

TAKING RESPONSIBILITY FOR ENVIRONMENTAL PERFORMANCE



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Nespresso is working to improve its environmental performance

AT A GLANCE

IMPROVING ENVIRONMENTAL PERFORMANCE

Nespresso is taking action to improve the environmental performance of every aspect of its business: coffee cultivation, machine use, business operations and capsules recycling. Having reduced the carbon footprint of a cup of coffee by over 20% between 2008 and 2012, *Nespresso* has pledged to reduce it by another 10% by further optimising efficiencies throughout its supply chain by 2020.

INCREASING FARM CLIMATE RESILIENCE

To strengthen coffee farms' resilience to climate change and help reverse the degradation of natural ecosystems, *Nespresso* has launched targeted efforts through the *Nespresso* AAA Sustainable Quality™ Program. This includes an agroforestry program and initiatives to improve water management on and around coffee farms.

AGROFORESTRY FOR 100% CARBON EFFICIENT OPERATIONS

The *Nespresso* agroforestry program is helping to regenerate ecosystems in AAA coffee producing regions, as well as to compensate for the *Nespresso* residual operational carbon footprint. The mechanism consists in planting trees within *Nespresso* value chain so that the benefits delivered by the trees on top of carbon sequestration (for instance, soil regeneration, water availability...) can benefit the *Nespresso* value chain partners.

ASSESSING ENVIRONMENTAL IMPACT

Life cycle assessments (LCA) of *Nespresso* operations throughout the value chain show that the greatest environmental impacts occur during coffee cultivation and *Nespresso* machine use. *Nespresso* has therefore prioritised reducing its carbon footprint in those areas.



A COMMITMENT TO IMPROVE ENVIRONMENTAL PERFORMANCE

Nespresso is committed to using and managing natural and renewable resources responsibly and efficiently. Having embedded sustainability at the core of its operations, *Nespresso* is working to improve its environmental performance in every aspect of its business, from the coffee cherry to the cup.

To understand its environmental performance, *Nespresso* uses a scientific approach called life cycle assessment (LCA). This comprehensive and efficient methodology helps *Nespresso* assess the scope of its environmental impacts, make informed decisions to optimise its environmental performance and measure progress in reducing its carbon footprint.

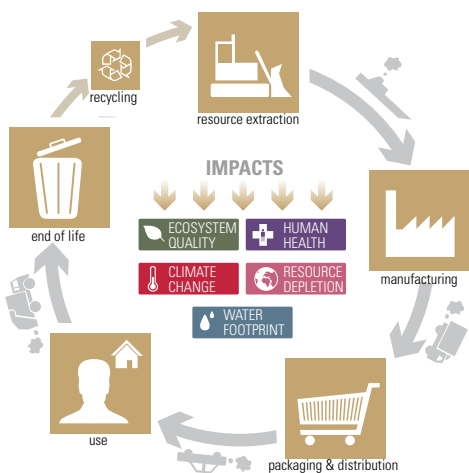
Developed according to the recognised international standards, ISO 14040 and ISO 14044, LCA studies provide insight into five key indicators of environmental performance: climate change, water use, biodiversity, energy consumption and human health.

Through LCA, *Nespresso* identifies opportunities to reduce energy, material inputs or environmental impacts at each stage of the value chain. This includes aspects such as logistics and packaging, energy consumption of machines and running *Nespresso* offices and boutiques.

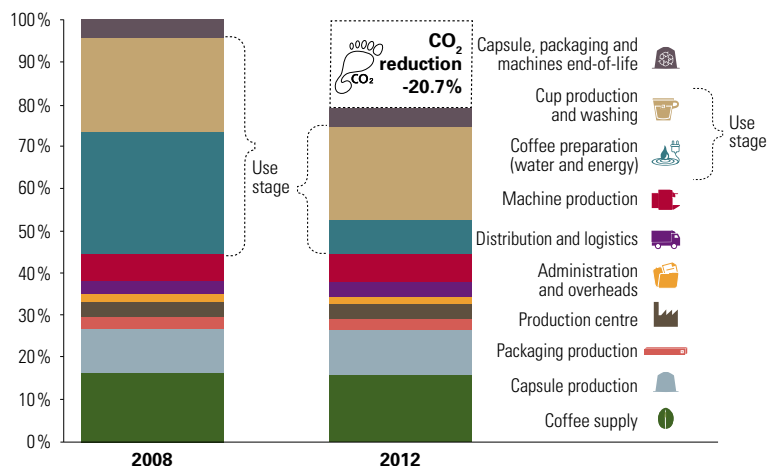
Between 2008 and 2012, *Nespresso* reduced the carbon footprint of a cup of *Nespresso* coffee by over 20%. As part of its 2020 sustainability vision The Positive Cup, *Nespresso* aims to reduce its carbon footprint by another 10% by further optimising efficiencies throughout the supply chain and compensate the remaining carbon footprint through agroforestry.

