & Reporting Standard. Available from: <u>Scope3</u> Calculation Guidance 0.pdf (ghgprotocol.org)

FIGURE 3: PRODUCT CARBON FOOTPRINT



Source: Greenhouse Gas Protocol: Product Life Cycle Accounting and Reporting Standard. Available from https://ghgprotocol.org/sites/default/files/standards/Product-Life-Cycle-Accounting-Reporting-Standard_041613.pdf

FIGURE 4: PRODUCT CARBON FOOTPRINT OF NESPRESSO IN 2020



The figures exclude the cup washing in the use phase. In previously published comparative LCAs, evaluating the impact of drinking a specific cup of coffee, cup washing, machine production and end-of-life impacts are included in the use phase.

FIGURE 5: CERTIFICATE OF ACHIEVEMENT OF NEUTRALITY



Certificate of Achievement

Nestlé Nespresso S.A.

has achieved carbon neutrality and is committed to on-going carbon neutrality of the residual carbon footprint for their

Nespresso coffees sold and consumed in 5 markets &

Nespresso coffees sold and consumed in B2B channel globally

Carbon Trust Assurance Limited certifies that Nestlé Nespresso S.A. has correctly calculated a cradle to grave carbon footprint representing all product lines sold direct to consumers marketed in Australia, Austria, France, New Zealand, and United States of America, as well as through the B2B channel marketed globally and then satisfactorily offset to achieve carbon neutrality in 2021, in accordance with:

• PAS 2060:2014 - Specification for the demonstration of carbon neutrality

A full description of the scope of certification and a detailed list of certified results can be found in the associated Certification Letters (CERT-13080 and CERT-11389).

Awarded: 08/09/2021

Valid Until: 07/09/2022

for and on behalf of Carbon Trust Assurance Ltd,

Hugh Jones Managing Director Business Services, Carbon Trust

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