◀ *Water management, a main focus of the AAA Program*

For more information on *Nespresso* sustainability initiatives, please visit: www.nestle-nespresso.com/sustainability



CARBON FOOTPRINT EVOLUTION OF A NESPRESSO CUP OF COFFEE BETWEEN 2008 AND 2012



LIFE CYCLE ASSESSMENT TO DETERMINE ENVIRONMENTAL IMPACTS

In addition to *Nespresso* in-house evaluations, *Nespresso* has gained insight on the environmental impacts of its business activities through a number of LCA studies conducted by Quantis, a team of world-leading experts in the field of environmental life cycle assessment.

Between 2008 and 2012, Quantis conducted a study to help *Nespresso* understand how best to optimise its overall carbon footprint. Benchmarking a cup of *Nespresso* coffee, the LCA showed that, across the value chain, the highest volumes of greenhouse gases are produced during coffee cultivation and use stage.

Contrary to general perception, packaging is not the main driver of environmental impact, it only comes third. As a result, *Nespresso* has prioritised improving environmental performance in those areas.

The AAA Program addresses some of the greatest identified impacts on the environment, such as deforestation, use of fertilisers, water management and productivity. Quantis is currently running assessment of the *Nespresso* AAA Sustainable Quality™ Program to evaluate benefits of its implementation and environmental impacts in coffee producing countries.

IDENTIFYING ENVIRONMENTAL IMPACTS ALONG THE VALUE CHAIN

Through the *Nespresso* AAA Sustainable Quality™ Program, *Nespresso* is reducing the environmental impacts of growing the highest quality coffee it requires to produce its Grands Crus, while creating shared value for farming communities.

Nespresso recognises that sustainability issues are central to the long-term prosperity of coffee growing communities. *Nespresso* thus supports coffee farmers in the AAA Program to become more environmentally responsible while increasing the quality of their coffee and their productivity, through training, technical assistance and direct investments.

The wide-ranging impacts of coffee growing are more difficult to measure than those aspects of its business that *Nespresso* directly controls. This is why *Nespresso* is investing in a solid, integrated and long-term measuring and reporting program for its sustainability performance in the coffee countries of origin. Extensive data collection for the AAA Sustainable Quality™ database helps track farmers' progress through the AAA Program and helps them better integrate sustainability into their future plans.

Nespresso also works with the independent monitoring organisation CRECE, the non-profit organisation TechnoServe, INCAE Business School and other regional partners to measure and track the impacts of its AAA Program. A survey conducted by CRECE of more than 1,000 AAA farmers in Colombia found that AAA farms demonstrated 22.6% better social conditions, 41% better economic conditions and 52% better environmental conditions than non-AAA farms.

* Resilience refers to the ability of coffee farms to adapt to the variability and uncertainty brought about by climate change and associated events.

Life cycle assessment studies demonstrate that the biggest environmental impact comes from growing coffee and using the *Nespresso* machine

INCREASING FARM CLIMATE RESILIENCE*

The impacts of climate change and the degradation of natural ecosystems are threats to the wellbeing of coffee farming communities and the long-term supply of high quality coffee. Equally, poor management of coffee agriculture reaches beyond farm borders to threaten global environmental sustainability. Since launching in 2003, the *Nespresso* AAA Sustainable Quality™ Program has been addressing some of the greatest identified impacts on the environment, such as deforestation, soil conservation and water management. Helping farmers to improve the sustainability and productivity of their coffee farms leaves them better prepared to handle the impacts of climate change.

AGROFORESTRY FOR ECOSYSTEM REVITALISATION

An agroforestry program, has been launched in 2014 in cooperation with Pur Projet as a complement to the AAA Program. The program aims to protect, regenerate and improve coffee ecosystems to support climate change resilience, and generate economic benefits for coffee farmers thanks to crop diversification and carbon certification.

The agroforestry program will also provide *Nespresso* with the framework to compensate its residual operational carbon footprint, by planting trees within its own value chain.

REDUCING THE CARBON FOOTPRINT THROUGH MACHINE INNOVATION

Nespresso is driven to create ever more innovative, high-performing and energy efficient machines for its Club Members and business customers. By focusing on developing high-performing energy efficient machines, *Nespresso* has also been able to significantly reduce its CO₂ emissions.

Since 2009, all *Nespresso* consumer machine ranges have been equipped with an automatic power-off function or an automatic stand-by mode. PIXIE, **U** and *Inissia* automatically switch off after 9 minutes of inactivity, consuming 60% less energy than A-ranked machines according to FEA/CECED standards. Other machines, such as the *Lattissima Pro* and the *Maestria* consume 40% less energy than A-ranked machines.

Nespresso is also developing energy-saving machines for its business customers. Advanced thermobloc technology makes the professional Zenius machine quick and efficient. In “ready to use” mode it uses 30% less energy than conventional machines. In standby mode, the energy consumption of the CS220 machine is over 20 times lower than when the machine is switched on and in “ready to use” mode.

Disposal of *Nespresso* machines in Europe is performed in compliance with the waste electrical and electronic equipment (WEEE) directive. This directive imposes the responsibility for the disposal of waste electrical and electronic equipment on the manufacturers of such equipment.

OPTIMISING OPERATIONAL SUSTAINABILITY

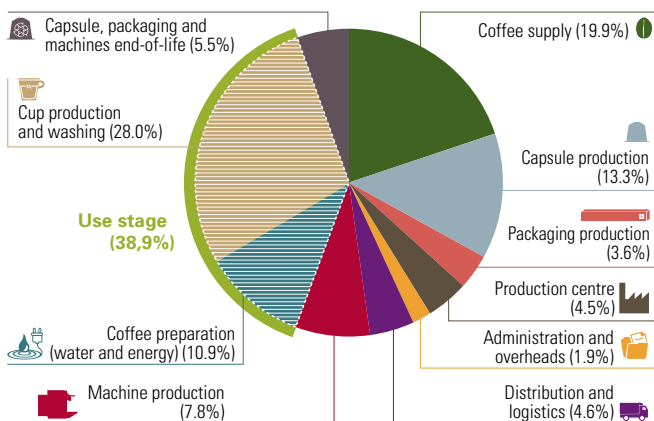
Nespresso is further optimising its environmental footprint by building environmental efficiencies into its operations.

For example, *Nespresso* production centres in Switzerland are equipped with a number of features that seek to reduce their environmental impact. At Orbe, *Nespresso* local river water is used to cool down certain production processes. An efficient water management system was put in place to reduce the facility’s annual water consumption by 150,000 cubic metres per year, the equivalent of 50 Olympic swimming pools. An innovative system at the Avenches facility recovers heat from production processes to heat the factory, saving 230,000 m³ in gas each year. Operational parameters were improved to reduce the site’s electricity consumption by 1,400,000 kWh, the equivalent to the annual electricity consumption of about 200 families. 100% of *Nespresso* green coffee is delivered to the *Nespresso* production centres by rail.

Although life cycle assessment indicates that it represents less than 5% of the *Nespresso* carbon footprint, *Nespresso* is committed to improving the sustainability of its distribution logistics. *Nespresso* is reducing its environmental impact throughout Europe by implementing the best combinations of rail, road and sea transport to move products between the *Nespresso* production centres and regional distribution warehouses. By the end of 2013, *Nespresso* reduced transport-related CO₂ emissions in Europe by about 13% compared with 2010.

Nespresso continues to work on optimising delivery distances between manufacturers and consumers, especially as the company expands operations in response to growing consumer demand.

CARBON FOOTPRINT OF A NESPRESSO CUP OF COFFEE IN 2012



▲ LCA studies showed that the greatest impact on the environment comes from growing coffee and at use stage.

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A RESPONSIBLE APPROACH TO ALUMINIUM

Nespresso uses aluminium because it is the best material today to protect the delicate flavours and aromas of its Grand Cru coffees. Aluminium also has the advantage of being infinitely recyclable. An estimated one-third of world aluminium demand is met by recycled sources and 75% of the aluminium ever produced is still in circulation. Recycling aluminium saves around 95% of CO₂ emissions associated with primary aluminium production.

Recognising the need for a responsible approach to the use of this valuable resource, *Nespresso* aims to sustainably manage 100% of the aluminium it uses by 2020. This includes sustainable sourcing of virgin aluminium, expanding capacity to collect all used aluminium capsules wherever the company does business, and recycling them into new ones wherever it makes sense environmentally.

Nespresso started its aluminium capsule-recycling program in 1991 with a dedicated recycling initiative in Switzerland. Since then, *Nespresso* has worked with numerous business partners and stakeholders to develop capsule collection schemes tailored to the recycling process and logistics of different markets around the world. So far, there are capsule collection systems in 39 countries with over 14,000 dedicated capsule collection points worldwide, as well as 88,000 UPS drop off points in the USA.

Nespresso has taken its leadership in recycling to the next level by supporting innovation in recycling technology and developing partnerships to improve the sourcing and recycling of aluminium in general. In France, as co-founding partner of CELAA (Club for Aluminium and Steel Light Packaging), *Nespresso* has advanced the use of new technology and policy reform for the recycling of small-scale metal packaging since 2009. To accelerate progress on CELAA's efforts, *Nespresso* is also offering financial incentives for the collection of small aluminium packaging within the framework of "Project Metal", a three-year initiative launched in 2014.

On a global level, as co-founding member of the Aluminium Stewardship Initiative (ASI) launched in 2012, *Nespresso* has joined forces with the International Union for Conservation of Nature (IUCN), civil society organisations and other industry stakeholders to foster greater sustainability and transparency throughout the aluminium value chain. In December 2014, ASI unveiled a new comprehensive global standard for aluminium sustainability.



▲ All green coffee is delivered by rail to Nespresso production centres in Switzerland.



▲ **Recycling used Nespresso capsules in Moudon, Switzerland**
 Separating aluminium for resmelting and coffee grounds for use in natural fertiliser, heating briquettes and soon biogas production.